



Nitsch Engineering

**Traffic Impact Study
Caryl Community Center**

**4 Springdale Avenue
Dover, MA**

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Nitsch Engineering Project #14238.3



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1 Executive Summary

Nitsch Engineering has completed a detailed Traffic Impact Study (TIS) to evaluate the potential impacts of renovating the existing Caryl Community Center to reduce the building size and alter the existing landscaping, which includes the parking and access management.

1.1 Access and Trip Generation

Access to the new community center will be provided via the improved driveway off Whiting Road south of Springdale Avenue. The existing Springdale Avenue access point will be used for Authorized and/or Emergency Vehicles only.

The re-assignment of the Whiting Road driveway as the access and egress for the new facility may divert traffic associated with the Community Center away from the Centre Street and Springdale Avenue/Walpole Street intersection, and slightly improve the intersection operation.

The new facility is anticipated to generate 519 daily trips, 90 weekday morning peak hour trips, and 106 weekday evening peak hour trips. As the existing facility generates 1,147 daily trips, 135 weekday morning peak hour trips, and 168 weekday evening peak hour trips, there will be a significant reduction in impacts to the overall roadway network. The movements at intersections are expected to have no change in level of service, but some movements would have small improvements in delay, v/c ratio, and queue length.

1.2 Parking

The facility, when complete, will provide 85 parking spaces that include 63 striped parking spaces, three accessible spaces, as well as 22 overflow parking spaces. This number exceeds the 76 parking spaces recommended by the Institute of Transportation Engineers (ITE) Parking Generation for Land Use Code (LUC) 495 (Recreational Community Center).

1.3 Mitigation and Recommendations

The project related traffic impacts are expected to be minimal, therefore no traffic mitigation measures appear warranted. Similarly, based on the parking inventories at the site, there is adequate parking capacity to accommodate for patron and staff parking demands.



2 Introduction

Nitsch Engineering has prepared this Traffic Impact Study (TIS) for the proposed Caryl Community Center redevelopment, located at 4 Springdale Avenue Street in Dover, Massachusetts. This TIS will review existing roadway conditions, access/egress, crash data, and traffic volumes, and it will assess existing and future traffic conditions at intersections in the study area.

Figure 1 shows the Locus Map with the existing site and study area.

2.1 Existing Site

The existing Caryl Community Center is a 2-story building with a mezzanine and includes approximately 39,800 gross square feet. The building was utilized as an elementary school until 2002 and now houses various community organizations, town departments, and a pre-school program. The first floor is served by numerous exit doors that lead directly to grade and the second floor is served by 2 interior exit stairways. The building is largely inaccessible. The existing site is bounded by Centre Street to the west, Springdale Avenue to the north, and Whiting Road to the east.

Access to 4 Springdale Avenue is provided by an ingress driveway along Whiting Road and an egress driveway along Springdale Avenue.

The driveway includes 10 marked angled parking spaces along the eastern limits of the site. The unpaved lot to the south of the site can provide approximately 40 additional parking spaces.

2.2 Proposed Development

After serving for 90 years as a school, this valuable Town asset is well into its second decade of use as a community center, providing much-needed space for a variety of programs and services sponsored by two Town departments and several organizations to benefit the community. The Town has decided to demolish the existing building and build a new smaller, 18,000 square-foot facility at the same site instead of renovating the current facility. The development will include 63 striped parking spaces in addition to the 22 overflow parking spaces.

2.3 Study Area

The study area includes the existing site, plus five roadways and four intersections as follows:

Roadways

1. Springdale Avenue
2. Centre Street
3. Dedham Street
4. Whiting Road
5. Walpole Street

Intersections

1. Springdale Avenue/Walpole Street and Centre Street
2. Centre Street and Dedham Street
3. Centre Street and Whiting Road
4. Springdale Avenue and Whiting Road



2.4 Methodology

We have conducted this traffic assessment in three phases. The first phase involves an evaluation of existing traffic conditions within the study area, including an inventory of existing roadway and intersection geometry, observations of traffic volumes, review of vehicular crash data, and evaluation of parking utilization.

The second phase of the study establishes the framework for evaluating the transportation impacts of the proposed Caryl Community Center development project. We assessed travel demand forecasts for the project, along with future traffic demands on the study area intersections due to projected background traffic growth and other proposed area development that will occur, independent of the proposed development. We used 2028 as the design year for analysis, reflecting a seven-year horizon. This phase also includes an evaluation of parking demand generated by the project.

The third and final phase involves conducting traffic analyses to evaluate both existing and projected future intersection operations. We used this analysis as the basis for determining the potential project impacts and potential mitigation measures for the Caryl Community Center development.

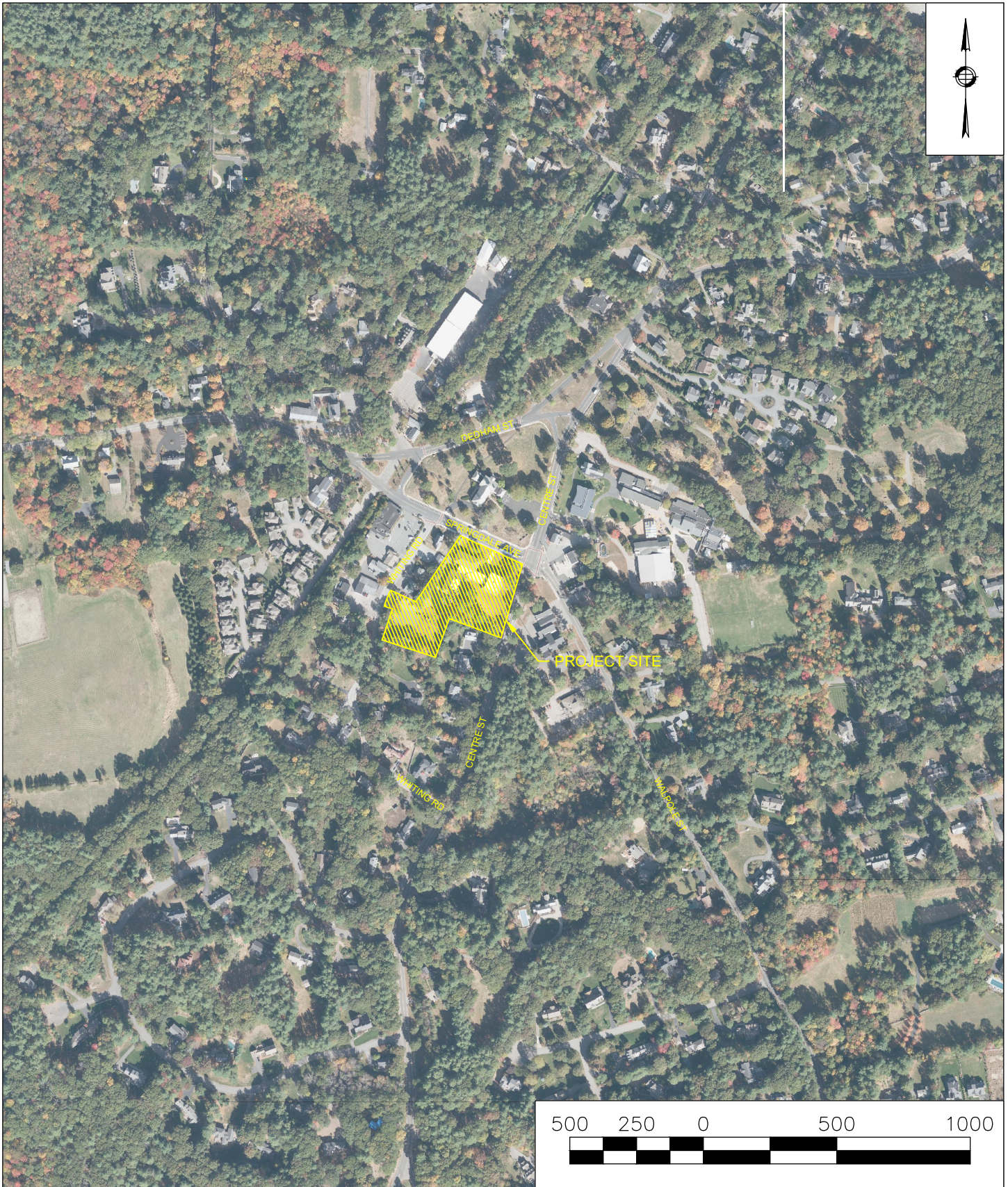


Figure 1: Locus Map
Caryl Community Center
4 Springdale Avenue, Dover, MA

Data Source: BingMaps
Nitsch Project #: 14238.3



Figure 2: Study Area and Intersections
Caryl Community Center
4 Springdale Avenue, Dover, MA

Data Source: BingMaps
Nitsch Project #: 14238.3



3 Existing Conditions

3.1 Roadways

Springdale Avenue

Springdale Avenue is classified by the MassDOT as an **urban minor arterial** that runs in a general east-west direction from its eastern terminus at Main Street to its western terminus at Centre Street. Springdale Avenue is 38 feet wide with one travel lane in each direction separated by a double yellow center line (DYCL). At the project site the roadway provides one 11-foot-wide lane and eight-foot wide parking in each direction. Cement concrete sidewalk is present on both sides of Springdale Avenue. The roadway is maintained by the Town and the posted speed limit along the roadway is 25 MPH. Bicycle accommodations are not present on Springdale Avenue. Land use along Springdale Avenue is a mixture of commercial and residential.

Centre Street

Centre Street is classified by the MassDOT as an **urban minor arterial** that runs in a general north-south direction from its northern terminus at the Needham Town Line to its southern terminus at the Medfield Town Line. In the project vicinity, Centre Street is 32 feet wide with one travel lane in each direction separated by a double yellow center line (DYCL). The roadway provides one 14-foot-wide lane and a two-foot wide shoulder in each direction. Bituminous concrete sidewalk is present on western side of Centre Street. The roadway is maintained by the Town and the posted speed limit along the roadway is 25 MPH. Bicycle accommodations are not present on Centre Street. Land use along Centre Street is mainly residential.

Dedham Street

Dedham Street is classified by the MassDOT as an **urban minor arterial** that runs in a general north-south direction from its northern terminus at the Dedham Town Line to its southern terminus at Springdale Avenue. The width of Dedham Street varies, but it's generally 32 feet wide with one travel lane in each direction separated by a double yellow center line (DYCL). The roadway is maintained by the Town and the posted speed limit along the roadway is 30 MPH. Bicycle accommodations are not present on Dedham Street. Land use along Dedham Street is mainly residential.

Whiting Road

Whiting Road is classified by the MassDOT as a **local road that runs** in a general north-south direction from its northern terminus at Springdale Avenue to its southern terminus at Centre Street. At the project site Whiting Road is 28 feet wide with one travel lane in each direction separated by a yellow center line (YCL). The roadway provides one 11-foot-wide lane in each direction, a two-foot-wide shoulder on the west side, and a four-foot-wide shoulder on the east side of the roadway. Bituminous concrete sidewalk is present on western side of Whiting Road near the project site. The roadway is maintained by the Town and land use along Whiting Road is mainly residential.

Walpole Street

Walpole Street is classified by the MassDOT as an **urban minor arterial** that runs in a general north-south direction from its northern terminus at Springdale Avenue to its southern terminus at the Walpole Town Line. The width of Walpole Street is 24 feet wide with one travel lane in each direction separated by a double yellow center line (DYCL). The roadway provides one 11-foot-wide lane and a one-foot-wide shoulder in each direction. Cement concrete sidewalk is present on both sides of Walpole Street approaching Springdale Avenue. The roadway is



maintained by the Town and the posted speed limit along the roadway is 25 MPH. Bicycle accommodations are not present on Walpole Street. Land use along Walpole Street is mainly residential.

3.2 Study Intersections

Springdale Avenue/Walpole Street and Centre Street

Springdale Avenue, Walpole Street and Centre Street intersect to form a four-way signalized intersection, with Walpole Street approaching from the southeast, Springdale Avenue approaching from the west, and Centre Street approaching from the north and south. The intersection is controlled by a fully-actuated, coordinated traffic signal.

The Walpole Street eastbound approach has a shared left-turn/through lane and an exclusive right-turn lane. The Springdale Avenue westbound approach has an exclusive left-turn lane a shared through and right-turn lane.

The Centre Street northbound approach has one general purpose left-turn/through/right-turn lane. The Centre Street southbound approach provides one general purpose left-turn/through/right-turn lane and a parking lane.

Sidewalks and crosswalks are present on all approaches.

Centre Street and Dedham Street

Centre Street and Dedham Street intersect to form a three-way unsignalized intersection, with Dedham Street approaching from the west, and Centre Street approaching from the north and the south. Centre Street operates freely with no stop control, Dedham Street left-turn operates with stop control, and Dedham Street right-turn operates with yield control.

The Dedham Street eastbound approach has an exclusive left-turn lane and an exclusive right-turn lane, separated by a triangular median. The Centre Street approaches have one through lane. Sidewalk is present on east side of Centre Street. Sidewalk is also present at south side of Dedham Street approach which transitions to the west side of Centre Street south of the intersection. There are no crosswalks at this intersection.

Centre Street and Whiting Road

Centre Street and Whiting Road intersect to form a three-way unsignalized intersection, with Centre Street approaching from the north and south and Whiting Road approaching from the west.

The Whiting Road eastbound approach is stop-controlled and has one general-purpose lane and a reserved parking lane. The Centre Street approaches are free movements, and they each have one general-purpose lane.

Sidewalks are present on the west side of Centre Street. There are no crosswalks at this intersection.

Springdale Avenue and Whiting Road

Springdale Avenue and Whiting Road intersect to form a three-way “T”-type unsignalized intersection, with Springdale Avenue approaching from the east and the west and Whiting Road approaching from the south.

The Whiting Road northbound approach is stop-controlled and has one travel lane. The Springdale Avenue approaches are free movements, and they each have one general-purpose lane and a parking lane.

Sidewalks are present on all approaches. Crosswalks are present across Whiting Road and across Springdale Avenue on the east side of the intersection.

4 Existing Traffic Conditions

4.1 Traffic Count Data

We retained Precision Data Industries, Inc. (PDI) of Hudson, Massachusetts to collect traffic data within the study area, including both Automatic Traffic Recorder (ATR) counts and Turning Movement Counts (TMCs).

ATR Data

PDI collected ATR counts for a continuous 48-hour period on Springdale Avenue between Whiting Road and Centre Street from Wednesday, October 6, 2021 to Thursday, October 7, 2021. We summarized the ATR counts in Table 1. The ATR data is included in Appendix A.

Table 1 – Automatic Traffic Recorder (ATR) Summary

Location	Period	ADT ^a		Peak Hour Traffic			K Factor ^e
		Volumes (vpd) ^b	Directional Distribution ^c	Period	Volumes (vpd) ^b	Directional Distribution ^c	
Springdale Ave Between Whiting Rd and Centre St	Weekday	4022	55.7% EB	Morning	440	56.6% EB	10.9%
				Evening	378	58.5% EB	9.4%
^a Average Daily Traffic; ^b Vehicles per day; ^c IN = Inbound to Bose Site, OUT = Outbound from Bose Site, NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound; ^d Vehicles per hour; ^e Proportion of daily traffic							

TMC Data

PDI collected TMC data at the study intersections on Tuesday, October 5, 2021. TMC data was recorded from 7:00 AM to 9:00 AM to capture the weekday morning traffic peak hours and from 4:00 PM to 6:00 PM to capture the weekday evening traffic peak hours. The counts included passenger vehicles, heavy vehicles, bicycles, and pedestrians. Figures 3, 4, and 5 show the 2021 existing peak-hour volumes at the study intersections in the form of turning movements for vehicles, pedestrians, and bicyclists, respectively. The TMC data is included in Appendix A.

4.2 Seasonal Adjustment

Nitsch Engineering queried MassDOT traffic data for counts nearby that would establish a seasonal adjustment for the volumes we measured in October. No local data was available, so Nitsch Engineering used MassDOT's 2017 Weekday Seasonal Adjustment Factors. The composition of the study area falls within "Group U4-7 Urban Arterials". Counts within Group U4-7 collected during the month of October experience a value that is approximately 8% higher than an average month. Therefore, to be conservative in our analysis no seasonal adjustment factors were applied.

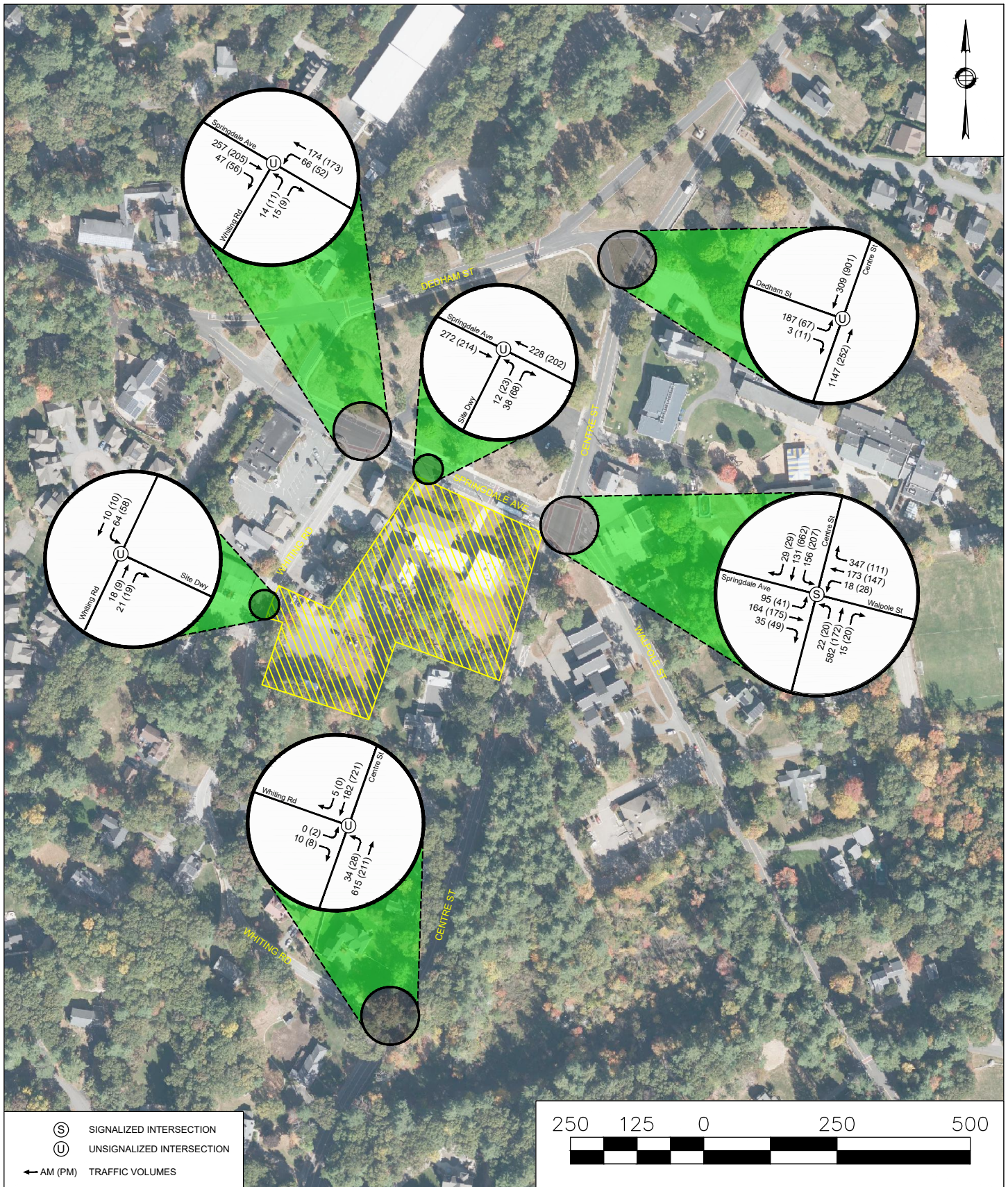


Figure 3: 2021 Existing Peak Hour Traffic Volumes
 Caryl Community Center
 4 Springdale Avenue, Dover, MA

Data Source: BingMaps
 Nitsch Project #: 14238.3

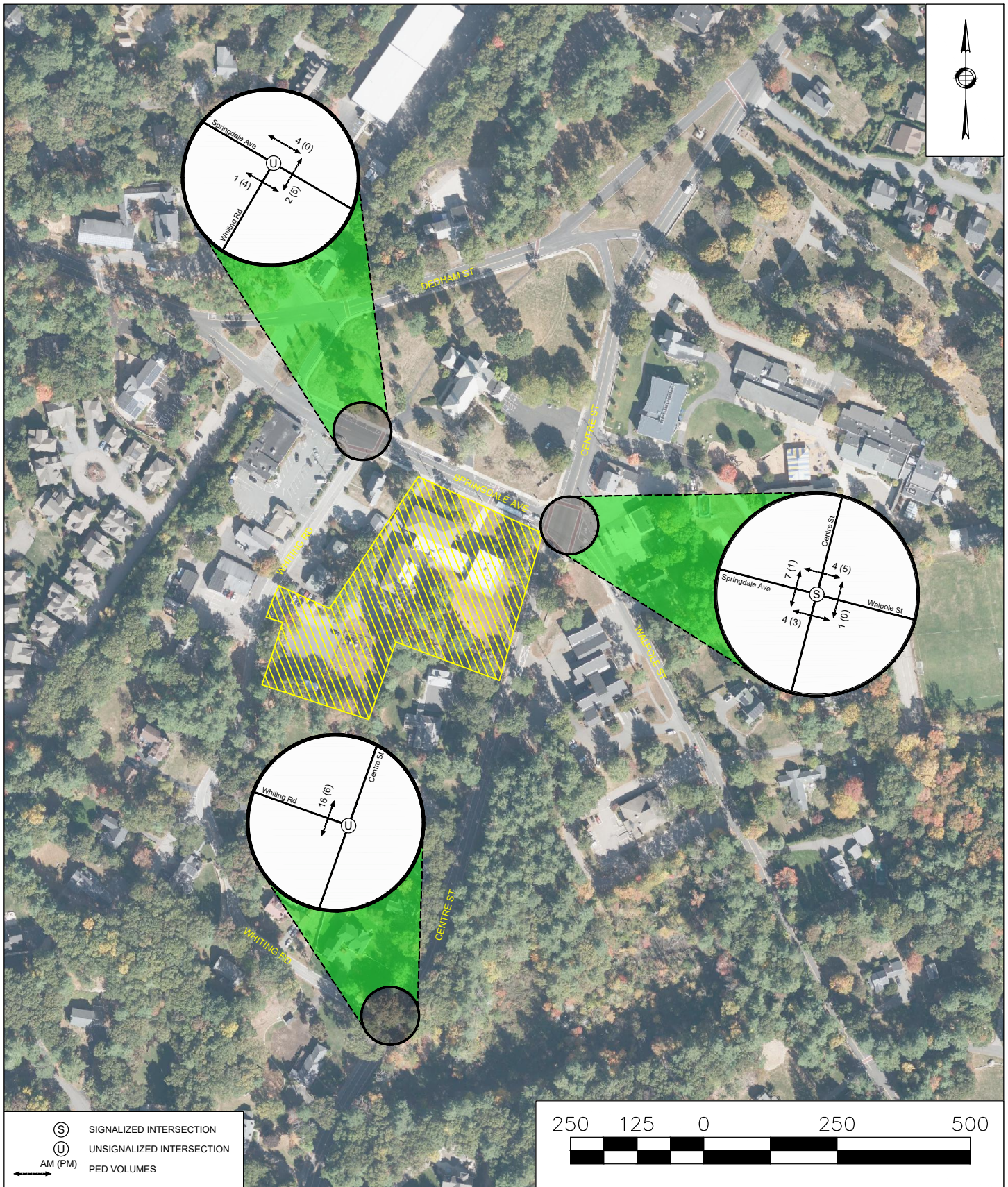


Figure 4: 2021 Existing Peak Hour Pedestrian Volumes
 Caryl Community Center
 4 Springdale Avenue, Dover, MA

Data Source: BingMaps
 Nitsch Project #: 14238.3

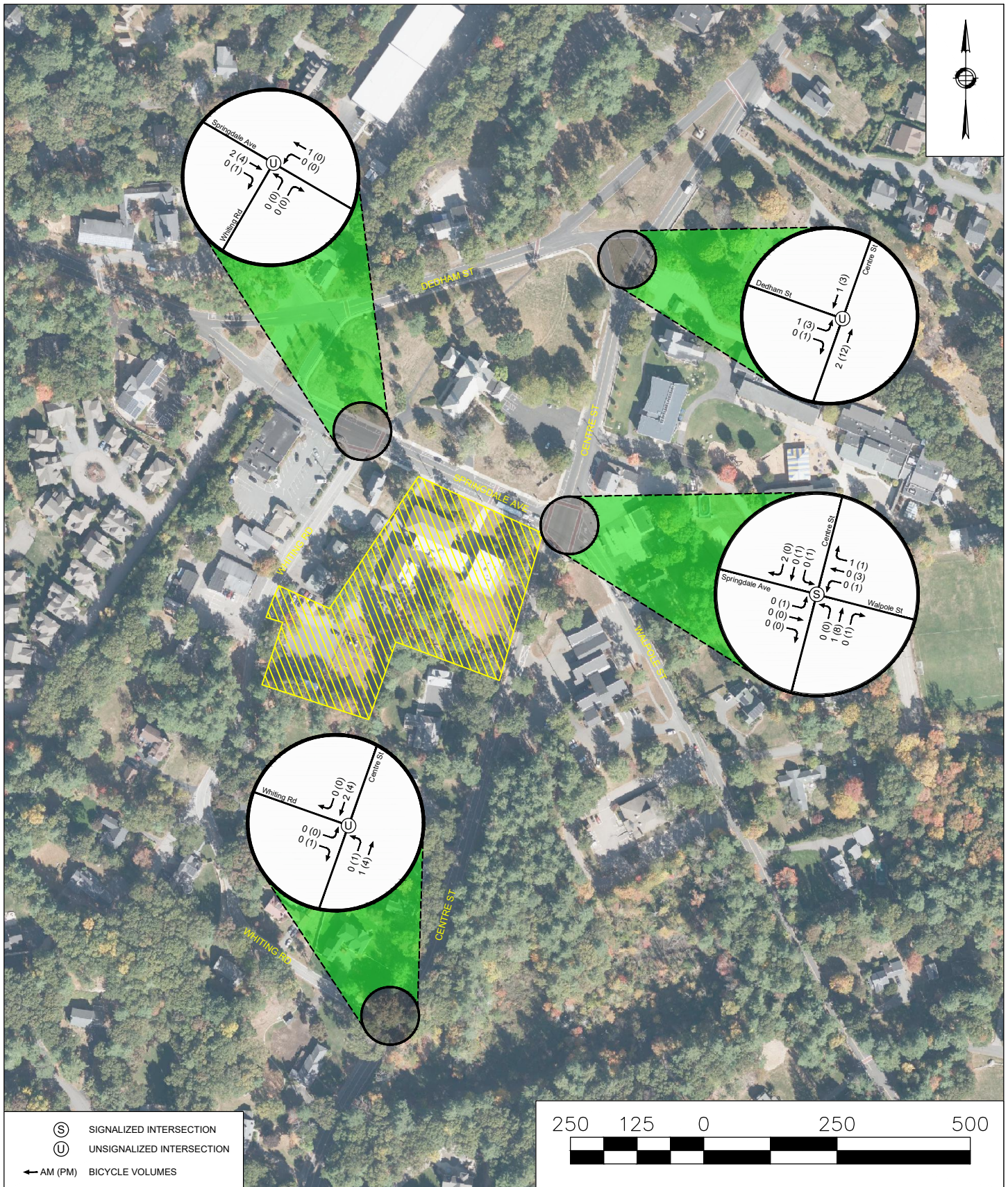


Figure 5: 2021 Existing Peak Hour Bicycle Volumes

Caryl Community Center
4 Springdale Avenue, Dover, MA

Data Source: BingMaps
Nitsch Project #: 14238.3

5 Safety Analysis

5.1 Crash Data

As part of the safety analysis, it is recommended to summarize the crash data for the five most recent “closed” years. To date, 2018 is the latest year for which the crash data is finalized (closed) therefore crash data from MassDOT from 2014 to 2018 were collected and reviewed for the study area intersections. The total crashes, severity, manner of collision, and percentage that occurred during peak hours and/or wet/icy weather conditions for each intersection are presented in Table 2. A copy of the crash data is included in the Appendix C.

Table 2 – Crash Statistics

Location	Number of Crashes			Severity				Manner of Collision					Percent During	
	Year	Total Crashes	Annual Average	PD ^a	PI ^b	NR ^c	F ^d	A ^e	RE ^f	SS ^g	Other ^h	Incl. Ped-Bike ⁱ	Peak Hours ^k	Wet/Icy Conditions
Springdale Ave /Walpole St and Centre St	2014	2	4.4	2	0	0	0	0	0	0	2	0	100%	0%
	2015	3		1	2	0	0	0	2	1	0	0	67%	67%
	2016	5		4	1	0	0	2	2	1	0	0	40%	20%
	2017	7		5	2	0	0	2	1	2	2	0	43%	29%
	2018	5		3	2	0	0	3	2	0	0	0	40%	0%
	TOTAL	22		15	7	0	0	7	7	4	4	0	50%	23%
Centre St and Dedham St	2014	0	1.0	0	0	0	0	0	0	0	0	0	0%	0%
	2015	1		0	1	0	0	1	0	0	0	0	0%	100%
	2016	0		0	0	0	0	0	0	0	0	0	0%	0%
	2017	1		1	0	0	0	0	1	0	0	0	100%	0%
	2018	3		3	0	0	0	1	2	0	0	0	67%	0%
	TOTAL	5		4	1	0	0	2	3	0	0	0	60%	20%
Centre St and Whiting Rd	2014	0	0.4	0	0	0	0	0	0	0	0	0	0%	0%
	2015	0		0	0	0	0	0	0	0	0	0	0%	0%
	2016	1		1	0	0	0	0	1	0	0	0	100%	0%
	2017	0		0	0	0	0	0	0	0	0	0	0%	0%
	2018	1		0	1	0	0	0	0	0	0	0	100%	0%
	TOTAL	2		1	1	0	0	0	1	0	1	0	100%	0%
Springdale Ave and Whiting Rd	2014	1	0.2	1	0	0	0	0	1	0	0	0	0%	0%
	2015	0		0	0	0	0	0	0	0	0	0	0%	0%
	2016	0		0	0	0	0	0	0	0	0	0	0%	0%
	2017	0		0	0	0	0	0	0	0	0	0	0%	0%
	2018	0		0	0	0	0	0	0	0	0	0	0%	0%
	TOTAL	1		1	0	0	0	0	1	0	0	0	0%	0%
	TOTAL	30	6.0	21	9	0	0	9	12	4	5	0	50%	20%

^aProperty Damage Only; ^bPersonal Injury Only (non-Fatal Injury); ^cNot Reported; ^dFatality; ^eAngle; ^fRear-end; ^gSideswipe (same direction); ^hSideswipe (opposite direction), Head-on, Single-Vehicle, Rear-to-Rear, Not Reported, Unknown, etc.; ⁱIncludes pedestrian or cyclist; ^kOccurred between 7-9am or 4-6pm

A total of 30 crashes were reported for the study area intersections. In terms of severity, 21 reported property damage and nine reported personal injury. In terms of the type of collision, nine reported an angle collision, 12 were rear-end collisions, four were sideswipe, and another five were reported as other (head-on and single vehicle). None of the reported crashes included a bicycle or a pedestrian. 20% of the collisions occurred during wet/icy conditions and 50% of the collisions occurred during peak traffic hours of 7:00-9:00AM or 4:00-6:00PM. Analyzing the crash data, as the crashes were of angle, rear-end or sideswipe type, the crashes were most likely caused by driver carelessness or inattentiveness.

5.1 Intersection Crash Rates

The intersection crash rate is recognized as an effective tool to measure the safety of intersections. For intersections, crash rates are expressed by the number of crashes per million entering vehicles (MEV). As of June 26, 2018, the average statewide crash rate for unsignalized intersections is 0.57 crashes per MEV and 0.78 crashes per MEV for signalized intersections. For District 6, which includes the Town of Dover, the rate for unsignalized intersections is 0.52 crashes per MEV and 0.71 crashes per MEV for signalized intersections. As shown in Table 3, all the intersections are below both Statewide and Districtwide averages. Crash rate worksheets can be found in Appendix C.

Table 3 – Crash Rate Summary

Location	Facility Type	Number of Crashes ^a	Crash Rate ^b	Average Rates ^{b,c}		Comparison to Average Rates	
				District 6	Statewide	District 6	Statewide
Springdale Ave /Walpole St and Centre St	Signalized Intersection	22	0.55	0.71	0.78	Below	Below
Centre St and Dedham St	Unsignalized Intersection	5	0.13	0.52	0.57	Below	Below
Centre St and Whiting Rd	Unsignalized Intersection	2	0.11	0.52	0.57	Below	Below
Springdale Ave and Whiting Rd	Unsignalized Intersection	1	0.08	0.52	0.57	Below	Below
^a Based on 5-year crash history from MassDOT, 2014-2018 ^b Crashes per million entering vehicles (MEV), ^c Based on the full set of MassDOT crash database entries as queried June 2018							

6 Future No-Build Traffic Conditions

Nitsch Engineering used the 2021 existing traffic volumes as the baseline for projecting traffic volumes to future 2028 No-Build conditions. To determine future 2028 conditions, the following steps are included:

- Project existing 2021 traffic volumes 7 years in the future to the horizon year (2028) using an annual background traffic growth factor to account for regional growth;
- Add traffic volumes associated with any planned developments that may impact the study area;
- Include any planned roadway improvements that may affect traffic volumes; and
- Analyze the study area location to determine future traffic operations.

6.1 Background Growth

MassDOT records traffic volumes at various stations throughout the Commonwealth over multiple years to identify regional shifts in traffic. Nitsch Engineering researched MassDOT count stations near the study area to determine a traffic volume trend throughout the years of volume data available. There is one such station that provided data, located on Pleasant Street at Dover Town Line, about 2.5 miles northwest of the project site. Table 4 depicts the traffic volumes and the calculated growth rate for a 10-year period.

Table 4 – Background Annual Traffic Growth Rate

MassDOT Count Station Location	AADT ¹		Annual Growth Rate
	2012	2021	
Pleasant Street at Dover Town Line	2,545	2,517	-0.001%
¹ Volume presented in Annual Average Daily Traffic (AADT), the average daily traffic volume for the entire calendar year; Source: MassDOT			

Table 4 shows that the project location has been experiencing a background traffic reduction rate of approximately 0.001% per year between 2012 and 2021. The current state of traffic conditions is close to what was being experienced prior to the COVID-19 pandemic. However, as employees continue to return to work, we expect to experience a slight increase in traffic from what was collected. Therefore, we selected a conservative annual background traffic growth factor of 0.5%, which is also consistent with recent MassDOT projects in eastern and southern Massachusetts. We also believe that any potential additional traffic as a result of planned developments and area roadway improvements will be accounted for within the 0.5% per-year background growth along the adjacent roadways.

6.2 Additional Development

Nitsch Engineering attempted to contact the Town of Dover Planning Board to establish any planned developments that will potentially add traffic to the study area, but we received no response. As mentioned above, we believe that any potential additional traffic as a result of planned developments and area roadway improvements will be accounted for within the 0.5% per-year background growth along the adjacent roadways.

6.3 2028 No-Build Traffic Volumes

We developed the 2028 No-Build volumes by applying 0.5% annual growth rates for 7 years to the 2021 Existing conditions volumes turning movements at the study intersections. Figure 6 presents the peak hour traffic volumes for 2028 No-Build conditions.

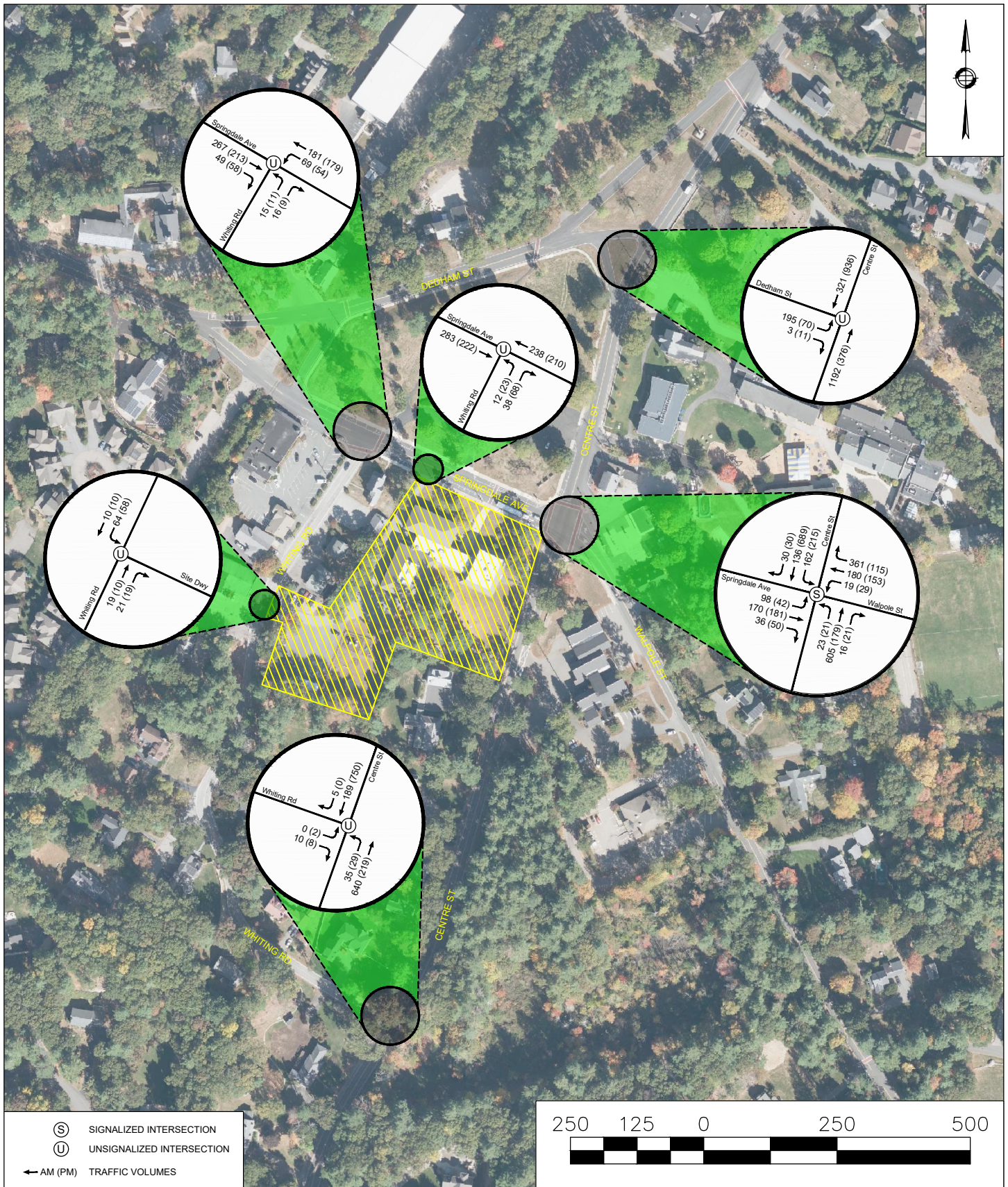


Figure 6: 2028 No-Build Peak Hour Traffic Volumes
 Caryl Community Center
 4 Springdale Avenue, Dover, MA

Data Source: BingMaps
 Nitsch Project #: 14238.3



7 Future Build Conditions

7.1 Proposed Site Changes

The scope of work for the project includes a substantial renovation to the existing building at both the First and Second Floors. Most of the existing exterior walls will be demolished with exception to those enclosing the existing cafeteria space at the First Floor and the classroom space directly above the cafeteria at the Second Floor. As a result of the exterior wall reconfiguration, the proposed footprint of the building is 12,500 sf with an aggregate area of 18,000 sf. The building will remain two stories in height with a new program consistent with its existing use including support space for various community organizations, a recreational gymnasium, multipurpose flex space, and offices. The existing exit stairs and elevators serving the existing building will also be demolished and replaced.

Vehicle Access and Circulation

The existing ingress driveway along Whiting Road and an egress driveway along Springdale Avenue will be improved by installing new granite curb and reconstructing the driveways. All access and egress to the building will be via Whiting Road. The driveway at Springdale Avenue will be limited to the authorized and/or emergency vehicles.

Parking

The facility, when complete, will provide 85 parking spaces that include 63 striped parking spaces, three accessible spaces, as well as 22 overflow parking spaces.

Bicycle Accommodations

The proposed redevelopment will include five (5) bicycle racks on site.

Pedestrian Accommodations

As part of the development, the project will construct bituminous concrete and 4" thick cement concrete pedestrian walkways throughout the site. Off-site pedestrian accommodation improvements are not proposed as part of this project.

7.2 Proposed Trip Generation

Nitsch Engineering used the Institute of Transportation Engineers (ITE) publication Trip Generation, 10th Edition to estimate the vehicle trip rates for the proposed community center and establish the net trips. Trip generation rates for the community center were based on Land Use Code (LUC) 495 (Recreational Community Center). The weekday morning and weekday evening generated trips are outlined in Table 5.

Table 5 – Proposed Trip Generation

Time	Existing Community Center with 39,800 SF GFA	New Community Center with 18,000 SF GFA	Net Trips
Weekday Daily	1147	519	(628)
Entering	573	259	(314)
Exiting	574	260	(314)
Weekday Morning Peak	135	90	(45)
Entering	85	57	(28)
Exiting	50	33	(17)
Weekday Evening Peak	168	106	(62)
Entering	77	49	(28)
Exiting	91	57	(34)

As illustrated in Table 5, the proposed community center with 18,000 SF GFA would result in approximately 628 decreased daily trips (314 trips in and 314 trips out), with 45 decreased trips (28 trips in and 17 trips out) during the weekday morning and 62 decreased trips (28 trips in and 34 trips out) during the weekday evening peak hours.

7.3 Project Trip Distribution and Assignment

The traffic volume to and from the proposed development site will be distributed and assigned for the weekday morning peak hours and weekday evening peak hours based on the existing travel patterns, and logical travel routes, which are based on the existing roadway network both within the Town and the surrounding region. The distributions for the proposed study area are shown on Figures 7 for the weekday morning and weekday evening peak hours.

To distribute the site generated traffic volume through the roadway network, the volumes in Table 5 were multiplied by the trip distribution percentages in Figure 7 to assign the additional intersection volumes. The site-generated traffic volumes are shown on Figure 8 for the weekday morning and weekday evening peak hours.

The Build Condition traffic volumes were calculated by combining the No-Build traffic volumes with the site-generated traffic volumes, which are shown on Figure 9.

