
Traffic Impact and Access Study

Proposed Dunkin' Donuts

Dover, Massachusetts

Prepared for

David Harrington

February 2016

Prepared by



GREEN INTERNATIONAL AFFILIATES, INC.
Civil and Structural Engineers



MEMORANDUM

To: David Harrington
Cc:
From: Jason S. Sobel, P.E., PTOE, Green International Affiliates, Inc.
Jon Freeman, EIT, Green International Affiliates, Inc.
Date: February 17, 2016
Project: Proposed Dunkin' Donuts in Dover (Green No. 16008.015)
Subject: Traffic Impact and Access Study

INTRODUCTION

Green has conducted this traffic evaluation on behalf of the project proponent to evaluate the proposed Dunkin' Donuts at 14 Dedham Street in Dover, Massachusetts. The proposed Dunkin' Donuts would occupy an existing building, in the same location as the former Taffy Café. The existing building is adjacent to the Dover Church and near the intersection of Springdale Avenue and Dedham Street. The analysis in this memorandum includes the following elements:

- Identification of the proposed study area
- Summary of existing traffic count data within the study area
- Vehicle-trip generation and trip distribution estimates
- Intersection capacity analyses at all study intersections
- Sight distance analysis at the site driveway

It is noted that the proposed Dunkin' Donuts is a similar use as the business that most recently occupied the building, and that the overall characteristics with regard to traffic and trip generation are expected to be similar to the previous use.

STUDY AREA

The study area focused on Dover Center and included the following intersections:

- Dedham Street at Springdale Avenue
- Dedham Street at Hawthorne Lane/Spring Road (site driveway)
- Dedham Street at Railroad Avenue
- Springdale Avenue at Hawthorne Lane
- Springdale Avenue at Railroad Avenue

Dedham Street is a two lane undivided road with one travel lane for each direction of traffic. It is under the jurisdiction of the Town of Dover and is classified as a local roadway in the vicinity of the project site. Dedham Street follows a southwest-northeast alignment and ends approximately 200 feet west of the site driveway at a YIELD-controlled three-legged intersection with Springdale Avenue. The Dedham Street westbound approach is YIELD-controlled. The Dedham Street westbound and Springdale Avenue westbound

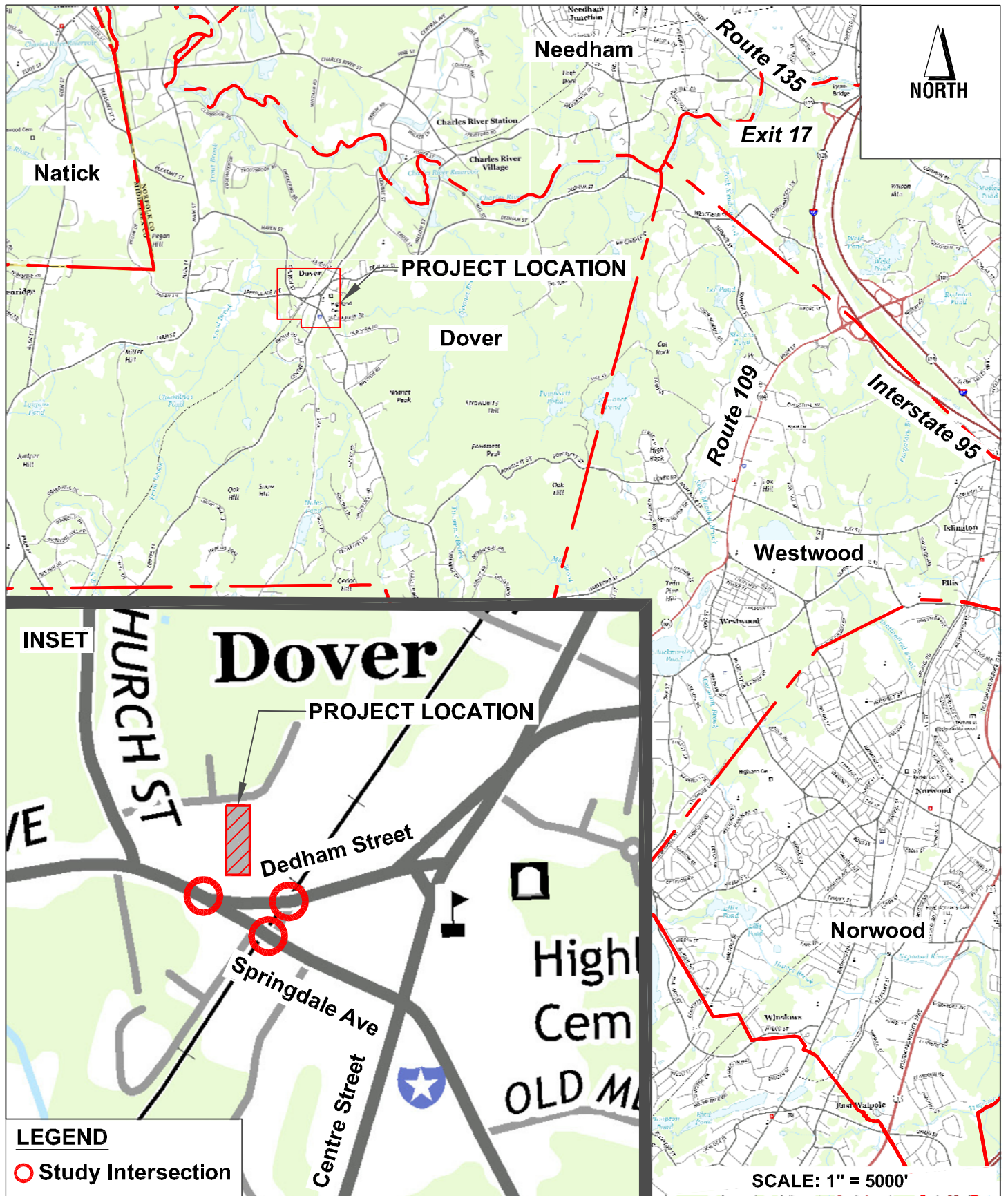
approaches have posted speed limits of 25 miles per hour (mph). Railroad Avenue intersects Dedham Street approximately 100 feet east of the site driveway, on the east side of the railroad tracks that follow a north-south alignment.