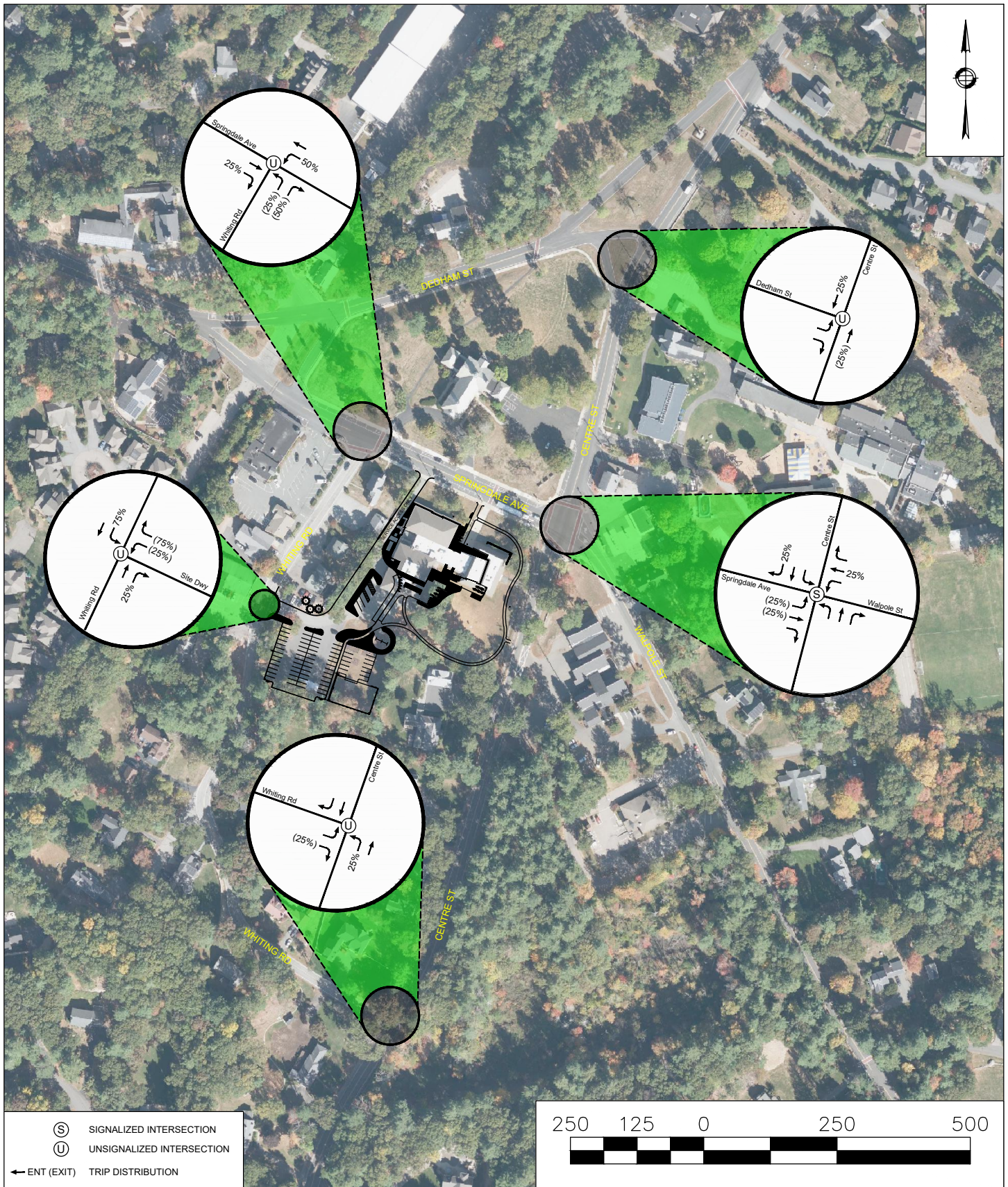


Figure 7: Site-Generated Trip Distribution
 Caryl Community Center
 4 Springdale Avenue, Dover, MA

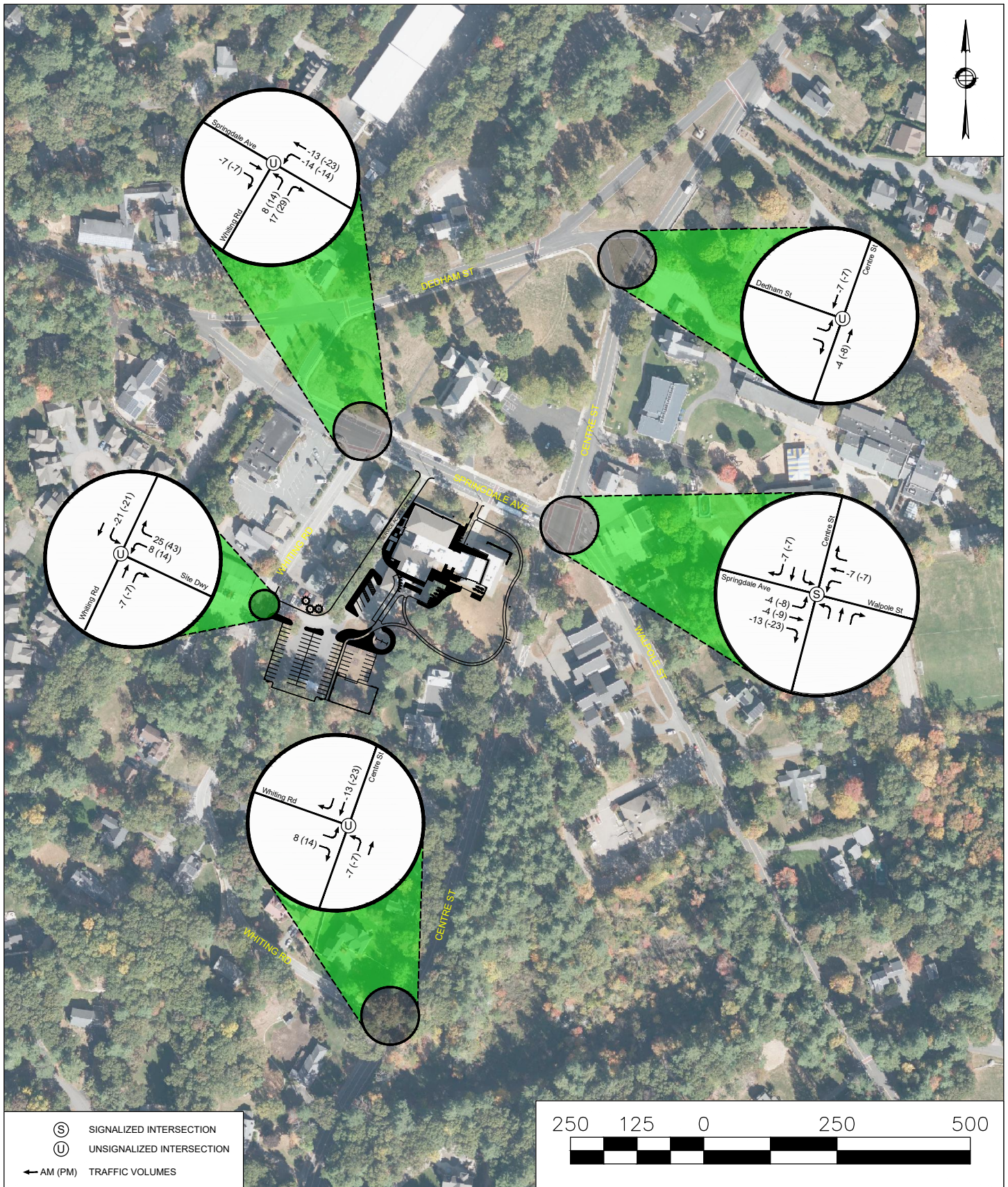


Figure 8: Site-Generated Net Trip Assignment
 Caryl Community Center
 4 Springdale Avenue, Dover, MA

Data Source: BingMaps
 Nitsch Project #: 14238.3

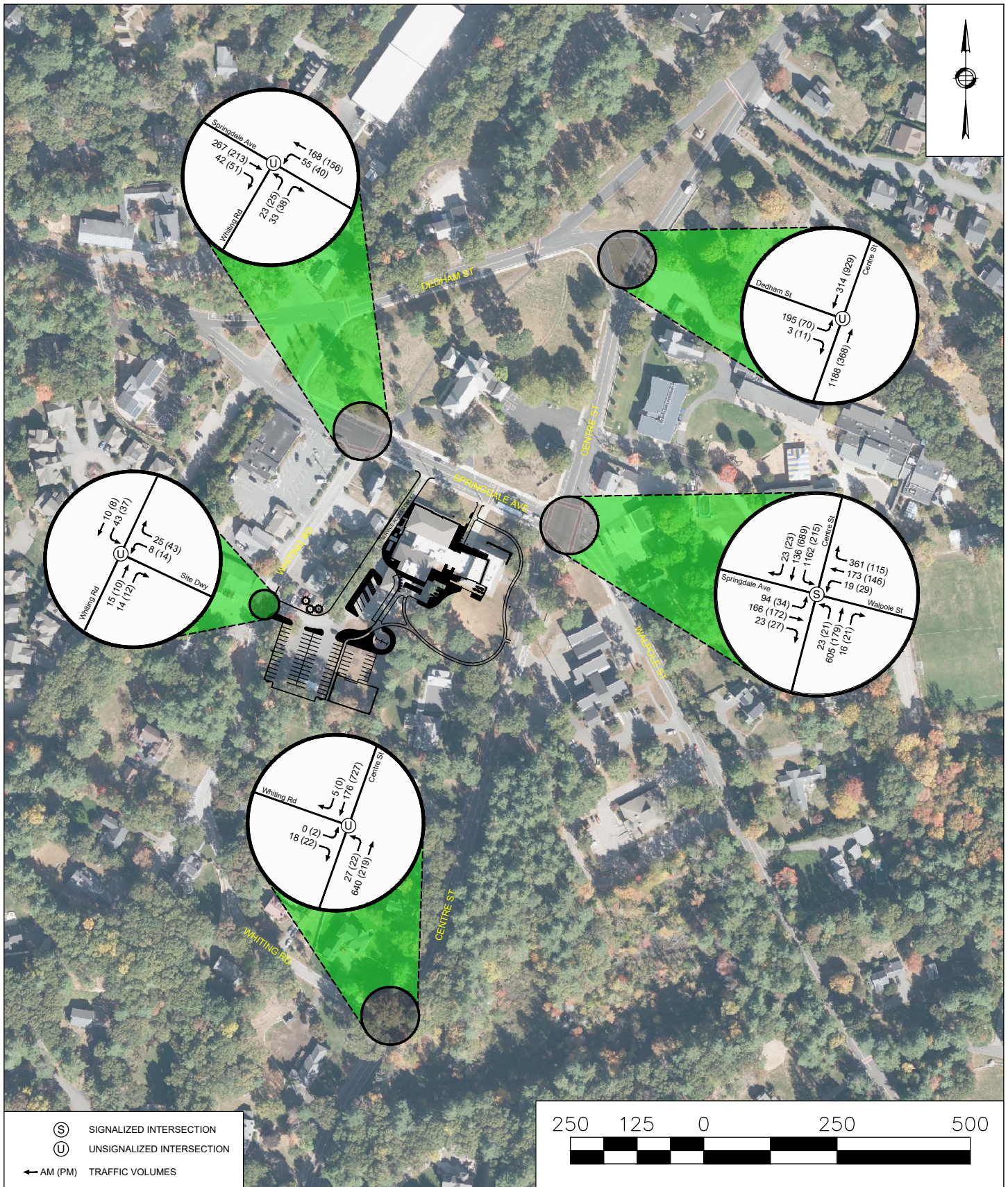


Figure 9: 2028 Build Peak Hour Traffic Volumes
 Caryl Community Center
 4 Springdale Avenue, Dover, MA

Data Source: BingMaps
 Nitsch Project #: 14238.3

7.4 Parking Generation and Adequacy

Nitsch Engineering used the Institute of Transportation Engineers' (ITE) publication *Parking Generation Manual, 5th Edition* to estimate the parking demand for the proposed development. Parking generation rates for the proposed community center were based on Land Use Code (LUC) 495 (Recreational Community Center). The calculated parking demand for the community center with projected student population of 18,000 square feet of GFA is 76 spaces.

Therefore, the 63 striped parking spaces in addition to the 22 overflow parking spaces exceeds the 76 parking spaces recommended by the Institute of Transportation Engineers (ITE) Parking Generation for LUC 495 (see Table 6).

Table 6 – Proposed Parking Summary

Parking Spaces Provided	Parking Spaces Required by ITE Parking Generation for LUC 495
63 Striped (3 Accessible)	76
22 Overflow Parking	

8 Traffic Analysis

8.1 Evaluation Criteria

Traffic operations at intersections are evaluated using the performance measures of average vehicular delay, level of service (LOS), volume-to-capacity (v/c) ratio, and average and 95th percentile queue lengths.

LOS is a qualitative measure that describes operating conditions through letter designations, from A to F. It is defined for intersections in terms of average control delay per vehicle. LOS A indicates the most favorable condition, with minimum traffic delay. LOS F represents the worst condition where there is significant traffic delay. LOS D or better is typically considered desirable for peak-hour operation in urban and suburban settings. The delay designations for each LOS level differ slightly between signalized and unsignalized intersections due to driver expectations and behavior. Table 7 summarizes the LOS criteria for intersections as used in this analysis.

Table 7 – Intersection Level of Service Criteria

Level of Service	Average Control Delay (sec/veh)	
	Signalized	Unsignalized
A	0-10	0-10
B	>10-20	>10-15
C	>20-35	>15-25
D	>35-55	>25-35
E	>55-80	>35-50
F	>80	>50
Source: HCM 2000		

For signalized intersections, LOS is reported by lane group, by approach, and for the entire intersection. For unsignalized intersections, the analysis assumes that the traffic on the mainline is not affected by traffic on the side street. As such, an unsignalized intersection's LOS is generally reported for left-turns on the mainline and all side street movements, and an overall intersection LOS is not determined.

The v/c ratio is a measure of congestion at an intersection approach. The capacity of a facility is the maximum hourly rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway under prevailing roadway, traffic, and control conditions. A v/c ratio below one indicates that the intersection approach has adequate capacity to serve the arriving traffic demand. A v/c ratio that approaches or exceeds 1.0 indicates traffic congestion or poor operating conditions. In that situation, vehicles arrive faster than they can be served, so queue lengths can theoretically grow indefinitely, which is the unstable condition.

Since arrival volumes fluctuate throughout the peak hour, queue lengths vary. The average (50th percentile) queue length represents the maximum back of queue on a typical cycle for a signalized intersection. Average queue lengths are not reported for unsignalized intersections. The 95th percentile queue, reported for both signalized and unsignalized intersections, occurs with 95th percentile traffic volumes, and its length commonly denotes the farthest extent of the vehicle queue.



8.2 Capacity Analyses

We performed capacity analyses for the study intersections under 2021 Existing conditions, 2028 No-Build conditions, and 2028 Build conditions during the weekday morning and evening peak hours using Trafficware's Synchro 11 software. Synchro uses, in part, the traffic operational analysis methodology of the Transportation Research Board's *Highway Capacity Manual* (HCM).¹ We generated the results of the capacity analyses using Synchro's Percentile Delay Method for delay, v/c ratio, and queue lengths, supported by HCM 2000 methodology for unsignalized intersection analysis. The Synchro output sheets for the capacity analyses are included in Appendix E.

8.2.1 2021 Existing Conditions Capacity Analysis

The first analysis evaluated traffic operations with 2021 existing traffic volumes under existing geometric conditions and signal timing/phasing. We derived peak hour factors (PHFs) and heavy vehicle percentages from the TMC data. We applied PHFs on an approach-by-approach basis, and we applied heavy vehicle percentages by lane group. Table 8 summarizes the capacity analysis results for the 2021 Existing conditions.

¹ *Highway Capacity Manual 2000 (HCM 2000)*, Transportation Research Board, Washington, D.C., 2000.

Table 8 – Capacity Analysis Summary: 2021 Existing Conditions

Location	Direction / Movement ^a	Weekday Morning Peak Hour					Weekday Evening Peak Hour				
		v/c Ratio ^b	Delay ^c	LOS	Queue ^d		v/c Ratio ^b	Delay ^c	LOS	Queue ^d	
					50th	95th				50th	95th
Springdale Avenue/Walpole Street at Centre Street [signalized]	Springdale Ave EB - L	0.60	35.4	D	59	86	0.65	57.1	E	24	58
	Springdale Ave EB - TR	0.50	20.2	C	94	109	0.41	16.3	B	70	137
	Walpole St WB - LT	1.10	105.8	F	232	295	1.80	388.2	F	703	1033
	Walpole St WB - R	0.07	3.0	A	0	4	0.09	5.0	A	0	2
	Centre St NB - LTR	1.15	114.9	F	419	628	0.63	29.8	C	118	152
	Centre St SB - LTR	1.20	130.6	F	431	449	0.82	38.3	D	153	17
	Overall	1.20	98.7	F			1.80	200.1	F		
Centre Street and Dedham Street [unsignalized]	Dedham St EB - L	2.88	947.6	F		550	0.42	35.7	E		48
	Dedham St EB - R	0.01	10.1	B		0	0.05	16.9	C		4
	Centre St NB - T	0.71	0.0	A		0	0.16	0.0	A		0
	Centre St SB - T	0.20	0.0	A		0	0.56	0.0	A		0
Centre Street and Whiting Road [unsignalized]	Whiting Rd EB - LR	0.02	9.5	A		2	0.06	16.2	C		5
	Centre St NB - LT	0.05	1.3	A		4	0.06	2.1	A		5
	Centre St SB - TR	0.14	0.0	A		0	0.47	0.0	A		0
Springdale Avenue and Whiting Road [unsignalized]	Springdale Ave EB - TR	0.24	0.0	A		0	0.19	0.0	A		0
	Springdale Ave WB - LT	0.12	3.9	A		11	0.06	2.3	A		5
	Whiting Rd NB - LR	0.12	16.2	C		10	0.08	12.7	B		6
^a Direction: NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound; Movement: L = Left-turn, T = Through movement, R = Right-turn ^b Overall v/c ratio is the maximum v/c ratio among lane groups ^c Average vehicle delay (seconds) ^d 50th and 95th percentile queue lengths (feet) based upon average vehicle length of 25 feet ~ 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											

Under 2021 Existing conditions, the intersection of Springdale Avenue and Walpole Street at Centre Street operates overall at LOS F in both the morning and evening peak hours. In the morning peak hour, several lane groups operate at LOS F, including the Walpole Street westbound left-turn/through lane, and the Centre Street northbound and southbound lanes. In the evening peak hour, the Walpole Street westbound left-turn/through lane operates at LOS F with delays over 380 seconds and v/c ratios over 1.0, which is likely due to insufficient green time for that approach.

At the unsignalized intersection of Centre Street at Dedham Street, the stop-controlled Dedham Street left-turn lane operates at LOS F in the morning peak hour with a v/c ratio of 2.88, indicating oversaturated conditions. The queue length is longer than 500 feet during the morning peak hour. During the evening peak hour, this approach operates at LOS E. the remaining approaches operate at LOS C or better during both the morning and evening peak hours.

At the unsignalized intersection of Whiting Road at Centre Street, all approaches operate at LOS A during the morning and the evening peak hours except for the stopped controlled Whiting Road eastbound approach during the evening peak hour which operates at LOS C.

At the unsignalized intersection of Springdale Avenue at Whiting Road, the stop-controlled Whiting Road northbound approach operates at LOS C in the morning peak hour, and at LOS B in the evening peak hour. The remaining approaches operate at LOS A during both the morning and the evening peak hours.

8.2.2 2028 No-Build Conditions Capacity Analysis

Under future No-Build conditions, we kept lane geometry, traffic control, and signal timing parameters the same as existing. For all intersections, we applied the no-build future volumes with the same heavy vehicle percentages and PHFs as existing. Table 9 summarizes the analysis results for 2028 No-Build conditions.

Table 9 – Capacity Analysis Summary: 2028 No-Build Conditions

Location	Direction / Movement ^a	Weekday Morning Peak Hour					Weekday Evening Peak Hour				
		v/c Ratio ^b	Delay ^c	LOS	Queue ^d		v/c Ratio ^b	Delay ^c	LOS	Queue ^d	
					50th	95th				50th	95th
Springdale Avenue/Walpole Street at Centre Street [signalized]	Springdale Ave EB - L	0.65	39.2	D	62	90	0.68	60.9	E	26	60
	Springdale Ave EB - TR	0.52	20.7	C	99	114	0.43	16.9	B	75	142
	Walpole St WB - LT	1.16	129.4	F	253	313	1.92	444.6	F	761	1084
	Walpole St WB - R	0.07	3.4	A	0	5	0.09	5.3	A	0	3
	Centre St NB - LTR	1.22	140.9	F	456	668	0.65	30.0	C	124	158
	Centre St SB - LTR	1.27	158.7	F	470	485	0.84	40.0	D	162	189
	Overall	1.27	119.8	F			1.92	227.7	F		
Centre Street and Dedham Street [unsignalized]	Dedham St EB - L	3.48	>500	F		>550	0.61	62.7	F		80
	Dedham St EB - R	0.01	10.2	B		10.2	0.05	17.5	C		4
	Centre St NB - T	0.74	0.0	A		0	0.24	0.0	A		0
	Centre St SB - T	0.21	0.0	A		0	0.58	0.0	A		0
Centre Street and Whiting Road [unsignalized]	Whiting Rd EB - LR	0.02	9.6	A		2	0.06	17.1	C		5
	Centre St NB - LT	0.05	1.3	A		4	0.06	2.2	A		5
	Centre St SB - TR	0.15	0.0	A		0	0.48	0.0	A		0
Springdale Avenue and Whiting Road [unsignalized]	Springdale Ave EB - TR	0.25	0.0	A		0	0.20	0.0	A		0
	Springdale Ave WB - LT	0.13	4.0	A		11	0.06	2.4	A		5
	Whiting Rd NB - LR	0.14	7.1	C		12	0.08	12.9	B		7
^a Direction: NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound; Movement: L = Left-turn, T = Through movement, R = Right-turn ^b Overall v/c ratio is the maximum v/c ratio among lane groups ^c Average vehicle delay (seconds) ^d 50th and 95th percentile queue lengths (feet) based upon average vehicle length of 25 feet ~ 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											

Under 2028 No-Build conditions, v/c ratios and delays at the intersection of the intersection of Springdale Avenue and Walpole Street at Centre Street are expected to increase slightly from 2021 Existing conditions. However, the levels of service for all individual lane groups including the overall intersection operation would remain the same as existing in both the morning and the evening peak hours.

At the unsignalized intersection of Centre Street at Dedham Street, the stop-controlled Dedham Street left-turn lane will continue to operate at LOS F in the morning peak hour with increased v/c ratio of 3.48. During the evening

peak hour, the LOS for this approach is expected to decline from the LOS E to LOS F. the remaining approaches will continue to operate at LOS C or better during both the morning and evening peak hours.

At the unsignalized intersections of Springdale Avenue at Whiting Road and Whiting Road at Centre Street, we expect only minor changes in operational measures from the Existing to No-Build conditions. Many movements would experience small increases in delay, v/c ratio, and queue, but all levels of service would remain the same.

8.2.3 2028 Build Conditions Capacity Analysis

We performed capacity analyses for the proposed build conditions. We applied the future build volumes with the same heavy vehicle percentages and PHFs as existing. Table 10 summarizes the analysis results for the 2028 Build conditions.

Table 10 – Capacity Analysis Summary: 2028 Build Conditions

Location	Direction / Movement ^a	Weekday Morning Peak Hour					Weekday Evening Peak Hour				
		v/c Ratio ^b	Delay ^c	LOS	Queue ^d		v/c Ratio ^b	Delay ^c	LOS	Queue ^d	
					50th	95th				50th	95th
Springdale Avenue/Walpole Street at Centre Street [signalized]	Springdale Ave EB - L	0.62	37.4	D	59	86	0.54	46.1	D	19	43
	Springdale Ave EB - TR	0.47	19.4	B	86	102	0.32	14.2	B	48	101
	Walpole St WB - LT	1.09	103.7	F	240	301	1.71	346.6	F	721	1051
	Walpole St WB - R	0.06	2.0	A	0	0	0.07	3.6	A	0	0
	Centre St NB - LTR	1.21	139.2	F	455	667	0.65	30.4	C	124	158
	Centre St SB - LTR	1.25	150.6	F	456	472	0.83	39.4	D	156	182
	Overall	1.25	113.6	F			1.71	188.7	F		
Centre Street and Dedham Street [unsignalized]	Dedham St EB - L	3.36	>500	F		>550	0.59	59.9	F		78
	Dedham St EB - R	0.01	10.1	B		0	0.05	17.4	C		4
	Centre St NB - T	0.74	0.0	A		0	0.24	0.0	A		0
	Centre St SB - T	0.20	0.0	A		0	0.58	0.0	A		0
Centre Street and Whiting Road [unsignalized]	Whiting Rd EB - LR	0.04	9.6	A		3	0.13	16.4	C		11
	Centre St NB - LT	0.04	1.0	A		3	0.05	1.7	A		4
	Centre St SB - TR	0.14	0.0	A		0	0.47	0.0	A		0
Springdale Avenue and Whiting Road [unsignalized]	Springdale Ave EB - TR	0.24	0.0	A		0	0.20	0.0	A		0
	Springdale Ave WB - LT	0.10	3.5	A		9	0.05	2.0	A		4
	Whiting Rd NB - LR	0.21	16.1	C		19	0.22	13.0	B		21
Driveway and Whiting Road [unsignalized]	Driveway WB - LR	0.04	8.8	A		3	0.06	8.8	A		5
	Whiting Rd NB - TR	0.02	0.0	A		0	0.01	0.0	A		0
	Whiting Rd SB - LT	0.03	6.0	A		0	0.03	6.0	A		2
^a Direction: NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound; Movement: L = Left-turn, T = Through movement, R = Right-turn ^b Overall v/c ratio is the maximum v/c ratio among lane groups ^c Average vehicle delay (seconds) ^d 50th and 95th percentile queue lengths (feet) based upon average vehicle length of 25 feet ~ 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											

Under 2028 Build conditions, v/c ratios and delays at the intersection of Springdale Avenue and Walpole Street at Centre Street are expected to slightly decrease from 2028 No-Build conditions. However again, the levels of service

for all individual lane groups including the overall intersection operation would remain the same as existing in both the morning and the evening peak hours.

At the remaining unsignalized intersections, all movements are expected to have no change in level of service, but some movements would have small improvements in delay, v/c ratio, and queue length.

9 Sight Distance

Stopping Sight Distance (SSD) is the length of the roadway ahead that is visible to the driver and should be long enough to enable a vehicle traveling at or near the design speed to stop before reaching a stationary object in its path. Stopping sight distance is the sum of the distance traversed by the vehicle from the instant the driver sights an object necessitating a stop to the instant the brakes are applied, and the distance needed to stop the vehicle from the instant brake application begins.

Intersection Sight Distance (ISD) is the length of the leg of the departure sight triangle along the major road in both directions for a vehicle stopped on the minor road waiting to depart. The critical departure sight triangles for the Site Driveway at Whiting Road are for traffic approaching from either the left or right. The SSD and ISD values associated with a given design speed are shown in Table 11.

Table 5 – Sight Distance Criteria

Design Speed (mph)	Design Stopping Sight Distance ¹ (feet)	Recommended Intersection Sight Distance ² (feet)
15	80	170
20	115	225
25	155	280
30	200	335
35	250	390
40	305	445
45	360	500
50	425	555
55	495	610
60	570	665
65	645	720
70	730	775
75	820	830
80	910	885
<u>Source:</u> A Policy on Geometric Design of Highways and Streets, AASHTO, Washington DC (2011) ¹Design value based on a grade of less than 3%, a brake reaction distance predicted on a time of 2.5 seconds and a deceleration rate of 11.2 feet per second squared ²Recommended value based on Case B1 - a stopped passenger car to turn left onto a two-lane highway with no median and grades 3% or less		

There is no posted regulatory speed limit on Whiting Road. We used the Prima Facie speed limit for Whiting Road, which is 25 MPH to calculate the minimum sight distances. The sight distance was measured at approximately 10 feet from the edge of pavement based on observed driving behavior. Table 12 summarizes the sight distance evaluation.

Table 12 – Sight Distance Evaluation

Intersecting Street	Stopping Sight Distance (SSD)			Intersection Sight Distance (ISD)		
	Traveling	Calculated	Measured	Looking	Calculated	Measured
Whiting Road and Site Driveway	*NB	155'	430'	*Left	280'	290'
	**SB	155'	230'	**Right	280'	326'
*Over grown vegetation along east side of Whiting Road may obstruct both SSD and ISD. **The intersection of Springdale Avue and Whiting Road is located approximately 326 feet north of the intersection of Whiting Road and the Site Driveway.						

As shown in Table 12, the SSD is adequate for both the northbound and southbound traffic on Whiting Road approaching the Site Driveways. The ISD is also adequate for vehicles exiting the Site Driveway onto Whiting Road. However, the **overgrown vegetation along the east side of Whiting Road** has the potential to interfere with the driver's view while exiting the Site Driveway, causing an unsafe condition. For the ISD requirement to be met, there may need to be some vegetation pruning along the east curb line on Whiting Road south of the Site Driveway.

10 Construction Management Plan

To the extent possible, arrival and departure of construction vehicles will occur outside of the vehicle peak periods (9:00 a.m. to 3:30 p.m. and 7:00 p.m. to 5:00 a.m.). The developer will coordinate a construction entrance that is of enough width and meets the necessary sight distance requirements set forth by the American Association of State Highway and Transportation Officials (AASHTO).

During construction, pedestrian accessibility will be maintained to the extent feasible. If necessary, temporary crosswalks and ramps will be provided. All pedestrian accommodations will adhere to Massachusetts Architectural Access Board (MAAB) and Americans with Disabilities Act (ADA) guidelines.



11 Conclusions and Recommendations

11.1 Conclusions

Nitsch Engineering has prepared this Traffic Impact Study (TIS) for the proposed Caryl Community Center Building development, located at 4 Springdale Avenue Street in Dover, Massachusetts. This TIS reviewed existing roadway conditions, access/egress, crash data, and traffic volumes, and assessed existing and future traffic conditions at intersections in the study area.

We studied four intersections, one signalized and three unsignalized, to establish the impact the development would have on intersection traffic operations.

The crash data over the last three years available from MassDOT indicate that all four study intersections have crash rates well below District 6 and statewide averages.

We estimated the quantity of vehicle trips the proposed community center would generate based on Institute of Transportation Engineers (ITE) *Trip Generation, 10th Edition* criteria. We distributed the additional vehicle trips to the roadway network using existing travel patterns. We assumed that all project-generated person-trips will be made by private automobile to present a conservative analysis.

For future conditions, we projected the existing traffic volumes within the study area over a seven-year period to the horizon year 2028 using a conservative annual growth rate of 0.5%. We added vehicle trips expected to be generated by the new facility.

We performed a vehicle capacity analysis to compare the weekday morning and evening peak hours of the 2021 Existing conditions, 2028 No-Build conditions, and 2028 Build conditions for each of the four study intersections. Under existing conditions, our analysis indicates operational issues in both the morning and the evening peak hours for the intersection of Springdale Avenue and Walpole Street at Centre. The delay and v/c ratios for the intersection are expected to increase slightly under 2028 No-Build conditions. However, because of changes to the proposed access and egress to the facility, the delay and v/c ratios for the intersection are expected to decrease slightly under 2028 Build conditions. At the remaining unsignalized intersections, all movements are expected to have no change in level of service, but some movements would have small improvements in delay, v/c ratio, and queue length.

11.2 Mitigation

As noted above, project related traffic impacts are minimal, therefore no traffic mitigation measures appear warranted. Similarly, based on the parking inventories at the site, there is adequate parking capacity to accommodate for patron and staff parking demands.



APPENDIX CONTENTS

<u>Appendix</u>	<u>Description</u>
A	Traffic Count Data
B	MassDOT's 2017 Weekday Seasonal Adjustment Factors
C	Crash Rate Worksheets
D	Detailed Trip Generation
E	Capacity Analysis



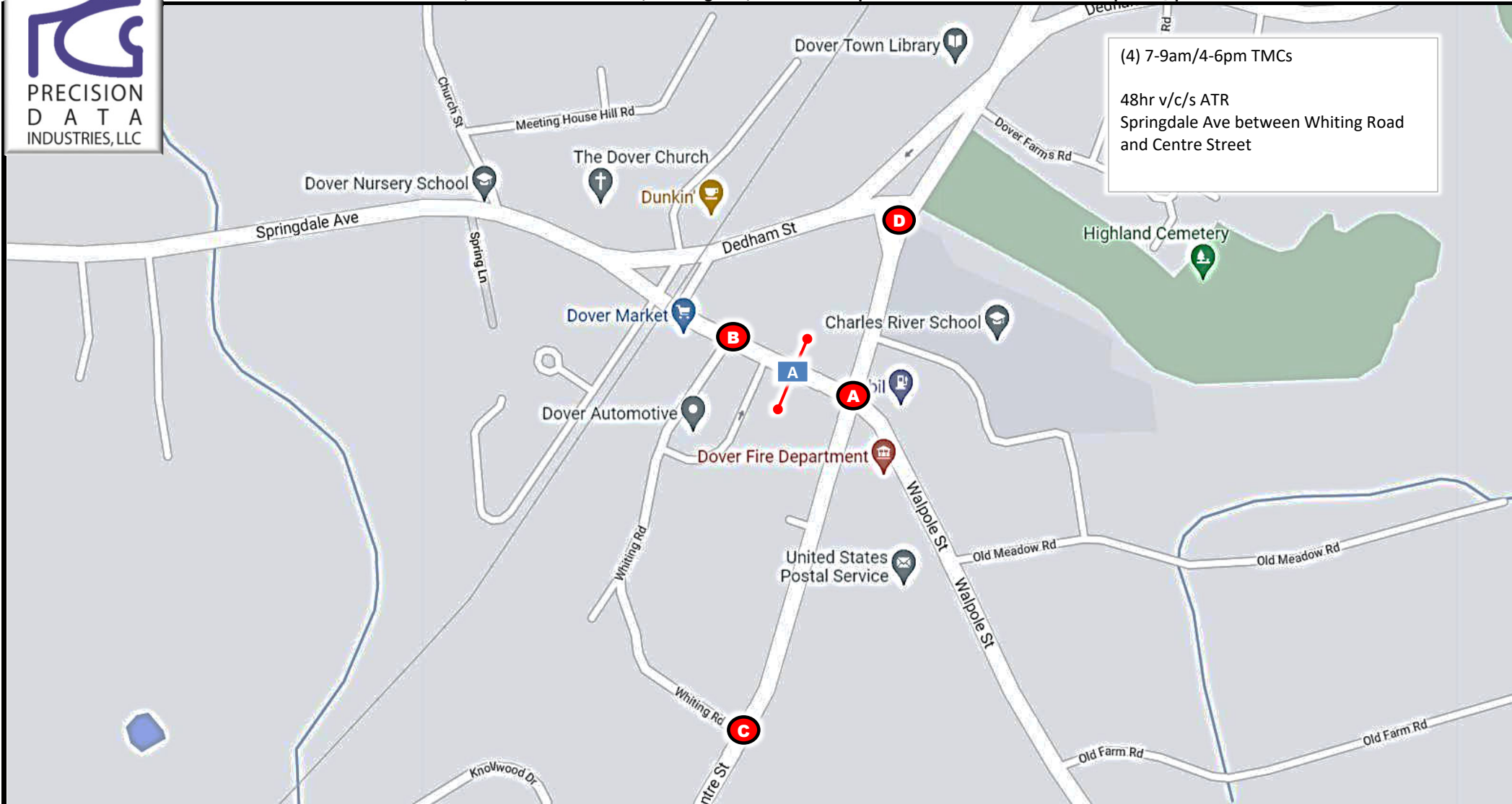
Appendix A: Traffic Count Data



PRECISION
DATA
INDUSTRIES, LLC

Location Map: 218169 Dover, MA

Precision Data Industries, LLC 46 Morton Street, Framingham, MA 01702 ph: 508-875-0100 email: datarequests@pdillc.com



Client:
Nitsch Engineering

Engineer:
N. Havan

Site Code:
14238.3

Date:
Tuesday 10/5/21-Wednesday 10/6/21

PDI Job #
218169

City, State:
Dover, MA

Springdale Avenue
west of Centre Street

City, State: Dover, MA

Client: Nitsch Engineering/ N. Havan

Site Code: 14238.3



PDI File #: 218169 ATR-A

Count Date:

Wednesday, October, 06, 2021

WB					Volume					EB					Combined				
Start Time:	15 min	60 min	15 min	60 min	Start Time:	15 min	60 min	15 min	60 min	Start Time:	15 min	60 min	15 min	60 min	Start Time:	15 min	60 min	15 min	60 min
12:00 AM	3		12:00 PM	42	12:00 AM	1		12:00 PM	31	12:00 AM	4		12:00 PM	73	12:00 AM				
12:15 AM	1		12:15 PM	39	12:15 AM	5		12:15 PM	45	12:15 AM	6		12:15 PM	84	12:15 AM				
12:30 AM	0		12:30 PM	36	12:30 AM	1		12:30 PM	32	12:30 AM	1		12:30 PM	68	12:30 AM				
12:45 AM	1	5	12:45 PM	30	147	12:45 AM	0	7	12:45 PM	37	145	12:45 AM	1	12	12:45 PM	67	292		
1:00 AM	0		1:00 PM	27		1:00 AM	0		1:00 PM	27		1:00 AM	0		1:00 PM	54			
1:15 AM	0		1:15 PM	43		1:15 AM	2		1:15 PM	29		1:15 AM	2		1:15 PM	72			
1:30 AM	0		1:30 PM	26		1:30 AM	0		1:30 PM	39		1:30 AM	0		1:30 PM	65			
1:45 AM	0	0	1:45 PM	44	140	1:45 AM	0	2	1:45 PM	35	130	1:45 AM	0	2	1:45 PM	79	270		
2:00 AM	0		2:00 PM	36		2:00 AM	0		2:00 PM	37		2:00 AM	0		2:00 PM	73			
2:15 AM	0		2:15 PM	31		2:15 AM	0		2:15 PM	45		2:15 AM	0		2:15 PM	76			
2:30 AM	0		2:30 PM	36		2:30 AM	0		2:30 PM	45		2:30 AM	0		2:30 PM	81			
2:45 AM	1	1	2:45 PM	38	141	2:45 AM	0	0	2:45 PM	55	182	2:45 AM	1	1	2:45 PM	93	323		
3:00 AM	0		3:00 PM	33		3:00 AM	0		3:00 PM	49		3:00 AM	0		3:00 PM	82			
3:15 AM	0		3:15 PM	33		3:15 AM	0		3:15 PM	61		3:15 AM	0		3:15 PM	94			
3:30 AM	0		3:30 PM	35		3:30 AM	0		3:30 PM	47		3:30 AM	0		3:30 PM	82			
3:45 AM	0	0	3:45 PM	45	146	3:45 AM	0	0	3:45 PM	57	214	3:45 AM	0	0	3:45 PM	102	360		
4:00 AM	0		4:00 PM	38		4:00 AM	0		4:00 PM	50		4:00 AM	0		4:00 PM	88			
4:15 AM	1		4:15 PM	36		4:15 AM	0		4:15 PM	59		4:15 AM	1		4:15 PM	95			
4:30 AM	0		4:30 PM	38		4:30 AM	2		4:30 PM	55		4:30 AM	2		4:30 PM	93			
4:45 AM	0	1	4:45 PM	34	146	4:45 AM	0	2	4:45 PM	43	207	4:45 AM	0	3	4:45 PM	77	353		
5:00 AM	0		5:00 PM	49		5:00 AM	1		5:00 PM	56		5:00 AM	1		5:00 PM	105			
5:15 AM	3		5:15 PM	25		5:15 AM	0		5:15 PM	54		5:15 AM	3		5:15 PM	79			
5:30 AM	6		5:30 PM	33		5:30 AM	0		5:30 PM	39		5:30 AM	6		5:30 PM	72			
5:45 AM	4	13	5:45 PM	25	132	5:45 AM	2	3	5:45 PM	41	190	5:45 AM	6	16	5:45 PM	66	322		
6:00 AM	4		6:00 PM	30		6:00 AM	6		6:00 PM	46		6:00 AM	10		6:00 PM	76			
6:15 AM	13		6:15 PM	25		6:15 AM	6		6:15 PM	36		6:15 AM	19		6:15 PM	61			
6:30 AM	16		6:30 PM	13		6:30 AM	13		6:30 PM	26		6:30 AM	29		6:30 PM	39			
6:45 AM	17	50	6:45 PM	12	80	6:45 AM	23	48	6:45 PM	36	144	6:45 AM	40	98	6:45 PM	48	224		
7:00 AM	29		7:00 PM	15		7:00 AM	27		7:00 PM	18		7:00 AM	56		7:00 PM	33			
7:15 AM	27		7:15 PM	12		7:15 AM	27		7:15 PM	20		7:15 AM	54		7:15 PM	32			
7:30 AM	43		7:30 PM	2		7:30 AM	58		7:30 PM	15		7:30 AM	101		7:30 PM	17			
7:45 AM	38	137	7:45 PM	10	39	7:45 AM	64	176	7:45 PM	13	66	7:45 AM	102	313	7:45 PM	23	105		
8:00 AM	31		8:00 PM	7		8:00 AM	83		8:00 PM	19		8:00 AM	114		8:00 PM	26			
8:15 AM	56		8:15 PM	5		8:15 AM	54		8:15 PM	6		8:15 AM	110		8:15 PM	11			
8:30 AM	46		8:30 PM	9		8:30 AM	65		8:30 PM	7		8:30 AM	111		8:30 PM	16			
8:45 AM	58	191	8:45 PM	6	27	8:45 AM	47	249	8:45 PM	5	37	8:45 AM	105	440	8:45 PM	11	64		
9:00 AM	39		9:00 PM	3		9:00 AM	49		9:00 PM	8		9:00 AM	88		9:00 PM	11			
9:15 AM	27		9:15 PM	4		9:15 AM	31		9:15 PM	7		9:15 AM	58		9:15 PM	11			
9:30 AM	28		9:30 PM	4		9:30 AM	25		9:30 PM	4		9:30 AM	53		9:30 PM	8			
9:45 AM	29	123	9:45 PM	1	12	9:45 AM	32	137	9:45 PM	2	21	9:45 AM	61	260	9:45 PM	3	33		
10:00 AM	23		10:00 PM	3		10:00 AM	19		10:00 PM	5		10:00 AM	42		10:00 PM	8			
10:15 AM	29		10:15 PM	2		10:15 AM	34		10:15 PM	3		10:15 AM	63		10:15 PM	5			
10:30 AM	26		10:30 PM	2		10:30 AM	38		10:30 PM	2		10:30 AM	64		10:30 PM	4			
10:45 AM	26	104	10:45 PM	1	8	10:45 AM	27	118	10:45 PM	2	12	10:45 AM	53	222	10:45 PM	3	20		
11:00 AM	28		11:00 PM	1		11:00 AM	34		11:00 PM	0		11:00 AM	62		11:00 PM	1			
11:15 AM	29		11:15 PM	1		11:15 AM	32		11:15 PM	0		11:15 AM	61		11:15 PM	1			
11:30 AM	27		11:30 PM	0		11:30 AM	36		11:30 PM	0		11:30 AM	63		11:30 PM	0			
11:45 AM	53	137	11:45 PM	0	2	11:45 AM	46	148	11:45 PM	2	2	11:45 AM	99	285	11:45 PM	2	4		
Total	762		1020			Total	890		1350			Total	1652		2370				
Percent	42.76%		57.24%			Percent	39.73%		60.27%			Percent	41.07%		58.93%				
Day Total			1782			Day Total			2240			Day Total			4022				
Peak Hour	8:15 AM		3:45 PM			Peak Hour	7:45 AM		3:45 PM			Peak Hour	8:00 AM		3:45 PM				
Volume	199		157			Volume	266		221			Volume	440		378				
P.H.F.	0.858		0.872			P.H.F.	0.801		0.936			P.H.F.	0.965		0.926				

Springdale Avenue
west of Centre Street
City, State: Dover, MA
Client: Nitsch Engineering/ N. Havan
Site Code: 14238.3



PDI File #: 218169 ATR-A

Count Date:
Thursday, October 7, 2021

Volume																	
WB					EB					Combined							
Start Time:	15 min	60 min	15 min	60 min	Start Time:	15 min	60 min	15 min	60 min	Start Time:	15 min	60 min	15 min	60 min			
12:00 AM	2		12:00 PM	28	12:00 AM	1		12:00 PM	44	12:00 AM	3		12:00 PM	72			
12:15 AM	0		12:15 PM	36	12:15 AM	1		12:15 PM	23	12:15 AM	1		12:15 PM	59			
12:30 AM	1		12:30 PM	23	12:30 AM	0		12:30 PM	33	12:30 AM	1		12:30 PM	56			
12:45 AM	0	3	12:45 PM	28	115	12:45 AM	0	2	12:45 PM	37	137	12:45 AM	0	5	12:45 PM	65	252
1:00 AM	0		1:00 PM	35		1:00 AM	0		1:00 PM	29		1:00 AM	0		1:00 PM	64	
1:15 AM	0		1:15 PM	23		1:15 AM	0		1:15 PM	30		1:15 AM	0		1:15 PM	53	
1:30 AM	0		1:30 PM	29		1:30 AM	0		1:30 PM	35		1:30 AM	0		1:30 PM	64	
1:45 AM	0	0	1:45 PM	32	119	1:45 AM	0	0	1:45 PM	24	118	1:45 AM	0	0	1:45 PM	56	237
2:00 AM	0		2:00 PM	27		2:00 AM	0		2:00 PM	34		2:00 AM	0		2:00 PM	61	
2:15 AM	0		2:15 PM	30		2:15 AM	0		2:15 PM	37		2:15 AM	0		2:15 PM	67	
2:30 AM	0		2:30 PM	35		2:30 AM	0		2:30 PM	38		2:30 AM	0		2:30 PM	73	
2:45 AM	0	0	2:45 PM	50	142	2:45 AM	0	0	2:45 PM	45	154	2:45 AM	0	0	2:45 PM	95	296
3:00 AM	0		3:00 PM	32		3:00 AM	0		3:00 PM	52		3:00 AM	0		3:00 PM	84	
3:15 AM	0		3:15 PM	24		3:15 AM	0		3:15 PM	68		3:15 AM	0		3:15 PM	92	
3:30 AM	0		3:30 PM	39		3:30 AM	0		3:30 PM	43		3:30 AM	0		3:30 PM	82	
3:45 AM	0	0	3:45 PM	31	126	3:45 AM	0	0	3:45 PM	56	219	3:45 AM	0	0	3:45 PM	87	345
4:00 AM	0		4:00 PM	38		4:00 AM	0		4:00 PM	49		4:00 AM	0		4:00 PM	87	
4:15 AM	2		4:15 PM	25		4:15 AM	1		4:15 PM	75		4:15 AM	3		4:15 PM	100	
4:30 AM	0		4:30 PM	41		4:30 AM	0		4:30 PM	62		4:30 AM	0		4:30 PM	103	
4:45 AM	0	2	4:45 PM	33	137	4:45 AM	0	1	4:45 PM	47	233	4:45 AM	0	3	4:45 PM	80	370
5:00 AM	3		5:00 PM	37		5:00 AM	0		5:00 PM	39		5:00 AM	3		5:00 PM	76	
5:15 AM	2		5:15 PM	39		5:15 AM	0		5:15 PM	66		5:15 AM	2		5:15 PM	105	
5:30 AM	1		5:30 PM	36		5:30 AM	1		5:30 PM	39		5:30 AM	2		5:30 PM	75	
5:45 AM	8	14	5:45 PM	42	154	5:45 AM	1	2	5:45 PM	45	189	5:45 AM	9	16	5:45 PM	87	343
6:00 AM	6		6:00 PM	30		6:00 AM	4		6:00 PM	28		6:00 AM	10		6:00 PM	58	
6:15 AM	8		6:15 PM	25		6:15 AM	11		6:15 PM	31		6:15 AM	19		6:15 PM	56	
6:30 AM	16		6:30 PM	25		6:30 AM	11		6:30 PM	26		6:30 AM	27		6:30 PM	51	
6:45 AM	12	42	6:45 PM	14	94	6:45 AM	16	42	6:45 PM	24	109	6:45 AM	28	84	6:45 PM	38	203
7:00 AM	23		7:00 PM	9		7:00 AM	33		7:00 PM	30		7:00 AM	56		7:00 PM	39	
7:15 AM	30		7:15 PM	8		7:15 AM	21		7:15 PM	12		7:15 AM	51		7:15 PM	20	
7:30 AM	31		7:30 PM	9		7:30 AM	58		7:30 PM	16		7:30 AM	89		7:30 PM	25	
7:45 AM	47	131	7:45 PM	11	37	7:45 AM	72	184	7:45 PM	15	73	7:45 AM	119	315	7:45 PM	26	110
8:00 AM	47		8:00 PM	5		8:00 AM	82		8:00 PM	9		8:00 AM	129		8:00 PM	14	
8:15 AM	59		8:15 PM	15		8:15 AM	50		8:15 PM	17		8:15 AM	109		8:15 PM	32	
8:30 AM	51		8:30 PM	7		8:30 AM	49		8:30 PM	6		8:30 AM	100		8:30 PM	13	
8:45 AM	32	189	8:45 PM	5	32	8:45 AM	44	225	8:45 PM	11	43	8:45 AM	76	414	8:45 PM	16	75
9:00 AM	25		9:00 PM	5		9:00 AM	36		9:00 PM	3		9:00 AM	61		9:00 PM	8	
9:15 AM	28		9:15 PM	5		9:15 AM	26		9:15 PM	5		9:15 AM	54		9:15 PM	10	
9:30 AM	22		9:30 PM	5		9:30 AM	31		9:30 PM	4		9:30 AM	53		9:30 PM	9	
9:45 AM	28	103	9:45 PM	2	17	9:45 AM	23	116	9:45 PM	6	18	9:45 AM	51	219	9:45 PM	8	35
10:00 AM	29		10:00 PM	3		10:00 AM	20		10:00 PM	2		10:00 AM	49		10:00 PM	5	
10:15 AM	23		10:15 PM	5		10:15 AM	32		10:15 PM	2		10:15 AM	55		10:15 PM	7	
10:30 AM	21		10:30 PM	3		10:30 AM	25		10:30 PM	4		10:30 AM	46		10:30 PM	7	
10:45 AM	27	100	10:45 PM	0	11	10:45 AM	24	101	10:45 PM	1	9	10:45 AM	51	201	10:45 PM	1	20
11:00 AM	29		11:00 PM	3		11:00 AM	25		11:00 PM	1		11:00 AM	54		11:00 PM	4	
11:15 AM	25		11:15 PM	1		11:15 AM	21		11:15 PM	6		11:15 AM	46		11:15 PM	7	
11:30 AM	21		11:30 PM	0		11:30 AM	27		11:30 PM	1		11:30 AM	48		11:30 PM	1	
11:45 AM	39	114	11:45 PM	0	4	11:45 AM	26	99	11:45 PM	1	9	11:45 AM	65	213	11:45 PM	1	13
Total	698			988		Total	772			1311		Total	1470			2299	
Percent	41.40%			58.60%		Percent	37.06%			62.94%		Percent	39.00%			61.00%	
Day Total				1686		Day Total				2083		Day Total				3769	
Peak Hour	7:45 AM			5:00 PM		Peak Hour	7:30 AM			3:45 PM		Peak Hour	7:45 AM			3:45 PM	
Volume	204			154		Volume	262			242		Volume	457			377	
P.H.F.	0.864			0.917		P.H.F.	0.799			0.807		P.H.F.	0.886			0.915	

Springdale Avenue
west of Centre Street
City, State: Dover, MA

Client: Nitsch Engineering/ N. Havan
Site Code: 14238.3



PDI File #: 218169 ATR-A

Count Date
Wednesday, October, 06, 2021

Classification (60-minute)

WB															
Start Time:	Motorcycles	Cars and Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Bicycles	Total
12:00 AM	0	4	0	0	1	0	0	0	0	0	0	0	0	0	5
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 AM	0	9	4	0	0	0	0	0	0	0	0	0	0	0	13
6:00 AM	0	33	15	0	2	0	0	0	0	0	0	0	0	0	50
7:00 AM	0	94	34	0	7	0	0	0	1	0	0	0	0	1	137
8:00 AM	1	129	51	0	8	0	0	2	0	0	0	0	0	0	191
9:00 AM	0	80	31	0	11	0	0	1	0	0	0	0	0	0	123
10:00 AM	1	61	31	0	9	1	0	1	0	0	0	0	0	0	104
11:00 AM	0	88	31	2	9	1	0	4	1	0	0	0	0	1	137
12:00 PM	0	101	35	2	7	0	0	1	0	0	0	0	0	1	147
1:00 PM	1	91	36	2	5	1	0	0	0	0	0	0	0	4	140
2:00 PM	0	102	30	0	9	0	0	0	0	0	0	0	0	0	141
3:00 PM	0	102	33	5	4	0	0	1	0	0	0	0	0	1	146
4:00 PM	3	106	27	2	7	0	0	0	0	0	0	0	0	1	146
5:00 PM	3	94	31	1	2	0	0	0	1	0	0	0	0	0	132
6:00 PM	0	58	18	1	1	0	0	2	0	0	0	0	0	0	80
7:00 PM	0	31	6	0	1	0	0	1	0	0	0	0	0	0	39
8:00 PM	1	20	5	0	1	0	0	0	0	0	0	0	0	0	27
9:00 PM	0	9	2	0	0	0	0	0	1	0	0	0	0	0	12
10:00 PM	0	6	1	0	1	0	0	0	0	0	0	0	0	0	8
11:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
Total	10	1221	422	15	85	3	0	13	4	0	0	0	0	9	1782
Percent	0.56%	68.52%	23.68%	0.84%	4.77%	0.17%	0.00%	0.73%	0.22%	0.00%	0.00%	0.00%	0.00%	0.51%	

AM Peak 8:00 AM 8:00 AM 8:00 AM ##### 9:00 AM ##### ##### 7:00 AM 7:00 AM 8:00 AM
Volume 1 129 51 2 11 1 0 4 1 0 0 0 0 1 191

PM Peak 4:00 PM 4:00 PM 1:00 PM 3:00 PM 2:00 PM 1:00 PM 6:00 PM 5:00 PM 1:00 PM #####
Volume 3 106 36 5 9 1 0 2 1 0 0 0 0 4 147

Bicycles	9	0.5%
Motorcycles, Cars, Light Trucks:	1653	92.8%
Heavy Vehicles:	120	6.7%

Springdale Avenue
west of Centre Street
City, State: Dover, MA

Client: Nitsch Engineering/ N. Havan
Site Code: 14238.3



PDI File #: 218169 ATR-A

Count Date
Wednesday, October, 06, 2021

Classification (60-minute)

EB															
Start Time:	Motorcycles	Cars and Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Bicycles	Total
12:00 AM	0	5	1	0	1	0	0	0	0	0	0	0	0	0	7
1:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
5:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
6:00 AM	0	33	9	3	2	0	0	1	0	0	0	0	0	0	48
7:00 AM	0	132	30	5	3	0	0	4	1	0	0	0	0	1	176
8:00 AM	0	185	52	1	7	0	0	2	1	0	0	0	0	1	249
9:00 AM	0	102	23	2	7	0	0	1	1	0	0	0	0	1	137
10:00 AM	0	76	30	2	7	2	0	1	0	0	0	0	0	0	118
11:00 AM	0	102	30	0	13	0	0	3	0	0	0	0	0	0	148
12:00 PM	0	109	29	2	5	0	0	0	0	0	0	0	0	0	145
1:00 PM	0	92	24	2	10	0	0	1	1	0	0	0	0	0	130
2:00 PM	0	130	43	0	8	0	0	1	0	0	0	0	0	0	182
3:00 PM	1	174	34	1	3	0	0	0	1	0	0	0	0	0	214
4:00 PM	2	167	30	2	6	0	0	0	0	0	0	0	0	0	207
5:00 PM	0	161	26	2	1	0	0	0	0	0	0	0	0	0	190
6:00 PM	0	122	12	0	7	1	0	2	0	0	0	0	0	0	144
7:00 PM	0	58	7	0	1	0	0	0	0	0	0	0	0	0	66
8:00 PM	0	24	11	0	2	0	0	0	0	0	0	0	0	0	37
9:00 PM	0	17	4	0	0	0	0	0	0	0	0	0	0	0	21
10:00 PM	0	11	1	0	0	0	0	0	0	0	0	0	0	0	12
11:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
PM Total	3	1706	399	22	83	3	0	16	5	0	0	0	0	3	2240
Percent	0.13%	76.16%	17.81%	0.98%	3.71%	0.13%	0.00%	0.71%	0.22%	0.00%	0.00%	0.00%	0.00%	0.13%	

AM Peak 8:00 AM 8:00 AM 7:00 AM ##### 7:00 AM 7:00 AM 7:00 AM 8:00 AM
Volume 0 185 52 5 13 2 0 4 1 0 0 0 0 1 249

PM Peak 4:00 PM 3:00 PM 2:00 PM ##### 1:00 PM 6:00 PM 6:00 PM 1:00 PM 3:00 PM
Volume 2 174 43 2 10 1 0 2 1 0 0 0 0 0 214

Bicycles	3	0.1%
Motorcycles, Cars, Light Trucks:	2108	94.1%
Heavy Vehicles:	129	5.8%

Springdale Avenue
west of Centre Street
City, State: Dover, MA

Client: Nitsch Engineering/ N. Havan
Site Code: 14238.3



PDI File #: 218169 ATR-A

Count Date
Wednesday, October, 06, 2021

Classification (60-minute)

Combined															
Start Time:	Motorcycles	Cars and Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Bicycles	Total
12:00 AM	0	9	1	0	2	0	0	0	0	0	0	0	0	0	12
1:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	11	5	0	0	0	0	0	0	0	0	0	0	0	16
6:00 AM	0	66	24	3	4	0	0	1	0	0	0	0	0	0	98
7:00 AM	0	226	64	5	10	0	0	4	2	0	0	0	0	2	313
8:00 AM	1	314	103	1	15	0	0	4	1	0	0	0	0	1	440
9:00 AM	0	182	54	2	18	0	0	2	1	0	0	0	0	1	260
10:00 AM	1	137	61	2	16	3	0	2	0	0	0	0	0	0	222
11:00 AM	0	190	61	2	22	1	0	7	1	0	0	0	0	1	285
12:00 PM	0	210	64	4	12	0	0	1	0	0	0	0	0	1	292
1:00 PM	1	183	60	4	15	1	0	1	1	0	0	0	0	4	270
2:00 PM	0	232	73	0	17	0	0	1	0	0	0	0	0	0	323
3:00 PM	1	276	67	6	7	0	0	1	1	0	0	0	0	1	360
4:00 PM	5	273	57	4	13	0	0	0	0	0	0	0	0	1	353
5:00 PM	3	255	57	3	3	0	0	0	1	0	0	0	0	0	322
6:00 PM	0	180	30	1	8	1	0	4	0	0	0	0	0	0	224
7:00 PM	0	89	13	0	2	0	0	1	0	0	0	0	0	0	105
8:00 PM	1	44	16	0	3	0	0	0	0	0	0	0	0	0	64
9:00 PM	0	26	6	0	0	0	0	0	1	0	0	0	0	0	33
10:00 PM	0	17	2	0	1	0	0	0	0	0	0	0	0	0	20
11:00 PM	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4
PM Total:	13	2927	821	37	168	6	0	29	9	0	0	0	0	12	4022
Percent	0.32%	72.77%	20.41%	0.92%	4.18%	0.15%	0.00%	0.72%	0.22%	0.00%	0.00%	0.00%	0.00%	0.30%	

AM Peak	8:00 AM	8:00 AM	8:00 AM	7:00 AM	#####	#####	#####	7:00 AM						7:00 AM	8:00 AM
Volume	1	314	103	5	22	3	0	7	2	0	0	0	0	2	440

PM Peak	4:00 PM	3:00 PM	2:00 PM	3:00 PM	2:00 PM	1:00 PM		6:00 PM	1:00 PM					1:00 PM	3:00 PM
Volume	5	276	73	6	17	1	0	4	1	0	0	0	0	4	360

Bicycles	12	0.3%
Motorcycles, Cars, Light Trucks:	3761	93.5%
Heavy Vehicles:	249	6.2%

Springdale Avenue
west of Centre Street
City, State: Dover, MA

Client: Nitsch Engineering/ N. Havan
Site Code: 14238.3



PDI File #: 218169 ATR-A

Count Date
Thursday, October 7, 2021

Classification (60-minute)

WB															
Start Time:	Motorcycles	Cars and Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Bicycles	Total
12:00 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	3
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 AM	0	10	4	0	0	0	0	0	0	0	0	0	0	0	14
6:00 AM	0	27	13	0	2	0	0	0	0	0	0	0	0	0	42
7:00 AM	0	100	27	0	3	1	0	0	0	0	0	0	0	0	131
8:00 AM	0	136	41	2	8	0	0	2	0	0	0	0	0	0	189
9:00 AM	0	58	33	1	7	3	0	1	0	0	0	0	0	0	103
10:00 AM	1	54	25	2	13	2	0	1	1	0	0	0	0	1	100
11:00 AM	1	85	19	0	9	0	0	0	0	0	0	0	0	0	114
12:00 PM	0	77	26	0	7	1	0	3	0	0	0	0	0	1	115
1:00 PM	4	79	27	1	3	1	0	2	0	0	0	0	0	2	119
2:00 PM	1	91	34	1	13	0	0	0	0	0	0	0	0	2	142
3:00 PM	0	100	17	3	3	1	0	1	0	1	0	0	0	0	126
4:00 PM	1	102	23	2	8	0	0	0	0	0	0	0	0	1	137
5:00 PM	2	118	29	0	3	0	0	1	0	0	0	0	0	1	154
6:00 PM	1	67	20	2	3	0	0	1	0	0	0	0	0	0	94
7:00 PM	0	29	8	0	0	0	0	0	0	0	0	0	0	0	37
8:00 PM	1	29	2	0	0	0	0	0	0	0	0	0	0	0	32
9:00 PM	0	15	2	0	0	0	0	0	0	0	0	0	0	0	17
10:00 PM	0	8	3	0	0	0	0	0	0	0	0	0	0	0	11
11:00 PM	0	1	3	0	0	0	0	0	0	0	0	0	0	0	4
Total	12	1190	356	14	82	10	0	12	1	1	0	0	0	8	1686
Percent	0.71%	70.58%	21.12%	0.83%	4.86%	0.59%	0.00%	0.71%	0.06%	0.06%	0.00%	0.00%	0.00%	0.47%	

AM Peak ##### 8:00 AM 8:00 AM 8:00 AM ##### 9:00 AM 8:00 AM ##### 8:00 AM
Volume 1 136 41 2 13 3 0 2 1 0 0 0 0 1 189

PM Peak 1:00 PM 5:00 PM 2:00 PM 3:00 PM 2:00 PM ##### 3:00 PM 1:00 PM 5:00 PM
Volume 4 118 34 3 13 1 0 3 0 1 0 0 0 2 154

Bicycles	8	0.5%
Motorcycles, Cars, Light Trucks:	1558	92.4%
Heavy Vehicles:	120	7.1%

Springdale Avenue
west of Centre Street
City, State: Dover, MA

Client: Nitsch Engineering/ N. Havan
Site Code: 14238.3



PDI File #: 218169 ATR-A

Count Date
Thursday, October 7, 2021

Classification (60-minute)

EB															
Start Time:	Motorcycles	Cars and Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Bicycles	Total
12:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
5:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
6:00 AM	0	32	6	2	2	0	0	0	0	0	0	0	0	0	42
7:00 AM	1	140	30	8	3	1	0	1	0	0	0	0	0	0	184
8:00 AM	0	158	53	3	7	3	0	0	1	0	0	0	0	0	225
9:00 AM	0	79	28	1	6	1	0	1	0	0	0	0	0	0	116
10:00 AM	0	73	21	1	1	4	0	1	0	0	0	0	0	0	101
11:00 AM	0	70	22	0	6	0	0	1	0	0	0	0	0	0	99
12:00 PM	1	95	30	0	9	1	0	1	0	0	0	0	0	0	137
1:00 PM	0	87	22	2	5	1	0	0	1	0	0	0	0	0	118
2:00 PM	1	118	30	0	2	0	0	3	0	0	0	0	0	0	154
3:00 PM	4	176	28	1	8	0	0	2	0	0	0	0	0	0	219
4:00 PM	2	185	34	2	8	1	0	1	0	0	0	0	0	0	233
5:00 PM	3	162	20	0	4	0	0	0	0	0	0	0	0	0	189
6:00 PM	3	87	14	0	5	0	0	0	0	0	0	0	0	0	109
7:00 PM	0	61	9	0	3	0	0	0	0	0	0	0	0	0	73
8:00 PM	0	42	0	0	1	0	0	0	0	0	0	0	0	0	43
9:00 PM	0	14	4	0	0	0	0	0	0	0	0	0	0	0	18
10:00 PM	0	6	3	0	0	0	0	0	0	0	0	0	0	0	9
11:00 PM	0	9	0	0	0	0	0	0	0	0	0	0	0	0	9
PM Total:	15	1596	356	20	71	12	0	11	2	0	0	0	0	0	2083
Percent	0.72%	76.62%	17.09%	0.96%	3.41%	0.58%	0.00%	0.53%	0.10%	0.00%	0.00%	0.00%	0.00%	0.00%	

AM Peak 7:00 AM 8:00 AM 8:00 AM 7:00 AM 8:00 AM ##### 7:00 AM 8:00 AM 8:00 AM
Volume 1 158 53 8 7 4 0 1 1 0 0 0 0 0 225

PM Peak 3:00 PM 4:00 PM 4:00 PM 1:00 PM ##### 2:00 PM 1:00 PM 4:00 PM
Volume 4 185 34 2 9 1 0 3 1 0 0 0 0 233

Bicycles	0	0.0%
Motorcycles, Cars, Light Trucks:	1967	94.4%
Heavy Vehicles:	116	5.6%

Springdale Avenue
west of Centre Street
City, State: Dover, MA

Client: Nitsch Engineering/ N. Havan
Site Code: 14238.3



PDI File #: 218169 ATR-A

Count Date
Thursday, October 7, 2021

Classification (60-minute)

Combined															
Start Time:	Motorcycles	Cars and Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Bicycles	Total
12:00 AM	0	3	0	0	1	1	0	0	0	0	0	0	0	0	5
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	11	5	0	0	0	0	0	0	0	0	0	0	0	16
6:00 AM	0	59	19	2	4	0	0	0	0	0	0	0	0	0	84
7:00 AM	1	240	57	8	6	2	0	1	0	0	0	0	0	0	315
8:00 AM	0	294	94	5	15	3	0	2	1	0	0	0	0	0	414
9:00 AM	0	137	61	2	13	4	0	2	0	0	0	0	0	0	219
10:00 AM	1	127	46	3	14	6	0	2	1	0	0	0	0	1	201
11:00 AM	1	155	41	0	15	0	0	1	0	0	0	0	0	0	213
12:00 PM	1	172	56	0	16	2	0	4	0	0	0	0	0	1	252
1:00 PM	4	166	49	3	8	2	0	2	1	0	0	0	0	2	237
2:00 PM	2	209	64	1	15	0	0	3	0	0	0	0	0	2	296
3:00 PM	4	276	45	4	11	1	0	3	0	1	0	0	0	0	345
4:00 PM	3	287	57	4	16	1	0	1	0	0	0	0	0	1	370
5:00 PM	5	280	49	0	7	0	0	1	0	0	0	0	0	1	343
6:00 PM	4	154	34	2	8	0	0	1	0	0	0	0	0	0	203
7:00 PM	0	90	17	0	3	0	0	0	0	0	0	0	0	0	110
8:00 PM	1	71	2	0	1	0	0	0	0	0	0	0	0	0	75
9:00 PM	0	29	6	0	0	0	0	0	0	0	0	0	0	0	35
10:00 PM	0	14	6	0	0	0	0	0	0	0	0	0	0	0	20
11:00 PM	0	10	3	0	0	0	0	0	0	0	0	0	0	0	13
PM Total:	27	2786	712	34	153	22	0	23	3	1	0	0	0	8	3769
Percent	0.72%	73.92%	18.89%	0.90%	4.06%	0.58%	0.00%	0.61%	0.08%	0.03%	0.00%	0.00%	0.00%	0.21%	

AM Peak 7:00 AM 8:00 AM 8:00 AM 7:00 AM 8:00 AM ##### 8:00 AM 8:00 AM ##### 8:00 AM
Volume 1 294 94 8 15 6 0 2 1 0 0 0 0 1 414

PM Peak 5:00 PM 4:00 PM 2:00 PM 3:00 PM ##### ##### ##### 1:00 PM 3:00 PM 1:00 PM 4:00 PM
Volume 5 287 64 4 16 2 0 4 1 1 0 0 0 2 370

Bicycles	8	0.2%
Motorcycles, Cars, Light Trucks:	3525	93.5%
Heavy Vehicles:	236	6.3%

Springdale Avenue
west of Centre Street
City, State: Dover, MA

Client: Nitsch Engineering/ N. Havan
Site Code: 14238.3



PDI File #: 218169 ATR-A

Count Date
Wednesday, October, 06, 2021

Speed (60-minute)

WB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	2	3	0	0	0	0	0	0	0	0	0	5	28.4	25.8
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
2:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	23.0	23.0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
4:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	23.0	23.0
5:00 AM	0	1	4	2	6	0	0	0	0	0	0	0	0	13	32.2	26.8
6:00 AM	0	1	13	24	10	2	0	0	0	0	0	0	0	50	31.0	26.9
7:00 AM	3	7	33	57	33	4	0	0	0	0	0	0	0	137	31.0	26.4
8:00 AM	10	23	61	75	19	3	0	0	0	0	0	0	0	191	29.0	23.8
9:00 AM	3	6	49	52	13	0	0	0	0	0	0	0	0	123	29.0	24.8
10:00 AM	5	11	35	42	11	0	0	0	0	0	0	0	0	104	29.0	23.9
11:00 AM	6	14	62	49	6	0	0	0	0	0	0	0	0	137	27.0	23.2
12:00 PM	16	26	60	38	7	0	0	0	0	0	0	0	0	147	27.0	21.5
1:00 PM	4	22	74	37	3	0	0	0	0	0	0	0	0	140	26.0	22.4
2:00 PM	10	12	65	45	9	0	0	0	0	0	0	0	0	141	28.0	23.0
3:00 PM	2	13	48	69	12	2	0	0	0	0	0	0	0	146	29.0	24.7
4:00 PM	8	21	46	56	13	2	0	0	0	0	0	0	0	146	29.0	23.7
5:00 PM	12	18	34	53	15	0	0	0	0	0	0	0	0	132	28.0	23.2
6:00 PM	2	8	28	31	11	0	0	0	0	0	0	0	0	80	29.0	24.4
7:00 PM	0	0	9	22	8	0	0	0	0	0	0	0	0	39	30.0	26.9
8:00 PM	0	0	9	8	10	0	0	0	0	0	0	0	0	27	31.0	26.9
9:00 PM	0	1	3	6	2	0	0	0	0	0	0	0	0	12	28.7	26.1
10:00 PM	0	0	0	4	4	0	0	0	0	0	0	0	0	8	33.0	30.0
11:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	2	38.2	31.5
Total	81	184	638	673	192	13	1	0	0	0	0	0	0	1782	29.0	24.0
Percent	4.55%	10.33%	35.80%	37.77%	10.77%	0.73%	0.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			

AM Peak	8:00 AM	8:00 AM	11:00 AM	8:00 AM	7:00 AM	7:00 AM								8:00 AM
Volume	10	23	62	75	33	4	0	0	0	0	0	0	0	191

PM Peak	12:00 PM	12:00 PM	1:00 PM	3:00 PM	5:00 PM	3:00 PM	11:00 PM							12:00 PM
Volume	16	26	74	69	15	2	1	0	0	0	0	0	0	147

15th Percentile:	20.0 MPH	Average Speed:	24.0 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	24.0 MPH	10 MPH Pace:	20 to 29 MPH	Number of Vehicles > 25 MPH:	719
85th Percentile:	29.0 MPH	Number in Pace:	1311	Percent of Vehicles > 25 MPH:	40.3%
95th Percentile:	31.0 MPH	Percent in Pace:	73.6%		

Springdale Avenue
west of Centre Street
City, State: Dover, MA

Client: Nitsch Engineering/ N. Havan
Site Code: 14238.3



PDI File #: 218169 ATR-A

Count Date
Wednesday, October, 06, 2021

Speed (60-minute)

EB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	1	1	3	2	0	0	0	0	0	0	0	0	0	7	26.3	22.6
1:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	2	28.3	26.5
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	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
4:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	2	23.7	23.0
5:00 AM	0	0	1	2	0	0	0	0	0	0	0	0	0	3	26.0	24.3
6:00 AM	1	7	22	15	3	0	0	0	0	0	0	0	0	48	28.0	23.3
7:00 AM	14	37	73	40	12	0	0	0	0	0	0	0	0	176	26.8	21.9
8:00 AM	20	63	125	38	2	0	0	0	0	0	1	0	0	249	25.0	20.8
9:00 AM	5	26	69	31	5	1	0	0	0	0	0	0	0	137	26.0	22.1
10:00 AM	5	29	59	24	1	0	0	0	0	0	0	0	0	118	25.0	21.2
11:00 AM	6	50	71	19	2	0	0	0	0	0	0	0	0	148	24.0	20.8
12:00 PM	7	45	67	25	1	0	0	0	0	0	0	0	0	145	25.0	21.0
1:00 PM	12	41	59	15	3	0	0	0	0	0	0	0	0	130	24.0	20.3
2:00 PM	9	50	91	31	1	0	0	0	0	0	0	0	0	182	25.0	21.1
3:00 PM	0	52	103	56	3	0	0	0	0	0	0	0	0	214	26.0	22.3
4:00 PM	9	41	115	39	3	0	0	0	0	0	0	0	0	207	26.0	21.8
5:00 PM	8	49	87	42	4	0	0	0	0	0	0	0	0	190	26.0	21.7
6:00 PM	3	35	76	28	1	1	0	0	0	0	0	0	0	144	25.0	21.7
7:00 PM	1	6	29	30	0	0	0	0	0	0	0	0	0	66	26.0	23.4
8:00 PM	1	4	15	13	4	0	0	0	0	0	0	0	0	37	28.0	24.1
9:00 PM	0	0	11	7	3	0	0	0	0	0	0	0	0	21	29.0	25.2
10:00 PM	0	0	7	4	1	0	0	0	0	0	0	0	0	12	26.7	24.5
11:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	2	24.0	24.0
Total	102	536	1088	462	49	2	0	0	0	0	1	0	0	2240	26.0	21.6
Percent	4.55%	23.93%	48.57%	20.63%	2.19%	0.09%	0.00%	0.00%	0.00%	0.00%	0.04%	0.00%	0.00%			

AM Peak	8:00 AM	8:00 AM	8:00 AM	7:00 AM	7:00 AM	9:00 AM					8:00 AM			8:00 AM
Volume	20	63	125	40	12	1	0	0	0	0	1	0	0	249

PM Peak	1:00 PM	3:00 PM	4:00 PM	3:00 PM	5:00 PM	6:00 PM								3:00 PM
Volume	12	52	115	56	4	1	0	0	0	0	0	0	0	214

15th Percentile:	18.0 MPH	Average Speed:	21.6 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	22.0 MPH	10 MPH Pace:	18 to 27 MPH	Number of Vehicles > 25 MPH:	356
85th Percentile:	26.0 MPH	Number in Pace:	1775	Percent of Vehicles > 25 MPH:	15.9%
95th Percentile:	28.0 MPH	Percent in Pace:	79.2%		

Springdale Avenue
west of Centre Street
City, State: Dover, MA

Client: Nitsch Engineering/ N. Havan
Site Code: 14238.3



PDI File #: 218169 ATR-A

Count Date
Wednesday, October, 06, 2021

Speed (60-minute)

Combined WB and EB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	1	1	5	5	0	0	0	0	0	0	0	0	0	12	28.4	23.9
1:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	2	28.3	26.5
2:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	23.0	23.0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
4:00 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	3	23.7	23.0
5:00 AM	0	1	5	4	6	0	0	0	0	0	0	0	0	16	31.5	26.3
6:00 AM	1	8	35	39	13	2	0	0	0	0	0	0	0	98	29.5	25.2
7:00 AM	17	44	106	97	45	4	0	0	0	0	0	0	0	313	30.0	23.8
8:00 AM	30	86	186	113	21	3	0	0	0	0	1	0	0	440	27.0	22.1
9:00 AM	8	32	118	83	18	1	0	0	0	0	0	0	0	260	27.0	23.4
10:00 AM	10	40	94	66	12	0	0	0	0	0	0	0	0	222	27.0	22.5
11:00 AM	12	64	133	68	8	0	0	0	0	0	0	0	0	285	26.0	22.0
12:00 PM	23	71	127	63	8	0	0	0	0	0	0	0	0	292	26.0	21.2
1:00 PM	16	63	133	52	6	0	0	0	0	0	0	0	0	270	25.0	21.4
2:00 PM	19	62	156	76	10	0	0	0	0	0	0	0	0	323	26.0	21.9
3:00 PM	2	65	151	125	15	2	0	0	0	0	0	0	0	360	28.0	23.3
4:00 PM	17	62	161	95	16	2	0	0	0	0	0	0	0	353	27.0	22.5
5:00 PM	20	67	121	95	19	0	0	0	0	0	0	0	0	322	27.0	22.3
6:00 PM	5	43	104	59	12	1	0	0	0	0	0	0	0	224	27.0	22.7
7:00 PM	1	6	38	52	8	0	0	0	0	0	0	0	0	105	28.0	24.7
8:00 PM	1	4	24	21	14	0	0	0	0	0	0	0	0	64	30.0	25.3
9:00 PM	0	1	14	13	5	0	0	0	0	0	0	0	0	33	29.2	25.5
10:00 PM	0	0	7	8	5	0	0	0	0	0	0	0	0	20	32.0	26.7
11:00 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	4	33.4	27.8
Total	183	720	1726	1135	241	15	1	0	0	0	1	0	0	4022	27.0	22.7
Percent	4.55%	17.90%	42.91%	28.22%	5.99%	0.37%	0.02%	0.00%	0.00%	0.00%	0.02%	0.00%	0.00%			

AM Peak	8:00 AM	8:00 AM	8:00 AM	8:00 AM	7:00 AM	7:00 AM					8:00 AM			8:00 AM
Volume	30	86	186	113	45	4	0	0	0	0	1	0	0	440
PM Peak	12:00 PM	12:00 PM	4:00 PM	3:00 PM	5:00 PM	3:00 PM	11:00 PM							3:00 PM
Volume	23	71	161	125	19	2	1	0	0	0	0	0	0	360

15th Percentile:	18.0 MPH	Average Speed:	22.7 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	23.0 MPH	10 MPH Pace:	18 to 27 MPH	Number of Vehicles > 25 MPH:	1075
85th Percentile:	27.0 MPH	Number in Pace:	2969	Percent of Vehicles > 25 MPH:	26.7%
95th Percentile:	30.0 MPH	Percent in Pace:	73.8%		

Springdale Avenue
west of Centre Street
City, State: Dover, MA

Client: Nitsch Engineering/ N. Havan
Site Code: 14238.3



PDI File #: 218169 ATR-A

Count Date
Thursday, October 7, 2021

Speed (60-minute)

WB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	2	0	1	0	0	0	0	0	0	0	3	33.6	30.3
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
4:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	2	28.0	25.5
5:00 AM	0	0	5	6	2	1	0	0	0	0	0	0	0	14	31.1	26.6
6:00 AM	0	0	10	20	10	2	0	0	0	0	0	0	0	42	31.0	27.0
7:00 AM	2	8	32	59	24	5	1	0	0	0	0	0	0	131	30.0	26.3
8:00 AM	9	24	76	59	20	1	0	0	0	0	0	0	0	189	28.8	23.4
9:00 AM	6	15	35	40	6	1	0	0	0	0	0	0	0	103	28.0	23.2
10:00 AM	6	17	50	22	5	0	0	0	0	0	0	0	0	100	27.0	22.0
11:00 AM	5	24	56	24	5	0	0	0	0	0	0	0	0	114	26.0	21.8
12:00 PM	8	24	55	25	3	0	0	0	0	0	0	0	0	115	26.0	21.4
1:00 PM	4	22	62	28	3	0	0	0	0	0	0	0	0	119	26.0	22.0
2:00 PM	7	24	74	29	7	1	0	0	0	0	0	0	0	142	27.0	22.2
3:00 PM	4	4	41	59	16	2	0	0	0	0	0	0	0	126	29.0	25.1
4:00 PM	5	15	35	58	24	0	0	0	0	0	0	0	0	137	30.0	24.9
5:00 PM	4	19	48	65	17	0	1	0	0	0	0	0	0	154	29.0	24.4
6:00 PM	2	5	36	41	10	0	0	0	0	0	0	0	0	94	28.0	24.8
7:00 PM	0	0	10	20	7	0	0	0	0	0	0	0	0	37	30.0	26.6
8:00 PM	0	2	7	18	5	0	0	0	0	0	0	0	0	32	29.4	25.9
9:00 PM	0	0	5	10	2	0	0	0	0	0	0	0	0	17	28.6	26.2
10:00 PM	2	1	1	6	1	0	0	0	0	0	0	0	0	11	28.5	22.4
11:00 PM	0	0	2	1	1	0	0	0	0	0	0	0	0	4	28.7	25.0
Total	64	204	641	593	168	14	2	0	0	0	0	0	0	1686	29.0	23.8
Percent	3.80%	12.10%	38.02%	35.17%	9.96%	0.83%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			

AM Peak	8:00 AM	8:00 AM	8:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM							8:00 AM
Volume	9	24	76	59	24	5	1	0	0	0	0	0	0	189

PM Peak	12:00 PM	12:00 PM	2:00 PM	5:00 PM	4:00 PM	3:00 PM	5:00 PM							5:00 PM
Volume	8	24	74	65	24	2	1	0	0	0	0	0	0	154

15th Percentile:	19.0 MPH	Average Speed:	23.8 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	24.0 MPH	10 MPH Pace:	20 to 29 MPH	Number of Vehicles > 25 MPH:	636
85th Percentile:	29.0 MPH	Number in Pace:	1234	Percent of Vehicles > 25 MPH:	37.7%
95th Percentile:	31.0 MPH	Percent in Pace:	73.2%		

Springdale Avenue
west of Centre Street
City, State: Dover, MA

Client: Nitsch Engineering/ N. Havan
Site Code: 14238.3



PDI File #: 218169 ATR-A

Count Date
Thursday, October 7, 2021

Speed (60-minute)

EB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	2	22.9	22.5
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
4:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	27.0	27.0
5:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	2	23.7	23.0
6:00 AM	0	7	22	11	2	0	0	0	0	0	0	0	0	42	26.9	23.2
7:00 AM	15	41	82	37	9	0	0	0	0	0	0	0	0	184	26.0	21.3
8:00 AM	18	66	104	34	2	1	0	0	0	0	0	0	0	225	25.0	20.4
9:00 AM	6	37	52	20	1	0	0	0	0	0	0	0	0	116	25.0	20.7
10:00 AM	12	29	45	13	2	0	0	0	0	0	0	0	0	101	24.0	20.3
11:00 AM	5	34	48	11	1	0	0	0	0	0	0	0	0	99	24.0	20.5
12:00 PM	8	49	57	23	0	0	0	0	0	0	0	0	0	137	25.0	20.2
1:00 PM	6	35	60	16	1	0	0	0	0	0	0	0	0	118	24.0	20.8
2:00 PM	19	54	61	20	0	0	0	0	0	0	0	0	0	154	24.0	19.4
3:00 PM	8	44	117	47	3	0	0	0	0	0	0	0	0	219	25.0	21.7
4:00 PM	19	49	82	77	6	0	0	0	0	0	0	0	0	233	26.0	21.7
5:00 PM	5	49	78	53	3	1	0	0	0	0	0	0	0	189	26.0	21.9
6:00 PM	1	19	52	35	2	0	0	0	0	0	0	0	0	109	26.0	22.8
7:00 PM	0	9	37	26	1	0	0	0	0	0	0	0	0	73	26.2	22.9
8:00 PM	0	7	21	12	3	0	0	0	0	0	0	0	0	43	27.0	23.2
9:00 PM	0	0	10	6	2	0	0	0	0	0	0	0	0	18	26.0	24.4
10:00 PM	0	2	4	3	0	0	0	0	0	0	0	0	0	9	26.8	22.8
11:00 PM	0	1	5	1	1	1	0	0	0	0	0	0	0	9	30.6	25.0
Total	122	532	941	446	39	3	0	0	0	0	0	0	0	2083	26.0	21.3
Percent	5.86%	25.54%	45.18%	21.41%	1.87%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			

AM Peak	8:00 AM	8:00 AM	8:00 AM	7:00 AM	7:00 AM	8:00 AM								8:00 AM
Volume	18	66	104	37	9	1	0	0	0	0	0	0	0	225

PM Peak	2:00 PM	2:00 PM	3:00 PM	4:00 PM	4:00 PM	5:00 PM								4:00 PM
Volume	19	54	117	77	6	1	0	0	0	0	0	0	0	233

15th Percentile:	17.0 MPH	Average Speed:	21.3 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	21.0 MPH	10 MPH Pace:	17 to 26 MPH	Number of Vehicles > 25 MPH:	332
85th Percentile:	26.0 MPH	Number in Pace:	1622	Percent of Vehicles > 25 MPH:	15.9%
95th Percentile:	28.0 MPH	Percent in Pace:	77.9%		

Springdale Avenue
west of Centre Street
City, State: Dover, MA

Client: Nitsch Engineering/ N. Havan
Site Code: 14238.3



PDI File #: 218169 ATR-A

Count Date
Thursday, October 7, 2021

Speed (60-minute)

Combined WB and EB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	2	2	0	1	0	0	0	0	0	0	0	5	31.2	27.2
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
4:00 AM	0	0	1	2	0	0	0	0	0	0	0	0	0	3	28.4	26.0
5:00 AM	0	0	7	6	2	1	0	0	0	0	0	0	0	16	30.5	26.1
6:00 AM	0	7	32	31	12	2	0	0	0	0	0	0	0	84	30.0	25.1
7:00 AM	17	49	114	96	33	5	1	0	0	0	0	0	0	315	29.0	23.4
8:00 AM	27	90	180	93	22	2	0	0	0	0	0	0	0	414	26.1	21.8
9:00 AM	12	52	87	60	7	1	0	0	0	0	0	0	0	219	27.0	21.9
10:00 AM	18	46	95	35	7	0	0	0	0	0	0	0	0	201	26.0	21.1
11:00 AM	10	58	104	35	6	0	0	0	0	0	0	0	0	213	25.0	21.2
12:00 PM	16	73	112	48	3	0	0	0	0	0	0	0	0	252	25.0	20.8
1:00 PM	10	57	122	44	4	0	0	0	0	0	0	0	0	237	26.0	21.4
2:00 PM	26	78	135	49	7	1	0	0	0	0	0	0	0	296	25.0	20.7
3:00 PM	12	48	158	106	19	2	0	0	0	0	0	0	0	345	27.0	23.0
4:00 PM	24	64	117	135	30	0	0	0	0	0	0	0	0	370	28.0	22.9
5:00 PM	9	68	126	118	20	1	1	0	0	0	0	0	0	343	27.7	23.0
6:00 PM	3	24	88	76	12	0	0	0	0	0	0	0	0	203	27.0	23.7
7:00 PM	0	9	47	46	8	0	0	0	0	0	0	0	0	110	28.0	24.1
8:00 PM	0	9	28	30	8	0	0	0	0	0	0	0	0	75	28.0	24.3
9:00 PM	0	0	15	16	4	0	0	0	0	0	0	0	0	35	28.0	25.3
10:00 PM	2	3	5	9	1	0	0	0	0	0	0	0	0	20	28.0	22.6
11:00 PM	0	1	7	2	2	1	0	0	0	0	0	0	0	13	30.4	25.0
Total	186	736	1582	1039	207	17	2	0	0	0	0	0	0	3769	27.0	22.4
Percent	4.93%	19.53%	41.97%	27.57%	5.49%	0.45%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			