Springdale Avenue is also a two lane undivided road near the project site and functions as a rural collector street. It is under the jurisdiction of the Town of Dover. East of its intersection with the western terminus of Dedham Street, Springdale Avenue intersects Hawthorne Avenue, the railroad tracks, and Railroad Avenue. The northbound and southbound approaches to these two intersections are both STOP-controlled. Dover Town Hall is located on the north side of Springdale Avenue east of Hawthorne Avenue, and a grocery store is on the south side of Springdale Avenue between Hawthorne Avenue and Whiting Road.

Hawthorne Lane is a two-way roadway that connects a residential development south of Springdale Avenue to Dedham Street and the site driveway on the north side of Dedham Street. Hawthorne Lane runs parallel to and just west of the abandoned railroad tracks. The Hawthorne Lane/Springdale Avenue intersection is STOP-controlled in the southbound direction. It is noted that the STOP sign on the Hawthorne Lane southbound approach to Springdale Avenue is posted on the left side of the roadway rather than the right side of the roadway. The Hawthorne Lane/Spring Road/Site Driveway intersection is uncontrolled, though the side-street approaches both function as a STOP-controlled approach to Dedham Street. It is also noted that The Dover Church has an existing driveway located immediately to the west of the Spring Road/Site Driveway.

Railroad Avenue is a two-way, two-lane unstriped local roadway maintained by the Town of Dover. It connects Springdale Avenue to the south with Dedham Street in the north. Railroad Avenue runs parallel to and just east of the abandoned railroad tracks. The southbound Railroad Avenue approach to the Springdale Avenue intersection is STOP-controlled, while the Railroad Avenue/Dedham Street intersection is uncontrolled, but operates as if the northbound Railroad Avenue approach were under STOP-control.

The project location is shown in Figure 1.



GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

Figure 1
Project Location
Dunkin' Donuts
Dover, MA

TRAFFIC VOLUMES

As part of this study, new traffic count data were collected on Dedham Street and at each study intersection. An automatic traffic recorder (ATR) was placed on Dedham Street, east of the site driveway, to collect traffic volumes, vehicle speeds, and vehicle classification data over a 48-hour period from Tuesday February 2, 2016 through Wednesday February 3, 2016. The traffic data are summarized in Table 1.

Table 1 – Summary of Observed ATR Traffic Data

	DEDHAM STREET, EAST OF RAILROAD AVENUE		
	WEEKDAY AVERAGE	AM PEAK HOUR	PM PEAK HOUR
Time Period	Daily	7:00 – 8:00	4:45 – 5:45
Traffic Volume ¹	2,789 vpd	321 vph	220 vph
K-Factor ²	-	11.5%	7.9%
Directional Distribution	54% WB / 46% EB	72% EB / 28% WB	77% WB / 23% EB
Average Speed	26 mph EB/ 27 mph WB		
85 th Percentile Speed	31 mph EB/ 32 mph WB		
¹ vpd = vehicles per day, vph = vehicles per hour			
² percent of daily traffic that occurs during the peak hour			

As shown in the table above, Dedham Street carries approximately 2,800 vehicles on a typical weekday, with 321 vehicles (11.5%) observed during the morning peak hour and 220 vehicles (7.9%) observed during the afternoon peak hour. The speed data show that drivers, on average, are traveling slightly above the 25 mph posted speed limit.