AM Peak	8:00 AM	8:00 AM	8:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM							8:00 AM
Volume	27	90	180	96	33	5	1	0	0	0	0	0	0	414
PM Peak	2:00 PM	2:00 PM	3:00 PM	4:00 PM	4:00 PM	3:00 PM	5:00 PM							4:00 PM
Volume	26	78	158	135	30	2	1	0	0	0	0	0	0	370

15th Percentile:	18.0 MPH	Average Speed:	22.4 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	23.0 MPH	10 MPH Pace:	18 to 27 MPH	Number of Vehicles > 25 MPH:	968
85th Percentile:	27.0 MPH	Number in Pace:	2756	Percent of Vehicles > 25 MPH:	25.7%
95th Percentile:	30.0 MPH	Percent in Pace:	73.1%		

PDI File #: **218169 A**
 Location: **N: Centre Street S: Centre Street**
 Location: **E: Walpole Street W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	3	14	7	0	24	65	23	1	0	89	2	172	5	0	179	6	17	6	0	29	321
7:15 AM	0	17	8	0	25	76	27	0	0	103	3	163	3	0	169	2	15	9	0	26	323
7:30 AM	2	29	31	0	62	109	34	1	0	144	2	143	6	0	151	2	24	30	0	56	413
7:45 AM	1	33	49	0	83	98	36	2	0	136	2	139	5	0	146	9	34	26	0	69	434
Total	6	93	95	0	194	348	120	4	0	472	9	617	19	0	645	19	90	71	0	180	1491
8:00 AM	2	25	51	0	78	65	30	5	0	100	5	152	6	0	163	9	56	16	0	81	422
8:15 AM	3	44	25	0	72	75	52	10	0	137	6	148	5	0	159	3	38	11	0	52	420
8:30 AM	3	32	26	0	61	75	37	5	0	117	6	140	8	0	154	11	44	12	0	67	399
8:45 AM	1	35	23	0	59	57	48	4	0	109	6	114	5	0	125	8	39	17	0	64	357
Total	9	136	125	0	270	272	167	24	0	463	23	554	24	0	601	31	177	56	0	264	1598
Grand Total	15	229	220	0	464	620	287	28	0	935	32	1171	43	0	1246	50	267	127	0	444	3089
Approach %	3.2	49.4	47.4	0.0		66.3	30.7	3.0	0.0		2.6	94.0	3.5	0.0		11.3	60.1	28.6	0.0		
Total %	0.5	7.4	7.1	0.0	15.0	20.1	9.3	0.9	0.0	30.3	1.0	37.9	1.4	0.0	40.3	1.6	8.6	4.1	0.0	14.4	
Exiting Leg Total	1918					519					307					345					3089
Cars	14	209	206	0	429	580	279	28	0	887	30	1121	43	0	1194	45	257	119	0	421	2931
% Cars	93.3	91.3	93.6	0.0	92.5	93.5	97.2	100.0	0.0	94.9	93.8	95.7	100.0	0.0	95.8	90.0	96.3	93.7	0.0	94.8	94.9
Exiting Leg Total	1820					493					282					336					2931
Heavy Vehicles	1	20	14	0	35	40	8	0	0	48	2	50	0	0	52	5	10	8	0	23	158
% Heavy Vehicles	6.7	8.7	6.4	0.0	7.5	6.5	2.8	0.0	0.0	5.1	6.3	4.3	0.0	0.0	4.2	10.0	3.7	6.3	0.0	5.2	5.1
Exiting Leg Total	98					26					25					9					158

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

7:30 AM	Centre Street					Walpole Street					Centre Street					Springdale Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:30 AM	2	29	31	0	62	109	34	1	0	144	2	143	6	0	151	2	24	30	0	56	413
7:45 AM	1	33	49	0	83	98	36	2	0	136	2	139	5	0	146	9	34	26	0	69	434
8:00 AM	2	25	51	0	78	65	30	5	0	100	5	152	6	0	163	9	56	16	0	81	422
8:15 AM	3	44	25	0	72	75	52	10	0	137	6	148	5	0	159	3	38	11	0	52	420
Total Volume	8	131	156	0	295	347	152	18	0	517	15	582	22	0	619	23	152	83	0	258	1689
% Approach Total	2.7	44.4	52.9	0.0		67.1	29.4	3.5	0.0		2.4	94.0	3.6	0.0		8.9	58.9	32.2	0.0		
PHF	0.667	0.744	0.765	0.000	0.889	0.796	0.731	0.450	0.000	0.898	0.625	0.957	0.917	0.000	0.949	0.639	0.679	0.692	0.000	0.796	0.973
Cars	8	123	147	0	278	328	148	18	0	494	14	556	22	0	592	21	147	79	0	247	1611
Cars %	100.0	93.9	94.2	0.0	94.2	94.5	97.4	100.0	0.0	95.6	93.3	95.5	100.0	0.0	95.6	91.3	96.7	95.2	0.0	95.7	95.4
Heavy Vehicles	0	8	9	0	17	19	4	0	0	23	1	26	0	0	27	2	5	4	0	11	78
Heavy Vehicles %	0.0	6.1	5.8	0.0	5.8	5.5	2.6	0.0	0.0	4.4	6.7	4.5	0.0	0.0	4.4	8.7	3.3	4.8	0.0	4.3	4.6
Cars Enter Leg	8	123	147	0	278	328	148	18	0	494	14	556	22	0	592	21	147	79	0	247	1611
Heavy Enter Leg	0	8	9	0	17	19	4	0	0	23	1	26	0	0	27	2	5	4	0	11	78
Total Entering Leg	8	131	156	0	295	347	152	18	0	517	15	582	22	0	619	23	152	83	0	258	1689
Cars Exiting Leg	963					308					162					178					1611
Heavy Exiting Leg	49					15					10					4					78
Total Exiting Leg	1012					323					172					182					1689

PDI File #: **218169 A**
 Location: **N: Centre Street S: Centre Street**
 Location: **E: Walpole Street W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	2	10	5	0	17	63	23	1	0	87	2	162	5	0	169	4	16	5	0	25	298
7:15 AM	0	16	7	0	23	72	25	0	0	97	3	161	3	0	167	2	14	8	0	24	311
7:30 AM	2	29	27	0	58	106	34	1	0	141	2	138	6	0	146	2	24	29	0	55	400
7:45 AM	1	30	45	0	76	96	36	2	0	134	1	133	5	0	139	7	34	25	0	66	415
Total	5	85	84	0	174	337	118	4	0	459	8	594	19	0	621	15	88	67	0	170	1424
8:00 AM	2	23	51	0	76	53	28	5	0	86	5	143	6	0	154	9	54	14	0	77	393
8:15 AM	3	41	24	0	68	73	50	10	0	133	6	142	5	0	153	3	35	11	0	49	403
8:30 AM	3	28	25	0	56	64	35	5	0	104	6	136	8	0	150	10	42	11	0	63	373
8:45 AM	1	32	22	0	55	53	48	4	0	105	5	106	5	0	116	8	38	16	0	62	338
Total	9	124	122	0	255	243	161	24	0	428	22	527	24	0	573	30	169	52	0	251	1507
Grand Total	14	209	206	0	429	580	279	28	0	887	30	1121	43	0	1194	45	257	119	0	421	2931
Approach %	3.3	48.7	48.0	0.0		65.4	31.5	3.2	0.0		2.5	93.9	3.6	0.0		10.7	61.0	28.3	0.0		
Total %	0.5	7.1	7.0	0.0	14.6	19.8	9.5	1.0	0.0	30.3	1.0	38.2	1.5	0.0	40.7	1.5	8.8	4.1	0.0	14.4	
Exiting Leg Total	1820					493					282					336					2931

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

7:30 AM	Centre Street					Walpole Street					Centre Street					Springdale Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:30 AM	2	29	27	0	58	106	34	1	0	141	2	138	6	0	146	2	24	29	0	55	400
7:45 AM	1	30	45	0	76	96	36	2	0	134	1	133	5	0	139	7	34	25	0	66	415
8:00 AM	2	23	51	0	76	53	28	5	0	86	5	143	6	0	154	9	54	14	0	77	393
8:15 AM	3	41	24	0	68	73	50	10	0	133	6	142	5	0	153	3	35	11	0	49	403
Total Volume	8	123	147	0	278	328	148	18	0	494	14	556	22	0	592	21	147	79	0	247	1611
% Approach Total	2.9	44.2	52.9	0.0		66.4	30.0	3.6	0.0		2.4	93.9	3.7	0.0		8.5	59.5	32.0	0.0		
PHF	0.667	0.750	0.721	0.000	0.914	0.774	0.740	0.450	0.000	0.876	0.583	0.972	0.917	0.000	0.961	0.583	0.681	0.681	0.000	0.802	0.970
Entering Leg	8	123	147	0	278	328	148	18	0	494	14	556	22	0	592	21	147	79	0	247	1611
Exiting Leg	963					308					162					178					1611
Total	1241					802					754					425					3222

PDI File #: **218169 A**
 Location: **N: Centre Street S: Centre Street**
 Location: **E: Walpole Street W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

	Centre Street					Walpole Street					Centre Street					Springdale Avenue						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	1	4	2	0	7	2	0	0	0	2	0	10	0	0	10	2	1	1	0	4	23	
7:15 AM	0	1	1	0	2	4	2	0	0	6	0	2	0	0	2	0	1	1	0	2	12	
7:30 AM	0	0	4	0	4	3	0	0	0	3	0	5	0	0	5	0	0	1	0	1	13	
7:45 AM	0	3	4	0	7	2	0	0	0	2	1	6	0	0	7	2	0	1	0	3	19	
Total	1	8	11	0	20	11	2	0	0	13	1	23	0	0	24	4	2	4	0	10	67	
8:00 AM	0	2	0	0	2	12	2	0	0	14	0	9	0	0	9	0	2	2	0	4	29	
8:15 AM	0	3	1	0	4	2	2	0	0	4	0	6	0	0	6	0	3	0	0	3	17	
8:30 AM	0	4	1	0	5	11	2	0	0	13	0	4	0	0	4	1	2	1	0	4	26	
8:45 AM	0	3	1	0	4	4	0	0	0	4	1	8	0	0	9	0	1	1	0	2	19	
Total	0	12	3	0	15	29	6	0	0	35	1	27	0	0	28	1	8	4	0	13	91	
Grand Total	1	20	14	0	35	40	8	0	0	48	2	50	0	0	52	5	10	8	0	23	158	
Approach %	2.9	57.1	40.0	0.0		83.3	16.7	0.0	0.0		3.8	96.2	0.0	0.0		21.7	43.5	34.8	0.0			
Total %	0.6	12.7	8.9	0.0	22.2	25.3	5.1	0.0	0.0	30.4	1.3	31.6	0.0	0.0	32.9	3.2	6.3	5.1	0.0	14.6		
Exiting Leg Total	98					26					25					9					158	
Buses	0	2	8	0	10	5	0	0	0	5	0	1	0	0	1	2	4	3	0	9	25	
% Buses	0.0	10.0	57.1	0.0	28.6	12.5	0.0	0.0	0.0	10.4	0.0	2.0	0.0	0.0	1.9	40.0	40.0	37.5	0.0	39.1	15.8	
Exiting Leg Total	9					12					4					0					25	
Single-Unit Trucks	1	13	6	0	20	32	7	0	0	39	2	35	0	0	37	2	3	4	0	9	105	
% Single-Unit	100.0	65.0	42.9	0.0	57.1	80.0	87.5	0.0	0.0	81.3	100.0	70.0	0.0	0.0	71.2	40.0	30.0	50.0	0.0	39.1	66.5	
Exiting Leg Total	71					11					15					8					105	
Articulated Trucks	0	5	0	0	5	3	1	0	0	4	0	14	0	0	14	1	3	1	0	5	28	
% Articulated	0.0	25.0	0.0	0.0	14.3	7.5	12.5	0.0	0.0	8.3	0.0	28.0	0.0	0.0	26.9	20.0	30.0	12.5	0.0	21.7	17.7	
Exiting Leg Total	18					3					6					1					28	

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

7:45 AM	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	3	4	0	7	2	0	0	0	2	1	6	0	0	7	2	0	1	0	3	19
8:00 AM	0	2	0	0	2	12	2	0	0	14	0	9	0	0	9	0	2	2	0	4	29
8:15 AM	0	3	1	0	4	2	2	0	0	4	0	6	0	0	6	0	3	0	0	3	17
8:30 AM	0	4	1	0	5	11	2	0	0	13	0	4	0	0	4	1	2	1	0	4	26
Total Volume	0	12	6	0	18	27	6	0	0	33	1	25	0	0	26	3	7	4	0	14	91
% Approach Total	0.0	66.7	33.3	0.0		81.8	18.2	0.0	0.0		3.8	96.2	0.0	0.0		21.4	50.0	28.6	0.0		
PHF	0.000	0.750	0.375	0.000	0.643	0.563	0.750	0.000	0.000	0.589	0.250	0.694	0.000	0.000	0.722	0.375	0.583	0.500	0.000	0.875	0.784
Buses	0	2	2	0	4	0	0	0	0	0	0	1	0	0	1	1	2	0	0	3	8
Buses %	0.0	16.7	33.3	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	3.8	33.3	28.6	0.0	0.0	21.4	8.8
Single-Unit Trucks	0	9	4	0	13	25	5	0	0	30	1	16	0	0	17	1	3	4	0	8	68
Single-Unit %	0.0	75.0	66.7	0.0	72.2	92.6	83.3	0.0	0.0	90.9	100.0	64.0	0.0	0.0	65.4	33.3	42.9	100.0	0.0	57.1	74.7
Articulated Trucks	0	1	0	0	1	2	1	0	0	3	0	8	0	0	8	1	2	0	0	3	15
Articulated %	0.0	8.3	0.0	0.0	5.6	7.4	16.7	0.0	0.0	9.1	0.0	32.0	0.0	0.0	30.8	33.3	28.6	0.0	0.0	21.4	16.5
Buses	0	2	2	0	4	0	0	0	0	0	0	1	0	0	1	1	2	0	0	3	8
Single-Unit Trucks	0	9	4	0	13	25	5	0	0	30	1	16	0	0	17	1	3	4	0	8	68
Articulated Trucks	0	1	0	0	1	2	1	0	0	3	0	8	0	0	8	1	2	0	0	3	15
Total Entering Leg	0	12	6	0	18	27	6	0	0	33	1	25	0	0	26	3	7	4	0	14	91
Buses	1					4					3					0					8
Single-Unit Trucks	45					8					10					5					68
Articulated Trucks	10					2					2					1					15
Total Exiting Leg	56					14					15					6					91

PDI File #: **218169 A**
 Location: **N: Centre Street S: Centre Street**
 Location: **E: Walpole Street W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	4
7:15 AM	0	0	1	0	1	4	0	0	0	4	0	0	0	0	0	0	0	1	0	1	6
7:30 AM	0	0	4	0	4	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	6
7:45 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
Total	0	1	7	0	8	5	0	0	0	5	0	0	0	0	0	2	1	3	0	6	19
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	0	0	0	0	0	2	0	0	2	3
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	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	0	3	0	0	3	6
Grand Total	0	2	8	0	10	5	0	0	0	5	0	1	0	0	1	2	4	3	0	9	25
Approach %	0.0	20.0	80.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		22.2	44.4	33.3	0.0		
Total %	0.0	8.0	32.0	0.0	40.0	20.0	0.0	0.0	0.0	20.0	0.0	4.0	0.0	0.0	4.0	8.0	16.0	12.0	0.0	36.0	
Exiting Leg Total	9					12					4					0					25

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

7:00 AM	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	4
7:15 AM	0	0	1	0	1	4	0	0	0	4	0	0	0	0	0	0	0	1	0	1	6
7:30 AM	0	0	4	0	4	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	6
7:45 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
Total Volume	0	1	7	0	8	5	0	0	0	5	0	0	0	0	0	2	1	3	0	6	19
% Approach Total	0.0	12.5	87.5	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		33.3	16.7	50.0	0.0		
PHF	0.000	0.250	0.438	0.000	0.500	0.313	0.000	0.000	0.000	0.313	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.750	0.000	0.500	0.792
Entering Leg	0	1	7	0	8	5	0	0	0	5	0	0	0	0	0	2	1	3	0	6	19
Exiting Leg	8					8					3					0					19
Total	16					13					3					6					38

PDI File #: **218169 A**
 Location: **N: Centre Street S: Centre Street**
 Location: **E: Walpole Street W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Single-Unit Trucks

	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	1	1	1	0	3	2	0	0	0	2	0	8	0	0	8	1	0	0	0	1	14
7:15 AM	0	0	0	0	0	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	4
7:30 AM	0	0	0	0	0	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	4
7:45 AM	0	2	3	0	5	1	0	0	0	1	1	2	0	0	3	1	0	1	0	2	11
Total	1	3	4	0	8	4	2	0	0	6	1	15	0	0	16	2	0	1	0	3	33
8:00 AM	0	2	0	0	2	12	2	0	0	14	0	6	0	0	6	0	2	2	0	4	26
8:15 AM	0	2	1	0	3	2	2	0	0	4	0	5	0	0	5	0	0	0	0	0	12
8:30 AM	0	3	0	0	3	10	1	0	0	11	0	3	0	0	3	0	1	1	0	2	19
8:45 AM	0	3	1	0	4	4	0	0	0	4	1	6	0	0	7	0	0	0	0	0	15
Total	0	10	2	0	12	28	5	0	0	33	1	20	0	0	21	0	3	3	0	6	72
Grand Total	1	13	6	0	20	32	7	0	0	39	2	35	0	0	37	2	3	4	0	9	105
Approach %	5.0	65.0	30.0	0.0		82.1	17.9	0.0	0.0		5.4	94.6	0.0	0.0		22.2	33.3	44.4	0.0		
Total %	1.0	12.4	5.7	0.0	19.0	30.5	6.7	0.0	0.0	37.1	1.9	33.3	0.0	0.0	35.2	1.9	2.9	3.8	0.0	8.6	
Exiting Leg Total	71					11					15					8					105

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

8:00 AM	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	2	0	0	2	12	2	0	0	14	0	6	0	0	6	0	2	2	0	4	26
8:15 AM	0	2	1	0	3	2	2	0	0	4	0	5	0	0	5	0	0	0	0	0	12
8:30 AM	0	3	0	0	3	10	1	0	0	11	0	3	0	0	3	0	1	1	0	2	19
8:45 AM	0	3	1	0	4	4	0	0	0	4	1	6	0	0	7	0	0	0	0	0	15
Total Volume	0	10	2	0	12	28	5	0	0	33	1	20	0	0	21	0	3	3	0	6	72
% Approach Total	0.0	83.3	16.7	0.0		84.8	15.2	0.0	0.0		4.8	95.2	0.0	0.0		0.0	50.0	50.0	0.0		
PHF	0.000	0.833	0.500	0.000	0.750	0.583	0.625	0.000	0.000	0.589	0.250	0.833	0.000	0.000	0.750	0.000	0.375	0.375	0.000	0.375	0.692
Entering Leg	0	10	2	0	12	28	5	0	0	33	1	20	0	0	21	0	3	3	0	6	72
Exiting Leg	51					6					10					5					72
Total	63					39					31					11					144

PDI File #: **218169 A**
 Location: **N: Centre Street S: Centre Street**
 Location: **E: Walpole Street W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Articulated Trucks

	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
7:30 AM	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	3
7:45 AM	0	0	0	0	0	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	5
Total	0	4	0	0	4	2	0	0	0	2	0	8	0	0	8	0	1	0	0	1	15
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
8:30 AM	0	1	0	0	1	1	1	0	0	2	0	0	0	0	0	1	1	0	0	2	5
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
Total	0	1	0	0	1	1	1	0	0	2	0	6	0	0	6	1	2	1	0	4	13
Grand Total	0	5	0	0	5	3	1	0	0	4	0	14	0	0	14	1	3	1	0	5	28
Approach %	0.0	100.0	0.0	0.0		75.0	25.0	0.0	0.0		0.0	100.0	0.0	0.0		20.0	60.0	20.0	0.0		
Total %	0.0	17.9	0.0	0.0	17.9	10.7	3.6	0.0	0.0	14.3	0.0	50.0	0.0	0.0	50.0	3.6	10.7	3.6	0.0	17.9	
Exiting Leg Total	18					3					6					1					28

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

7:00 AM	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
7:30 AM	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	3
7:45 AM	0	0	0	0	0	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	5
Total Volume	0	4	0	0	4	2	0	0	0	2	0	8	0	0	8	0	1	0	0	1	15
% Approach Total	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	100.0	0.0	0.0		
PHF	0.000	0.333	0.000	0.000	0.333	0.500	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.500	0.000	0.250	0.000	0.000	0.250	0.750
Entering Leg	0	4	0	0	4	2	0	0	0	2	0	8	0	0	8	0	1	0	0	1	15
Exiting Leg	10					1					4					0					15
Total	14					3					12					1					30

PDI File #: **218169 A**
 Location: **N: Centre Street S: Centre Street**
 Location: **E: Walpole Street W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Centre Street							Walpole Street							Centre Street							Springdale Avenue							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	1	0	0	0	0	1	0	0	0	0	0	0	0
7:30 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
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	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2
8:00 AM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
8:15 AM	1	0	0	0	0	1	2	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	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	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
Total	2	1	0	0	0	1	4	1	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	6
Grand Total	2	1	0	0	1	1	5	1	0	0	0	0	0	1	0	1	1	0	0	0	2	0	0	0	0	0	0	0	8
Approach %	40.0	20.0	0.0	0.0	20.0	20.0		100.0	0.0	0.0	0.0	0.0	0.0		0.0	50.0	50.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	25.0	12.5	0.0	0.0	12.5	12.5	62.5	12.5	0.0	0.0	0.0	0.0	0.0	12.5	0.0	12.5	12.5	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	4							0							1							3							8

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

7:30 AM	Centre Street							Walpole Street							Centre Street							Springdale Avenue							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	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 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
8:00 AM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2
8:15 AM	1	0	0	0	0	0	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total Volume	2	0	0	0	1	1	4	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	6
% Approach Total	50.0	0.0	0.0	0.0	0.0	25.0	25.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.500	0.000	0.000	0.000	0.250	0.250	0.500	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	2	0	0	0	1	1	4	1	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	6
Exiting Leg	4							0							0							2							6
Total	8							1							1							2							12

PDI File #: **218169 A**
 Location: **N: Centre Street S: Centre Street**
 Location: **E: Walpole Street W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Centre Street							Walpole Street							Centre Street							Springdale Avenue							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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	3	3	0	0	0	0	1	0	1	0	0	0	0	1	1	2	0	0	0	0	6	0	6	12
7:30 AM	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	1	1	3
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	3	1	4	0	0	0	0	1	0	1	0	0	0	0	3	1	4	0	0	0	0	6	1	7	16
8:00 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	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
8:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
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	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	3
Grand Total	0	0	0	0	0	3	2	5	0	0	0	0	1	0	1	0	0	0	4	1	5	0	0	0	0	6	2	8	19
Approach %	0	0	0	0	0	60	40	0	0	0	0	100	0	0	0	0	0	0	80	20	0	0	0	0	75	25	0	0	0
Total %	0	0	0	0	0	15.8	10.5	26.3	0	0	0	0	5.26	0	5.26	0	0	0	21.1	5.26	26.3	0	0	0	0	31.6	10.5	42.1	0
Exiting Leg Total	5							1							5							8							19

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

7:00 AM	Centre Street							Walpole Street							Centre Street							Springdale Avenue							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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
7:15 AM	0	0	0	0	3	0	3	0	0	0	0	1	0	1	0	0	0	0	1	1	2	0	0	0	0	6	0	6	12			
7:30 AM	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	1	1	3			
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 Volume	0	0	0	0	0	3	1	4	0	0	0	0	1	0	1	0	0	0	0	3	1	4	0	0	0	0	6	1	7	16		
% Approach Total	0.0	0.0	0.0	0.0	0.0	75.0	25.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	75.0	25.0		0.0	0.0	0.0	0.0	85.7	14.3				
PHF	0.000	0.000	0.000	0.000	0.250	0.250	0.333		0.000	0.000	0.000	0.000	0.250	0.000	0.250		0.000	0.000	0.000	0.000	0.375	0.250	0.500		0.000	0.000	0.000	0.000	0.250	0.250	0.292	0.333
Entering Leg	0	0	0	0	3	1	4		0	0	0	0	1	0	1		0	0	0	0	3	1	4		0	0	0	0	6	1	7	16
Exiting Leg							4						1		1							4							7		16	
Total	8							2							8							14							32			

PDI File #: **218169 A**
 Location: **N: Centre Street S: Centre Street**
 Location: **E: Walpole Street W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	142	64	0	208	32	30	8	0	70	10	44	5	0	59	4	40	8	0	52	389
4:15 PM	6	149	82	0	237	26	26	8	0	60	5	39	4	0	48	6	44	9	0	59	404
4:30 PM	5	164	53	0	222	18	26	4	0	48	6	36	5	0	47	6	46	5	0	57	374
4:45 PM	4	167	54	0	225	27	27	4	0	58	4	31	5	0	40	5	33	4	0	42	365
Total	17	622	253	0	892	103	109	24	0	236	25	150	19	0	194	21	163	26	0	210	1532
5:00 PM	5	149	46	0	200	26	41	5	0	72	2	41	8	0	51	7	46	7	0	60	383
5:15 PM	0	187	51	0	238	30	22	6	0	58	8	57	3	0	68	5	43	5	0	53	417
5:30 PM	1	159	56	0	216	28	28	13	0	69	6	43	4	0	53	9	30	2	0	41	379
5:45 PM	1	171	52	0	224	20	24	10	0	54	5	38	2	0	45	6	28	7	0	41	364
Total	7	666	205	0	878	104	115	34	0	253	21	179	17	0	217	27	147	21	0	195	1543
Grand Total	24	1288	458	0	1770	207	224	58	0	489	46	329	36	0	411	48	310	47	0	405	3075
Approach %	1.4	72.8	25.9	0.0		42.3	45.8	11.9	0.0		11.2	80.0	8.8	0.0		11.9	76.5	11.6	0.0		
Total %	0.8	41.9	14.9	0.0	57.6	6.7	7.3	1.9	0.0	15.9	1.5	10.7	1.2	0.0	13.4	1.6	10.1	1.5	0.0	13.2	
Exiting Leg Total	583					814					1394					284					3075
Cars	23	1252	448	0	1723	203	218	55	0	476	43	320	36	0	399	48	309	46	0	403	3001
% Cars	95.8	97.2	97.8	0.0	97.3	98.1	97.3	94.8	0.0	97.3	93.5	97.3	100.0	0.0	97.1	100.0	99.7	97.9	0.0	99.5	97.6
Exiting Leg Total	569					800					1355					277					3001
Heavy Vehicles	1	36	10	0	47	4	6	3	0	13	3	9	0	0	12	0	1	1	0	2	74
% Heavy Vehicles	4.2	2.8	2.2	0.0	2.7	1.9	2.7	5.2	0.0	2.7	6.5	2.7	0.0	0.0	2.9	0.0	0.3	2.1	0.0	0.5	2.4
Exiting Leg Total	14					14					39					7					74

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

4:45 PM	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	4	167	54	0	225	27	27	4	0	58	4	31	5	0	40	5	33	4	0	42	365
5:00 PM	5	149	46	0	200	26	41	5	0	72	2	41	8	0	51	7	46	7	0	60	383
5:15 PM	0	187	51	0	238	30	22	6	0	58	8	57	3	0	68	5	43	5	0	53	417
5:30 PM	1	159	56	0	216	28	28	13	0	69	6	43	4	0	53	9	30	2	0	41	379
Total Volume	10	662	207	0	879	111	118	28	0	257	20	172	20	0	212	26	152	18	0	196	1544
% Approach Total	1.1	75.3	23.5	0.0		43.2	45.9	10.9	0.0		9.4	81.1	9.4	0.0		13.3	77.6	9.2	0.0		
PHF	0.500	0.885	0.924	0.000	0.923	0.925	0.720	0.538	0.000	0.892	0.625	0.754	0.625	0.000	0.779	0.722	0.826	0.643	0.000	0.817	0.926
Cars	10	644	205	0	859	110	114	26	0	250	19	166	20	0	205	26	152	18	0	196	1510
Cars %	100.0	97.3	99.0	0.0	97.7	99.1	96.6	92.9	0.0	97.3	95.0	96.5	100.0	0.0	96.7	100.0	100.0	100.0	0.0	100.0	97.8
Heavy Vehicles	0	18	2	0	20	1	4	2	0	7	1	6	0	0	7	0	0	0	0	0	34
Heavy Vehicles %	0.0	2.7	1.0	0.0	2.3	0.9	3.4	7.1	0.0	2.7	5.0	3.5	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	2.2
Cars Enter Leg	10	644	205	0	859	110	114	26	0	250	19	166	20	0	205	26	152	18	0	196	1510
Heavy Enter Leg	0	18	2	0	20	1	4	2	0	7	1	6	0	0	7	0	0	0	0	0	34
Total Entering Leg	10	662	207	0	879	111	118	28	0	257	20	172	20	0	212	26	152	18	0	196	1544
Cars Exiting Leg	294					376					696					144					1510
Heavy Exiting Leg	7					3					20					4					34
Total Exiting Leg	301					379					716					148					1544

PDI File #: **218169 A**
 Location: **N: Centre Street S: Centre Street**
 Location: **E: Walpole Street W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	133	64	0	199	31	30	8	0	69	8	44	5	0	57	4	40	7	0	51	376
4:15 PM	5	146	79	0	230	25	26	7	0	58	5	38	4	0	47	6	44	9	0	59	394
4:30 PM	5	160	51	0	216	17	24	4	0	45	6	34	5	0	45	6	45	5	0	56	362
4:45 PM	4	163	54	0	221	27	26	4	0	57	3	28	5	0	36	5	33	4	0	42	356
Total	16	602	248	0	866	100	106	23	0	229	22	144	19	0	185	21	162	25	0	208	1488
5:00 PM	5	143	46	0	194	25	39	4	0	68	2	41	8	0	51	7	46	7	0	60	373
5:15 PM	0	181	50	0	231	30	22	6	0	58	8	56	3	0	67	5	43	5	0	53	409
5:30 PM	1	157	55	0	213	28	27	12	0	67	6	41	4	0	51	9	30	2	0	41	372
5:45 PM	1	169	49	0	219	20	24	10	0	54	5	38	2	0	45	6	28	7	0	41	359
Total	7	650	200	0	857	103	112	32	0	247	21	176	17	0	214	27	147	21	0	195	1513
Grand Total	23	1252	448	0	1723	203	218	55	0	476	43	320	36	0	399	48	309	46	0	403	3001
Approach %	1.3	72.7	26.0	0.0		42.6	45.8	11.6	0.0		10.8	80.2	9.0	0.0		11.9	76.7	11.4	0.0		
Total %	0.8	41.7	14.9	0.0	57.4	6.8	7.3	1.8	0.0	15.9	1.4	10.7	1.2	0.0	13.3	1.6	10.3	1.5	0.0	13.4	
Exiting Leg Total	569					800					1355					277					3001

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

5:00 PM	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	5	143	46	0	194	25	39	4	0	68	2	41	8	0	51	7	46	7	0	60	373
5:15 PM	0	181	50	0	231	30	22	6	0	58	8	56	3	0	67	5	43	5	0	53	409
5:30 PM	1	157	55	0	213	28	27	12	0	67	6	41	4	0	51	9	30	2	0	41	372
5:45 PM	1	169	49	0	219	20	24	10	0	54	5	38	2	0	45	6	28	7	0	41	359
Total Volume	7	650	200	0	857	103	112	32	0	247	21	176	17	0	214	27	147	21	0	195	1513
% Approach Total	0.8	75.8	23.3	0.0		41.7	45.3	13.0	0.0		9.8	82.2	7.9	0.0		13.8	75.4	10.8	0.0		
PHF	0.350	0.898	0.909	0.000	0.927	0.858	0.718	0.667	0.000	0.908	0.656	0.786	0.531	0.000	0.799	0.750	0.799	0.750	0.000	0.813	0.925
Entering Leg	7	650	200	0	857	103	112	32	0	247	21	176	17	0	214	27	147	21	0	195	1513
Exiting Leg	300					368					709					136					1513
Total	1157					615					923					331					3026

PDI File #: **218169 A**
 Location: **N: Centre Street S: Centre Street**
 Location: **E: Walpole Street W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	9	0	0	9	1	0	0	0	1	2	0	0	0	2	0	0	1	0	1	13
4:15 PM	1	3	3	0	7	1	0	1	0	2	0	1	0	0	1	0	0	0	0	0	10
4:30 PM	0	4	2	0	6	1	2	0	0	3	0	2	0	0	2	0	1	0	0	1	12
4:45 PM	0	4	0	0	4	0	1	0	0	1	1	3	0	0	4	0	0	0	0	0	9
Total	1	20	5	0	26	3	3	1	0	7	3	6	0	0	9	0	1	1	0	2	44
5:00 PM	0	6	0	0	6	1	2	1	0	4	0	0	0	0	0	0	0	0	0	0	10
5:15 PM	0	6	1	0	7	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	8
5:30 PM	0	2	1	0	3	0	1	1	0	2	0	2	0	0	2	0	0	0	0	0	7
5:45 PM	0	2	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	0	16	5	0	21	1	3	2	0	6	0	3	0	0	3	0	0	0	0	0	30
Grand Total	1	36	10	0	47	4	6	3	0	13	3	9	0	0	12	0	1	1	0	2	74
Approach %	2.1	76.6	21.3	0.0		30.8	46.2	23.1	0.0		25.0	75.0	0.0	0.0		0.0	50.0	50.0	0.0		
Total %	1.4	48.6	13.5	0.0	63.5	5.4	8.1	4.1	0.0	17.6	4.1	12.2	0.0	0.0	16.2	0.0	1.4	1.4	0.0	2.7	
Exiting Leg Total	14					14					39					7					74
Buses	0	1	2	0	3	0	2	1	0	3	1	2	0	0	3	0	1	1	0	2	11
% Buses	0.0	2.8	20.0	0.0	6.4	0.0	33.3	33.3	0.0	23.1	33.3	22.2	0.0	0.0	25.0	0.0	100.0	100.0	0.0	100.0	14.9
Exiting Leg Total	3					4					2					2					11
Single-Unit Trucks	1	32	8	0	41	2	2	2	0	6	2	7	0	0	9	0	0	0	0	0	56
% Single-Unit	100.0	88.9	80.0	0.0	87.2	50.0	33.3	66.7	0.0	46.2	66.7	77.8	0.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0	75.7
Exiting Leg Total	9					10					34					3					56
Articulated Trucks	0	3	0	0	3	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	7
% Articulated	0.0	8.3	0.0	0.0	6.4	50.0	33.3	0.0	0.0	30.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5
Exiting Leg Total	2					0					3					2					7

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

4:00 PM	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	9	0	0	9	1	0	0	0	1	2	0	0	0	2	0	0	1	0	1	13
4:15 PM	1	3	3	0	7	1	0	1	0	2	0	1	0	0	1	0	0	0	0	0	10
4:30 PM	0	4	2	0	6	1	2	0	0	3	0	2	0	0	2	0	1	0	0	1	12
4:45 PM	0	4	0	0	4	0	1	0	0	1	1	3	0	0	4	0	0	0	0	0	9
Total Volume	1	20	5	0	26	3	3	1	0	7	3	6	0	0	9	0	1	1	0	2	44
% Approach Total	3.8	76.9	19.2	0.0		42.9	42.9	14.3	0.0		33.3	66.7	0.0	0.0		0.0	50.0	50.0	0.0		
PHF	0.250	0.556	0.417	0.000	0.722	0.750	0.375	0.250	0.000	0.583	0.375	0.500	0.000	0.000	0.563	0.000	0.250	0.250	0.000	0.500	0.846
Buses	0	0	1	0	1	0	2	0	0	2	1	0	0	0	1	0	1	1	0	2	6
Buses %	0.0	0.0	20.0	0.0	3.8	0.0	66.7	0.0	0.0	28.6	33.3	0.0	0.0	0.0	11.1	0.0	100.0	100.0	0.0	100.0	13.6
Single-Unit Trucks	1	19	4	0	24	1	1	1	0	3	2	6	0	0	8	0	0	0	0	0	35
Single-Unit %	100.0	95.0	80.0	0.0	92.3	33.3	33.3	100.0	0.0	42.9	66.7	100.0	0.0	0.0	88.9	0.0	0.0	0.0	0.0	0.0	79.5
Articulated Trucks	0	1	0	0	1	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
Articulated %	0.0	5.0	0.0	0.0	3.8	66.7	0.0	0.0	0.0	28.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
Buses	0	0	1	0	1	0	2	0	0	2	1	0	0	0	1	0	1	1	0	2	6
Single-Unit Trucks	1	19	4	0	24	1	1	1	0	3	2	6	0	0	8	0	0	0	0	0	35
Articulated Trucks	0	1	0	0	1	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
Total Entering Leg	1	20	5	0	26	3	3	1	0	7	3	6	0	0	9	0	1	1	0	2	44
Buses	1					3					0					2					6
Single-Unit Trucks	7					6					20					2					35
Articulated Trucks	2					0					1					0					3
Total Exiting Leg	10					9					21					4					44

PDI File #: **218169 A**
 Location: **N: Centre Street S: Centre Street**
 Location: **E: Walpole Street W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	1	0	0	0	0	1	0	0	1	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	0
4:30 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	1	3
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	1	0	2	0	0	2	1	0	0	0	1	0	1	1	0	2	6	
5:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
5:15 PM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	
5:30 PM	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	2	
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	1	1	0	2	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	5	
Grand Total	0	1	2	0	3	0	2	1	0	3	1	2	0	0	3	0	1	1	0	2	11	
Approach %	0.0	33.3	66.7	0.0		0.0	66.7	33.3	0.0		33.3	66.7	0.0	0.0		0.0	50.0	50.0	0.0			
Total %	0.0	9.1	18.2	0.0	27.3	0.0	18.2	9.1	0.0	27.3	9.1	18.2	0.0	0.0	27.3	0.0	9.1	9.1	0.0	18.2		
Exiting Leg Total	3					4					2					2					11	

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

4:00 PM	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	1	0	0	0	1	0	0	1	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	1	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	3
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	0	0	1	0	1	0	2	0	0	2	1	0	0	0	1	0	1	1	0	2	6
% Approach Total	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	50.0	50.0	0.0		
PHF	0.000	0.000	0.250	0.000	0.250	0.000	0.500	0.000	0.000	0.500	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.250	0.000	0.500	0.500
Entering Leg	0	0	1	0	1	0	2	0	0	2	1	0	0	0	1	0	1	1	0	2	6
Exiting Leg	1					3					0					2					6
Total	2					5					1					4					12

PDI File #: **218169 A**
 Location: **N: Centre Street S: Centre Street**
 Location: **E: Walpole Street W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Single-Unit Trucks

	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	9	0	0	9	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	10
4:15 PM	1	3	3	0	7	1	0	1	0	2	0	1	0	0	1	0	0	0	0	0	10
4:30 PM	0	3	1	0	4	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	7
4:45 PM	0	4	0	0	4	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	8
Total	1	19	4	0	24	1	1	1	0	3	2	6	0	0	8	0	0	0	0	0	35
5:00 PM	0	4	0	0	4	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	6
5:15 PM	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:30 PM	0	1	1	0	2	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	4
5:45 PM	0	2	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	0	13	4	0	17	1	1	1	0	3	0	1	0	0	1	0	0	0	0	0	21
Grand Total	1	32	8	0	41	2	2	2	0	6	2	7	0	0	9	0	0	0	0	0	56
Approach %	2.4	78.0	19.5	0.0		33.3	33.3	33.3	0.0		22.2	77.8	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	1.8	57.1	14.3	0.0	73.2	3.6	3.6	3.6	0.0	10.7	3.6	12.5	0.0	0.0	16.1	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	9					10					34					3					56

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

4:00 PM	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	9	0	0	9	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	10
4:15 PM	1	3	3	0	7	1	0	1	0	2	0	1	0	0	1	0	0	0	0	0	10
4:30 PM	0	3	1	0	4	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	7
4:45 PM	0	4	0	0	4	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	8
Total Volume	1	19	4	0	24	1	1	1	0	3	2	6	0	0	8	0	0	0	0	0	35
% Approach Total	4.2	79.2	16.7	0.0		33.3	33.3	33.3	0.0		25.0	75.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.250	0.528	0.333	0.000	0.667	0.250	0.250	0.250	0.000	0.375	0.500	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.875
Entering Leg	1	19	4	0	24	1	1	1	0	3	2	6	0	0	8	0	0	0	0	0	35
Exiting Leg	7					6					20					2					35
Total	31					9					28					2					70

PDI File #: **218169 A**
 Location: **N: Centre Street S: Centre Street**
 Location: **E: Walpole Street W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Articulated Trucks

	Centre Street					Walpole Street					Centre Street					Springdale Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	0	0	0	0	1	0	0	0	0	1	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
4:30 PM	0	1	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
5:00 PM	0	1	0	0	1	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
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	1	0	0	1	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
Total	0	2	0	0	2	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
Grand Total	0	3	0	0	3	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	7
Approach %	0.0	100.0	0.0	0.0		50.0	50.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0			
Total %	0.0	42.9	0.0	0.0	42.9	28.6	28.6	0.0	0.0	57.1	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					3					2					7	

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

4:15 PM	Centre Street					Walpole Street					Centre Street					Springdale Avenue					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	0	0	0	0	0
4:30 PM	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
Total Volume	0	2	0	0	2	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	5
% Approach Total	0.0	100.0	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		
PHF	0.000	0.500	0.000	0.000	0.500	0.250	0.250	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	0.417
Entering Leg	0	2	0	0	2	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	5
Exiting Leg	1					0					2					2					5
Total	3					3					2					2					10

PDI File #: **218169 A**
 Location: **N: Centre Street S: Centre Street**
 Location: **E: Walpole Street W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Centre Street							Walpole Street							Centre Street							Springdale Avenue							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	1	0	0	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	3
4:15 PM	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	1	0	0	1	0	2	1	0	0	0	0	1	2	0	1	0	0	0	0	1	1	0	1	0	1	0	3	8
4:45 PM	0	0	1	0	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	4
Total	0	2	1	0	1	0	4	3	0	0	0	0	1	4	0	3	0	0	0	0	3	2	1	1	0	1	0	5	16
5:00 PM	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	4
5:15 PM	0	1	0	0	0	0	1	1	2	0	0	0	0	3	0	1	0	0	0	0	1	0	0	0	0	0	0	0	5
5:30 PM	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	1	0	1	6
5:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	2	1	3	0	0	0	1	5	0	0	1	0	0	0	1	8
Total	0	1	1	0	1	3	6	1	3	1	0	0	0	5	1	8	0	0	0	1	10	0	0	1	0	1	0	2	23
Grand Total	0	3	2	0	2	3	10	4	3	1	0	0	1	9	1	11	0	0	0	1	13	2	1	2	0	2	0	7	39
Approach %	0.0	30.0	20.0	0.0	20.0	30.0		44.4	33.3	11.1	0.0	0.0	11.1		7.7	84.6	0.0	0.0	0.0	7.7		28.6	14.3	28.6	0.0	28.6	0.0		
Total %	0.0	7.7	5.1	0.0	5.1	7.7	25.6	10.3	7.7	2.6	0.0	0.0	2.6	23.1	2.6	28.2	0.0	0.0	0.0	2.6	33.3	5.1	2.6	5.1	0.0	5.1	0.0	17.9	
Exiting Leg Total	22							5							7							5							39

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

5:00 PM	Centre Street							Walpole Street							Centre Street							Springdale Avenue							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		
5:00 PM	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2	0	0	0	0	0	0	4
5:15 PM	0	1	0	0	0	0	1	1	2	0	0	0	0	3	0	1	0	0	0	0	1	0	0	0	0	0	0	0	5	
5:30 PM	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	1	0	1	6
5:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	2	1	3	0	0	0	0	1	5	0	0	1	0	0	0	1	8
Total Volume	0	1	1	0	1	3	6	1	3	1	0	0	0	5	1	8	0	0	0	0	1	10	0	0	1	0	1	0	2	23
% Approach Total	0.0	16.7	16.7	0.0	16.7	50.0		20.0	60.0	20.0	0.0	0.0	0.0		10.0	80.0	0.0	0.0	0.0	10.0		0.0	0.0	50.0	0.0	50.0	0.0			
PHF	0.000	0.250	0.250	0.000	0.250	0.375	0.500	0.250	0.375	0.250	0.000	0.000	0.000	0.417	0.250	0.667	0.000	0.000	0.000	0.250	0.500	0.000	0.000	0.250	0.000	0.250	0.000	0.500	0.719	
Entering Leg	0	1	1	0	1	3	6	1	3	1	0	0	0	5	1	8	0	0	0	1	10	0	0	1	0	1	0	2	23	
Exiting Leg	14							2							3							4							23	
Total	20							7							13							6							46	

PDI File #: **218169 A**
 Location: **N: Centre Street S: Centre Street**
 Location: **E: Walpole Street W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Centre Street								Walpole Street								Centre Street								Springdale Avenue								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	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	1	1	0	0	0	0	0	0	0				
4:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1				
Total	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	1	1				
5:00 PM	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4				
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	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4				
Grand Total	0	0	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	1	9				
Approach %	0	0	0	0	40	60		0	0	0	0	0	0	0	0	0	0	0	33.3	66.7		0	0	0	0	0	100						
Total %	0	0	0	0	22.2	33.3	55.6	0	0	0	0	0	0	0	0	0	0	0	11.1	22.2	33.3	0	0	0	0	0	11.1	11.1					
Exiting Leg Total	5							0							3							1							9				

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

4:15 PM	Centre Street							Walpole Street							Centre Street							Springdale Avenue							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	
4:15 PM	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	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	1	1	0	0	0	0	0	0	0	1
4:45 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	1	1	3
5:00 PM	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total Volume	0	0	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	1	1	9
% Approach Total	0.0	0.0	0.0	0.0	40.0	60.0		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	100.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.375	0.313	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	0.563
Entering Leg	0	0	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	1	1	9
Exiting Leg	5							0							3							1							9
Total	10							0							6							2							18

PDI File #: **218169 B**
 Location: **N: Town Hall Driveway S: Whiting Road**
 Location: **E: Springdale Avenue W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	1	0	1	0	28	2	0	30	0	0	1	0	1	1	26	0	0	27	59
7:15 AM	0	0	0	0	0	0	25	2	0	27	1	0	2	0	3	6	26	0	0	32	62
7:30 AM	0	0	0	0	0	0	39	5	0	44	9	0	3	0	12	1	51	0	0	52	108
7:45 AM	0	0	1	0	1	0	37	4	0	41	4	0	2	0	6	11	61	0	0	72	120
Total	0	0	2	0	2	0	129	13	0	142	14	0	8	0	22	19	164	0	0	183	349
8:00 AM	0	0	0	0	0	0	32	5	0	37	4	0	2	0	6	4	82	0	0	86	129
8:15 AM	0	0	1	0	1	0	57	2	0	59	2	0	6	0	8	3	49	0	0	52	120
8:30 AM	0	0	0	0	0	0	36	13	0	49	5	0	4	0	9	8	65	0	0	73	131
8:45 AM	0	0	0	0	0	0	49	9	0	58	4	0	1	0	5	10	42	0	0	52	115
Total	0	0	1	0	1	0	174	29	0	203	15	0	13	0	28	25	238	0	0	263	495
Grand Total	0	0	3	0	3	0	303	42	0	345	29	0	21	0	50	44	402	0	0	446	844
Approach %	0.0	0.0	100.0	0.0		0.0	87.8	12.2	0.0		58.0	0.0	42.0	0.0		9.9	90.1	0.0	0.0		
Total %	0.0	0.0	0.4	0.0	0.4	0.0	35.9	5.0	0.0	40.9	3.4	0.0	2.5	0.0	5.9	5.2	47.6	0.0	0.0	52.8	
Exiting Leg Total	0					434					86					324					844
Cars	0	0	3	0	3	0	296	41	0	337	28	0	19	0	47	44	381	0	0	425	812
% Cars	0.0	0.0	100.0	0.0	100.0	0.0	97.7	97.6	0.0	97.7	96.6	0.0	90.5	0.0	94.0	100.0	94.8	0.0	0.0	95.3	96.2
Exiting Leg Total	0					412					85					315					812
Heavy Vehicles	0	0	0	0	0	0	7	1	0	8	1	0	2	0	3	0	21	0	0	21	32
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.4	0.0	2.3	3.4	0.0	9.5	0.0	6.0	0.0	5.2	0.0	0.0	4.7	3.8
Exiting Leg Total	0					22					1					9					32

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

7:45 AM	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	1	0	1	0	37	4	0	41	4	0	2	0	6	11	61	0	0	72	120	
8:00 AM	0	0	0	0	0	0	32	5	0	37	4	0	2	0	6	4	82	0	0	86	129	
8:15 AM	0	0	1	0	1	0	57	2	0	59	2	0	6	0	8	3	49	0	0	52	120	
8:30 AM	0	0	0	0	0	0	36	13	0	49	5	0	4	0	9	8	65	0	0	73	131	
Total Volume	0	0	2	0	2	0	162	24	0	186	15	0	14	0	29	26	257	0	0	283	500	
% Approach Total	0.0	0.0	100.0	0.0		0.0	87.1	12.9	0.0		51.7	0.0	48.3	0.0		9.2	90.8	0.0	0.0			
PHF	0.000	0.000	0.500	0.000	0.500	0.000	0.711	0.462	0.000	0.788	0.750	0.000	0.583	0.000	0.806	0.591	0.784	0.000	0.000	0.823	0.954	
Cars	0	0	2	0	2	0	157	24	0	181	14	0	13	0	27	26	242	0	0	268	478	
Cars %	0.0	0.0	100.0	0.0	100.0	0.0	96.9	100.0	0.0	97.3	93.3	0.0	92.9	0.0	93.1	100.0	94.2	0.0	0.0	94.7	95.6	
Heavy Vehicles	0	0	0	0	0	0	5	0	0	5	1	0	1	0	2	0	15	0	0	15	22	
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	2.7	6.7	0.0	7.1	0.0	6.9	0.0	5.8	0.0	0.0	5.3	4.4	
Cars Enter Leg	0	0	2	0	2	0	157	24	0	181	14	0	13	0	27	26	242	0	0	268	478	
Heavy Enter Leg	0	0	0	0	0	0	5	0	0	5	1	0	1	0	2	0	15	0	0	15	22	
Total Entering Leg	0	0	2	0	2	0	162	24	0	186	15	0	14	0	29	26	257	0	0	283	500	
Cars Exiting Leg																					170	478
Heavy Exiting Leg																					6	22
Total Exiting Leg																					176	500

PDI File #: **218169 B**
 Location: **N: Town Hall Driveway S: Whiting Road**
 Location: **E: Springdale Avenue W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	1	0	1	0	28	1	0	29	0	0	1	0	1	1	23	0	0	24	55
7:15 AM	0	0	0	0	0	0	23	2	0	25	1	0	2	0	3	6	24	0	0	30	58
7:30 AM	0	0	0	0	0	0	39	5	0	44	9	0	2	0	11	1	50	0	0	51	106
7:45 AM	0	0	1	0	1	0	37	4	0	41	4	0	2	0	6	11	58	0	0	69	117
Total	0	0	2	0	2	0	127	12	0	139	14	0	7	0	21	19	155	0	0	174	336
8:00 AM	0	0	0	0	0	0	30	5	0	35	4	0	2	0	6	4	78	0	0	82	123
8:15 AM	0	0	1	0	1	0	56	2	0	58	2	0	5	0	7	3	47	0	0	50	116
8:30 AM	0	0	0	0	0	0	34	13	0	47	4	0	4	0	8	8	59	0	0	67	122
8:45 AM	0	0	0	0	0	0	49	9	0	58	4	0	1	0	5	10	42	0	0	52	115
Total	0	0	1	0	1	0	169	29	0	198	14	0	12	0	26	25	226	0	0	251	476
Grand Total	0	0	3	0	3	0	296	41	0	337	28	0	19	0	47	44	381	0	0	425	812
Approach %	0.0	0.0	100.0	0.0		0.0	87.8	12.2	0.0		59.6	0.0	40.4	0.0		10.4	89.6	0.0	0.0		
Total %	0.0	0.0	0.4	0.0	0.4	0.0	36.5	5.0	0.0	41.5	3.4	0.0	2.3	0.0	5.8	5.4	46.9	0.0	0.0	52.3	
Exiting Leg Total	0					412					85					315					812

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

7:45 AM	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	1	0	1	0	37	4	0	41	4	0	2	0	6	11	58	0	0	69	117
8:00 AM	0	0	0	0	0	0	30	5	0	35	4	0	2	0	6	4	78	0	0	82	123
8:15 AM	0	0	1	0	1	0	56	2	0	58	2	0	5	0	7	3	47	0	0	50	116
8:30 AM	0	0	0	0	0	0	34	13	0	47	4	0	4	0	8	8	59	0	0	67	122
Total Volume	0	0	2	0	2	0	157	24	0	181	14	0	13	0	27	26	242	0	0	268	478
% Approach Total	0.0	0.0	100.0	0.0		0.0	86.7	13.3	0.0		51.9	0.0	48.1	0.0		9.7	90.3	0.0	0.0		
PHF	0.000	0.000	0.500	0.000	0.500	0.000	0.701	0.462	0.000	0.780	0.875	0.000	0.650	0.000	0.844	0.591	0.776	0.000	0.000	0.817	0.972
Entering Leg	0	0	2	0	2	0	157	24	0	181	14	0	13	0	27	26	242	0	0	268	478
Exiting Leg	0					258					50					170					478
Total	2					439					77					438					956

PDI File #: **218169 B**
 Location: **N: Town Hall Driveway S: Whiting Road**
 Location: **E: Springdale Avenue W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	1	0	1	0	0	0	0	0	0	3	0	0	0	3	4
7:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	2	0	0	2	4
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	1	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
Total	0	0	0	0	0	0	2	1	0	3	0	0	1	0	1	0	9	0	0	0	9	13
8:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4	0	0	0	4	6
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	2	0	0	0	2	4
8:30 AM	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	0	6	0	0	0	6	9
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	5	0	0	5	1	0	1	0	2	0	12	0	0	0	12	19
Grand Total	0	0	0	0	0	0	7	1	0	8	1	0	2	0	3	0	21	0	0	0	21	32
Approach %	0.0	0.0	0.0	0.0		0.0	87.5	12.5	0.0		33.3	0.0	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	21.9	3.1	0.0	25.0	3.1	0.0	6.3	0.0	9.4	0.0	65.6	0.0	0.0	0.0	65.6	
Exiting Leg Total	0					22					1					9					32	
Buses	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	6	0	0	0	6	8
% 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	100.0	0.0	66.7	0.0	28.6	0.0	0.0	0.0	28.6	25.0
Exiting Leg Total	0					6					0					2					8	
Single-Unit Trucks	0	0	0	0	0	0	5	1	0	6	1	0	0	0	1	0	9	0	0	0	9	16
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	71.4	100.0	0.0	75.0	100.0	0.0	0.0	0.0	33.3	0.0	42.9	0.0	0.0	0.0	42.9	50.0
Exiting Leg Total	0					10					1					5					16	
Articulated Trucks	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	6	0	0	0	6	8
% Articulated	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	0.0	28.6	0.0	0.0	0.0	28.6	25.0
Exiting Leg Total	0					6					0					2					8	

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

7:45 AM	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	3	0	0	0	3
8:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4	0	0	0	4
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	2	0	0	0	2
8:30 AM	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	0	6	0	0	0	6
Total Volume	0	0	0	0	0	0	5	0	0	5	1	0	1	0	2	0	15	0	0	0	15
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		50.0	0.0	50.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.250	0.000	0.250	0.000	0.500	0.000	0.625	0.000	0.000	0.000	0.611
Buses	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	2
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	100.0	0.0	50.0	0.0	13.3	0.0	0.0	0.0	13.3
Single-Unit Trucks	0	0	0	0	0	0	4	0	0	4	1	0	0	0	1	0	8	0	0	0	8
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	80.0	0.0	0.0	80.0	100.0	0.0	0.0	0.0	50.0	0.0	53.3	0.0	0.0	0.0	53.3
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5	0	0	0	5
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	33.3
Buses	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	2
Single-Unit Trucks	0	0	0	0	0	0	4	0	0	4	1	0	0	0	1	0	8	0	0	0	8
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5	0	0	0	5
Total Entering Leg	0	0	0	0	0	0	5	0	0	5	1	0	1	0	2	0	15	0	0	0	15
Buses	0					2					0					1					
Single-Unit Trucks	0					9					0					4					
Articulated Trucks	0					5					0					1					
Total Exiting Leg	0					16					0					6					

PDI File #: **218169 B**
 Location: **N: Town Hall Driveway S: Whiting Road**
 Location: **E: Springdale Avenue W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	2	0	0	0	2	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	1	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	5	0	0	0	5	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
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	1	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	1	0	1	0	1	0	0	0	1	2
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	6	0	0	0	6	8
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	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	0.0	25.0	0.0	25.0	0.0	75.0	0.0	0.0	0.0	75.0	
Exiting Leg Total	0					6					0					2					8	

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

7:00 AM	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	2	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	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 Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	5	0	0	0	5
% 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	100.0	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	0.625	0.000	0.000	0.625	0.750
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	5	0	0	0	5
Exiting Leg	0					5					0					1					6
Total	0					5					1					6					12

PDI File #: **218169 B**
 Location: **N: Town Hall Driveway S: Whiting Road**
 Location: **E: Springdale Avenue W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Single-Unit Trucks

	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	1	0	1	0	0	0	0	0	0	1	0	0	0	1	2
7:15 AM	0	0	0	0	0	0	1	0	0	1	0	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
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
Total	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	3	0	0	0	3	5
8:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	0	3	5
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	3	0	0	0	3	5
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	4	0	0	4	1	0	0	0	1	0	6	0	0	0	6	11
Grand Total	0	0	0	0	0	0	5	1	0	6	1	0	0	0	1	0	9	0	0	0	9	16
Approach %	0.0	0.0	0.0	0.0		0.0	83.3	16.7	0.0		100.0	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	31.3	6.3	0.0	37.5	6.3	0.0	0.0	0.0	6.3	0.0	56.3	0.0	0.0	0.0	56.3	
Exiting Leg Total	0					10					1					5					16	

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

7:45 AM	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	2	0	0	0	2	2
8:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	0	3	5
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	1	3	0	0	0	3	5
Total Volume	0	0	0	0	0	0	4	0	0	4	1	0	0	0	0	1	0	8	0	0	8	13
% Approach Total	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	100.0	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	0.250	0.000	0.000	0.000	0.250	0.000	0.667	0.000	0.000	0.667	0.650	
Entering Leg	0	0	0	0	0	0	4	0	0	4	1	0	0	0	1	0	8	0	0	8	13	
Exiting Leg	0					9					0					4					13	
Total	0					13					1					12					26	

PDI File #: **218169 B**
 Location: **N: Town Hall Driveway S: Whiting Road**
 Location: **E: Springdale Avenue W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Articulated Trucks

	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	1	0	0	1	0	0	0	0	0	0	1	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	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	1	0	0	1	0	0	0	0	0	0	1	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	0	3
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	1	0	0	1	0	0	0	0	0	0	5	0	0	0	5
Grand Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	6	0	0	0	6
Approach %	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	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	75.0	0.0	0.0	75.0	
Exiting Leg Total	0					6					0					2					8

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

7:45 AM	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:15 AM	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	1	0	0	1	0	0	0	0	0	0	0	3	0	0	3
Total Volume	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	5	0	0	5
% 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	100.0	0.0	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	0.000	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.375
Entering Leg	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	5	0	0	5
Exiting Leg					0					5					0					1	6
Total					0					6					0					6	12

PDI File #: **218169 B**
 Location: **N: Town Hall Driveway S: Whiting Road**
 Location: **E: Springdale Avenue W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Town Hall Driveway							Springdale Avenue							Whiting Road							Springdale Avenue							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	1	0	0	0	0	1	0	0	0	0	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	1	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
Total	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 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	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
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	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4
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	0.0		0.0	100.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.0	0.0	0.0	0.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	25.0	
Exiting Leg Total	0							1							0							3							4

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

7:15 AM	Town Hall Driveway							Springdale Avenue							Whiting Road							Springdale Avenue							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	
7:15 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	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	1	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
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	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	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	0.500	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	0.250	0.000	0.000	0.000	0.000	0.250	0.750
Entering Leg	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3
Exiting Leg	0							1							0							2							3
Total	0							3							0							3							6

PDI File #: **218169 B**
 Location: **N: Town Hall Driveway S: Whiting Road**
 Location: **E: Springdale Avenue W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Town Hall Driveway							Springdale Avenue							Whiting Road							Springdale Avenue							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	1	1	2	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	4
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	1	0	1	0	0	0	0	0	0	0	1	
Total	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	2	1	3	0	0	0	0	0	0	0	5	
8:00 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	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	
8:30 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	1	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	3	0	3	0	0	0	0	0	0	0	4	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	5	1	6	0	0	0	0	0	0	0	9	
Approach %	0	0	0	0	0	0	0	0	0	0	0	66.7	33.3		0	0	0	0	83.3	16.7		0	0	0	0	0	0			
Total %	0	0	0	0	0	0	0	0	0	0	0	22.2	11.1	33.3	0	0	0	0	55.6	11.1	66.7	0	0	0	0	0	0			
Exiting Leg Total	0							3							6							0							9	

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

8:45 AM	Town Hall Driveway							Springdale Avenue							Whiting Road							Springdale Avenue							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	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
9:00 AM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
9:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:30 AM	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	2	2	4	0	0	0	0	1	1	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	7
% Approach Total	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	50.0	50.0		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	0.500	0.250	0.500	0.000	0.000	0.000	0.000	0.250	0.250	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	0.875	
Entering Leg	0	0	0	0	2	2	4	0	0	0	0	1	1	2	0	0	0	0	1	0	1	0	0	0	0	0	0	7	
Exiting Leg	4							2							1							0							7
Total	8							4							2							0							14

PDI File #: **218169 B**
 Location: **N: Town Hall Driveway S: Whiting Road**
 Location: **E: Springdale Avenue W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	30	8	0	38	2	0	3	0	5	10	49	0	0	59	103
4:15 PM	0	0	3	0	3	0	32	4	0	36	1	0	2	0	3	10	58	0	1	69	111
4:30 PM	0	0	0	0	0	0	33	3	0	36	0	0	5	0	5	12	51	0	0	63	104
4:45 PM	1	0	1	0	2	0	32	2	0	34	3	0	3	0	6	11	41	0	0	52	94
Total	1	1	4	0	6	0	127	17	0	144	6	0	13	0	19	43	199	0	1	243	412
5:00 PM	0	0	2	0	2	0	53	5	0	58	5	0	1	0	6	4	55	0	0	59	125
5:15 PM	1	0	2	0	3	0	25	0	0	25	0	0	1	0	1	5	47	0	0	52	81
5:30 PM	0	0	0	0	0	0	32	3	0	35	0	0	2	0	2	5	41	0	0	46	83
5:45 PM	0	0	0	0	0	0	25	3	0	28	4	0	1	0	5	12	38	0	0	50	83
Total	1	0	4	0	5	0	135	11	0	146	9	0	5	0	14	26	181	0	0	207	372
Grand Total	2	1	8	0	11	0	262	28	0	290	15	0	18	0	33	69	380	0	1	450	784
Approach %	18.2	9.1	72.7	0.0		0.0	90.3	9.7	0.0		45.5	0.0	54.5	0.0		15.3	84.4	0.0	0.2		
Total %	0.3	0.1	1.0	0.0	1.4	0.0	33.4	3.6	0.0	37.0	1.9	0.0	2.3	0.0	4.2	8.8	48.5	0.0	0.1	57.4	
Exiting Leg Total	0					403					98					283					784
Cars	2	1	8	0	11	0	255	27	0	282	14	0	18	0	32	69	376	0	1	446	771
% Cars	100.0	100.0	100.0	0.0	100.0	0.0	97.3	96.4	0.0	97.2	93.3	0.0	100.0	0.0	97.0	100.0	98.9	0.0	100.0	99.1	98.3
Exiting Leg Total	0					398					97					276					771
Heavy Vehicles	0	0	0	0	0	0	7	1	0	8	1	0	0	0	1	0	4	0	0	4	13
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	2.7	3.6	0.0	2.8	6.7	0.0	0.0	0.0	3.0	0.0	1.1	0.0	0.0	0.9	1.7
Exiting Leg Total	0					5					1					7					13

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

4:15 PM	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	3	0	3	0	32	4	0	36	1	0	2	0	3	10	58	0	1	69	111	
4:30 PM	0	0	0	0	0	0	33	3	0	36	0	0	5	0	5	12	51	0	0	63	104	
4:45 PM	1	0	1	0	2	0	32	2	0	34	3	0	3	0	6	11	41	0	0	52	94	
5:00 PM	0	0	2	0	2	0	53	5	0	58	5	0	1	0	6	4	55	0	0	59	125	
Total Volume	1	0	6	0	7	0	150	14	0	164	9	0	11	0	20	37	205	0	1	243	434	
% Approach Total	14.3	0.0	85.7	0.0		0.0	91.5	8.5	0.0		45.0	0.0	55.0	0.0		15.2	84.4	0.0	0.4			
PHF	0.250	0.000	0.500	0.000	0.583	0.000	0.708	0.700	0.000	0.707	0.450	0.000	0.550	0.000	0.833	0.771	0.884	0.000	0.250	0.880	0.868	
Cars	1	0	6	0	7	0	143	14	0	157	9	0	11	0	20	37	202	0	1	240	424	
Cars %	100.0	0.0	100.0	0.0	100.0	0.0	95.3	100.0	0.0	95.7	100.0	0.0	100.0	0.0	100.0	100.0	98.5	0.0	100.0	98.8	97.7	
Heavy Vehicles	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	10	
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	1.2	2.3	
Cars Enter Leg	1	0	6	0	7	0	143	14	0	157	9	0	11	0	20	37	202	0	1	240	424	
Heavy Enter Leg	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	10	
Total Entering Leg	1	0	6	0	7	0	150	14	0	164	9	0	11	0	20	37	205	0	1	243	434	
Cars Exiting Leg																						
Heavy Exiting Leg																						
Total Exiting Leg																						

PDI File #: **218169 B**
 Location: **N: Town Hall Driveway S: Whiting Road**
 Location: **E: Springdale Avenue W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	30	8	0	38	2	0	3	0	5	10	48	0	0	58	102
4:15 PM	0	0	3	0	3	0	31	4	0	35	1	0	2	0	3	10	58	0	1	69	110
4:30 PM	0	0	0	0	0	0	31	3	0	34	0	0	5	0	5	12	48	0	0	60	99
4:45 PM	1	0	1	0	2	0	31	2	0	33	3	0	3	0	6	11	41	0	0	52	93
Total	1	1	4	0	6	0	123	17	0	140	6	0	13	0	19	43	195	0	1	239	404
5:00 PM	0	0	2	0	2	0	50	5	0	55	5	0	1	0	6	4	55	0	0	59	122
5:15 PM	1	0	2	0	3	0	25	0	0	25	0	0	1	0	1	5	47	0	0	52	81
5:30 PM	0	0	0	0	0	0	32	2	0	34	0	0	2	0	2	5	41	0	0	46	82
5:45 PM	0	0	0	0	0	0	25	3	0	28	3	0	1	0	4	12	38	0	0	50	82
Total	1	0	4	0	5	0	132	10	0	142	8	0	5	0	13	26	181	0	0	207	367
Grand Total	2	1	8	0	11	0	255	27	0	282	14	0	18	0	32	69	376	0	1	446	771
Approach %	18.2	9.1	72.7	0.0		0.0	90.4	9.6	0.0		43.8	0.0	56.3	0.0		15.5	84.3	0.0	0.2		
Total %	0.3	0.1	1.0	0.0	1.4	0.0	33.1	3.5	0.0	36.6	1.8	0.0	2.3	0.0	4.2	8.9	48.8	0.0	0.1	57.8	
Exiting Leg Total	0					398					97					276					771

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

4:15 PM	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	3	0	3	0	31	4	0	35	1	0	2	0	3	10	58	0	1	69	110
4:30 PM	0	0	0	0	0	0	31	3	0	34	0	0	5	0	5	12	48	0	0	60	99
4:45 PM	1	0	1	0	2	0	31	2	0	33	3	0	3	0	6	11	41	0	0	52	93
5:00 PM	0	0	2	0	2	0	50	5	0	55	5	0	1	0	6	4	55	0	0	59	122
Total Volume	1	0	6	0	7	0	143	14	0	157	9	0	11	0	20	37	202	0	1	240	424
% Approach Total	14.3	0.0	85.7	0.0		0.0	91.1	8.9	0.0		45.0	0.0	55.0	0.0		15.4	84.2	0.0	0.4		
PHF	0.250	0.000	0.500	0.000	0.583	0.000	0.715	0.700	0.000	0.714	0.450	0.000	0.550	0.000	0.833	0.771	0.871	0.000	0.250	0.870	0.869
Entering Leg	1	0	6	0	7	0	143	14	0	157	9	0	11	0	20	37	202	0	1	240	424
Exiting Leg	0					217					51					156					424
Total	7					374					71					396					848

PDI File #: **218169 B**
 Location: **N: Town Hall Driveway S: Whiting Road**
 Location: **E: Springdale Avenue W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	1	0	0	1
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	0	3
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	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4	0	0	0	4
5:00 PM	0	0	0	0	0	0	3	0	0	3	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	1	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	1	0	0	0	0	1	0	0	0	0	0
Total	0	0	0	0	0	0	3	1	0	4	1	0	0	0	0	1	0	0	0	0	0
Grand Total	0	0	0	0	0	0	7	1	0	8	1	0	0	0	0	1	0	4	0	0	4
Approach %	0.0	0.0	0.0	0.0		0.0	87.5	12.5	0.0		100.0	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	53.8	7.7	0.0	61.5	7.7	0.0	0.0	0.0	7.7	0.0	30.8	0.0	0.0		30.8
Exiting Leg Total	0					5					1					7					13
Buses	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	0	2
% Buses	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	0.0	50.0	0.0	0.0	50.0	30.8
Exiting Leg Total	0					2					0					2					4
Single-Unit Trucks	0	0	0	0	0	0	3	1	0	4	1	0	0	0	1	0	2	0	0	0	2
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	42.9	100.0	0.0	50.0	100.0	0.0	0.0	0.0	100.0	0.0	50.0	0.0	0.0	50.0	53.8
Exiting Leg Total	0					3					1					3					7
Articulated Trucks	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
% Articulated	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	0.0	0.0	0.0	0.0	0.0	15.4
Exiting Leg Total	0					0					0					2					2

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

4:00 PM	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	1	0	0	1
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
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	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	8
% Approach Total	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	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	0.333	0.000	0.000	0.333	0.400
Buses	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
Buses %	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	50.0	0.0	0.0	50.0	50.0
Single-Unit Trucks	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
Single-Unit %	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	50.0	0.0	0.0	50.0	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	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
Single-Unit Trucks	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
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	4	0	0	4	0	0	0	0	0	0	4	0	0	4	8
Buses	0					2					0					2					4
Single-Unit Trucks	0					2					0					2					4
Articulated Trucks	0					0					0					0					0
Total Exiting Leg	0					4					0					4					8

PDI File #: **218169 B**
 Location: **N: Town Hall Driveway S: Whiting Road**
 Location: **E: Springdale Avenue W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	1	0	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	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	0	0	0	0	0	1
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	2	0	0	2	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
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	2	0	0	2	0	0	0	0	0	0	0	2	0	0	2	4
Approach %	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	0.0	0.0			
Total %	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	50.0	0.0	0.0	50.0		
Exiting Leg Total	0					2					0					2					4	

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

4:00 PM	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	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	0	0
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	2
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	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	2	0	0	0	2	4
% Approach Total	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	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	0.500	0.000	0.000	0.000	0.500	0.500	
Entering Leg	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	0	2	4	
Exiting Leg	0					2					0					2					4		
Total	0					4					0					4					8		

PDI File #: **218169 B**
 Location: **N: Town Hall Driveway S: Whiting Road**
 Location: **E: Springdale Avenue W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Single-Unit Trucks

	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
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	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
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	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	0	0	0	0	0	3
Grand Total	0	0	0	0	0	0	3	1	0	4	1	0	0	0	1	0	2	0	0	2	7
Approach %	0.0	0.0	0.0	0.0		0.0	75.0	25.0	0.0		100.0	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	42.9	14.3	0.0	57.1	14.3	0.0	0.0	0.0	14.3	0.0	28.6	0.0	0.0	28.6	
Exiting Leg Total	0					3					1					3					7

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

4:00 PM	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
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	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
% Approach Total	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	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	0.250	0.000	0.000	0.250	0.333
Entering Leg	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
Exiting Leg	0					2					0					2					4
Total	0					4					0					4					8

PDI File #: **218169 B**
 Location: **N: Town Hall Driveway S: Whiting Road**
 Location: **E: Springdale Avenue W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Articulated Trucks

	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue						
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total	
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	2	0	0	2	0	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	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	2	0	0	2	0	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	0	2
Approach %	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	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		
Exiting Leg Total	0					0					0					2						2

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

4:15 PM	Town Hall Driveway					Springdale Avenue					Whiting Road					Springdale Avenue					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	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	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
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	
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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	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 #: **218169 B**
 Location: **N: Town Hall Driveway S: Whiting Road**
 Location: **E: Springdale Avenue W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Town Hall Driveway								Springdale Avenue								Whiting Road								Springdale Avenue								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	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	1	2	0	0	0	1	4				
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	1	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	1	4	0	0	0	1	6					
5:00 PM	0	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	1				
5:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	1	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0					
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	1	3	0	0	0	0	0	0	0	1	2	0	0	0	3					
Total	0	0	0	0	0	0	0	0	0	4	0	0	2	2	8	0	0	0	0	0	0	0	1	2	0	0	0	3					
Grand Total	0	0	0	0	0	0	0	0	0	4	0	0	2	2	8	0	0	0	0	0	0	0	2	6	0	0	0	1	9				
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	50.0	0.0	0.0	25.0	25.0		0.0	0.0	0.0	0.0	0.0	0.0		22.2	66.7	0.0	0.0	0.0	11.1						
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.5	0.0	0.0	11.8	11.8	47.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8	35.3	0.0	0.0	0.0	5.9	52.9					
Exiting Leg Total	0								10								2								5								17

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

4:00 PM	Town Hall Driveway								Springdale Avenue								Whiting Road								Springdale Avenue								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	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	1	2	0	0	0	1	4	4				
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	1	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	1	4	0	0	0	1	6	6				
% 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	16.7	66.7	0.0	0.0	0.0	16.7						
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	0.250	0.500	0.000	0.000	0.000	0.250	0.375	0.375				
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	1	6	6				
Exiting Leg	0								4								1								1								6
Total	0								4								1								7								12

PDI File #: **218169 B**
 Location: **N: Town Hall Driveway S: Whiting Road**
 Location: **E: Springdale Avenue W: Springdale Avenue**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Town Hall Driveway							Springdale Avenue							Whiting Road							Springdale Avenue							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	1	0	1	0	0	0	0	1	1	2	0	0	0	0	1	0	1	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
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	3	1	4	0	0	0	0	1	0	1	9
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	4	7	0	0	0	0	4	2	6	0	0	0	0	0	0	0	13
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	1	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	0	0	0	0	1	0	1	0	0	0	0	3	4	7	0	0	0	0	4	2	6	0	0	0	0	0	0	0	14
Grand Total	0	0	0	0	1	0	1	0	0	0	0	4	7	11	0	0	0	0	7	3	10	0	0	0	0	1	0	1	23
Approach %	0	0	0	0	100	0		0	0	0	0	36.4	63.6		0	0	0	0	70	30		0	0	0	0	100	0		
Total %	0	0	0	0	4.35	0	4.35	0	0	0	0	17.4	30.4	47.8	0	0	0	0	30.4	13	43.5	0	0	0	0	4.35	0	4.35	
Exiting Leg Total	1							11							10							1							23

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

4:00 PM	Town Hall Driveway								Springdale Avenue								Whiting Road								Springdale Avenue								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	1	0	1	0	0	0	0	1	1	2	0	0	0	0	1	0	1	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				
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	3				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2				
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	3	1	4	0	0	0	0	1	0	1	9				
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	75.0		0.0	0.0	0.0	0.0	75.0	25.0		0.0	0.0	0.0	0.0	100.0	0.0						
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.375	0.500	0.000	0.000	0.000	0.000	0.750	0.250	0.500	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.563				
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	3	1	4	0	0	0	0	1	0	1	9				
Exiting Leg	0								4								4								1								9
Total	0								8								8								2								18

PDI File #: **218169 C**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Whiting Road**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	0	21	0	21	201	1	0	202	1	0	0	1	224
7:15 AM	0	20	0	20	174	0	0	174	1	0	0	1	195
7:30 AM	0	32	0	32	147	4	0	151	0	0	0	0	183
7:45 AM	1	40	0	41	154	3	0	157	2	0	0	2	200
Total	1	113	0	114	676	8	0	684	4	0	0	4	802
8:00 AM	0	43	0	43	156	1	0	157	1	0	0	1	201
8:15 AM	1	57	0	58	153	6	0	159	3	0	0	3	220
8:30 AM	3	42	0	45	152	3	0	155	4	0	0	4	204
8:45 AM	1	45	0	46	112	3	0	115	3	0	0	3	164
Total	5	187	0	192	573	13	0	586	11	0	0	11	789
Grand Total	6	300	0	306	1249	21	0	1270	15	0	0	15	1591
Approach %	2.0	98.0	0.0		98.3	1.7	0.0		100.0	0.0	0.0		
Total %	0.4	18.9	0.0	19.2	78.5	1.3	0.0	79.8	0.9	0.0	0.0	0.9	
Exiting Leg Total	1249				315				27				1591
Cars	5	274	0	279	1186	19	0	1205	14	0	0	14	1498
% Cars	83.3	91.3	0.0	91.2	95.0	90.5	0.0	94.9	93.3	0.0	0.0	93.3	94.2
Exiting Leg Total	1186				288				24				1498
Heavy Vehicles	1	26	0	27	63	2	0	65	1	0	0	1	93
% Heavy Vehicles	16.7	8.7	0.0	8.8	5.0	9.5	0.0	5.1	6.7	0.0	0.0	6.7	5.8
Exiting Leg Total	63				27				3				93

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

7:45 AM	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:45 AM	1	40	0	41	154	3	0	157	2	0	0	2	200
8:00 AM	0	43	0	43	156	1	0	157	1	0	0	1	201
8:15 AM	1	57	0	58	153	6	0	159	3	0	0	3	220
8:30 AM	3	42	0	45	152	3	0	155	4	0	0	4	204
Total Volume	5	182	0	187	615	13	0	628	10	0	0	10	825
% Approach Total	2.7	97.3	0.0		97.9	2.1	0.0		100.0	0.0	0.0		
PHF	0.417	0.798	0.000	0.806	0.986	0.542	0.000	0.987	0.625	0.000	0.000	0.625	0.938
Cars	4	165	0	169	583	12	0	595	10	0	0	10	774
Cars %	80.0	90.7	0.0	90.4	94.8	92.3	0.0	94.7	100.0	0.0	0.0	100.0	93.8
Heavy Vehicles	1	17	0	18	32	1	0	33	0	0	0	0	51
Heavy Vehicles %	20.0	9.3	0.0	9.6	5.2	7.7	0.0	5.3	0.0	0.0	0.0	0.0	6.2
Cars Enter Leg	4	165	0	169	583	12	0	595	10	0	0	10	774
Heavy Enter Leg	1	17	0	18	32	1	0	33	0	0	0	0	51
Total Entering Leg	5	182	0	187	615	13	0	628	10	0	0	10	825
Cars Exiting Leg				583				175				16	774
Heavy Exiting Leg				32				17				2	51
Total Exiting Leg				615				192				18	825

PDI File #: **218169 C**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Whiting Road**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	0	16	0	16	191	1	0	192	0	0	0	0	208
7:15 AM	0	19	0	19	170	0	0	170	1	0	0	1	190
7:30 AM	0	32	0	32	139	3	0	142	0	0	0	0	174
7:45 AM	1	35	0	36	147	3	0	150	2	0	0	2	188
Total	1	102	0	103	647	7	0	654	3	0	0	3	760
8:00 AM	0	39	0	39	146	1	0	147	1	0	0	1	187
8:15 AM	1	54	0	55	145	5	0	150	3	0	0	3	208
8:30 AM	2	37	0	39	145	3	0	148	4	0	0	4	191
8:45 AM	1	42	0	43	103	3	0	106	3	0	0	3	152
Total	4	172	0	176	539	12	0	551	11	0	0	11	738
Grand Total	5	274	0	279	1186	19	0	1205	14	0	0	14	1498
Approach %	1.8	98.2	0.0		98.4	1.6	0.0		100.0	0.0	0.0		
Total %	0.3	18.3	0.0	18.6	79.2	1.3	0.0	80.4	0.9	0.0	0.0	0.9	
Exiting Leg Total	1186				288				24				1498

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

7:45 AM	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:45 AM	1	35	0	36	147	3	0	150	2	0	0	2	188
8:00 AM	0	39	0	39	146	1	0	147	1	0	0	1	187
8:15 AM	1	54	0	55	145	5	0	150	3	0	0	3	208
8:30 AM	2	37	0	39	145	3	0	148	4	0	0	4	191
Total Volume	4	165	0	169	583	12	0	595	10	0	0	10	774
% Approach Total	2.4	97.6	0.0		98.0	2.0	0.0		100.0	0.0	0.0		
PHF	0.500	0.764	0.000	0.768	0.991	0.600	0.000	0.992	0.625	0.000	0.000	0.625	0.930
Entering Leg	4	165	0	169	583	12	0	595	10	0	0	10	774
Exiting Leg				583				175				16	774
Total				752				770				26	1548

PDI File #: **218169 C**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Whiting Road**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**



Class:

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

	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	0	5	0	5	10	0	0	10	1	0	0	1	16
7:15 AM	0	1	0	1	4	0	0	4	0	0	0	0	5
7:30 AM	0	0	0	0	8	1	0	9	0	0	0	0	9
7:45 AM	0	5	0	5	7	0	0	7	0	0	0	0	12
Total	0	11	0	11	29	1	0	30	1	0	0	1	42
8:00 AM	0	4	0	4	10	0	0	10	0	0	0	0	14
8:15 AM	0	3	0	3	8	1	0	9	0	0	0	0	12
8:30 AM	1	5	0	6	7	0	0	7	0	0	0	0	13
8:45 AM	0	3	0	3	9	0	0	9	0	0	0	0	12
Total	1	15	0	16	34	1	0	35	0	0	0	0	51
Grand Total	1	26	0	27	63	2	0	65	1	0	0	1	93
Approach %	3.7	96.3	0.0		96.9	3.1	0.0		100.0	0.0	0.0		
Total %	1.1	28.0	0.0	29.0	67.7	2.2	0.0	69.9	1.1	0.0	0.0	1.1	
Exiting Leg Total	63				27				3				93
Buses	0	4	0	4	1	2	0	3	1	0	0	1	8
% Buses	0.0	15.4	0.0	14.8	1.6	100.0	0.0	4.6	100.0	0.0	0.0	100.0	8.6
Exiting Leg Total	1				5				2				8
Single-Unit Trucks	1	17	0	18	43	0	0	43	0	0	0	0	61
% Single-Unit	100.0	65.4	0.0	66.7	68.3	0.0	0.0	66.2	0.0	0.0	0.0	0.0	65.6
Exiting Leg Total	43				17				1				61
Articulated Trucks	0	5	0	5	19	0	0	19	0	0	0	0	24
% Articulated	0.0	19.2	0.0	18.5	30.2	0.0	0.0	29.2	0.0	0.0	0.0	0.0	25.8
Exiting Leg Total	19				5				0				24

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

7:45 AM	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:45 AM	0	5	0	5	7	0	0	7	0	0	0	0	12
8:00 AM	0	4	0	4	10	0	0	10	0	0	0	0	14
8:15 AM	0	3	0	3	8	1	0	9	0	0	0	0	12
8:30 AM	1	5	0	6	7	0	0	7	0	0	0	0	13
Total Volume	1	17	0	18	32	1	0	33	0	0	0	0	51
% Approach Total	5.6	94.4	0.0		97.0	3.0	0.0		0.0	0.0	0.0		
PHF	0.250	0.850	0.000	0.750	0.800	0.250	0.000	0.825	0.000	0.000	0.000	0.000	0.911
Buses	0	3	0	3	1	1	0	2	0	0	0	0	5
Buses %	0.0	17.6	0.0	16.7	3.1	100.0	0.0	6.1	0.0	0.0	0.0	0.0	9.8
Single-Unit Trucks	1	11	0	12	23	0	0	23	0	0	0	0	35
Single-Unit %	100.0	64.7	0.0	66.7	71.9	0.0	0.0	69.7	0.0	0.0	0.0	0.0	68.6
Articulated Trucks	0	3	0	3	8	0	0	8	0	0	0	0	11
Articulated %	0.0	17.6	0.0	16.7	25.0	0.0	0.0	24.2	0.0	0.0	0.0	0.0	21.6
Buses	0	3	0	3	1	1	0	2	0	0	0	0	5
Single-Unit Trucks	1	11	0	12	23	0	0	23	0	0	0	0	35
Articulated Trucks	0	3	0	3	8	0	0	8	0	0	0	0	11
Total Entering Leg	1	17	0	18	32	1	0	33	0	0	0	0	51
Buses				1				3				1	5
Single-Unit Trucks				23				11				1	35
Articulated Trucks				8				3				0	11
Total Exiting Leg				32				17				2	51