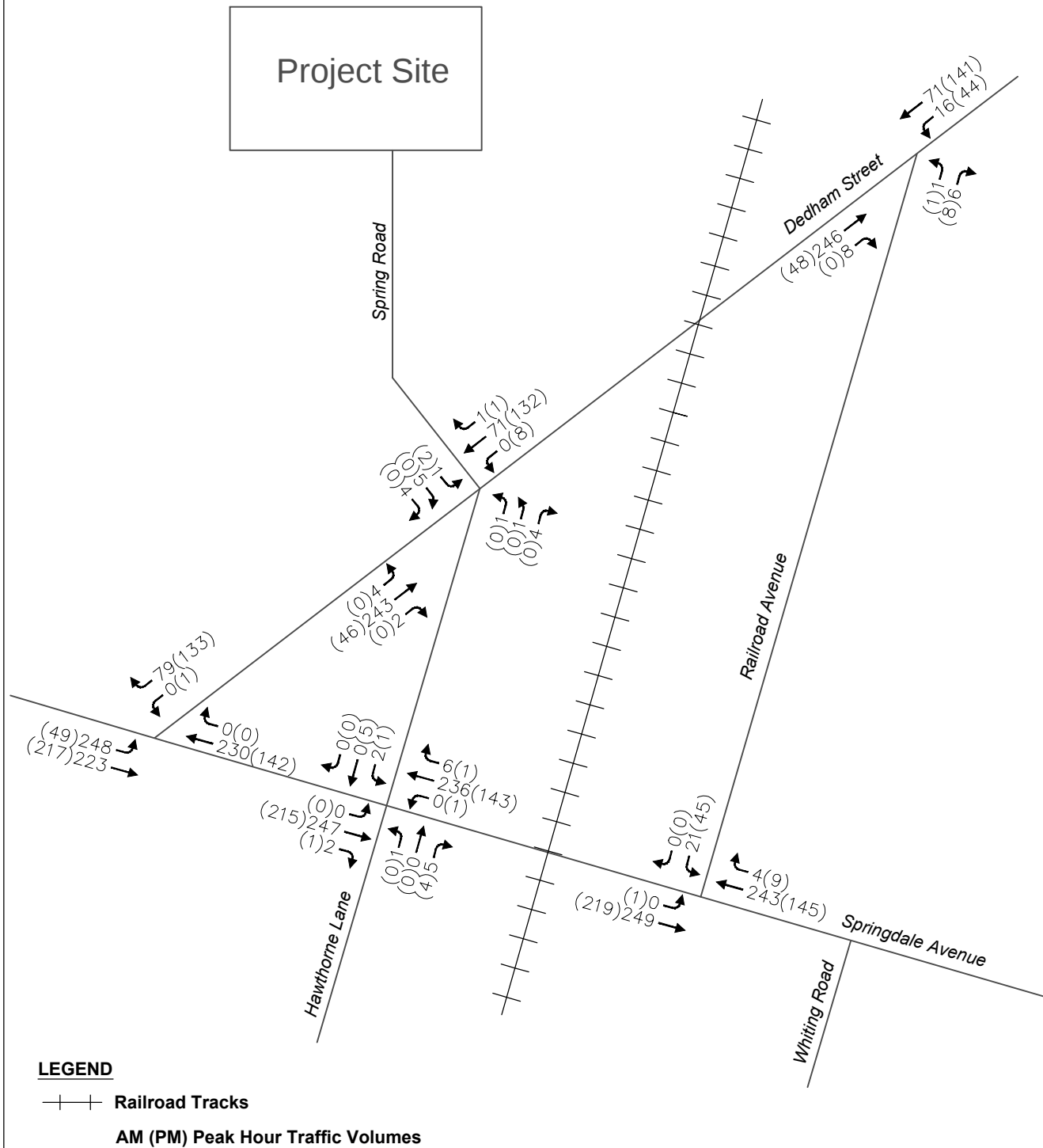
In addition to the ATR data, Green also collected manual Turning Movement Counts (TMC's) at each study intersection. The TMC's were collected on Tuesday, February 2, 2016 during the weekday peak commuter periods (7:00-9:00 AM and 4:00-6:00 PM). The TMC data indicate that the peak hours generally occur between 7:00-8:00 AM and 4:45-5:45 PM.

The complete traffic data are contained in the appendix attached to this memorandum.

SEASONAL VARIATION

The ATR and TMC data were collected in February, when traffic volumes tend to be lower than “average” traffic conditions. To compensate, a seasonal adjustment factor of 1.05 was applied to the observed traffic volumes. This is based on MassDOT permanent count station data. The seasonal variation data are contained in the Appendix.

Figure 2 shows the existing weekday morning and afternoon peak hour traffic volumes, adjusted for seasonal variation.



GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

Figure 2
2016 Existing Peak Hour Traffic Volumes
Dunkin' Donuts
Dover, MA

2023 NO-BUILD TRAFFIC VOLUMES

To understand future traffic conditions, traffic volumes were projected seven (7) years into the future, to the year 2023. This 7 year future analysis is consistent with current guidelines from MassDOT. Future traffic volume projections generally consist of an annual background growth rate, and traffic generated by other known specific development projects that are planned or already approved, but not yet constructed.

BACKGROUND GROWTH RATE

Based on a review of MassDOT annual count station data, it was determined that, on average, traffic volumes in the larger area generally increased by 0.5% to 1% per year over the past 5-10 years. Therefore, a 1% annual background growth rate was applied to the existing traffic volumes to develop the 2023 future No-Build traffic volumes. The MassDOT count data and background growth calculations are contained in the Appendix.