PDI File #: **218169 C**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Whiting Road**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	0	1	0	1	0	0	0	0	1	0	0	1	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
7:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	2	0	2	0	1	0	1	1	0	0	1	4
8:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
8:15 AM	0	1	0	1	0	1	0	1	0	0	0	0	2
8:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	2	1	1	0	2	0	0	0	0	4
Grand Total	0	4	0	4	1	2	0	3	1	0	0	1	8
Approach %	0.0	100.0	0.0		33.3	66.7	0.0		100.0	0.0	0.0		
Total %	0.0	50.0	0.0	50.0	12.5	25.0	0.0	37.5	12.5	0.0	0.0	12.5	
Exiting Leg Total	1				5				2				8

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

7:30 AM	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
7:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
8:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
8:15 AM	0	1	0	1	0	1	0	1	0	0	0	0	2
Total Volume	0	3	0	3	0	2	0	2	0	0	0	0	5
% Approach Total	0.0	100.0	0.0		0.0	100.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.750	0.000	0.750	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.625
Entering Leg	0	3	0	3	0	2	0	2	0	0	0	0	5
Exiting Leg				0				3				2	5
Total				3				5				2	10

PDI File #: **218169 C**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Whiting Road**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Single-Unit Trucks

	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	0	2	0	2	8	0	0	8	0	0	0	0	10
7:15 AM	0	1	0	1	2	0	0	2	0	0	0	0	3
7:30 AM	0	0	0	0	5	0	0	5	0	0	0	0	5
7:45 AM	0	3	0	3	4	0	0	4	0	0	0	0	7
Total	0	6	0	6	19	0	0	19	0	0	0	0	25
8:00 AM	0	3	0	3	6	0	0	6	0	0	0	0	9
8:15 AM	0	2	0	2	7	0	0	7	0	0	0	0	9
8:30 AM	1	3	0	4	6	0	0	6	0	0	0	0	10
8:45 AM	0	3	0	3	5	0	0	5	0	0	0	0	8
Total	1	11	0	12	24	0	0	24	0	0	0	0	36
Grand Total	1	17	0	18	43	0	0	43	0	0	0	0	61
Approach %	5.6	94.4	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	1.6	27.9	0.0	29.5	70.5	0.0	0.0	70.5	0.0	0.0	0.0	0.0	
Exiting Leg Total	43				17				1				61

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

8:00 AM	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
8:00 AM	0	3	0	3	6	0	0	6	0	0	0	0	9
8:15 AM	0	2	0	2	7	0	0	7	0	0	0	0	9
8:30 AM	1	3	0	4	6	0	0	6	0	0	0	0	10
8:45 AM	0	3	0	3	5	0	0	5	0	0	0	0	8
Total Volume	1	11	0	12	24	0	0	24	0	0	0	0	36
% Approach Total	8.3	91.7	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.250	0.917	0.000	0.750	0.857	0.000	0.000	0.857	0.000	0.000	0.000	0.000	0.900
Entering Leg	1	11	0	12	24	0	0	24	0	0	0	0	36
Exiting Leg				24				11				1	36
Total				36				35				1	72

PDI File #: **218169 C**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Whiting Road**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Articulated Trucks

	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	0	2	0	2	2	0	0	2	0	0	0	0	4
7:15 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
7:30 AM	0	0	0	0	3	0	0	3	0	0	0	0	3
7:45 AM	0	1	0	1	3	0	0	3	0	0	0	0	4
Total	0	3	0	3	10	0	0	10	0	0	0	0	13
8:00 AM	0	0	0	0	4	0	0	4	0	0	0	0	4
8:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:30 AM	0	2	0	2	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	4	0	0	4	0	0	0	0	4
Total	0	2	0	2	9	0	0	9	0	0	0	0	11
Grand Total	0	5	0	5	19	0	0	19	0	0	0	0	24
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	20.8	0.0	20.8	79.2	0.0	0.0	79.2	0.0	0.0	0.0	0.0	
Exiting Leg Total	19				5				0				24

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

7:00 AM	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	0	2	0	2	2	0	0	2	0	0	0	0	4
7:15 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
7:30 AM	0	0	0	0	3	0	0	3	0	0	0	0	3
7:45 AM	0	1	0	1	3	0	0	3	0	0	0	0	4
Total Volume	0	3	0	3	10	0	0	10	0	0	0	0	13
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.375	0.000	0.375	0.833	0.000	0.000	0.833	0.000	0.000	0.000	0.000	0.813
Entering Leg	0	3	0	3	10	0	0	10	0	0	0	0	13
Exiting Leg				10				3				0	13
Total				13				13				0	26

PDI File #: **218169 C**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Whiting Road**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**



Bicycles (on Roadway and Crosswalks)

	Centre Street						Centre Street						Whiting Road						Total	
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	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
7:30 AM	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
Total	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	1	0	0	0	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
8:30 AM	0	1	0	0	0	1	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	0
Total	0	1	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	2
Grand Total	0	1	0	0	0	1	2	0	0	0	0	0	2	0	0	0	0	0	0	3
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	0.0	0.0	0.0		
Total %	0.0	33.3	0.0	0.0	0.0	33.3	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	
Exiting Leg Total	2						1						0						3	

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

8:30 AM	Centre Street						Centre Street						Whiting Road						Total	
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total		
8:30 AM	0	1	0	0	0	1	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	0
9:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1
9:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	0	0	2	1	0	0	0	0	0	1	0	0	0	0	0	0	3
% 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	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.000	0.500	0.250	0.000	0.000	0.000	0.000	0.250		0.000	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	2	0	0	0	2	1	0	0	0	0	1		0	0	0	0	0	0	3
Exiting Leg						1						2							0	3
Total						3						3							0	6

PDI File #: **218169 C**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Whiting Road**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Centre Street						Centre Street						Whiting Road						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	5
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	6	16
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	6	17
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64.706	35.294	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64.706	35.294	100
Exiting Leg Total	0						0						17						17

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

7:00 AM	Centre Street						Centre Street						Whiting Road						Total	
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	5
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	5	5
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	4
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	6	16	16
% 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	62.5	37.5		
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	0.500	0.500	0.800	0.800
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	6	16	16
Exiting Leg	0						0						16						16	
Total	0						0						32						32	

PDI File #: **218169 C**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Whiting Road**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	150	0	150	54	2	0	56	3	0	0	3	209
4:15 PM	1	153	0	154	49	3	0	52	5	1	0	6	212
4:30 PM	1	174	0	175	44	2	0	46	4	0	0	4	225
4:45 PM	1	180	0	181	42	5	0	47	2	0	0	2	230
Total	3	657	0	660	189	12	0	201	14	1	0	15	876
5:00 PM	0	162	0	162	49	1	0	50	1	1	0	2	214
5:15 PM	0	199	0	199	65	3	0	68	1	0	0	1	268
5:30 PM	0	175	0	175	56	1	0	57	2	0	0	2	234
5:45 PM	0	185	0	185	41	4	0	45	4	1	0	5	235
Total	0	721	0	721	211	9	0	220	8	2	0	10	951
Grand Total	3	1378	0	1381	400	21	0	421	22	3	0	25	1827
Approach %	0.2	99.8	0.0		95.0	5.0	0.0		88.0	12.0	0.0		
Total %	0.2	75.4	0.0	75.6	21.9	1.1	0.0	23.0	1.2	0.2	0.0	1.4	
Exiting Leg Total				403				1400				24	1827
Cars	3	1335	0	1338	389	21	0	410	22	3	0	25	1773
% Cars	100.0	96.9	0.0	96.9	97.3	100.0	0.0	97.4	100.0	100.0	0.0	100.0	97.0
Exiting Leg Total				392				1357				24	1773
Heavy Vehicles	0	43	0	43	11	0	0	11	0	0	0	0	54
% Heavy Vehicles	0.0	3.1	0.0	3.1	2.8	0.0	0.0	2.6	0.0	0.0	0.0	0.0	3.0
Exiting Leg Total				11				43				0	54

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

5:00 PM	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
5:00 PM	0	162	0	162	49	1	0	50	1	1	0	2	214
5:15 PM	0	199	0	199	65	3	0	68	1	0	0	1	268
5:30 PM	0	175	0	175	56	1	0	57	2	0	0	2	234
5:45 PM	0	185	0	185	41	4	0	45	4	1	0	5	235
Total Volume	0	721	0	721	211	9	0	220	8	2	0	10	951
% Approach Total	0.0	100.0	0.0		95.9	4.1	0.0		80.0	20.0	0.0		
PHF	0.000	0.906	0.000	0.906	0.812	0.563	0.000	0.809	0.500	0.500	0.000	0.500	0.887
Cars	0	701	0	701	206	9	0	215	8	2	0	10	926
Cars %	0.0	97.2	0.0	97.2	97.6	100.0	0.0	97.7	100.0	100.0	0.0	100.0	97.4
Heavy Vehicles	0	20	0	20	5	0	0	5	0	0	0	0	25
Heavy Vehicles %	0.0	2.8	0.0	2.8	2.4	0.0	0.0	2.3	0.0	0.0	0.0	0.0	2.6
Cars Enter Leg	0	701	0	701	206	9	0	215	8	2	0	10	926
Heavy Enter Leg	0	20	0	20	5	0	0	5	0	0	0	0	25
Total Entering Leg	0	721	0	721	211	9	0	220	8	2	0	10	951
Cars Exiting Leg				208				709				9	926
Heavy Exiting Leg				5				20				0	25
Total Exiting Leg				213				729				9	951

PDI File #: **218169 C**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Whiting Road**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	141	0	141	53	2	0	55	3	0	0	3	199
4:15 PM	1	148	0	149	48	3	0	51	5	1	0	6	206
4:30 PM	1	169	0	170	43	2	0	45	4	0	0	4	219
4:45 PM	1	176	0	177	39	5	0	44	2	0	0	2	223
Total	3	634	0	637	183	12	0	195	14	1	0	15	847
5:00 PM	0	155	0	155	49	1	0	50	1	1	0	2	207
5:15 PM	0	193	0	193	64	3	0	67	1	0	0	1	261
5:30 PM	0	172	0	172	52	1	0	53	2	0	0	2	227
5:45 PM	0	181	0	181	41	4	0	45	4	1	0	5	231
Total	0	701	0	701	206	9	0	215	8	2	0	10	926
Grand Total	3	1335	0	1338	389	21	0	410	22	3	0	25	1773
Approach %	0.2	99.8	0.0		94.9	5.1	0.0		88.0	12.0	0.0		
Total %	0.2	75.3	0.0	75.5	21.9	1.2	0.0	23.1	1.2	0.2	0.0	1.4	
Exiting Leg Total	392				1357				24				1773

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

5:00 PM	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
5:00 PM	0	155	0	155	49	1	0	50	1	1	0	2	207
5:15 PM	0	193	0	193	64	3	0	67	1	0	0	1	261
5:30 PM	0	172	0	172	52	1	0	53	2	0	0	2	227
5:45 PM	0	181	0	181	41	4	0	45	4	1	0	5	231
Total Volume	0	701	0	701	206	9	0	215	8	2	0	10	926
% Approach Total	0.0	100.0	0.0		95.8	4.2	0.0		80.0	20.0	0.0		
PHF	0.000	0.908	0.000	0.908	0.805	0.563	0.000	0.802	0.500	0.500	0.000	0.500	0.887
Entering Leg	0	701	0	701	206	9	0	215	8	2	0	10	926
Exiting Leg				208				709				9	926
Total				909				924				19	1852

PDI File #: **218169 C**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Whiting Road**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**



Class:

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

	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	9	0	9	1	0	0	1	0	0	0	0	10
4:15 PM	0	5	0	5	1	0	0	1	0	0	0	0	6
4:30 PM	0	5	0	5	1	0	0	1	0	0	0	0	6
4:45 PM	0	4	0	4	3	0	0	3	0	0	0	0	7
Total	0	23	0	23	6	0	0	6	0	0	0	0	29
5:00 PM	0	7	0	7	0	0	0	0	0	0	0	0	7
5:15 PM	0	6	0	6	1	0	0	1	0	0	0	0	7
5:30 PM	0	3	0	3	4	0	0	4	0	0	0	0	7
5:45 PM	0	4	0	4	0	0	0	0	0	0	0	0	4
Total	0	20	0	20	5	0	0	5	0	0	0	0	25
Grand Total	0	43	0	43	11	0	0	11	0	0	0	0	54
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	79.6	0.0	79.6	20.4	0.0	0.0	20.4	0.0	0.0	0.0	0.0	
Exiting Leg Total	11				43				0				54
Buses	0	3	0	3	4	0	0	4	0	0	0	0	7
% Buses	0.0	7.0	0.0	7.0	36.4	0.0	0.0	36.4	0.0	0.0	0.0	0.0	13.0
Exiting Leg Total	4				3				0				7
Single-Unit Trucks	0	39	0	39	7	0	0	7	0	0	0	0	46
% Single-Unit	0.0	90.7	0.0	90.7	63.6	0.0	0.0	63.6	0.0	0.0	0.0	0.0	85.2
Exiting Leg Total	7				39				0				46
Articulated Trucks	0	1	0	1	0	0	0	0	0	0	0	0	1
% Articulated	0.0	2.3	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
Exiting Leg Total	0				1				0				1

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

4:00 PM	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	9	0	9	1	0	0	1	0	0	0	0	10
4:15 PM	0	5	0	5	1	0	0	1	0	0	0	0	6
4:30 PM	0	5	0	5	1	0	0	1	0	0	0	0	6
4:45 PM	0	4	0	4	3	0	0	3	0	0	0	0	7
Total Volume	0	23	0	23	6	0	0	6	0	0	0	0	29
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.639	0.000	0.639	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.725
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	0	22	0	22	6	0	0	6	0	0	0	0	28
Single-Unit %	0.0	95.7	0.0	95.7	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	96.6
Articulated Trucks	0	1	0	1	0	0	0	0	0	0	0	0	1
Articulated %	0.0	4.3	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	0	22	0	22	6	0	0	6	0	0	0	0	28
Articulated Trucks	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Entering Leg	0	23	0	23	6	0	0	6	0	0	0	0	29
Buses				0				0					0
Single-Unit Trucks				6				22					28
Articulated Trucks				0				1					1
Total Exiting Leg				6				23					29

PDI File #: **218169 C**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Whiting Road**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
5:30 PM	0	1	0	1	3	0	0	3	0	0	0	0	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	3	4	0	0	4	0	0	0	0	7
Grand Total	0	3	0	3	4	0	0	4	0	0	0	0	7
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	42.9	0.0	42.9	57.1	0.0	0.0	57.1	0.0	0.0	0.0	0.0	
Exiting Leg Total	4				3				0				7

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

4:45 PM	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
5:30 PM	0	1	0	1	3	0	0	3	0	0	0	0	4
Total Volume	0	3	0	3	4	0	0	4	0	0	0	0	7
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.750	0.000	0.750	0.333	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.438
Entering Leg	0	3	0	3	4	0	0	4	0	0	0	0	7
Exiting Leg				4				3				0	7
Total				7				7				0	14

PDI File #: **218169 C**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Whiting Road**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Single-Unit Trucks

	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	9	0	9	1	0	0	1	0	0	0	0	10
4:15 PM	0	5	0	5	1	0	0	1	0	0	0	0	6
4:30 PM	0	4	0	4	1	0	0	1	0	0	0	0	5
4:45 PM	0	4	0	4	3	0	0	3	0	0	0	0	7
Total	0	22	0	22	6	0	0	6	0	0	0	0	28
5:00 PM	0	6	0	6	0	0	0	0	0	0	0	0	6
5:15 PM	0	5	0	5	0	0	0	0	0	0	0	0	5
5:30 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
5:45 PM	0	4	0	4	0	0	0	0	0	0	0	0	4
Total	0	17	0	17	1	0	0	1	0	0	0	0	18
Grand Total	0	39	0	39	7	0	0	7	0	0	0	0	46
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	84.8	0.0	84.8	15.2	0.0	0.0	15.2	0.0	0.0	0.0	0.0	
Exiting Leg Total	7				39				0				46

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

4:00 PM	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	9	0	9	1	0	0	1	0	0	0	0	10
4:15 PM	0	5	0	5	1	0	0	1	0	0	0	0	6
4:30 PM	0	4	0	4	1	0	0	1	0	0	0	0	5
4:45 PM	0	4	0	4	3	0	0	3	0	0	0	0	7
Total Volume	0	22	0	22	6	0	0	6	0	0	0	0	28
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.611	0.000	0.611	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.700
Entering Leg	0	22	0	22	6	0	0	6	0	0	0	0	28
Exiting Leg				6				22				0	28
Total				28				28				0	56

PDI File #: **218169 C**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Whiting Road**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Articulated Trucks

	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	1	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
Total	0	1	0	1	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
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	1	0	0	0	0	0	0	0	0	1
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0				1				0				1

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

4:00 PM	Centre Street				Centre Street				Whiting Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	1	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
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	1	0	1	0	0	0	0	0	0	0	0	1
Exiting Leg				0				1				0	1
Total				1				1				0	2

PDI File #: **218169 C**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Whiting Road**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**



Bicycles (on Roadway and Crosswalks)

	Centre Street						Centre Street						Whiting Road						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	1	0	0	0	1	1	1	0	0	0	2	0	0	0	0	0	0	3
4:15 PM	0	1	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	2
4:30 PM	0	2	0	0	0	2	1	0	0	0	0	1	0	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	2
Total	0	4	0	0	0	4	4	1	0	0	0	5	1	0	0	0	0	1	10
5:00 PM	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	2
5:15 PM	0	1	0	0	0	1	2	0	0	0	0	2	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	2	2	3
5:45 PM	0	3	0	0	0	3	5	0	0	0	0	5	0	0	0	0	0	0	8
Total	0	4	0	0	0	4	10	0	0	0	0	10	0	0	0	0	2	2	16
Grand Total	0	8	0	0	0	8	14	1	0	0	0	15	1	0	0	0	2	3	26
Approach %	0.0	100.0	0.0	0.0	0.0		93.3	6.7	0.0	0.0	0.0		33.3	0.0	0.0	0.0	66.7		
Total %	0.0	30.8	0.0	0.0	0.0	30.8	53.8	3.8	0.0	0.0	0.0	57.7	3.8	0.0	0.0	0.0	7.7	11.5	
Exiting Leg Total	14						9						3						26

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

4:00 PM	Centre Street						Centre Street						Whiting Road						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	1	0	0	0	1	1	1	0	0	0	2	0	0	0	0	0	0	3
4:15 PM	0	1	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	2
4:30 PM	0	2	0	0	0	2	1	0	0	0	0	1	0	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	2
Total Volume	0	4	0	0	0	4	4	1	0	0	0	5	1	0	0	0	0	1	10
% Approach Total	0.0	100.0	0.0	0.0	0.0		80.0	20.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.000	0.500	1.000	0.250	0.000	0.000	0.000	0.625	0.250	0.000	0.000	0.000	0.000	0.250	0.833
Entering Leg	0	4	0	0	0	4	4	1	0	0	0	5	1	0	0	0	0	1	10
Exiting Leg	4						5						1						10
Total	8						10						2						20

PDI File #: **218169 C**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Whiting Road**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Centre Street						Centre Street						Whiting Road						Total	
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	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
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
5:15 PM	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	1	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6	6
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	6	10	10
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	60		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	60	100	
Exiting Leg Total	0						0						10						10	

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

5:00 PM	Centre Street						Centre Street						Whiting Road						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	3
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6	6
% 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	33.3	66.7		
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	0.500	0.500	0.500	0.500
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6	6
Exiting Leg	0						0						6						6
Total	0						0						12						12

PDI File #: **218169 D**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Dedham Street**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 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
 Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	11	27	0	38	237	0	0	237	0	43	0	43	318
7:15 AM	12	28	0	40	246	0	0	246	0	35	0	35	321
7:30 AM	22	66	0	88	291	0	0	291	1	53	0	54	433
7:45 AM	33	79	0	112	271	3	0	274	0	56	0	56	442
Total	78	200	0	278	1045	3	0	1048	1	187	0	188	1514
8:00 AM	30	74	0	104	282	25	0	307	1	34	0	35	446
8:15 AM	39	69	0	108	257	6	0	263	1	44	0	45	416
8:30 AM	30	57	0	87	233	1	0	234	1	61	0	62	383
8:45 AM	33	58	0	91	195	1	0	196	2	30	0	32	319
Total	132	258	0	390	967	33	0	1000	5	169	0	174	1564
Grand Total	210	458	0	668	2012	36	0	2048	6	356	0	362	3078
Approach %	31.4	68.6	0.0		98.2	1.8	0.0		1.7	98.3	0.0		
Total %	6.8	14.9	0.0	21.7	65.4	1.2	0.0	66.5	0.2	11.6	0.0	11.8	
Exiting Leg Total	2368				464				246				3078
Cars	201	424	0	625	1901	35	0	1936	6	344	0	350	2911
% Cars	95.7	92.6	0.0	93.6	94.5	97.2	0.0	94.5	100.0	96.6	0.0	96.7	94.6
Exiting Leg Total	2245				430				236				2911
Heavy Vehicles	9	34	0	43	111	1	0	112	0	12	0	12	167
% Heavy Vehicles	4.3	7.4	0.0	6.4	5.5	2.8	0.0	5.5	0.0	3.4	0.0	3.3	5.4
Exiting Leg Total	123				34				10				167

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

7:30 AM	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:30 AM	22	66	0	88	291	0	0	291	1	53	0	54	433
7:45 AM	33	79	0	112	271	3	0	274	0	56	0	56	442
8:00 AM	30	74	0	104	282	25	0	307	1	34	0	35	446
8:15 AM	39	69	0	108	257	6	0	263	1	44	0	45	416
Total Volume	124	288	0	412	1101	34	0	1135	3	187	0	190	1737
% Approach Total	30.1	69.9	0.0		97.0	3.0	0.0		1.6	98.4	0.0		
PHF	0.795	0.911	0.000	0.920	0.946	0.340	0.000	0.924	0.750	0.835	0.000	0.848	0.974
Cars	118	273	0	391	1042	33	0	1075	3	179	0	182	1648
Cars %	95.2	94.8	0.0	94.9	94.6	97.1	0.0	94.7	100.0	95.7	0.0	95.8	94.9
Heavy Vehicles	6	15	0	21	59	1	0	60	0	8	0	8	89
Heavy Vehicles %	4.8	5.2	0.0	5.1	5.4	2.9	0.0	5.3	0.0	4.3	0.0	4.2	5.1
Cars Enter Leg	118	273	0	391	1042	33	0	1075	3	179	0	182	1648
Heavy Enter Leg	6	15	0	21	59	1	0	60	0	8	0	8	89
Total Entering Leg	124	288	0	412	1101	34	0	1135	3	187	0	190	1737
Cars Exiting Leg	1221				276				151				1648
Heavy Exiting Leg	67				15				7				89
Total Exiting Leg	1288				291				158				1737

PDI File #: **218169 D**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Dedham Street**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 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
 Office: 508-875-0100 Fax: 508-875-0118

Cars

	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	11	19	0	30	225	0	0	225	0	43	0	43	298
7:15 AM	11	25	0	36	239	0	0	239	0	35	0	35	310
7:30 AM	21	61	0	82	281	0	0	281	1	49	0	50	413
7:45 AM	32	73	0	105	260	3	0	263	0	56	0	56	424
Total	75	178	0	253	1005	3	0	1008	1	183	0	184	1445
8:00 AM	28	73	0	101	256	25	0	281	1	31	0	32	414
8:15 AM	37	66	0	103	245	5	0	250	1	43	0	44	397
8:30 AM	28	53	0	81	215	1	0	216	1	59	0	60	357
8:45 AM	33	54	0	87	180	1	0	181	2	28	0	30	298
Total	126	246	0	372	896	32	0	928	5	161	0	166	1466
Grand Total	201	424	0	625	1901	35	0	1936	6	344	0	350	2911
Approach %	32.2	67.8	0.0		98.2	1.8	0.0		1.7	98.3	0.0		
Total %	6.9	14.6	0.0	21.5	65.3	1.2	0.0	66.5	0.2	11.8	0.0	12.0	
Exiting Leg Total	2245				430				236				2911

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

7:30 AM	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:30 AM	21	61	0	82	281	0	0	281	1	49	0	50	413
7:45 AM	32	73	0	105	260	3	0	263	0	56	0	56	424
8:00 AM	28	73	0	101	256	25	0	281	1	31	0	32	414
8:15 AM	37	66	0	103	245	5	0	250	1	43	0	44	397
Total Volume	118	273	0	391	1042	33	0	1075	3	179	0	182	1648
% Approach Total	30.2	69.8	0.0		96.9	3.1	0.0		1.6	98.4	0.0		
PHF	0.797	0.935	0.000	0.931	0.927	0.330	0.000	0.956	0.750	0.799	0.000	0.813	0.972
Entering Leg	118	273	0	391	1042	33	0	1075	3	179	0	182	1648
Exiting Leg				1221				276				151	1648
Total				1612				1351				333	3296

PDI File #: **218169 D**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Dedham Street**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class: **heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



PRECISION
D A T A
INDUSTRIES, LLC

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

	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	0	8	0	8	12	0	0	12	0	0	0	0	20
7:15 AM	1	3	0	4	7	0	0	7	0	0	0	0	11
7:30 AM	1	5	0	6	10	0	0	10	0	4	0	4	20
7:45 AM	1	6	0	7	11	0	0	11	0	0	0	0	18
Total	3	22	0	25	40	0	0	40	0	4	0	4	69
8:00 AM	2	1	0	3	26	0	0	26	0	3	0	3	32
8:15 AM	2	3	0	5	12	1	0	13	0	1	0	1	19
8:30 AM	2	4	0	6	18	0	0	18	0	2	0	2	26
8:45 AM	0	4	0	4	15	0	0	15	0	2	0	2	21
Total	6	12	0	18	71	1	0	72	0	8	0	8	98
Grand Total	9	34	0	43	111	1	0	112	0	12	0	12	167
Approach %	20.9	79.1	0.0		99.1	0.9	0.0		0.0	100.0	0.0		
Total %	5.4	20.4	0.0	25.7	66.5	0.6	0.0	67.1	0.0	7.2	0.0	7.2	
Exiting Leg Total	123				34				10				167
Buses	4	7	0	11	9	1	0	10	0	3	0	3	24
% Buses	44.4	20.6	0.0	25.6	8.1	100.0	0.0	8.9	0.0	25.0	0.0	25.0	14.4
Exiting Leg Total	12				7				5				24
Single-Unit Trucks	4	23	0	27	80	0	0	80	0	9	0	9	116
% Single-Unit	44.4	67.6	0.0	62.8	72.1	0.0	0.0	71.4	0.0	75.0	0.0	75.0	69.5
Exiting Leg Total	89				23				4				116
Articulated Trucks	1	4	0	5	22	0	0	22	0	0	0	0	27
% Articulated	11.1	11.8	0.0	11.6	19.8	0.0	0.0	19.6	0.0	0.0	0.0	0.0	16.2
Exiting Leg Total	22				4				1				27

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

8:00 AM	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
8:00 AM	2	1	0	3	26	0	0	26	0	3	0	3	32
8:15 AM	2	3	0	5	12	1	0	13	0	1	0	1	19
8:30 AM	2	4	0	6	18	0	0	18	0	2	0	2	26
8:45 AM	0	4	0	4	15	0	0	15	0	2	0	2	21
Total Volume	6	12	0	18	71	1	0	72	0	8	0	8	98
% Approach Total	33.3	66.7	0.0		98.6	1.4	0.0		0.0	100.0	0.0		
PHF	0.750	0.750	0.000	0.750	0.683	0.250	0.000	0.692	0.000	0.667	0.000	0.667	0.766
Buses	1	1	0	2	1	1	0	2	0	0	0	0	4
Buses %	16.7	8.3	0.0	11.1	1.4	100.0	0.0	2.8	0.0	0.0	0.0	0.0	4.1
Single-Unit Trucks	4	11	0	15	55	0	0	55	0	8	0	8	78
Single-Unit %	66.7	91.7	0.0	83.3	77.5	0.0	0.0	76.4	0.0	100.0	0.0	100.0	79.6
Articulated Trucks	1	0	0	1	15	0	0	15	0	0	0	0	16
Articulated %	16.7	0.0	0.0	5.6	21.1	0.0	0.0	20.8	0.0	0.0	0.0	0.0	16.3
Buses	1	1	0	2	1	1	0	2	0	0	0	0	4
Single-Unit Trucks	4	11	0	15	55	0	0	55	0	8	0	8	78
Articulated Trucks	1	0	0	1	15	0	0	15	0	0	0	0	16
Total Entering Leg	6	12	0	18	71	1	0	72	0	8	0	8	98
Buses				1				1				2	4
Single-Unit Trucks				63				11				4	78
Articulated Trucks				15				0				1	16
Total Exiting Leg				79				12				7	99

PDI File #: **218169 D**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Dedham Street**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 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
 Office: 508-875-0100 Fax: 508-875-0118

Buses

	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
7:15 AM	1	0	0	1	5	0	0	5	0	0	0	0	6
7:30 AM	1	5	0	6	2	0	0	2	0	3	0	3	11
7:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	3	6	0	9	8	0	0	8	0	3	0	3	20
8:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:30 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	1	0	2	1	1	0	2	0	0	0	0	4
Grand Total	4	7	0	11	9	1	0	10	0	3	0	3	24
Approach %	36.4	63.6	0.0		90.0	10.0	0.0		0.0	100.0	0.0		
Total %	16.7	29.2	0.0	45.8	37.5	4.2	0.0	41.7	0.0	12.5	0.0	12.5	
Exiting Leg Total	12				7				5				24

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

7:00 AM	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
7:15 AM	1	0	0	1	5	0	0	5	0	0	0	0	6
7:30 AM	1	5	0	6	2	0	0	2	0	3	0	3	11
7:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	3	6		9	8	0	0	8	0	3	0	3	20
% Approach Total	33.3	66.7	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.750	0.300	0.000	0.375	0.400	0.000	0.000	0.400	0.000	0.250	0.000	0.250	0.455
Entering Leg	3	6	0	9	8	0	0	8	0	3	0	3	20
Exiting Leg	11				6				3				20
Total	20				14				6				40

PDI File #: **218169 D**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Dedham Street**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 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
 Office: 508-875-0100 Fax: 508-875-0118

Single-Unit Trucks

	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	0	4	0	4	9	0	0	9	0	0	0	0	13
7:15 AM	0	2	0	2	2	0	0	2	0	0	0	0	4
7:30 AM	0	0	0	0	6	0	0	6	0	1	0	1	7
7:45 AM	0	6	0	6	8	0	0	8	0	0	0	0	14
Total	0	12	0	12	25	0	0	25	0	1	0	1	38
8:00 AM	1	1	0	2	22	0	0	22	0	3	0	3	27
8:15 AM	2	3	0	5	8	0	0	8	0	1	0	1	14
8:30 AM	1	3	0	4	14	0	0	14	0	2	0	2	20
8:45 AM	0	4	0	4	11	0	0	11	0	2	0	2	17
Total	4	11	0	15	55	0	0	55	0	8	0	8	78
Grand Total	4	23	0	27	80	0	0	80	0	9	0	9	116
Approach %	14.8	85.2	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	3.4	19.8	0.0	23.3	69.0	0.0	0.0	69.0	0.0	7.8	0.0	7.8	
Exiting Leg Total	89				23				4				116

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

8:00 AM	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
8:00 AM	1	1	0	2	22	0	0	22	0	3	0	3	27
8:15 AM	2	3	0	5	8	0	0	8	0	1	0	1	14
8:30 AM	1	3	0	4	14	0	0	14	0	2	0	2	20
8:45 AM	0	4	0	4	11	0	0	11	0	2	0	2	17
Total Volume	4	11	0	15	55	0	0	55	0	8	0	8	78
% Approach Total	26.7	73.3	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.500	0.688	0.000	0.750	0.625	0.000	0.000	0.625	0.000	0.667	0.000	0.667	0.722
Entering Leg	4	11	0	15	55	0	0	55	0	8	0	8	78
Exiting Leg				63				11				4	78
Total				78				66				12	156

PDI File #: **218169 D**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Dedham Street**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 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
 Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	0	3	0	3	2	0	0	2	0	0	0	0	5
7:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
7:45 AM	0	0	0	0	3	0	0	3	0	0	0	0	3
Total	0	4	0	4	7	0	0	7	0	0	0	0	11
8:00 AM	0	0	0	0	4	0	0	4	0	0	0	0	4
8:15 AM	0	0	0	0	4	0	0	4	0	0	0	0	4
8:30 AM	1	0	0	1	3	0	0	3	0	0	0	0	4
8:45 AM	0	0	0	0	4	0	0	4	0	0	0	0	4
Total	1	0	0	1	15	0	0	15	0	0	0	0	16
Grand Total	1	4	0	5	22	0	0	22	0	0	0	0	27
Approach %	20.0	80.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	3.7	14.8	0.0	18.5	81.5	0.0	0.0	81.5	0.0	0.0	0.0	0.0	
Exiting Leg Total	22				4				1				27

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

8:00 AM	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
8:00 AM	0	0	0	0	4	0	0	4	0	0	0	0	4
8:15 AM	0	0	0	0	4	0	0	4	0	0	0	0	4
8:30 AM	1	0	0	1	3	0	0	3	0	0	0	0	4
8:45 AM	0	0	0	0	4	0	0	4	0	0	0	0	4
Total Volume	1	0	0	1	15	0	0	15	0	0	0	0	16
% Approach Total	100.0	0.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.250	0.938	0.000	0.000	0.938	0.000	0.000	0.000	0.000	1.000
Entering Leg	1	0	0	1	15	0	0	15	0	0	0	0	16
Exiting Leg	15				0				1				16
Total	16				15				1				32

PDI File #: **218169 D**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Dedham Street**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**



Class: **Bicycles (on Roadway and Crosswalks)**

	Centre Street						Centre Street						Dedham Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	1	0	0	0	0	1	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
7:30 AM	1	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	0	0	2	1	0	0	0	0	1	0	0	0	0	0	0	3
8:00 AM	0	1	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	1	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	2	0	0	0	3	1	0	0	0	0	1	0	1	0	0	0	1	5
Grand Total	3	2	0	0	0	5	2	0	0	0	0	2	0	1	0	0	0	1	8
Approach %	60.0	40.0	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		
Total %	37.5	25.0	0.0	0.0	0.0	62.5	25.0	0.0	0.0	0.0	0.0	25.0	0.0	12.5	0.0	0.0	0.0	12.5	
Exiting Leg Total	3						2						3						8

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

7:15 AM	Centre Street						Centre Street						Dedham Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	1	3
Total Volume	1	1	0	0	0	2	2	0	0	0	0	2	0	1	0	0	0	1	5
% Approach Total	50.0	50.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	
PHF	0.250	0.250	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.000	0.500	0.000	0.250	0.000	0.000	0.000	0.250	0.417
Entering Leg	1	1	0	0	0	2	2	0	0	0	0	2	0	1	0	0	0	1	5
Exiting Leg	3						1						1						5
Total	5						3						2						10

PDI File #: **218169 D**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Dedham Street**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

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

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

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

PDI File #: **218169 D**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Dedham Street**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 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
 Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	41	206	0	247	85	3	0	88	3	15	0	18	353
4:15 PM	47	233	0	280	87	4	0	91	4	18	0	22	393
4:30 PM	45	216	0	261	81	11	0	92	2	13	0	15	368
4:45 PM	40	227	0	267	68	0	0	68	2	21	0	23	358
Total	173	882	0	1055	321	18	0	339	11	67	0	78	1472
5:00 PM	43	198	0	241	79	1	0	80	2	20	0	22	343
5:15 PM	37	235	0	272	93	2	0	95	0	24	0	24	391
5:30 PM	39	211	0	250	87	8	0	95	1	14	0	15	360
5:45 PM	45	222	0	267	64	1	0	65	3	21	0	24	356
Total	164	866	0	1030	323	12	0	335	6	79	0	85	1450
Grand Total	337	1748	0	2085	644	30	0	674	17	146	0	163	2922
Approach %	16.2	83.8	0.0		95.5	4.5	0.0		10.4	89.6	0.0		
Total %	11.5	59.8	0.0	71.4	22.0	1.0	0.0	23.1	0.6	5.0	0.0	5.6	
Exiting Leg Total	790				1765				367				2922
Cars	336	1690	0	2026	627	29	0	656	16	145	0	161	2843
% Cars	99.7	96.7	0.0	97.2	97.4	96.7	0.0	97.3	94.1	99.3	0.0	98.8	97.3
Exiting Leg Total	772				1706				365				2843
Heavy Vehicles	1	58	0	59	17	1	0	18	1	1	0	2	79
% Heavy Vehicles	0.3	3.3	0.0	2.8	2.6	3.3	0.0	2.7	5.9	0.7	0.0	1.2	2.7
Exiting Leg Total	18				59				2				79

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

4:00 PM	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	41	206	0	247	85	3	0	88	3	15	0	18	353
4:15 PM	47	233	0	280	87	4	0	91	4	18	0	22	393
4:30 PM	45	216	0	261	81	11	0	92	2	13	0	15	368
4:45 PM	40	227	0	267	68	0	0	68	2	21	0	23	358
Total Volume	173	882	0	1055	321	18	0	339	11	67	0	78	1472
% Approach Total	16.4	83.6	0.0		94.7	5.3	0.0		14.1	85.9	0.0		
PHF	0.920	0.946	0.000	0.942	0.922	0.409	0.000	0.921	0.688	0.798	0.000	0.848	0.936
Cars	173	849	0	1022	311	17	0	328	11	67	0	78	1428
Cars %	100.0	96.3	0.0	96.9	96.9	94.4	0.0	96.8	100.0	100.0	0.0	100.0	97.0
Heavy Vehicles	0	33	0	33	10	1	0	11	0	0	0	0	44
Heavy Vehicles %	0.0	3.7	0.0	3.1	3.1	5.6	0.0	3.2	0.0	0.0	0.0	0.0	3.0
Cars Enter Leg	173	849	0	1022	311	17	0	328	11	67	0	78	1428
Heavy Enter Leg	0	33	0	33	10	1	0	11	0	0	0	0	44
Total Entering Leg	173	882	0	1055	321	18	0	339	11	67	0	78	1472
Cars Exiting Leg				378				860				190	1428
Heavy Exiting Leg				10				33				1	44
Total Exiting Leg				388				893				191	1472

PDI File #: **218169 D**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Dedham Street**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 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
 Office: 508-875-0100 Fax: 508-875-0118

Cars

	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	41	196	0	237	83	3	0	86	3	15	0	18	341
4:15 PM	47	223	0	270	84	4	0	88	4	18	0	22	380
4:30 PM	45	207	0	252	78	10	0	88	2	13	0	15	355
4:45 PM	40	223	0	263	66	0	0	66	2	21	0	23	352
Total	173	849	0	1022	311	17	0	328	11	67	0	78	1428
5:00 PM	43	190	0	233	78	1	0	79	2	20	0	22	334
5:15 PM	37	228	0	265	91	2	0	93	0	24	0	24	382
5:30 PM	38	208	0	246	83	8	0	91	0	14	0	14	351
5:45 PM	45	215	0	260	64	1	0	65	3	20	0	23	348
Total	163	841	0	1004	316	12	0	328	5	78	0	83	1415
Grand Total	336	1690	0	2026	627	29	0	656	16	145	0	161	2843
Approach %	16.6	83.4	0.0		95.6	4.4	0.0		9.9	90.1	0.0		
Total %	11.8	59.4	0.0	71.3	22.1	1.0	0.0	23.1	0.6	5.1	0.0	5.7	
Exiting Leg Total	772				1706				365				2843

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

4:00 PM	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	41	196	0	237	83	3	0	86	3	15	0	18	341
4:15 PM	47	223	0	270	84	4	0	88	4	18	0	22	380
4:30 PM	45	207	0	252	78	10	0	88	2	13	0	15	355
4:45 PM	40	223	0	263	66	0	0	66	2	21	0	23	352
Total Volume	173	849	0	1022	311	17	0	328	11	67	0	78	1428
% Approach Total	16.9	83.1	0.0		94.8	5.2	0.0		14.1	85.9	0.0		
PHF	0.920	0.952	0.000	0.946	0.926	0.425	0.000	0.932	0.688	0.798	0.000	0.848	0.939
Entering Leg	173	849	0	1022	311	17	0	328	11	67	0	78	1428
Exiting Leg				378				860				190	1428
Total				1400				1188				268	2856

PDI File #: **218169 D**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Dedham Street**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 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
Office: 508-875-0100 Fax: 508-875-0118

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

	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	10	0	10	2	0	0	2	0	0	0	0	12
4:15 PM	0	10	0	10	3	0	0	3	0	0	0	0	13
4:30 PM	0	9	0	9	3	1	0	4	0	0	0	0	13
4:45 PM	0	4	0	4	2	0	0	2	0	0	0	0	6
Total	0	33	0	33	10	1	0	11	0	0	0	0	44
5:00 PM	0	8	0	8	1	0	0	1	0	0	0	0	9
5:15 PM	0	7	0	7	2	0	0	2	0	0	0	0	9
5:30 PM	1	3	0	4	4	0	0	4	1	0	0	1	9
5:45 PM	0	7	0	7	0	0	0	0	0	1	0	1	8
Total	1	25	0	26	7	0	0	7	1	1	0	2	35
Grand Total	1	58	0	59	17	1	0	18	1	1	0	2	79
Approach %	1.7	98.3	0.0		94.4	5.6	0.0		50.0	50.0	0.0		
Total %	1.3	73.4	0.0	74.7	21.5	1.3	0.0	22.8	1.3	1.3	0.0	2.5	
Exiting Leg Total	18				59				2				79
Buses	0	3	0	3	6	1	0	7	0	0	0	0	10
% Buses	0.0	5.2	0.0	5.1	35.3	100.0	0.0	38.9	0.0	0.0	0.0	0.0	12.7
Exiting Leg Total	6				3				1				10
Single-Unit Trucks	1	44	0	45	8	0	0	8	0	1	0	1	54
% Single-Unit	100.0	75.9	0.0	76.3	47.1	0.0	0.0	44.4	0.0	100.0	0.0	50.0	68.4
Exiting Leg Total	9				44				1				54
Articulated Trucks	0	11	0	11	3	0	0	3	1	0	0	1	15
% Articulated	0.0	19.0	0.0	18.6	17.6	0.0	0.0	16.7	100.0	0.0	0.0	50.0	19.0
Exiting Leg Total	3				12				0				15

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

4:00 PM	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	10	0	10	2	0	0	2	0	0	0	0	12
4:15 PM	0	10	0	10	3	0	0	3	0	0	0	0	13
4:30 PM	0	9	0	9	3	1	0	4	0	0	0	0	13
4:45 PM	0	4	0	4	2	0	0	2	0	0	0	0	6
Total Volume	0	33	0	33	10	1	0	11	0	0	0	0	44
% Approach Total	0.0	100.0	0.0		90.9	9.1	0.0		0.0	0.0	0.0		
PHF	0.000	0.825	0.000	0.825	0.833	0.250	0.000	0.688	0.000	0.000	0.000	0.000	0.846
Buses	0	1	0	1	1	1	0	2	0	0	0	0	3
Buses %	0.0	3.0	0.0	3.0	10.0	100.0	0.0	18.2	0.0	0.0	0.0	0.0	6.8
Single-Unit Trucks	0	27	0	27	6	0	0	6	0	0	0	0	33
Single-Unit %	0.0	81.8	0.0	81.8	60.0	0.0	0.0	54.5	0.0	0.0	0.0	0.0	75.0
Articulated Trucks	0	5	0	5	3	0	0	3	0	0	0	0	8
Articulated %	0.0	15.2	0.0	15.2	30.0	0.0	0.0	27.3	0.0	0.0	0.0	0.0	18.2
Buses	0	1	0	1	1	1	0	2	0	0	0	0	3
Single-Unit Trucks	0	27	0	27	6	0	0	6	0	0	0	0	33
Articulated Trucks	0	5	0	5	3	0	0	3	0	0	0	0	8
Total Entering Leg	0	33	0	33	10	1	0	11	0	0	0	0	44
Buses				1				1				1	3
Single-Unit Trucks				6				27				0	33
Articulated Trucks				3				5				0	8
Total Exiting Leg				10				33				1	44

PDI File #: **218169 D**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Dedham Street**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 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
 Office: 508-875-0100 Fax: 508-875-0118

Buses

	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	1	0	1	0	1	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	1	1	0	2	0	0	0	0	3
5:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	1	2	0	0	2	0	0	0	0	3
5:30 PM	0	0	0	0	3	0	0	3	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	2	5	0	0	5	0	0	0	0	7
Grand Total	0	3	0	3	6	1	0	7	0	0	0	0	10
Approach %	0.0	100.0	0.0		85.7	14.3	0.0		0.0	0.0	0.0		
Total %	0.0	30.0	0.0	30.0	60.0	10.0	0.0	70.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	6				3				1				10

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

4:45 PM	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	1	2	0	0	2	0	0	0	0	3
5:30 PM	0	0	0	0	3	0	0	3	0	0	0	0	3
Total Volume	0	2	0	2	5	0	0	5	0	0	0	0	7
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.500	0.417	0.000	0.000	0.417	0.000	0.000	0.000	0.000	0.583
Entering Leg	0	2	0	2	5	0	0	5	0	0	0	0	7
Exiting Leg	5				2				0				7
Total	7				7				0				14

PDI File #: **218169 D**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Dedham Street**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



PRECISION
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 INDUSTRIES, LLC

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

Single-Unit Trucks

	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	8	0	8	0	0	0	0	0	0	0	0	8
4:15 PM	0	9	0	9	2	0	0	2	0	0	0	0	11
4:30 PM	0	6	0	6	2	0	0	2	0	0	0	0	8
4:45 PM	0	4	0	4	2	0	0	2	0	0	0	0	6
Total	0	27	0	27	6	0	0	6	0	0	0	0	33
5:00 PM	0	5	0	5	1	0	0	1	0	0	0	0	6
5:15 PM	0	5	0	5	0	0	0	0	0	0	0	0	5
5:30 PM	1	2	0	3	1	0	0	1	0	0	0	0	4
5:45 PM	0	5	0	5	0	0	0	0	0	1	0	1	6
Total	1	17	0	18	2	0	0	2	0	1	0	1	21
Grand Total	1	44	0	45	8	0	0	8	0	1	0	1	54
Approach %	2.2	97.8	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	1.9	81.5	0.0	83.3	14.8	0.0	0.0	14.8	0.0	1.9	0.0	1.9	
Exiting Leg Total	9				44				1				54

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

4:00 PM	Centre Street				Centre Street				Dedham Street				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
4:00 PM	0	8	0	8	0	0	0	0	0	0	0	0	0	8
4:15 PM	0	9	0	9	2	0	0	2	0	0	0	0	0	11
4:30 PM	0	6	0	6	2	0	0	2	0	0	0	0	0	8
4:45 PM	0	4	0	4	2	0	0	2	0	0	0	0	0	6
Total Volume	0	27	0	27	6	0	0	6	0	0	0	0	0	33
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0			
PHF	0.000	0.750	0.000	0.750	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000		0.750
Entering Leg	0	27	0	27	6	0	0	6	0	0	0	0		33
Exiting Leg	6				27				0					33
Total	33				33				0					66

PDI File #: **218169 D**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Dedham Street**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 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
 Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
4:15 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
4:30 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	5	0	5	3	0	0	3	0	0	0	0	8
5:00 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
5:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
5:30 PM	0	1	0	1	0	0	0	0	1	0	0	1	2
5:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	0	6	0	6	0	0	0	0	1	0	0	1	7
Grand Total	0	11	0	11	3	0	0	3	1	0	0	1	15
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		100.0	0.0	0.0		
Total %	0.0	73.3	0.0	73.3	20.0	0.0	0.0	20.0	6.7	0.0	0.0	6.7	
Exiting Leg Total	3				12				0				15

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

4:00 PM	Centre Street				Centre Street				Dedham Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
4:15 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
4:30 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	5	0	5	3	0	0	3	0	0	0	0	8
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.625	0.000	0.625	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.667
Entering Leg	0	5	0	5	3	0	0	3	0	0	0	0	8
Exiting Leg	3				5				0				8
Total	8				8				0				16

PDI File #: **218169 D**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Dedham Street**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**



Class:

Bicycles (on Roadway and Crosswalks)

	Centre Street						Centre Street						Dedham Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	2	1	0	0	0	3	2	0	0	0	0	2	0	1	0	0	0	1	6
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
4:30 PM	0	1	0	0	0	1	4	0	0	0	0	4	0	1	0	0	0	1	6
4:45 PM	0	1	0	0	0	1	3	0	0	0	0	3	0	0	0	0	0	0	4
Total	2	3	0	0	0	5	9	0	0	0	0	9	0	3	0	0	0	3	17
5:00 PM	0	1	0	0	0	1	3	0	0	0	0	3	0	1	0	0	0	1	5
5:15 PM	0	1	0	0	0	1	2	0	0	0	0	2	0	1	0	0	0	1	4
5:30 PM	1	0	0	0	0	1	3	0	0	0	0	3	0	1	0	0	0	1	5
5:45 PM	2	1	0	0	0	3	4	0	0	0	0	4	0	0	0	0	0	0	7
Total	3	3	0	0	0	6	12	0	0	0	0	12	0	3	0	0	0	3	21
Grand Total	5	6	0	0	0	11	21	0	0	0	0	21	0	6	0	0	0	6	38
Approach %	45.5	54.5	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		
Total %	13.2	15.8	0.0	0.0	0.0	28.9	55.3	0.0	0.0	0.0	0.0	55.3	0.0	15.8	0.0	0.0	0.0	15.8	
Exiting Leg Total	27						6						5						38

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

5:00 PM	Centre Street						Centre Street						Dedham Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	1	0	0	0	1	3	0	0	0	0	3	0	1	0	0	0	1	5
5:15 PM	0	1	0	0	0	1	2	0	0	0	0	2	0	1	0	0	0	1	4
5:30 PM	1	0	0	0	0	1	3	0	0	0	0	3	0	1	0	0	0	1	5
5:45 PM	2	1	0	0	0	3	4	0	0	0	0	4	0	0	0	0	0	0	7
Total Volume	3	3	0	0	0	6	12	0	0	0	0	12	0	3	0	0	0	3	21
% Approach Total	50.0	50.0	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		
PHF	0.375	0.750	0.000	0.000	0.000	0.500	0.750	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.000	0.000	0.000	0.750	0.750
Entering Leg	3	3	0	0	0	6	12	0	0	0	0	12	0	3	0	0	0	3	21
Exiting Leg	15						3						3						21
Total	21						15						6						42

PDI File #: **218169 D**
 Location: **N: Centre Street S: Centre Street**
 Location: **W: Dedham Street**
 City, State: **Dover, MA**
 Client: **Nitsch Engineering/ N. Havan**
 Site Code: **14238.3**
 Count Date: **Wednesday, October 6, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Centre Street						Centre Street						Dedham Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Approach %	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	100	0	100	
Exiting Leg Total	0						0						1						1

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

5:15 PM	Centre Street						Centre Street						Dedham Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
6:00 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
% 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	100.0	0.0		
PHF	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	0.500
Entering Leg	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Exiting Leg	1						0						1						2
Total	2						0						2						4



Appendix B: MassDOT's 2017 Weekday Seasonal Adjustment Factors

Massachusetts Highway Department
Statewide Traffic Data Collection
2017 Weekday Seasonal Factors

Factor Group	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Axle Factor
R1	1.30	1.23	1.21	1.04	0.98	0.92	0.86	0.81	0.95	0.99	1.03	1.10	0.80
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	1.05	1.01	1.04	0.99	0.94	0.93	0.91	0.92	0.96	0.94	1.01	1.03	0.97
R4-R7	1.10	1.07	1.09	1.00	0.95	0.89	0.88	0.87	0.92	0.95	1.04	1.09	0.93
U1-Boston	1.01	1.04	0.99	0.94	0.93	0.92	0.96	0.93	0.94	0.93	0.95	0.98	0.95
U1-Essex	1.04	1.05	1.00	0.96	0.93	0.89	0.90	0.90	0.93	0.93	0.98	1.03	0.90
U1-Southeast	1.07	1.05	1.02	0.97	0.95	0.90	0.89	0.88	0.92	0.94	0.98	1.01	0.97
U1-West	1.00	0.96	0.94	0.92	0.93	0.92	0.95	0.93	0.92	0.92	0.97	0.97	0.89
U1-Worcester	1.10	1.10	1.04	0.97	0.95	0.94	0.93	0.91	0.95	0.96	0.98	1.04	0.89
U2	1.01	1.03	0.98	0.95	0.93	0.91	0.94	0.92	0.95	0.95	0.95	0.97	0.98
U3	1.03	1.05	1.01	0.95	0.92	0.90	0.94	0.93	0.93	0.92	0.96	0.99	0.96
U4-U7	1.06	1.05	1.02	0.96	0.92	0.89	0.95	0.95	0.92	0.92	0.98	1.03	0.98
Rec - East	1.18	1.17	1.08	1.03	0.95	0.87	0.83	0.83	0.97	0.98	1.19	1.19	0.98
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	0.95

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.



Appendix C: Crash Rate Worksheets

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : DOVER COUNT DATE : 10/22/2021

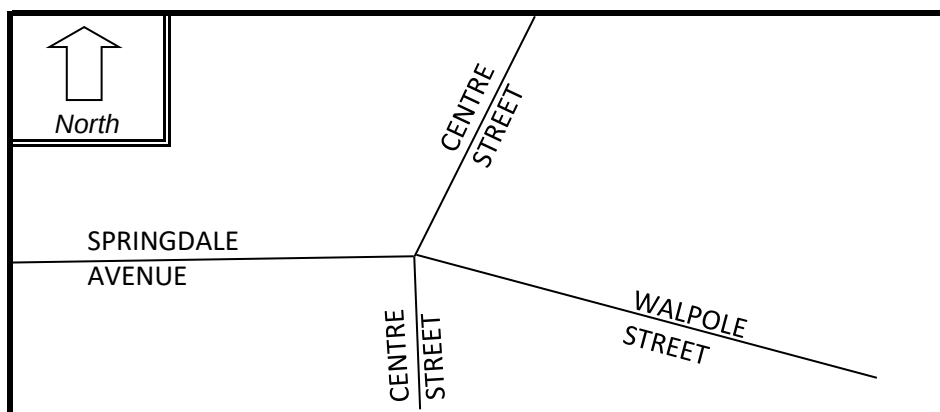
DISTRICT : 6 UNSIGNALIZED : ☐ SIGNALIZED : ☒

~ INTERSECTION DATA ~

MAJOR STREET : CENTRE STREET

MINOR STREET(S) : SPRINGDALE AVENUE / WALPOLE 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) :	294	316	619	538		1,767

" K " FACTOR :

0.08

INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

22,088

TOTAL # OF CRASHES :

22

OF YEARS :

5

AVERAGE # OF CRASHES PER YEAR (A) :

4.40

CRASH RATE CALCULATION :

0.55

RATE =

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

Comments : AM PEAK USED

Project Title & Date: Dover Community Center

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : DOVER COUNT DATE : 10/22/2021

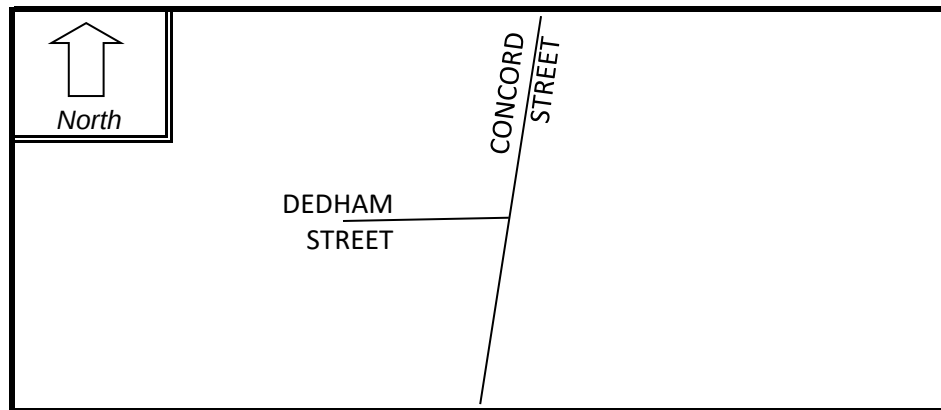
DISTRICT : 6 UNSIGNALIZED : ☒ SIGNALIZED : ☐

~ INTERSECTION DATA ~

MAJOR STREET : CENTRE STREET

MINOR STREET(S) : DEDHAM 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) :	190	0	1,147	309		1,646

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

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

CRASH RATE CALCULATION :

0.13

RATE =

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

Comments : AM Peak Used

Project Title & Date: Dover Community Center

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : DOVER COUNT DATE : 10/22/2021

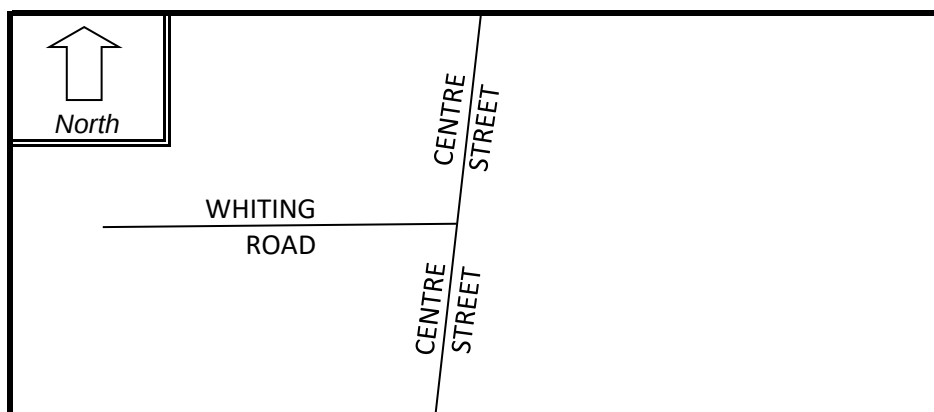
DISTRICT : 6 UNSIGNALIZED : ☒ SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : CENTRE STREET

MINOR STREET(S) : WHITING 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) :	10	0	615	187		812

" K " FACTOR :

0.08

INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

10,150

TOTAL # OF CRASHES :

2

OF YEARS :

5

AVERAGE # OF CRASHES PER YEAR (A) :

0.40

CRASH RATE CALCULATION :

0.11

RATE =

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

Comments : AM Peak Used

Project Title & Date: Dover Community Center

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : DOVER COUNT DATE : 10/22/2021

DISTRICT : 6 UNSIGNALIZED : ☒ SIGNALIZED : ☐

~ INTERSECTION DATA ~

MAJOR STREET : SPRONGDALE AVENUE

MINOR STREET(S) : WHITING 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) :	304	240	29	0		573

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

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

CRASH RATE CALCULATION :

RATE =

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

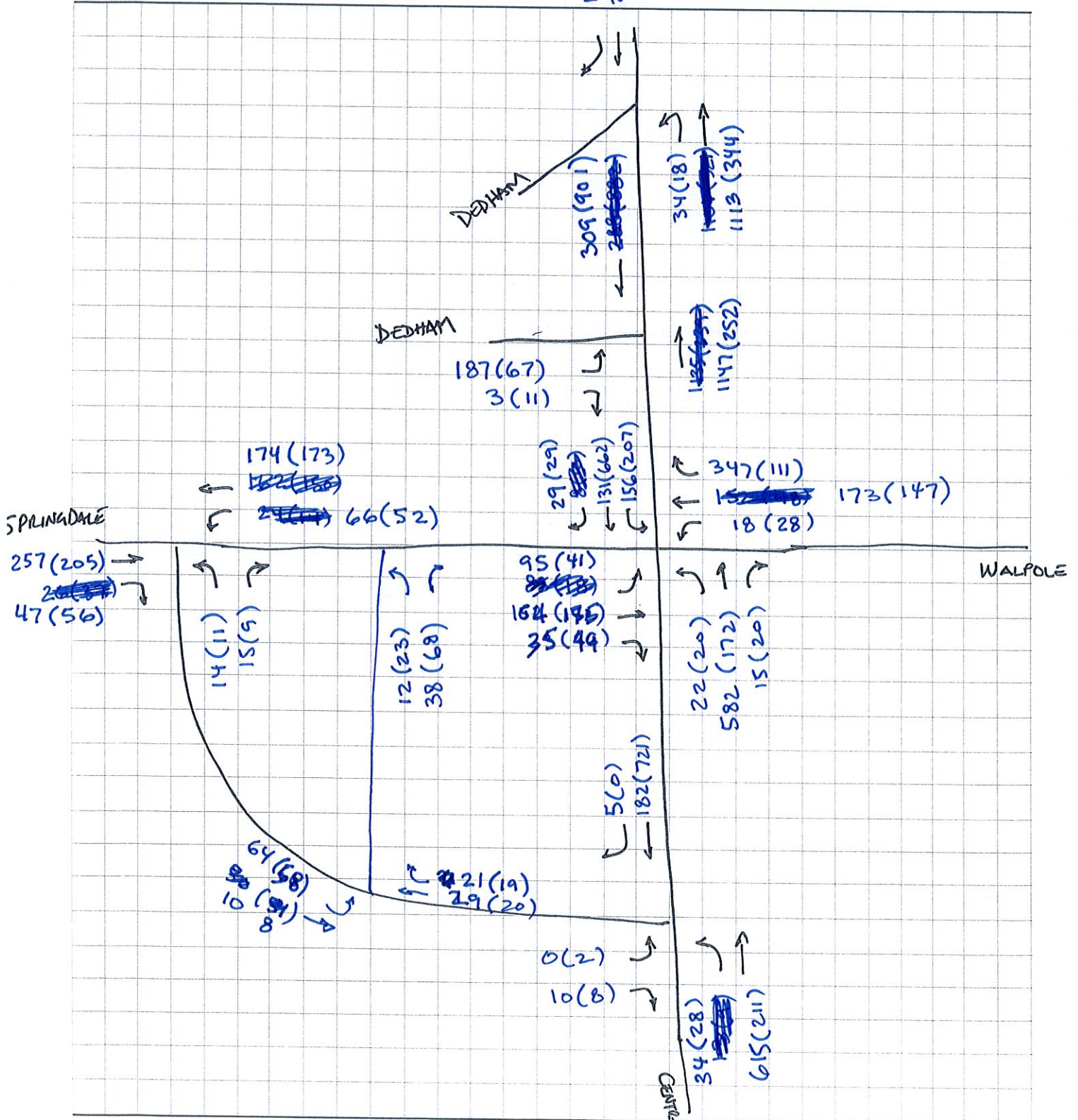
Comments : AM Peak Used

Project Title & Date: Dover Community Center

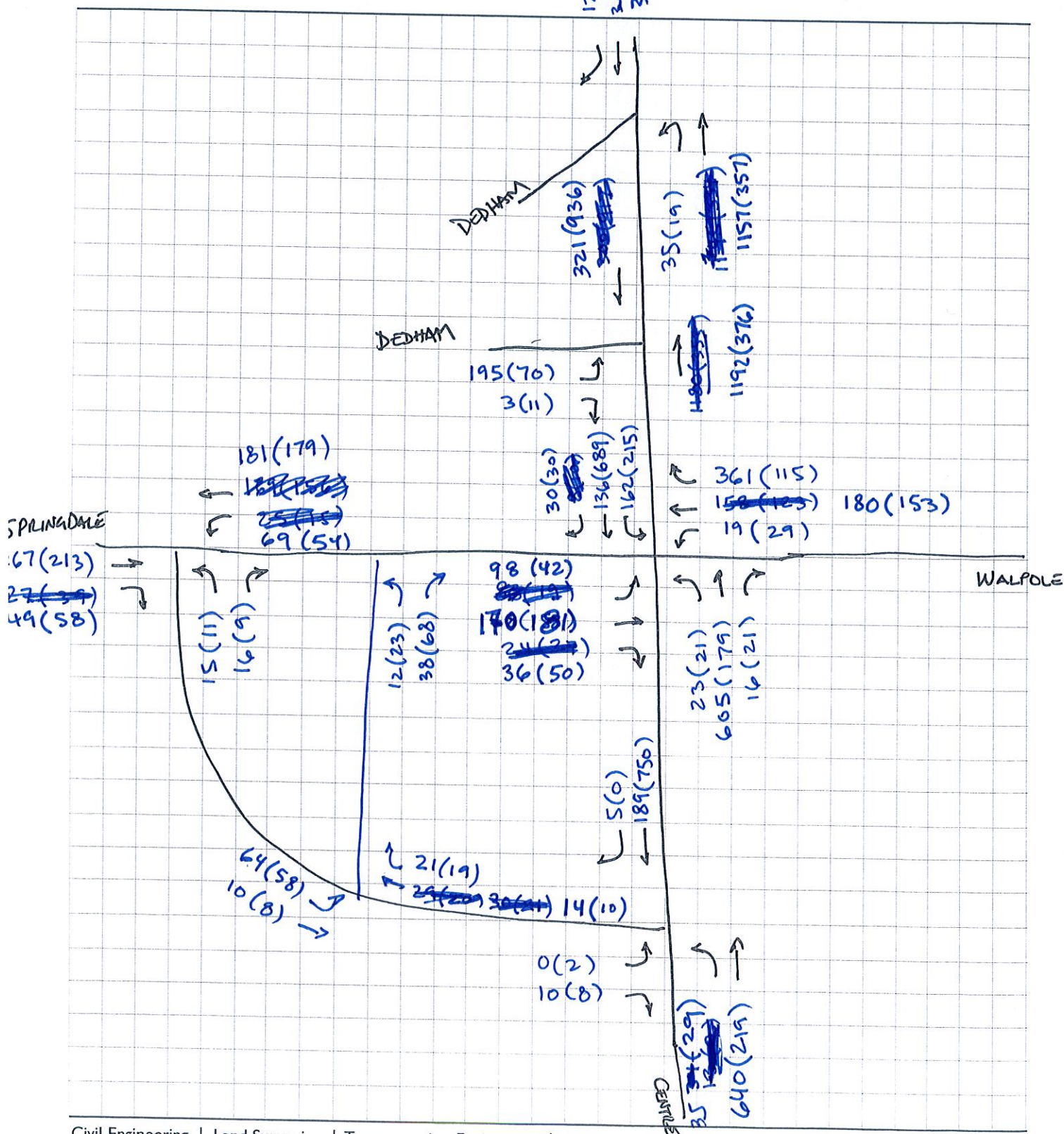


Appendix D: Detailed Trip Generation

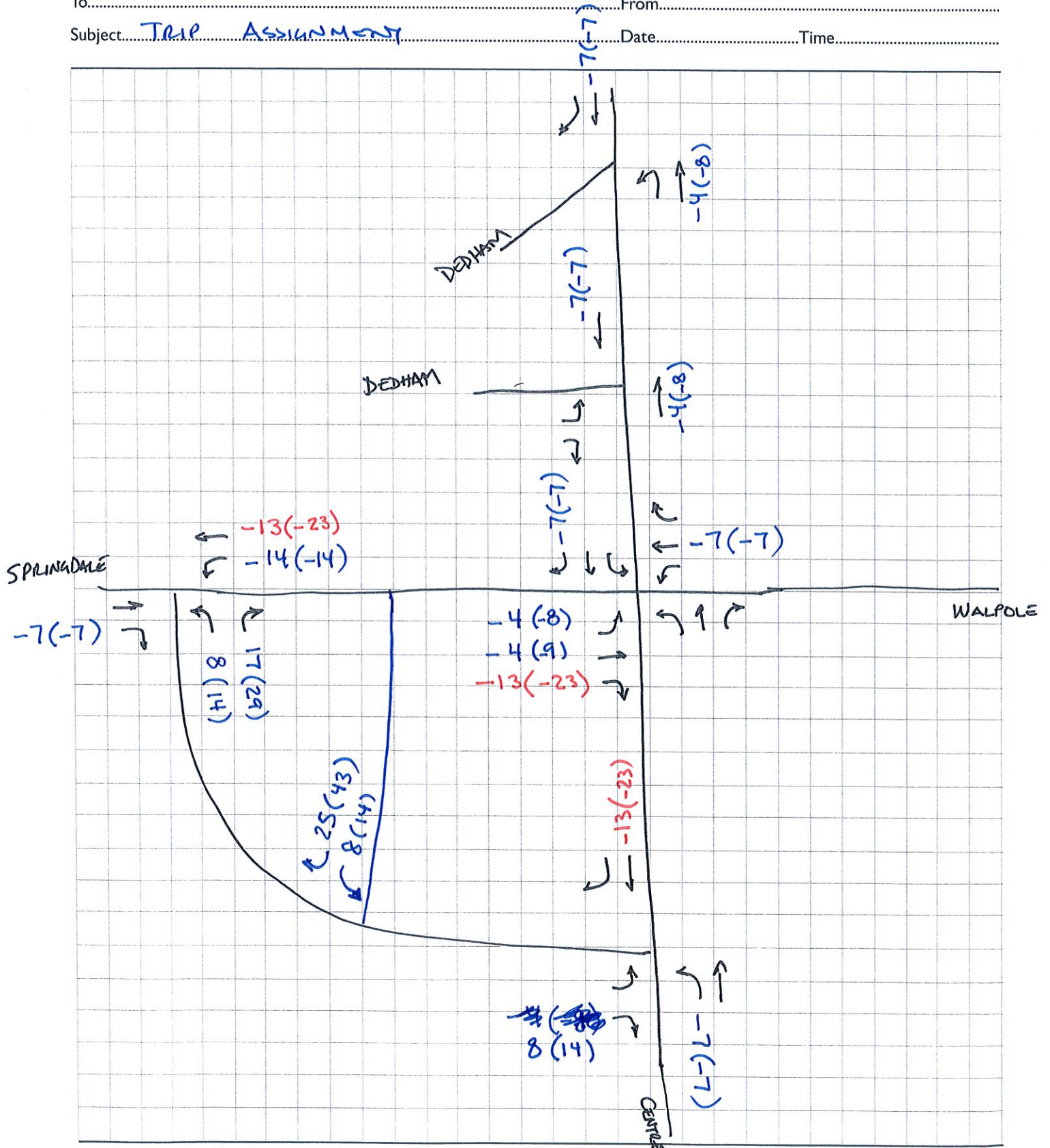
Project Dover Project No. _____ Sheet _____ of _____
 Location _____ Tel. No. _____
 To _____ From _____
 Subject EXISTING PEAK HOUR VOLUMES Date _____ Time _____



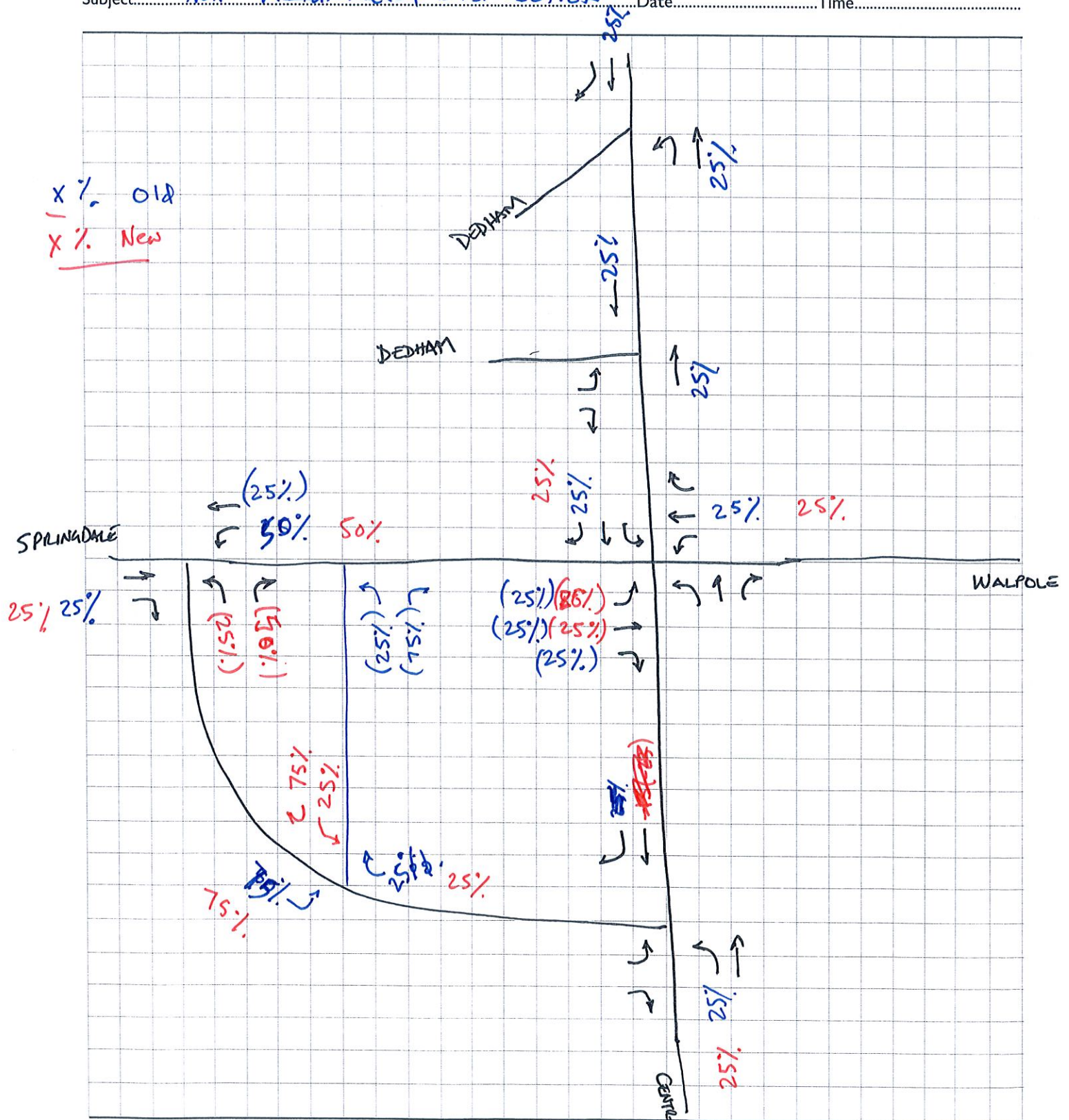
Project.....Dover.....Project No.....Sheet.....of.....
 Location.....Tel. No.....
 To.....From.....
 Subject.....Future NO-BUILD.....Date.....Time.....



Project..... Dover Project No..... Sheet..... of.....
 Location..... Tel. No.....
 To..... From.....
 Subject..... TRIP ASSIGNMENT Date..... Time.....



Project..... D-sec Project No..... Sheet..... of.....
Location..... Tel. No.....
To..... From.....
Subject..... TRIP ~~Assignment~~ Distribution Date..... Time.....

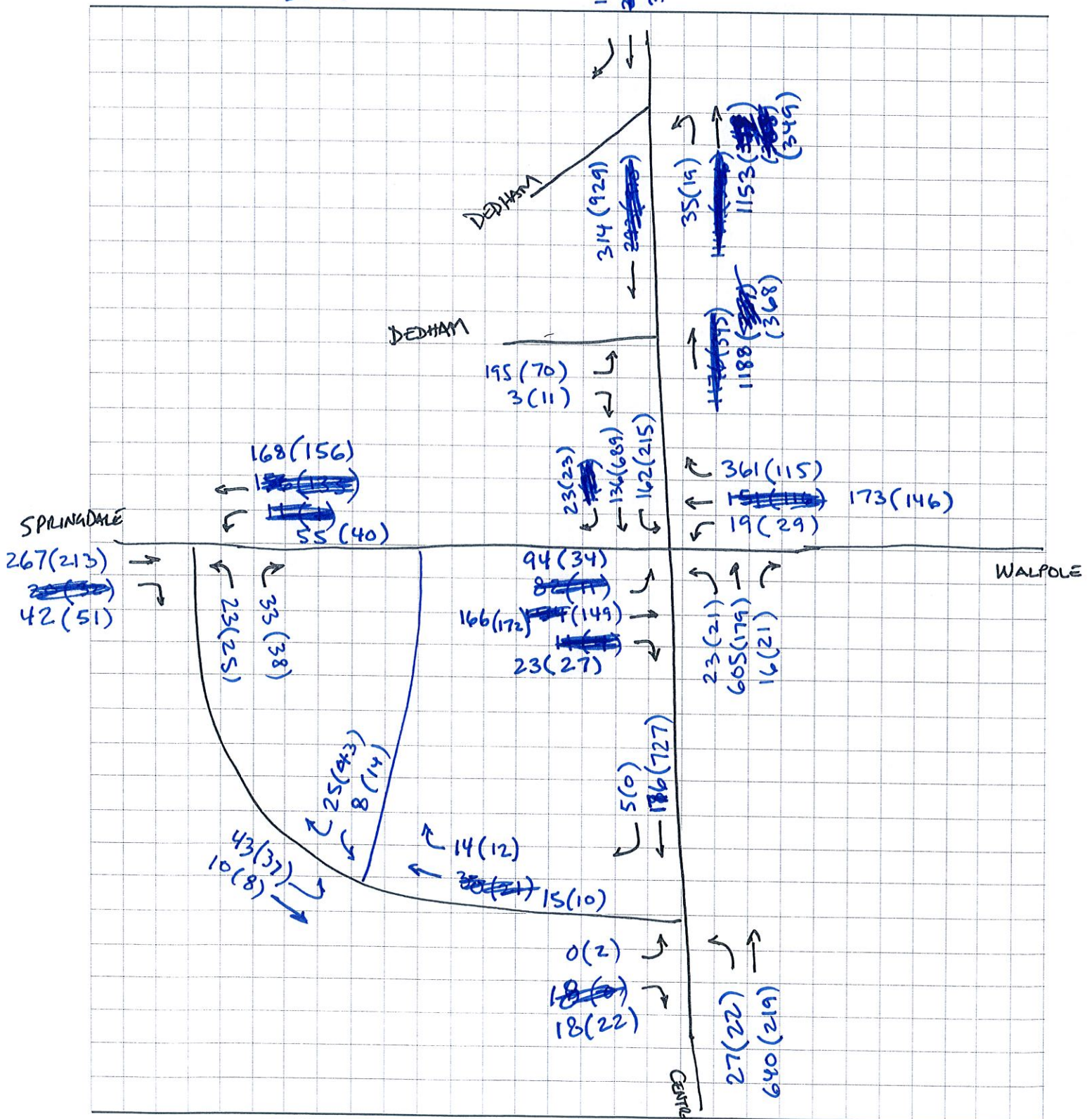


Project.....Project No.....Sheet.....of.....

Location..... Tel. No.....

To..... From.....

Subject FUTURE BUILD Date 11/11/23 Time 10:00





Appendix E: Capacity Analysis

Lanes, Volumes, Timings
3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations												
Traffic Volume (vph)	95	164	35	22	582	15	18	173	347	156	131	29
Future Volume (vph)	95	164	35	22	582	15	18	173	347	156	131	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	60	0		0		0	0		0		0	60
Storage Lanes	1	1		0		0	0		0		1	1
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.997			0.918				0.850
Flt Protected	0.950				0.997			0.997			0.950	
Satd. Flow (prot)	1719	1551	0	0	1802	0	0	1662	0	0	1703	1615
Flt Permitted	0.363				0.894			0.894			0.549	
Satd. Flow (perm)	657	1551	0	0	1616	0	0	1490	0	0	984	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		64			2			103				64
Link Speed (mph)	25				25			25			25	
Link Distance (ft)	262				987			561			1243	
Travel Time (s)	7.1				26.9			15.3			33.9	
Peak Hour Factor	0.69	0.68	0.64	0.63	0.96	0.92	0.45	0.73	0.80	0.77	0.74	0.67
Heavy Vehicles (%)	5%	3%	9%	0%	5%	7%	0%	3%	6%	6%	6%	0%
Adj. Flow (vph)	138	241	55	35	606	16	40	237	434	203	177	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	138	296	0	0	657	0	0	711	0	0	380	43
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	12				0			0			12	
Link Offset(ft)	0				0			0			0	
Crosswalk Width(ft)	16				16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15		9	15		9	15	15	9
Number of Detectors	1	1		1	2		1	2		1	1	1
Detector Template	Left	Right		Left	Thru		Left	Thru		Left	Left	Right
Leading Detector (ft)	20	20		20	100		20	100		20	20	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	20		20	6		20	6		20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)					94			94				
Detector 2 Size(ft)					6			6				
Detector 2 Type					Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0				
Turn Type	Perm	Perm		Perm	NA		Perm	NA		Perm	Perm	Perm
Protected Phases					2			6				

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9

Lanes, Volumes, Timings
3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Permitted Phases	12	12		2			6			16	16	16
Detector Phase	12	12		2	2		6	6		16	16	16
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	23.0	23.0		23.0	23.0		23.0	23.0		23.0	23.0	23.0
Total Split (s)	35.0	35.0		35.0	35.0		35.0	35.0		35.0	35.0	35.0
Total Split (%)	41.2%	41.2%		41.2%	41.2%		41.2%	41.2%		41.2%	41.2%	41.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
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	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?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		Min	Min		None	None	None
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	11.0	11.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	30.0	30.0			30.0			30.0			30.0	30.0
Actuated g/C Ratio	0.35	0.35			0.35			0.35			0.35	0.35
v/c Ratio	0.60	0.50			1.15			1.20			1.10	0.07
Control Delay	35.4	20.2			114.9			130.6			105.8	3.0
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	35.4	20.2			114.9			130.6			105.8	3.0
LOS	D	C			F			F			F	A
Approach Delay	25.1				114.9			130.6			95.4	
Approach LOS	C				F			F			F	
90th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
90th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Max	Max
70th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
70th %ile Term Code	Hold	Hold		Max	Max		Max	Max		Max	Max	Max
50th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
50th %ile Term Code	Hold	Hold		Max	Max		Max	Max		Max	Max	Max
30th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
30th %ile Term Code	Hold	Hold		Max	Max		Max	Max		Max	Max	Max
10th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
10th %ile Term Code	Hold	Hold		Max	Max		Max	Max		Max	Max	Max
Stops (vph)	79	122			504			381			229	3
Fuel Used(gal)	1	2			22			18			10	0
CO Emissions (g/hr)	84	121			1511			1282			706	24
NOx Emissions (g/hr)	16	24			294			249			137	5
VOC Emissions (g/hr)	19	28			350			297			164	5
Dilemma Vehicles (#)	0	0			0			0			0	0
Queue Length 50th (ft)	59	94			~419			~431			~232	0
Queue Length 95th (ft)	86	109			#628			#449			#295	4
Internal Link Dist (ft)	182				907			481			1163	
Turn Bay Length (ft)	60											60
Base Capacity (vph)	231	588			571			592			347	611

Lanes, Volumes, Timings
3: Centre St & Walpole St & Springdale St

10/22/2021

Lane Group	Ø9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	15.0
Total Split (s)	15.0
Total Split (%)	18%
Maximum Green (s)	12.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	1.0
Recall Mode	Ped
Walk Time (s)	8.0
Flash Dont Walk (s)	4.0
Pedestrian Calls (#/hr)	0
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	12.0
90th %ile Term Code	Ped
70th %ile Green (s)	12.0
70th %ile Term Code	Ped
50th %ile Green (s)	12.0
50th %ile Term Code	Ped
30th %ile Green (s)	12.0
30th %ile Term Code	Ped
10th %ile Green (s)	12.0
10th %ile Term Code	Ped
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
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	0.60	0.50			1.15			1.20			1.10	0.07

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 85

Natural Cycle: 140

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.20

Intersection Signal Delay: 98.7

Intersection LOS: F

Intersection Capacity Utilization 74.3%

ICU Level of Service D

Analysis Period (min) 15

90th %ile Actuated Cycle: 85

70th %ile Actuated Cycle: 85

50th %ile Actuated Cycle: 85

30th %ile Actuated Cycle: 85

10th %ile Actuated Cycle: 85

~ 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: 3: Centre St & Walpole St & Springdale St

 Ø2	 Ø9	 Ø12
35 s	15 s	35 s
 Ø6		 Ø16
35 s		35 s

Lane Group	Ø9
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

HCM Unsignalized Intersection Capacity Analysis

6: Whitting Rd & Springdale St

10/22/2021

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↱	↘↙	
Traffic Volume (veh/h)	257	47	66	174	14	15
Future Volume (Veh/h)	257	47	66	174	14	15
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.78	0.59	0.46	0.71	0.58	0.75
Hourly flow rate (vph)	329	80	143	245	24	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				356		
pX, platoon unblocked						
vC, conflicting volume			409		900	369
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			409		900	369
tC, single (s)			4.1		6.5	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.4
p0 queue free %			88		91	97
cM capacity (veh/h)			1161		266	666
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	409	388	44			
Volume Left	0	143	24			
Volume Right	80	0	20			
cSH	1700	1161	365			
Volume to Capacity	0.24	0.12	0.12			
Queue Length 95th (ft)	0	11	10			
Control Delay (s)	0.0	3.9	16.2			
Lane LOS		A	C			
Approach Delay (s)	0.0	3.9	16.2			
Approach LOS			C			
Intersection Summary						
Average Delay			2.7			
Intersection Capacity Utilization			42.5%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

9: Centre St & Dedham St

10/22/2021

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	187	3	0	1147	309	0
Future Volume (Veh/h)	187	3	0	1147	309	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.75	0.92	0.95	0.92	0.92
Hourly flow rate (vph)	223	4	0	1207	336	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				561		
pX, platoon unblocked	0.64					
vC, conflicting volume	1543	336	336			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1567	336	336			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	99	100			
cM capacity (veh/h)	77	711	1235			
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total	223	4	1207	336		
Volume Left	223	0	0	0		
Volume Right	0	4	0	0		
cSH	77	711	1700	1700		
Volume to Capacity	2.88	0.01	0.71	0.20		
Queue Length 95th (ft)	550	0	0	0		
Control Delay (s)	964.4	10.1	0.0	0.0		
Lane LOS	F	B				
Approach Delay (s)	947.6		0.0	0.0		
Approach LOS	F					
Intersection Summary						
Average Delay			121.5			
Intersection Capacity Utilization			77.4%	ICU Level of Service		D
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

11: Whitting Rd & Centre St

10/22/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	10	34	615	182	5
Future Volume (Veh/h)	0	10	34	615	182	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.63	0.54	0.99	0.80	0.42
Hourly flow rate (vph)	0	16	63	621	228	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					987	
pX, platoon unblocked						
vC, conflicting volume	981	234	240			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	981	234	240			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	100	98	95			
cM capacity (veh/h)	265	810	1292			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	16	684	240			
Volume Left	0	63	0			
Volume Right	16	0	12			
cSH	810	1292	1700			
Volume to Capacity	0.02	0.05	0.14			
Queue Length 95th (ft)	2	4	0			
Control Delay (s)	9.5	1.3	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.5	1.3	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			57.5%		ICU Level of Service	B
Analysis Period (min)			15			