OTHER SPECIFIC PROJECTS

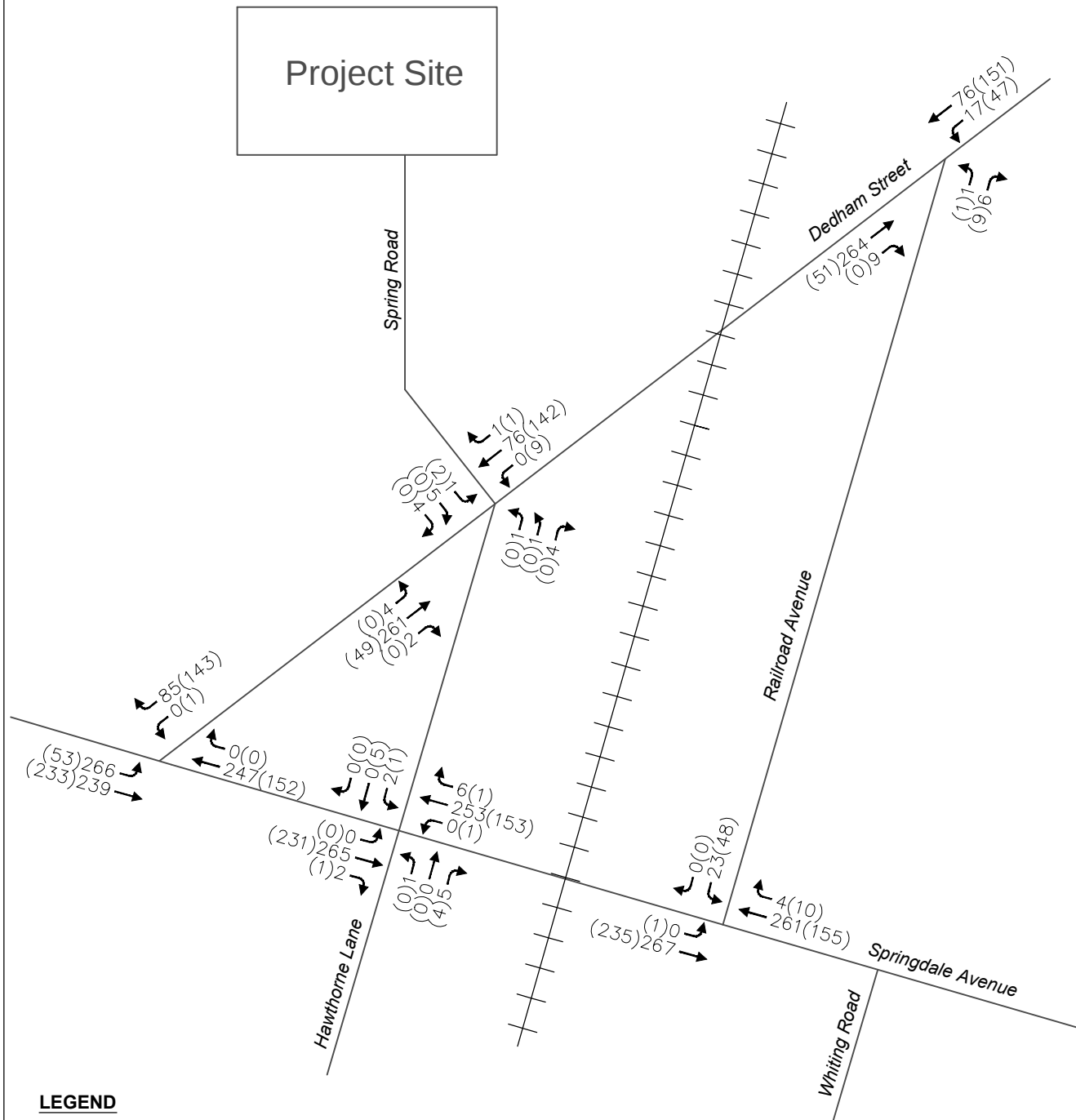
To further understand future traffic conditions in the vicinity of the project site, other potential nearby projects that could affect traffic conditions in the study area were taken into consideration. There is a 20-unit single family residential development on Dover Farms Road, located on the east side of Centre Street near the intersection of Centre Street / Dedham Street. The majority of these units have already been constructed, however a few residential units are still under construction. It is assumed that traffic from this residential development project is included in the background growth rate.

Based on conversations with the Town of Dover Town Planner, there are no other specific planned projects in the vicinity of the study area that are expected to add additional traffic to the roadway network during the 7-year study period.

It is noted that Dover Recreational Path, proposed along the existing MBTA right-of-way, runs adjacent to the project site and crosses Springdale Avenue and Dedham Street. This project would convert the unused railroad tracks to a multiuse path through the Town of Dover. The recent Feasibility Study¹ recommended the installation of Rectangular Rapid Flashing Beacons (RRFB's) at both of these crossing points. These warning devices are recommended to improve the safety of crossing pedestrians and bicyclists, and are not expected to significantly alter the vehicular flow or capacity on Dedham Street and Springdale Avenue.

The 2023 Future No Build traffic volumes are shown in Figure 3.

¹ Feasibility Study, Dover Recreational Path, Dover, MA, December 17, 2015, DRAFT REPORT, prepared by Beals and Thomas



GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

Figure 3
2023 No Build Peak Hour Traffic Volumes
Dunkin' Donuts
Dover, MA

TRIP GENERATION

In order to estimate the number of trips that could be generated by the proposed development project, statistics published by the Institute of Transportation Engineers (ITE) in Trip Generation² for similar land uses were examined. The ITE trip generation statistics represent compilations of data from studies/projects throughout the United States collected over the past 40+ years on trip generation characteristics for different types of land uses. The data has been compiled to provide transportation analysts with guidelines in forecasting 24 hour and peak hour volumes for the specified use.