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations												
Traffic Volume (vph)	41	175	49	20	172	20	28	147	111	207	662	29
Future Volume (vph)	41	175	49	20	172	20	28	147	111	207	662	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	60	0		0		0	0		0		0	60
Storage Lanes	1	1		0		0	0		0		1	1
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.985			0.957				0.850
Flt Protected	0.950				0.995			0.993			0.950	
Satd. Flow (prot)	1805	1615	0	0	1796	0	0	1754	0	0	1760	1615
Flt Permitted	0.132				0.911			0.893			0.739	
Satd. Flow (perm)	251	1615	0	0	1645	0	0	1578	0	0	1369	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		64			8			30				64
Link Speed (mph)	25				25			25				25
Link Distance (ft)	262				987			561			1243	
Travel Time (s)	7.1				26.9			15.3			33.9	
Peak Hour Factor	0.64	0.83	0.72	0.63	0.75	0.63	0.54	0.72	0.93	0.92	0.89	0.50
Heavy Vehicles (%)	0%	0%	0%	0%	4%	5%	7%	3%	1%	1%	3%	0%
Adj. Flow (vph)	64	211	68	32	229	32	52	204	119	225	744	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	279	0	0	293	0	0	375	0	0	969	58
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	12				0			0			12	
Link Offset(ft)	0				0			0			0	
Crosswalk Width(ft)	16				16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15		9	15		9	15	15	9
Number of Detectors	1	1		1	2		1	2		1	1	1
Detector Template	Left	Right		Left	Thru		Left	Thru		Left	Left	Right
Leading Detector (ft)	20	20		20	100		20	100		20	20	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	20		20	6		20	6		20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)					94			94				
Detector 2 Size(ft)					6			6				
Detector 2 Type					Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0				
Turn Type	Perm	Perm		Perm	NA		Perm	NA		Perm	Perm	Perm
Protected Phases					2			6				

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9

Lanes, Volumes, Timings
3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Permitted Phases	12	12		2			6			16	16	16
Detector Phase	12	12		2	2		6	6		16	16	16
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	23.0	23.0		23.0	23.0		23.0	23.0		23.0	23.0	23.0
Total Split (s)	35.0	35.0		35.0	35.0		35.0	35.0		35.0	35.0	35.0
Total Split (%)	41.2%	41.2%		41.2%	41.2%		41.2%	41.2%		41.2%	41.2%	41.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
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	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?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		Min	Min		None	None	None
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	11.0	11.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	30.2	30.2			21.3			21.3			30.2	30.2
Actuated g/C Ratio	0.39	0.39			0.28			0.28			0.39	0.39
v/c Ratio	0.65	0.41			0.63			0.82			1.80	0.09
Control Delay	57.1	16.3			29.8			38.3			388.2	5.0
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	57.1	16.3			29.8			38.3			388.2	5.0
LOS	E	B			C			D			F	A
Approach Delay	23.9				29.8			38.3			366.6	
Approach LOS	C				C			D			F	
90th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
90th %ile Term Code	Max	Max		Hold	Hold		Max	Max		Max	Max	Max
70th %ile Green (s)	30.0	30.0		26.3	26.3		26.3	26.3		30.0	30.0	30.0
70th %ile Term Code	Max	Max		Hold	Hold		Gap	Gap		Max	Max	Max
50th %ile Green (s)	30.0	30.0		21.3	21.3		21.3	21.3		30.0	30.0	30.0
50th %ile Term Code	Hold	Hold		Hold	Hold		Gap	Gap		Max	Max	Max
30th %ile Green (s)	30.0	30.0		17.6	17.6		17.6	17.6		30.0	30.0	30.0
30th %ile Term Code	Hold	Hold		Hold	Hold		Gap	Gap		Max	Max	Max
10th %ile Green (s)	30.0	30.0		12.9	12.9		12.9	12.9		30.0	30.0	30.0
10th %ile Term Code	Hold	Hold		Hold	Hold		Gap	Gap		Max	Max	Max
Stops (vph)	31	122			169			234			645	5
Fuel Used(gal)	1	2			4			4			80	0
CO Emissions (g/hr)	48	120			260			314			5617	25
NOx Emissions (g/hr)	9	23			51			61			1093	5
VOC Emissions (g/hr)	11	28			60			73			1302	6
Dilemma Vehicles (#)	0	0			0			0			0	0
Queue Length 50th (ft)	24	70			118			153			~703	0
Queue Length 95th (ft)	#58	137			152			179			#1033	2
Internal Link Dist (ft)	182				907			481			1163	
Turn Bay Length (ft)	60											60
Base Capacity (vph)	98	675			653			639			539	675

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

Lane Group	Ø9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	15.0
Total Split (s)	15.0
Total Split (%)	18%
Maximum Green (s)	12.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	1.0
Recall Mode	Ped
Walk Time (s)	8.0
Flash Dont Walk (s)	4.0
Pedestrian Calls (#/hr)	0
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	12.0
90th %ile Term Code	Ped
70th %ile Green (s)	12.0
70th %ile Term Code	Ped
50th %ile Green (s)	12.0
50th %ile Term Code	Ped
30th %ile Green (s)	12.0
30th %ile Term Code	Ped
10th %ile Green (s)	12.0
10th %ile Term Code	Ped
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
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	0.65	0.41			0.45			0.59			1.80	0.09

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 76.6

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.80

Intersection Signal Delay: 200.1

Intersection LOS: F

Intersection Capacity Utilization 86.2%

ICU Level of Service E

Analysis Period (min) 15

90th %ile Actuated Cycle: 85

70th %ile Actuated Cycle: 81.3

50th %ile Actuated Cycle: 76.3

30th %ile Actuated Cycle: 72.6

10th %ile Actuated Cycle: 67.9

~ 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: 3: Centre St & Walpole St & Springdale St

 Ø2	 Ø9	 Ø12
35 s	15 s	35 s
 Ø6		 Ø16
35 s		35 s

Lane Group	Ø9
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

HCM Unsignalized Intersection Capacity Analysis

6: Whitting Rd & Springdale St

10/22/2021

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	205	56	52	173	11	9
Future Volume (Veh/h)	205	56	52	173	11	9
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.77	0.88	0.70	0.71	0.55	0.45
Hourly flow rate (vph)	266	64	74	244	20	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	356					
pX, platoon unblocked						
vC, conflicting volume			330	690		298
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			330	690		298
tC, single (s)			4.1	6.4		6.2
tC, 2 stage (s)						
tF (s)			2.2	3.5		3.3
p0 queue free %			94	95		97
cM capacity (veh/h)			1241	389		734
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	330	318	40			
Volume Left	0	74	20			
Volume Right	64	0	20			
cSH	1700	1241	509			
Volume to Capacity	0.19	0.06	0.08			
Queue Length 95th (ft)	0	5	6			
Control Delay (s)	0.0	2.3	12.7			
Lane LOS			A			
Approach Delay (s)	0.0	2.3	12.7			
Approach LOS			B			
Intersection Summary						
Average Delay			1.8			
Intersection Capacity Utilization			39.5%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

9: Centre St & Dedham St

10/22/2021

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	67	11	0	252	901	0
Future Volume (Veh/h)	67	11	0	252	901	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.69	0.92	0.92	0.95	0.92
Hourly flow rate (vph)	84	16	0	274	948	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				561		
pX, platoon unblocked	0.97					
vC, conflicting volume	1222	948	948			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1213	948	948			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	57	95	100			
cM capacity (veh/h)	197	319	732			
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total	84	16	274	948		
Volume Left	84	0	0	0		
Volume Right	0	16	0	0		
cSH	197	319	1700	1700		
Volume to Capacity	0.43	0.05	0.16	0.56		
Queue Length 95th (ft)	49	4	0	0		
Control Delay (s)	36.3	16.9	0.0	0.0		
Lane LOS	E	C				
Approach Delay (s)	33.2		0.0	0.0		
Approach LOS	D					
Intersection Summary						
Average Delay			2.5			
Intersection Capacity Utilization			57.8%	ICU Level of Service		B
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

11: Whitting Rd & Centre St

10/22/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	8	28	211	721	0
Future Volume (Veh/h)	2	8	28	211	721	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.50	0.50	0.56	0.81	0.91	0.92
Hourly flow rate (vph)	4	16	50	260	792	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					987	
pX, platoon unblocked						
vC, conflicting volume	1152	792	792			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1152	792	792			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	96	94			
cM capacity (veh/h)	207	392	838			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	20	310	792			
Volume Left	4	50	0			
Volume Right	16	0	0			
cSH	333	838	1700			
Volume to Capacity	0.06	0.06	0.47			
Queue Length 95th (ft)	5	5	0			
Control Delay (s)	16.5	2.1	0.0			
Lane LOS	C	A				
Approach Delay (s)	16.5	2.1	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			47.9%	ICU Level of Service		A
Analysis Period (min)			15			

Lanes, Volumes, Timings
3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations												
Traffic Volume (vph)	98	170	36	23	605	16	19	180	361	162	136	30
Future Volume (vph)	98	170	36	23	605	16	19	180	361	162	136	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	60	0		0		0	0		0		0	60
Storage Lanes	1	1		0		0	0		0		1	1
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.997			0.918				0.850
Flt Protected	0.950				0.997			0.997			0.950	
Satd. Flow (prot)	1719	1551	0	0	1802	0	0	1662	0	0	1703	1615
Flt Permitted	0.346				0.880			0.880			0.536	
Satd. Flow (perm)	626	1551	0	0	1591	0	0	1467	0	0	961	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		64			2			102				64
Link Speed (mph)	25				25			25				25
Link Distance (ft)	262				987			561			1243	
Travel Time (s)	7.1				26.9			15.3			33.9	
Peak Hour Factor	0.69	0.68	0.64	0.63	0.96	0.92	0.45	0.73	0.80	0.77	0.74	0.67
Heavy Vehicles (%)	5%	3%	9%	0%	5%	7%	0%	3%	6%	6%	6%	0%
Adj. Flow (vph)	142	250	56	37	630	17	42	247	451	210	184	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	142	306	0	0	684	0	0	740	0	0	394	45
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	12				0			0			12	
Link Offset(ft)	0				0			0			0	
Crosswalk Width(ft)	16				16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15		9	15		9	15	15	9
Number of Detectors	1	1		1	2		1	2		1	1	1
Detector Template	Left	Right		Left	Thru		Left	Thru		Left	Left	Right
Leading Detector (ft)	20	20		20	100		20	100		20	20	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	20		20	6		20	6		20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)					94			94				
Detector 2 Size(ft)					6			6				
Detector 2 Type					Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0				
Turn Type	Perm	Perm		Perm	NA		Perm	NA		Perm	Perm	Perm
Protected Phases					2			6				

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9

Lanes, Volumes, Timings
3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Permitted Phases	12	12		2			6			16	16	16
Detector Phase	12	12		2	2		6	6		16	16	16
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	23.0	23.0		23.0	23.0		23.0	23.0		23.0	23.0	23.0
Total Split (s)	35.0	35.0		35.0	35.0		35.0	35.0		35.0	35.0	35.0
Total Split (%)	41.2%	41.2%		41.2%	41.2%		41.2%	41.2%		41.2%	41.2%	41.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
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	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?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		Min	Min		None	None	None
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	11.0	11.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	30.0	30.0			30.0			30.0			30.0	30.0
Actuated g/C Ratio	0.35	0.35			0.35			0.35			0.35	0.35
v/c Ratio	0.65	0.52			1.22			1.27			1.16	0.07
Control Delay	39.2	20.7			140.9			158.7			129.4	3.4
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	39.2	20.7			140.9			158.7			129.4	3.4
LOS	D	C			F			F			F	A
Approach Delay	26.6				140.9			158.7			116.5	
Approach LOS	C				F			F			F	
90th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
90th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Max	Max
70th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
70th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Max	Max
50th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
50th %ile Term Code	Hold	Hold		Max	Max		Max	Max		Max	Max	Max
30th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
30th %ile Term Code	Hold	Hold		Max	Max		Max	Max		Max	Max	Max
10th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
10th %ile Term Code	Hold	Hold		Max	Max		Max	Max		Max	Max	Max
Stops (vph)	82	129			515			392			235	3
Fuel Used(gal)	1	2			26			22			12	0
CO Emissions (g/hr)	92	128			1808			1557			832	24
NOx Emissions (g/hr)	18	25			352			303			162	5
VOC Emissions (g/hr)	21	30			419			361			193	6
Dilemma Vehicles (#)	0	0			0			0			0	0
Queue Length 50th (ft)	62	99			~456			~470			~253	0
Queue Length 95th (ft)	90	114			#668			#485			#313	5
Internal Link Dist (ft)	182				907			481			1163	
Turn Bay Length (ft)	60											60
Base Capacity (vph)	220	588			562			583			339	611

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

Lane Group	Ø9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	15.0
Total Split (s)	15.0
Total Split (%)	18%
Maximum Green (s)	12.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	1.0
Recall Mode	Ped
Walk Time (s)	8.0
Flash Dont Walk (s)	4.0
Pedestrian Calls (#/hr)	0
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	12.0
90th %ile Term Code	Ped
70th %ile Green (s)	12.0
70th %ile Term Code	Ped
50th %ile Green (s)	12.0
50th %ile Term Code	Ped
30th %ile Green (s)	12.0
30th %ile Term Code	Ped
10th %ile Green (s)	12.0
10th %ile Term Code	Ped
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
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	0.65	0.52			1.22			1.27			1.16	0.07

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 85

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.27

Intersection Signal Delay: 119.8

Intersection LOS: F

Intersection Capacity Utilization 76.7%

ICU Level of Service D

Analysis Period (min) 15

90th %ile Actuated Cycle: 85

70th %ile Actuated Cycle: 85

50th %ile Actuated Cycle: 85

30th %ile Actuated Cycle: 85

10th %ile Actuated Cycle: 85

~ 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: 3: Centre St & Walpole St & Springdale St

 Ø2	 Ø9	 Ø12
35 s	15 s	35 s
 Ø6		 Ø16
35 s		35 s

Lane Group	Ø9
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

HCM Unsignalized Intersection Capacity Analysis

6: Whitting Rd & Springdale St

10/22/2021

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	267	49	69	181	15	16
Future Volume (Veh/h)	267	49	69	181	15	16
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.78	0.59	0.46	0.71	0.58	0.75
Hourly flow rate (vph)	342	83	150	255	26	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	356					
pX, platoon unblocked						
vC, conflicting volume			425		938	384
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			425		938	384
tC, single (s)			4.1		6.5	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.4
p0 queue free %			87		90	97
cM capacity (veh/h)			1145		250	653
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	425	405	47			
Volume Left	0	150	26			
Volume Right	83	0	21			
cSH	1700	1145	345			
Volume to Capacity	0.25	0.13	0.14			
Queue Length 95th (ft)	0	11	12			
Control Delay (s)	0.0	4.0	17.1			
Lane LOS		A	C			
Approach Delay (s)	0.0	4.0	17.1			
Approach LOS			C			
Intersection Summary						
Average Delay			2.8			
Intersection Capacity Utilization			43.7%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

9: Centre St & Dedham St

10/22/2021

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	195	3	0	1192	321	0
Future Volume (Veh/h)	195	3	0	1192	321	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.75	0.92	0.95	0.92	0.92
Hourly flow rate (vph)	232	4	0	1255	349	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				561		
pX, platoon unblocked	0.63					
vC, conflicting volume	1604	349	349			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1664	349	349			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	99	100			
cM capacity (veh/h)	67	699	1221			
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total	232	4	1255	349		
Volume Left	232	0	0	0		
Volume Right	0	4	0	0		
cSH	67	699	1700	1700		
Volume to Capacity	3.48	0.01	0.74	0.21		
Queue Length 95th (ft)	Err	0	0	0		
Control Delay (s)	Err	10.2	0.0	0.0		
Lane LOS	F	B				
Approach Delay (s)	9829.7		0.0	0.0		
Approach LOS	F					
Intersection Summary						
Average Delay			1260.8			
Intersection Capacity Utilization			80.2%	ICU Level of Service		D
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

11: Whitting Rd & Centre St

10/22/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	10	35	640	189	5
Future Volume (Veh/h)	0	10	35	640	189	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.63	0.54	0.99	0.80	0.42
Hourly flow rate (vph)	0	16	65	646	236	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					987	
pX, platoon unblocked						
vC, conflicting volume	1018	242	248			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1018	242	248			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	100	98	95			
cM capacity (veh/h)	252	802	1283			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	16	711	248			
Volume Left	0	65	0			
Volume Right	16	0	12			
cSH	802	1283	1700			
Volume to Capacity	0.02	0.05	0.15			
Queue Length 95th (ft)	2	4	0			
Control Delay (s)	9.6	1.3	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.6	1.3	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			59.2%	ICU Level of Service		B
Analysis Period (min)			15			

Lanes, Volumes, Timings
3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations												
Traffic Volume (vph)	42	181	50	21	179	21	29	153	115	215	689	30
Future Volume (vph)	42	181	50	21	179	21	29	153	115	215	689	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	60	0		0		0	0		0		0	60
Storage Lanes	1	1		0		0	0		0		1	1
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.985			0.957				0.850
Flt Protected	0.950				0.995			0.993			0.950	
Satd. Flow (prot)	1805	1615	0	0	1796	0	0	1754	0	0	1760	1615
Flt Permitted	0.132				0.908			0.887			0.725	
Satd. Flow (perm)	251	1615	0	0	1639	0	0	1567	0	0	1343	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		64			8			30				64
Link Speed (mph)	25				25			25				25
Link Distance (ft)	262				987			561			1243	
Travel Time (s)	7.1				26.9			15.3			33.9	
Peak Hour Factor	0.64	0.83	0.72	0.63	0.75	0.63	0.54	0.72	0.93	0.92	0.89	0.50
Heavy Vehicles (%)	0%	0%	0%	0%	4%	5%	7%	3%	1%	1%	3%	0%
Adj. Flow (vph)	66	218	69	33	239	33	54	213	124	234	774	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	287	0	0	305	0	0	391	0	0	1008	60
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	12				0			0			12	
Link Offset(ft)	0				0			0			0	
Crosswalk Width(ft)	16				16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15		9	15		9	15	15	9
Number of Detectors	1	1		1	2		1	2		1	1	1
Detector Template	Left	Right		Left	Thru		Left	Thru		Left	Left	Right
Leading Detector (ft)	20	20		20	100		20	100		20	20	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	20		20	6		20	6		20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)					94			94				
Detector 2 Size(ft)					6			6				
Detector 2 Type					Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0				
Turn Type	Perm	Perm		Perm	NA		Perm	NA		Perm	Perm	Perm
Protected Phases					2			6				

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Permitted Phases	12	12		2			6			16	16	16
Detector Phase	12	12		2	2		6	6		16	16	16
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	23.0	23.0		23.0	23.0		23.0	23.0		23.0	23.0	23.0
Total Split (s)	35.0	35.0		35.0	35.0		35.0	35.0		35.0	35.0	35.0
Total Split (%)	41.2%	41.2%		41.2%	41.2%		41.2%	41.2%		41.2%	41.2%	41.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
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	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?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		Min	Min		None	None	None
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	11.0	11.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	30.2	30.2			22.0			22.0			30.2	30.2
Actuated g/C Ratio	0.39	0.39			0.28			0.28			0.39	0.39
v/c Ratio	0.68	0.43			0.65			0.84			1.92	0.09
Control Delay	60.9	16.9			30.0			40.0			444.6	5.3
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	60.9	16.9			30.0			40.0			444.6	5.3
LOS	E	B			C			D			F	A
Approach Delay	25.1				30.0			40.0			419.9	
Approach LOS	C				C			D			F	
90th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
90th %ile Term Code	Max	Max		Hold	Hold		Max	Max		Max	Max	Max
70th %ile Green (s)	30.0	30.0		27.7	27.7		27.7	27.7		30.0	30.0	30.0
70th %ile Term Code	Max	Max		Hold	Hold		Gap	Gap		Max	Max	Max
50th %ile Green (s)	30.0	30.0		22.3	22.3		22.3	22.3		30.0	30.0	30.0
50th %ile Term Code	Max	Max		Hold	Hold		Gap	Gap		Max	Max	Max
30th %ile Green (s)	30.0	30.0		18.4	18.4		18.4	18.4		30.0	30.0	30.0
30th %ile Term Code	Hold	Hold		Hold	Hold		Gap	Gap		Max	Max	Max
10th %ile Green (s)	30.0	30.0		13.5	13.5		13.5	13.5		30.0	30.0	30.0
10th %ile Term Code	Hold	Hold		Hold	Hold		Gap	Gap		Max	Max	Max
Stops (vph)	32	130			177			248			667	6
Fuel Used(gal)	1	2			4			5			94	0
CO Emissions (g/hr)	52	126			272			336			6567	26
NOx Emissions (g/hr)	10	25			53			65			1278	5
VOC Emissions (g/hr)	12	29			63			78			1522	6
Dilemma Vehicles (#)	0	0			0			0			0	0
Queue Length 50th (ft)	26	75			124			162			~761	0
Queue Length 95th (ft)	#60	142			158			189			#1084	3
Internal Link Dist (ft)	182				907			481			1163	
Turn Bay Length (ft)	60											60
Base Capacity (vph)	97	668			644			629			524	668

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

Lane Group	Ø9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	15.0
Total Split (s)	15.0
Total Split (%)	18%
Maximum Green (s)	12.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	1.0
Recall Mode	Ped
Walk Time (s)	8.0
Flash Dont Walk (s)	4.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	12.0
90th %ile Term Code	Ped
70th %ile Green (s)	12.0
70th %ile Term Code	Ped
50th %ile Green (s)	12.0
50th %ile Term Code	Ped
30th %ile Green (s)	12.0
30th %ile Term Code	Ped
10th %ile Green (s)	12.0
10th %ile Term Code	Ped
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
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	0.68	0.43			0.47			0.62			1.92	0.09

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 77.4

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.92

Intersection Signal Delay: 227.7

Intersection LOS: F

Intersection Capacity Utilization 88.9%

ICU Level of Service E

Analysis Period (min) 15

90th %ile Actuated Cycle: 85

70th %ile Actuated Cycle: 82.7

50th %ile Actuated Cycle: 77.3

30th %ile Actuated Cycle: 73.4

10th %ile Actuated Cycle: 68.5

~ 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: 3: Centre St & Walpole St & Springdale St

 Ø2	 Ø9	 Ø12
35 s	15 s	35 s
 Ø6		 Ø16
35 s		35 s

Lane Group	Ø9
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

HCM Unsignalized Intersection Capacity Analysis

6: Whitting Rd & Springdale St

10/22/2021

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶			↷	↶↷	
Traffic Volume (veh/h)	213	58	54	179	11	9
Future Volume (Veh/h)	213	58	54	179	11	9
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.77	0.88	0.70	0.71	0.55	0.45
Hourly flow rate (vph)	277	66	77	252	20	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				356		
pX, platoon unblocked						
vC, conflicting volume				343	716	310
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol				343	716	310
tC, single (s)				4.1	6.4	6.2
tC, 2 stage (s)						
tF (s)				2.2	3.5	3.3
p0 queue free %				94	95	97
cM capacity (veh/h)				1227	375	723
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	343	329	40			
Volume Left	0	77	20			
Volume Right	66	0	20			
cSH	1700	1227	494			
Volume to Capacity	0.20	0.06	0.08			
Queue Length 95th (ft)	0	5	7			
Control Delay (s)	0.0	2.4	12.9			
Lane LOS		A	B			
Approach Delay (s)	0.0	2.4	12.9			
Approach LOS			B			
Intersection Summary						
Average Delay			1.8			
Intersection Capacity Utilization			40.5%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

9: Centre St & Dedham St

10/22/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	70	11	0	376	936	0
Future Volume (Veh/h)	70	11	0	376	936	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.69	0.92	0.92	0.95	0.92
Hourly flow rate (vph)	88	16	0	409	985	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				561		
pX, platoon unblocked	0.90					
vC, conflicting volume	1394	985	985			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1382	985	985			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	39	95	100			
cM capacity (veh/h)	144	304	709			
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total	88	16	409	985		
Volume Left	88	0	0	0		
Volume Right	0	16	0	0		
cSH	144	304	1700	1700		
Volume to Capacity	0.61	0.05	0.24	0.58		
Queue Length 95th (ft)	80	4	0	0		
Control Delay (s)	62.7	17.5	0.0	0.0		
Lane LOS	F	C				
Approach Delay (s)	55.8	0.0		0.0		
Approach LOS	F					
Intersection Summary						
Average Delay			3.9			
Intersection Capacity Utilization			59.8%	ICU Level of Service	B	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

11: Whitting Rd & Centre St

10/22/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	8	29	219	750	0
Future Volume (Veh/h)	2	8	29	219	750	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.50	0.50	0.56	0.81	0.91	0.92
Hourly flow rate (vph)	4	16	52	270	824	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					987	
pX, platoon unblocked						
vC, conflicting volume	1198	824	824			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1198	824	824			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	96	94			
cM capacity (veh/h)	194	376	815			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	20	322	824			
Volume Left	4	52	0			
Volume Right	16	0	0			
cSH	316	815	1700			
Volume to Capacity	0.06	0.06	0.48			
Queue Length 95th (ft)	5	5	0			
Control Delay (s)	17.1	2.2	0.0			
Lane LOS	C	A				
Approach Delay (s)	17.1	2.2	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			49.5%	ICU Level of Service		A
Analysis Period (min)			15			

Lanes, Volumes, Timings
3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations												
Traffic Volume (vph)	94	166	23	23	605	16	19	173	361	162	136	23
Future Volume (vph)	94	166	23	23	605	16	19	173	361	162	136	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	60	0		0		0	0		0		0	60
Storage Lanes	1	1		0		0	0		0		1	1
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.997			0.917				0.850
Flt Protected	0.950				0.997			0.997			0.950	
Satd. Flow (prot)	1719	1556	0	0	1802	0	0	1659	0	0	1703	1615
Flt Permitted	0.346				0.883			0.879			0.572	
Satd. Flow (perm)	626	1556	0	0	1596	0	0	1463	0	0	1025	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		64			2			106				64
Link Speed (mph)	25				25			25			25	
Link Distance (ft)	262				987			561			1243	
Travel Time (s)	7.1				26.9			15.3			33.9	
Peak Hour Factor	0.69	0.68	0.64	0.63	0.96	0.92	0.45	0.73	0.80	0.77	0.74	0.67
Heavy Vehicles (%)	5%	3%	9%	0%	5%	7%	0%	3%	6%	6%	6%	0%
Adj. Flow (vph)	136	244	36	37	630	17	42	237	451	210	184	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	280	0	0	684	0	0	730	0	0	394	34
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	12				0			0			12	
Link Offset(ft)	0				0			0			0	
Crosswalk Width(ft)	16				16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15		9	15		9	15	15	9
Number of Detectors	1	1		1	2		1	2		1	1	1
Detector Template	Left	Right		Left	Thru		Left	Thru		Left	Left	Right
Leading Detector (ft)	20	20		20	100		20	100		20	20	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	20		20	6		20	6		20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)					94			94				
Detector 2 Size(ft)					6			6				
Detector 2 Type					Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0				
Turn Type	Perm	Perm		Perm	NA		Perm	NA		Perm	Perm	Perm
Protected Phases					2			6				

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9

Lanes, Volumes, Timings
3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Permitted Phases	12	12		2			6			16	16	16
Detector Phase	12	12		2	2		6	6		16	16	16
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	23.0	23.0		23.0	23.0		23.0	23.0		23.0	23.0	23.0
Total Split (s)	35.0	35.0		35.0	35.0		35.0	35.0		35.0	35.0	35.0
Total Split (%)	41.2%	41.2%		41.2%	41.2%		41.2%	41.2%		41.2%	41.2%	41.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
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	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?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		Min	Min		None	None	None
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	11.0	11.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	30.0	30.0			30.0			30.0			30.0	30.0
Actuated g/C Ratio	0.35	0.35			0.35			0.35			0.35	0.35
v/c Ratio	0.62	0.47			1.21			1.25			1.09	0.06
Control Delay	37.4	19.4			139.2			150.6			103.7	2.0
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	37.4	19.4			139.2			150.6			103.7	2.0
LOS	D	B			F			F			F	A
Approach Delay	25.3				139.2			150.6			95.6	
Approach LOS	C				F			F			F	
90th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
90th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Max	Max
70th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
70th %ile Term Code	Hold	Hold		Max	Max		Max	Max		Max	Max	Max
50th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
50th %ile Term Code	Hold	Hold		Max	Max		Max	Max		Max	Max	Max
30th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
30th %ile Term Code	Hold	Hold		Max	Max		Max	Max		Max	Max	Max
10th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
10th %ile Term Code	Hold	Hold		Max	Max		Max	Max		Max	Max	Max
Stops (vph)	78	111			516			386			239	1
Fuel Used(gal)	1	2			26			21			10	0
CO Emissions (g/hr)	86	111			1792			1473			724	18
NOx Emissions (g/hr)	17	22			349			287			141	3
VOC Emissions (g/hr)	20	26			415			341			168	4
Dilemma Vehicles (#)	0	0			0			0			0	0
Queue Length 50th (ft)	59	86			~455			~456			~240	0
Queue Length 95th (ft)	86	102			#667			#472			#301	0
Internal Link Dist (ft)	182				907			481			1163	
Turn Bay Length (ft)	60											60
Base Capacity (vph)	220	590			564			584			361	611

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

Lane Group	Ø9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	15.0
Total Split (s)	15.0
Total Split (%)	18%
Maximum Green (s)	12.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	1.0
Recall Mode	Ped
Walk Time (s)	8.0
Flash Dont Walk (s)	4.0
Pedestrian Calls (#/hr)	0
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	12.0
90th %ile Term Code	Ped
70th %ile Green (s)	12.0
70th %ile Term Code	Ped
50th %ile Green (s)	12.0
50th %ile Term Code	Ped
30th %ile Green (s)	12.0
30th %ile Term Code	Ped
10th %ile Green (s)	12.0
10th %ile Term Code	Ped
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
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	0.62	0.47			1.21			1.25			1.09	0.06

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 85

Natural Cycle: 140

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.25

Intersection Signal Delay: 113.6

Intersection LOS: F

Intersection Capacity Utilization 76.4%

ICU Level of Service D

Analysis Period (min) 15

90th %ile Actuated Cycle: 85

70th %ile Actuated Cycle: 85

50th %ile Actuated Cycle: 85

30th %ile Actuated Cycle: 85

10th %ile Actuated Cycle: 85

~ 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: 3: Centre St & Walpole St & Springdale St

 Ø2	 Ø9	 Ø12
35 s	15 s	35 s
 Ø6		 Ø16
35 s		35 s

Lane Group	Ø9
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

HCM Unsignalized Intersection Capacity Analysis

6: Whitting Rd & Springdale St

10/22/2021

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶			↷	↶↷	
Traffic Volume (veh/h)	267	42	55	168	23	33
Future Volume (Veh/h)	267	42	55	168	23	33
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.78	0.59	0.46	0.71	0.58	0.75
Hourly flow rate (vph)	342	71	120	237	40	44
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				356		
pX, platoon unblocked						
vC, conflicting volume			413		854	378
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			413		854	378
tC, single (s)			4.1		6.5	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.4
p0 queue free %			90		86	93
cM capacity (veh/h)			1157		289	658
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	413	357	84			
Volume Left	0	120	40			
Volume Right	71	0	44			
cSH	1700	1157	409			
Volume to Capacity	0.24	0.10	0.21			
Queue Length 95th (ft)	0	9	19			
Control Delay (s)	0.0	3.5	16.1			
Lane LOS		A	C			
Approach Delay (s)	0.0	3.5	16.1			
Approach LOS			C			
Intersection Summary						
Average Delay			3.1			
Intersection Capacity Utilization			41.8%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

9: Centre St & Dedham St

10/22/2021

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	195	3	0	1188	314	0
Future Volume (Veh/h)	195	3	0	1188	314	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.75	0.92	0.95	0.92	0.92
Hourly flow rate (vph)	232	4	0	1251	341	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				561		
pX, platoon unblocked	0.64					
vC, conflicting volume	1592	341	341			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1644	341	341			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	99	100			
cM capacity (veh/h)	69	706	1229			
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total	232	4	1251	341		
Volume Left	232	0	0	0		
Volume Right	0	4	0	0		
cSH	69	706	1700	1700		
Volume to Capacity	3.36	0.01	0.74	0.20		
Queue Length 95th (ft)	Err	0	0	0		
Control Delay (s)	Err	10.1	0.0	0.0		
Lane LOS	F	B				
Approach Delay (s)	9829.7		0.0	0.0		
Approach LOS	F					
Intersection Summary						
Average Delay		1269.0				
Intersection Capacity Utilization		80.0%		ICU Level of Service		D
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

11: Whitting Rd & Centre St

10/22/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	18	27	640	176	5
Future Volume (Veh/h)	0	18	27	640	176	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.63	0.54	0.99	0.80	0.42
Hourly flow rate (vph)	0	29	50	646	220	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					987	
pX, platoon unblocked						
vC, conflicting volume	972	226	232			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	972	226	232			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	100	96	96			
cM capacity (veh/h)	272	818	1301			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	29	696	232			
Volume Left	0	50	0			
Volume Right	29	0	12			
cSH	818	1301	1700			
Volume to Capacity	0.04	0.04	0.14			
Queue Length 95th (ft)	3	3	0			
Control Delay (s)	9.6	1.0	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.6	1.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			58.1%	ICU Level of Service		B
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

12: Whitting Rd

10/22/2021

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	8	25	15	14	43	10
Future Volume (Veh/h)	8	25	15	14	43	10
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	27	16	15	47	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	128	24			31	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	128	24			31	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	97			97	
cM capacity (veh/h)	840	1053			1582	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	36	31	58			
Volume Left	9	0	47			
Volume Right	27	15	0			
cSH	990	1700	1582			
Volume to Capacity	0.04	0.02	0.03			
Queue Length 95th (ft)	3	0	2			
Control Delay (s)	8.8	0.0	6.0			
Lane LOS	A		A			
Approach Delay (s)	8.8	0.0	6.0			
Approach LOS	A					
Intersection Summary						
Average Delay			5.3			
Intersection Capacity Utilization		19.6%		ICU Level of Service		A
Analysis Period (min)		15				

Lanes, Volumes, Timings
3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations												
Traffic Volume (vph)	34	149	27	21	179	21	29	146	115	215	689	23
Future Volume (vph)	34	149	27	21	179	21	29	146	115	215	689	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	60	0		0		0	0		0		0	60
Storage Lanes	1	1		0		0	0		0		1	1
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.985			0.956				0.850
Flt Protected	0.950				0.995			0.993			0.950	
Satd. Flow (prot)	1805	1615	0	0	1796	0	0	1753	0	0	1760	1615
Flt Permitted	0.132				0.910			0.882			0.814	
Satd. Flow (perm)	251	1615	0	0	1643	0	0	1557	0	0	1508	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		64			8			32				64
Link Speed (mph)	25				25			25				25
Link Distance (ft)	262				987			561			1243	
Travel Time (s)	7.1				26.9			15.3			33.9	
Peak Hour Factor	0.64	0.83	0.72	0.63	0.75	0.63	0.54	0.72	0.93	0.92	0.89	0.50
Heavy Vehicles (%)	0%	0%	0%	0%	4%	5%	7%	3%	1%	1%	3%	0%
Adj. Flow (vph)	53	180	38	33	239	33	54	203	124	234	774	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	218	0	0	305	0	0	381	0	0	1008	46
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	12				0			0			12	
Link Offset(ft)	0				0			0			0	
Crosswalk Width(ft)	16				16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15		9	15		9	15	15	9
Number of Detectors	1	1		1	2		1	2		1	1	1
Detector Template	Left	Right		Left	Thru		Left	Thru		Left	Left	Right
Leading Detector (ft)	20	20		20	100		20	100		20	20	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	20		20	6		20	6		20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)					94			94				
Detector 2 Size(ft)					6			6				
Detector 2 Type					Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0				
Turn Type	Perm	Perm		Perm	NA		Perm	NA		Perm	Perm	Perm
Protected Phases					2			6				

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9

Lanes, Volumes, Timings
3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Permitted Phases	12	12		2			6			16	16	16
Detector Phase	12	12		2	2		6	6		16	16	16
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	23.0	23.0		23.0	23.0		23.0	23.0		23.0	23.0	23.0
Total Split (s)	35.0	35.0		35.0	35.0		35.0	35.0		35.0	35.0	35.0
Total Split (%)	41.2%	41.2%		41.2%	41.2%		41.2%	41.2%		41.2%	41.2%	41.2%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
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	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?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		Min	Min		None	None	None
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	11.0	11.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	30.2	30.2			21.6			21.6			30.2	30.2
Actuated g/C Ratio	0.39	0.39			0.28			0.28			0.39	0.39
v/c Ratio	0.54	0.32			0.65			0.83			1.71	0.07
Control Delay	46.1	14.2			30.4			39.4			346.6	3.6
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	46.1	14.2			30.4			39.4			346.6	3.6
LOS	D	B			C			D			F	A
Approach Delay	20.4				30.4			39.4			331.7	
Approach LOS	C				C			D			F	
90th %ile Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
90th %ile Term Code	Max	Max		Hold	Hold		Max	Max		Max	Max	Max
70th %ile Green (s)	30.0	30.0		26.9	26.9		26.9	26.9		30.0	30.0	30.0
70th %ile Term Code	Max	Max		Hold	Hold		Gap	Gap		Max	Max	Max
50th %ile Green (s)	30.0	30.0		21.7	21.7		21.7	21.7		30.0	30.0	30.0
50th %ile Term Code	Hold	Hold		Hold	Hold		Gap	Gap		Max	Max	Max
30th %ile Green (s)	30.0	30.0		17.9	17.9		17.9	17.9		30.0	30.0	30.0
30th %ile Term Code	Hold	Hold		Hold	Hold		Gap	Gap		Max	Max	Max
10th %ile Green (s)	30.0	30.0		13.1	13.1		13.1	13.1		30.0	30.0	30.0
10th %ile Term Code	Hold	Hold		Hold	Hold		Gap	Gap		Max	Max	Max
Stops (vph)	28	85			178			240			672	3
Fuel Used(gal)	1	1			4			5			76	0
CO Emissions (g/hr)	35	86			273			325			5308	19
NOx Emissions (g/hr)	7	17			53			63			1033	4
VOC Emissions (g/hr)	8	20			63			75			1230	4
Dilemma Vehicles (#)	0	0			0			0			0	0
Queue Length 50th (ft)	19	48			124			156			~721	0
Queue Length 95th (ft)	43	101			158			182			#1051	0
Internal Link Dist (ft)	182				907			481			1163	
Turn Bay Length (ft)	60											60
Base Capacity (vph)	98	672			649			630			591	672

Lanes, Volumes, Timings
3: Centre St & Walpole St & Springdale St

10/22/2021

Lane Group	Ø9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	15.0
Total Split (s)	15.0
Total Split (%)	18%
Maximum Green (s)	12.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	1.0
Recall Mode	Ped
Walk Time (s)	8.0
Flash Dont Walk (s)	4.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	12.0
90th %ile Term Code	Ped
70th %ile Green (s)	12.0
70th %ile Term Code	Ped
50th %ile Green (s)	12.0
50th %ile Term Code	Ped
30th %ile Green (s)	12.0
30th %ile Term Code	Ped
10th %ile Green (s)	12.0
10th %ile Term Code	Ped
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

3: Centre St & Walpole St & Springdale St

10/22/2021

												
Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
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	0.54	0.32			0.47			0.60			1.71	0.07

Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 76.9

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.71

Intersection Signal Delay: 188.7

Intersection LOS: F

Intersection Capacity Utilization 88.6%

ICU Level of Service E

Analysis Period (min) 15

90th %ile Actuated Cycle: 85

70th %ile Actuated Cycle: 81.9

50th %ile Actuated Cycle: 76.7

30th %ile Actuated Cycle: 72.9

10th %ile Actuated Cycle: 68.1

~ 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: 3: Centre St & Walpole St & Springdale St

 Ø2	 Ø9	 Ø12
35 s	15 s	35 s
 Ø6		 Ø16
35 s		35 s

Lane Group	Ø9
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

HCM Unsignalized Intersection Capacity Analysis

6: Whitting Rd & Springdale St

10/22/2021

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶			↷	↶↷	
Traffic Volume (veh/h)	213	51	40	156	25	38
Future Volume (Veh/h)	213	51	40	156	25	38
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.77	0.88	0.70	0.71	0.55	0.45
Hourly flow rate (vph)	277	58	57	220	45	84
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				356		
pX, platoon unblocked						
vC, conflicting volume				335	640	306
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol				335	640	306
tC, single (s)				4.1	6.4	6.2
tC, 2 stage (s)						
tF (s)				2.2	3.5	3.3
p0 queue free %				95	89	88
cM capacity (veh/h)				1236	422	727
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	335	277	129			
Volume Left	0	57	45			
Volume Right	58	0	84			
cSH	1700	1236	581			
Volume to Capacity	0.20	0.05	0.22			
Queue Length 95th (ft)	0	4	21			
Control Delay (s)	0.0	2.0	13.0			
Lane LOS		A	B			
Approach Delay (s)	0.0	2.0	13.0			
Approach LOS			B			
Intersection Summary						
Average Delay				3.0		
Intersection Capacity Utilization				38.5%	ICU Level of Service	A
Analysis Period (min)				15		

HCM Unsignalized Intersection Capacity Analysis

9: Centre St & Dedham St

10/22/2021

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	70	11	0	368	929	0
Future Volume (Veh/h)	70	11	0	368	929	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.69	0.92	0.92	0.95	0.92
Hourly flow rate (vph)	88	16	0	400	978	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				561		
pX, platoon unblocked	0.90					
vC, conflicting volume	1378	978	978			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1365	978	978			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	41	95	100			
cM capacity (veh/h)	148	307	714			
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total	88	16	400	978		
Volume Left	88	0	0	0		
Volume Right	0	16	0	0		
cSH	148	307	1700	1700		
Volume to Capacity	0.59	0.05	0.24	0.58		
Queue Length 95th (ft)	78	4	0	0		
Control Delay (s)	59.9	17.4	0.0	0.0		
Lane LOS	F	C				
Approach Delay (s)	53.4		0.0	0.0		
Approach LOS	F					
Intersection Summary						
Average Delay			3.7			
Intersection Capacity Utilization			59.4%	ICU Level of Service		B
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

11: Whitting Rd & Centre St

10/22/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	22	22	219	727	0
Future Volume (Veh/h)	2	22	22	219	727	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.50	0.50	0.56	0.81	0.91	0.92
Hourly flow rate (vph)	4	44	39	270	799	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					987	
pX, platoon unblocked						
vC, conflicting volume	1147	799	799			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1147	799	799			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	89	95			
cM capacity (veh/h)	212	389	833			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	48	309	799			
Volume Left	4	39	0			
Volume Right	44	0	0			
cSH	363	833	1700			
Volume to Capacity	0.13	0.05	0.47			
Queue Length 95th (ft)	11	4	0			
Control Delay (s)	16.4	1.7	0.0			
Lane LOS	C	A				
Approach Delay (s)	16.4	1.7	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			48.3%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

12: Whitting Rd

10/22/2021

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	14	43	10	12	37	8
Future Volume (Veh/h)	14	43	10	12	37	8
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	47	11	13	40	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	106	18			24	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	106	18			24	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	96			97	
cM capacity (veh/h)	869	1061			1591	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	62	24	49			
Volume Left	15	0	40			
Volume Right	47	13	0			
cSH	1007	1700	1591			
Volume to Capacity	0.06	0.01	0.03			
Queue Length 95th (ft)	5	0	2			
Control Delay (s)	8.8	0.0	6.0			
Lane LOS	A		A			
Approach Delay (s)	8.8	0.0	6.0			
Approach LOS	A					
Intersection Summary						
Average Delay		6.2				
Intersection Capacity Utilization		19.2%		ICU Level of Service		A
Analysis Period (min)		15				