Based on a review of the ITE database, Land Use Code (LUC) 936, Coffee and Donut Shop without Drive-Through Window, best represents the trip generation characteristics of the proposed Dunkin' Donuts. The proposed Dunkin' Donuts will occupy approximately 1,080 SF of the existing building.

After completing the base trip generation calculations for the proposed Dunkin Donuts, adjustments for pass-by and diverted trips were applied consistent with current industry practices. Pass-by trips are defined as those in which the primary destination is not the project site, but the project site is directly along the driver's route. Diverted trips involve a short detour from the traveler's normal route that is made to access the project site. An example of a pass-by or a diverted trip in the context of this project would be a driver stopping at Dunkin' Donuts on the way to work. Drivers who ordinarily travel along Springdale Avenue east of Dedham Street who choose to stop at Dunkin' Donuts would be classified as making diverted trips, whereas drivers who pass the project site on Dedham Street regardless of the presence of the generator are making pass-by trips. Driveway volumes include both new and pass-by/diverted project-generated trips, while volumes added throughout the external roadway network only include net new trips.

The ITE Trip Generation Handbook provides guidelines for pass-by/diverted trip rates based on numerous traffic studies on similar land uses. However, the ITE Trip Generation Handbook does not provide pass-by/diverted trip data for a coffee/donut shop without a drive-through window. As a result, the most appropriate pass-by/diverted trip rate for this project was approximated by evaluating the pass-by/diverted rates for other similar uses and a general knowledge of how Dunkin' Donuts typically operate in Eastern Massachusetts. The documented average pass-by/diverted trip rate for coffee/donut shops *with* a drive-through window is 89%. The average pass-by/diverted trip rate for a High-Turnover Sit-Down Restaurant is documented as 43%. As the proposed Dunkin' Donuts does not have a drive-through window, it is reasonable to assume that the pass-by/diverted trip rate may be somewhat lower than the 89% observed pass-by/diverted trip rate for facilities with a drive-through window. It is also reasonable to assume that the pass-by/diverted trip rate will be significantly higher than the 43% observed rate for a High-Turnover Sit-Down restaurant. As a result, a 75% pass-by/diverted trip rate was assumed for the proposed Dunkin' Donuts.

Table 2 presents a summary of the estimated vehicle trips generated by the currently proposed project and shows how many of those trips are expected to be pass-by and diverted trips.

² Institute of Transportation Engineers, Trip Generation, Washington, D.C., 9th Edition, 2012.

Table 2 – Trip Generation Summary

	WEEKDAY					
	AM PEAK HOUR			PM PEAK HOUR		
	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
Total Trips	59	58	117	22	22	44
Pass-by/Diverted Trips	44	44	88	16	16	32
Net New Trips	15	14	29	6	6	12

As indicated in Table 2, the proposed Dunkin' Donuts is expected to generate approximately 29 net new vehicle trips during the weekday morning peak hour, and approximately 12 net new vehicle trips during the weekday afternoon peak hour. The trip generation calculations are provided in the Appendix. It is noted that each customer at the proposed Dunkin' Donuts represents two trips, one entering trip and one exiting trip.

The project proponent also provided transaction data from another nearby Dunkin' Donuts franchise, located at 399 Great Plain Avenue in Needham, MA (with a gross floor area of approximately 2,700 square feet and no drive-through window). Based on these transaction data and adjusted for different size stores and locations, the proponent expects approximately 60 transactions during the weekday morning peak hour. Assuming that each transaction results in two vehicle-trips (one entering trip and one exiting trip), the number of trips expected based on the transaction data are very comparable with the ITE trip generation rates used in this analysis.

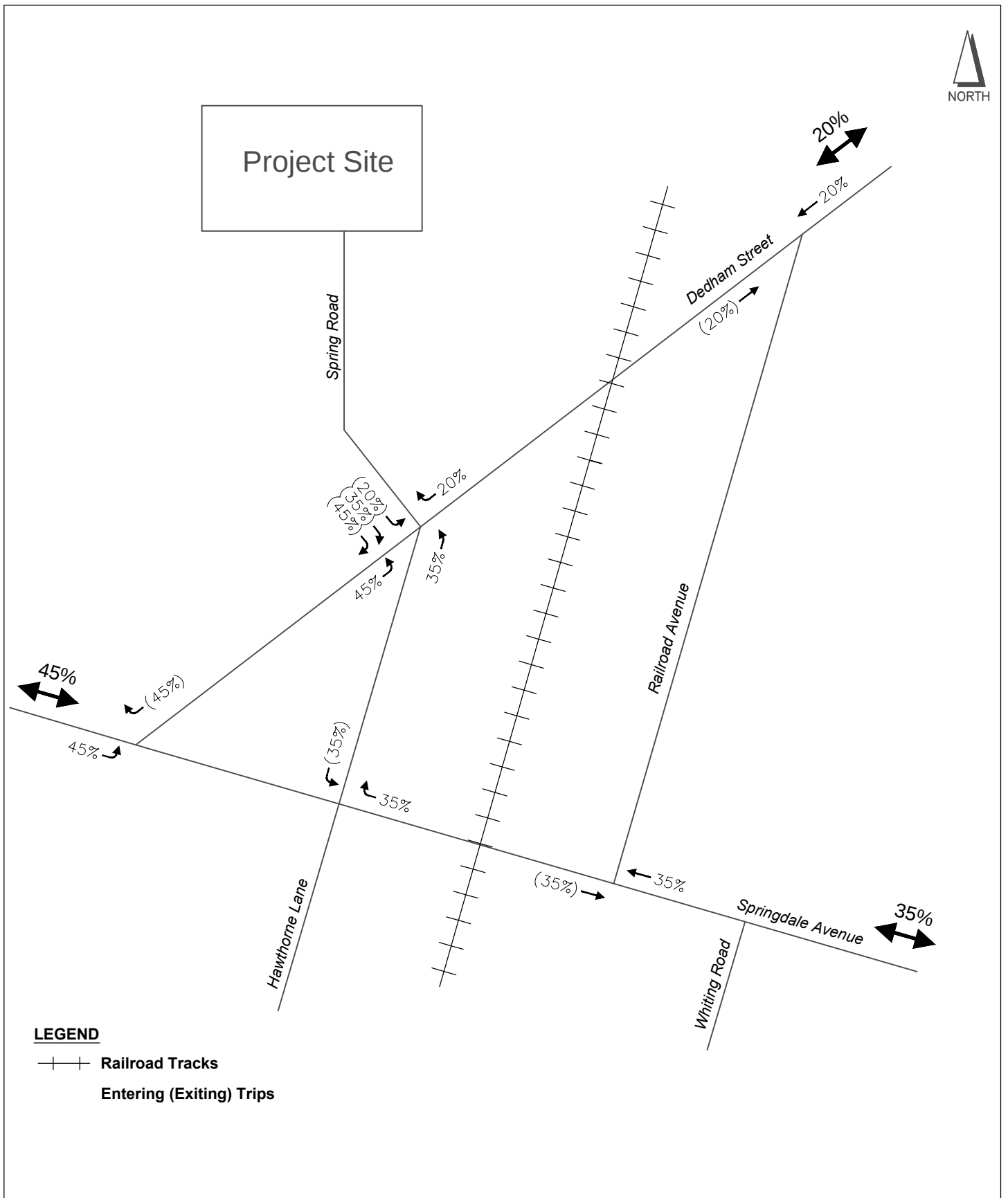
It is also noted that the proposed Dunkin' Donuts will occupy the same space as the former Taffy Café, and that many of the "new" trips may have previously been trips to the site when Taffy Café was in operation. However, as the traffic count data were collected after Taffy Café closed, no trip credit was taken for the previous use of the proposed site.

TRIP DISTRIBUTION

The trips generated by the proposed Dunkin' Donuts were distributed onto the study roadways based on the observed existing travel patterns. The net new trips were added to the roadway network based on the trip distribution pattern shown in Figure 4 that best matches existing overall travel patterns. As the pass-by and diverted trips are much more dependent on the customer's ultimate direction of travel, separate morning and afternoon trip distribution percentages were applied to the total number of pass-by and diverted trips, to reflect the different commuter trip patterns observed during the morning and afternoon peak periods. These distributions are shown in Figures 5 and 6, respectively. The resulting number of added trips at each study intersection is shown in Figures 7 and 8 for net new trips and pass-by/diverted trips respectively.

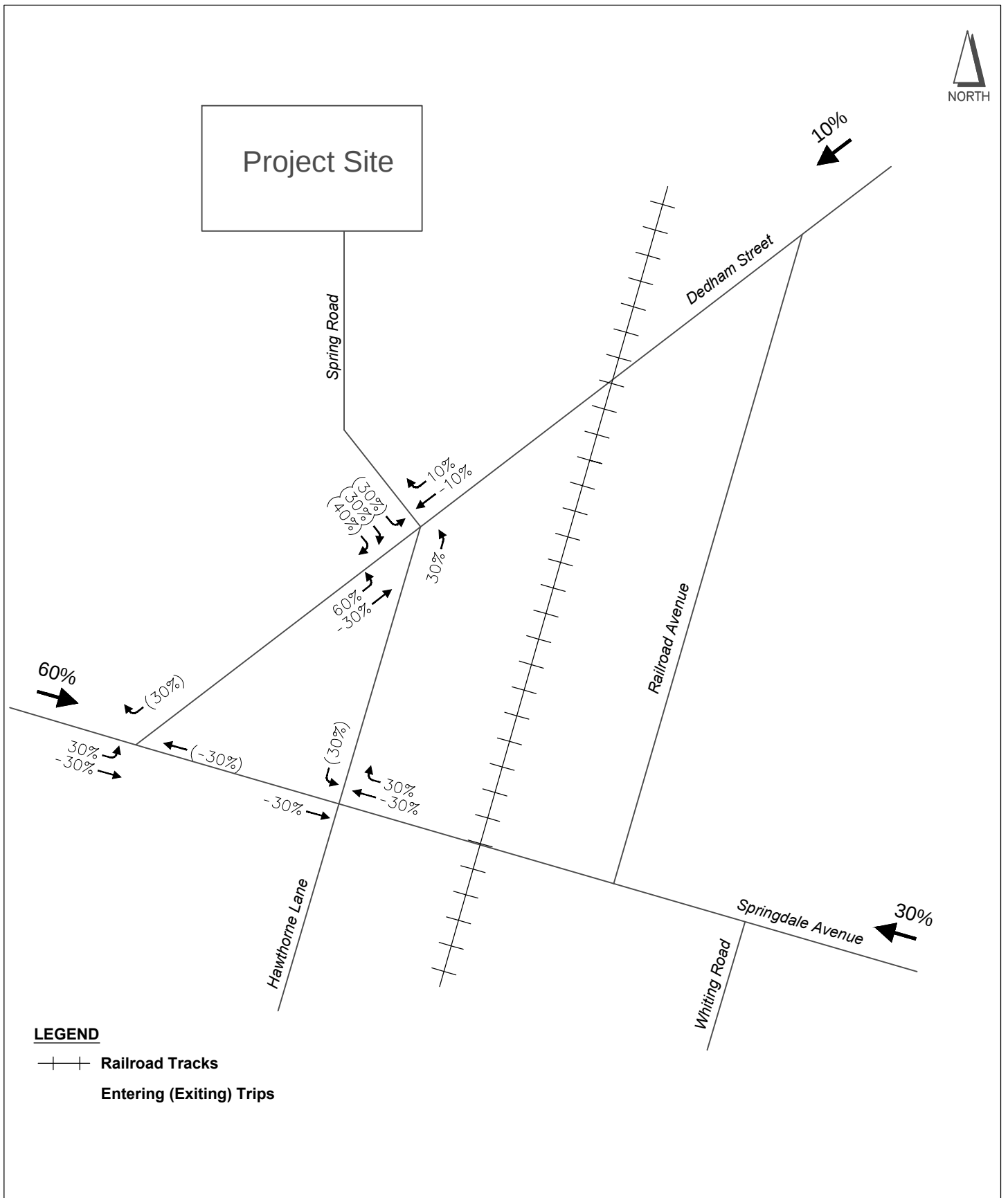
2023 BUILD TRAFFIC VOLUMES

The future 2023 Build condition traffic volume networks were created by adding the site-generated trips (shown in Figures 7-8) to the 2023 No Build traffic volumes. The 2023 Build weekday morning and afternoon traffic volumes are shown in Figure 9.



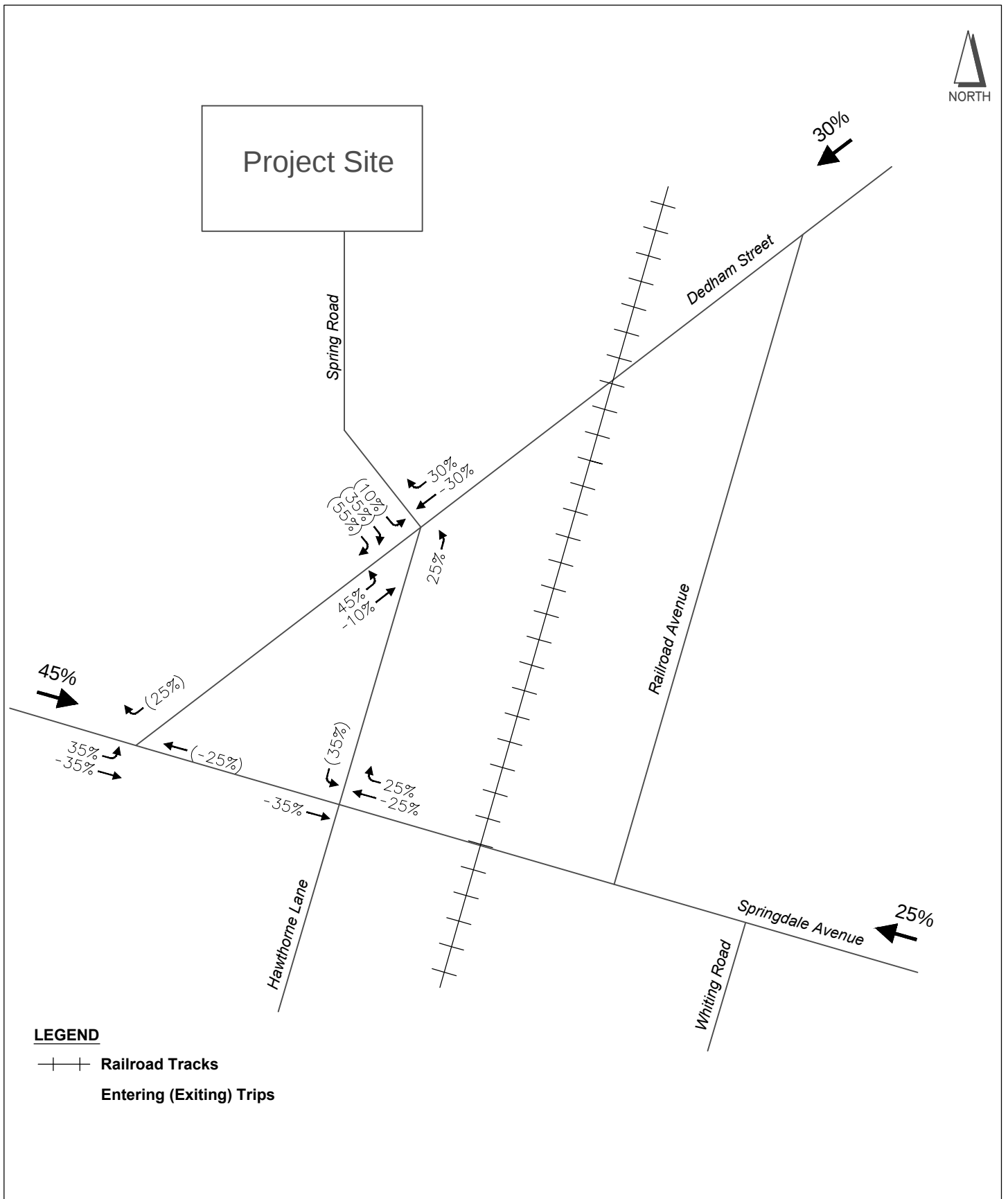
GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

Figure 4
Net New Trip Distribution
Dunkin' Donuts
Dover, MA



GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

Figure 5
AM Peak Hour Pass-by/Diverted Trip Distribution
Dunkin' Donuts
Dover, MA



GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

Figure 6
PM Peak Hour Pass-by/Diverted Trip Distribution
Dunkin' Donuts
Dover, MA

Net New Site Trips

	Enter	Exit	Total
AM	15	14	29
PM	6	6	12



Project Site

Spring Road

Dedham Street

Railroad Avenue

Springdale Avenue

Whiting Road

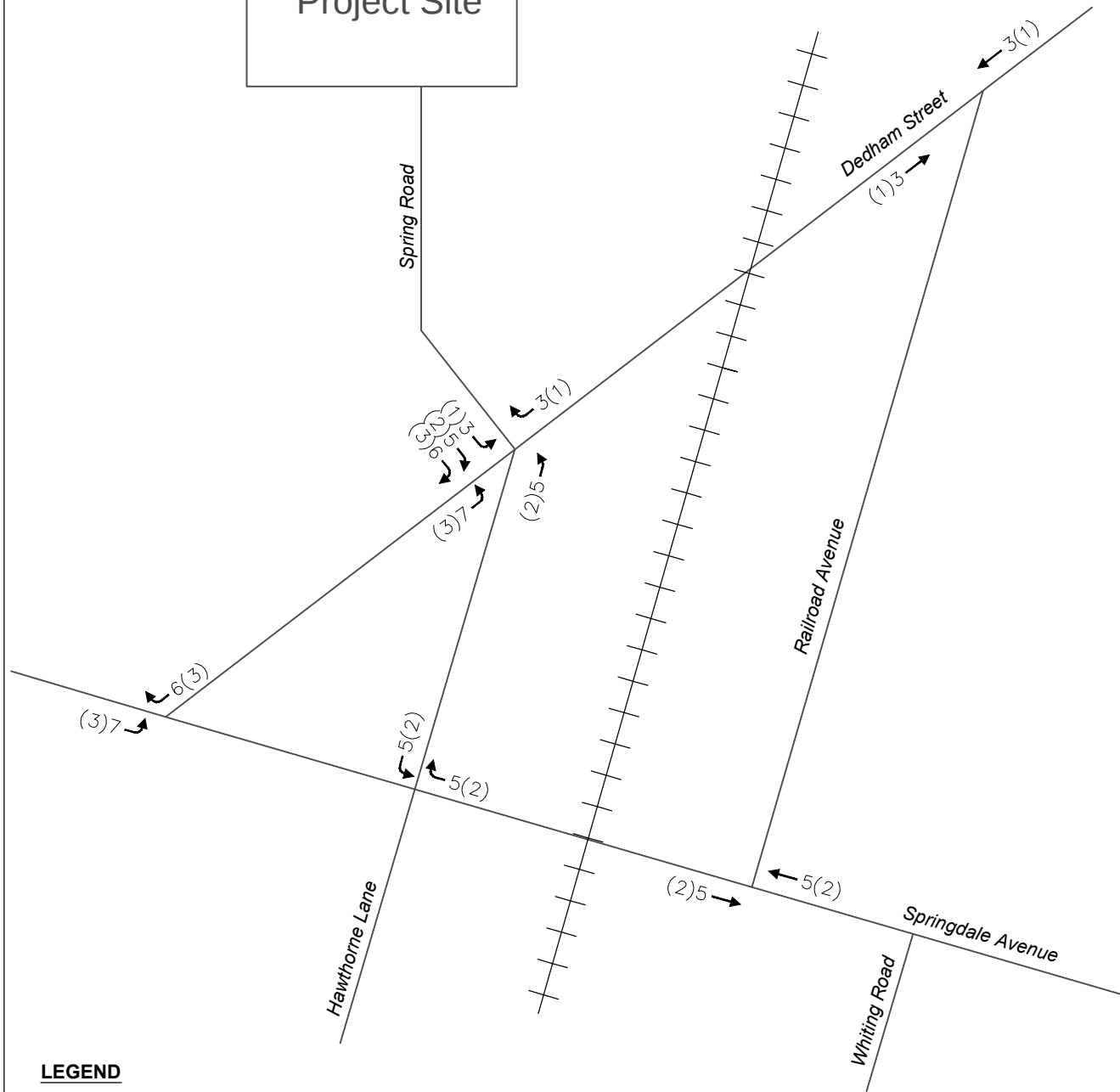
Hawthorne Lane

LEGEND



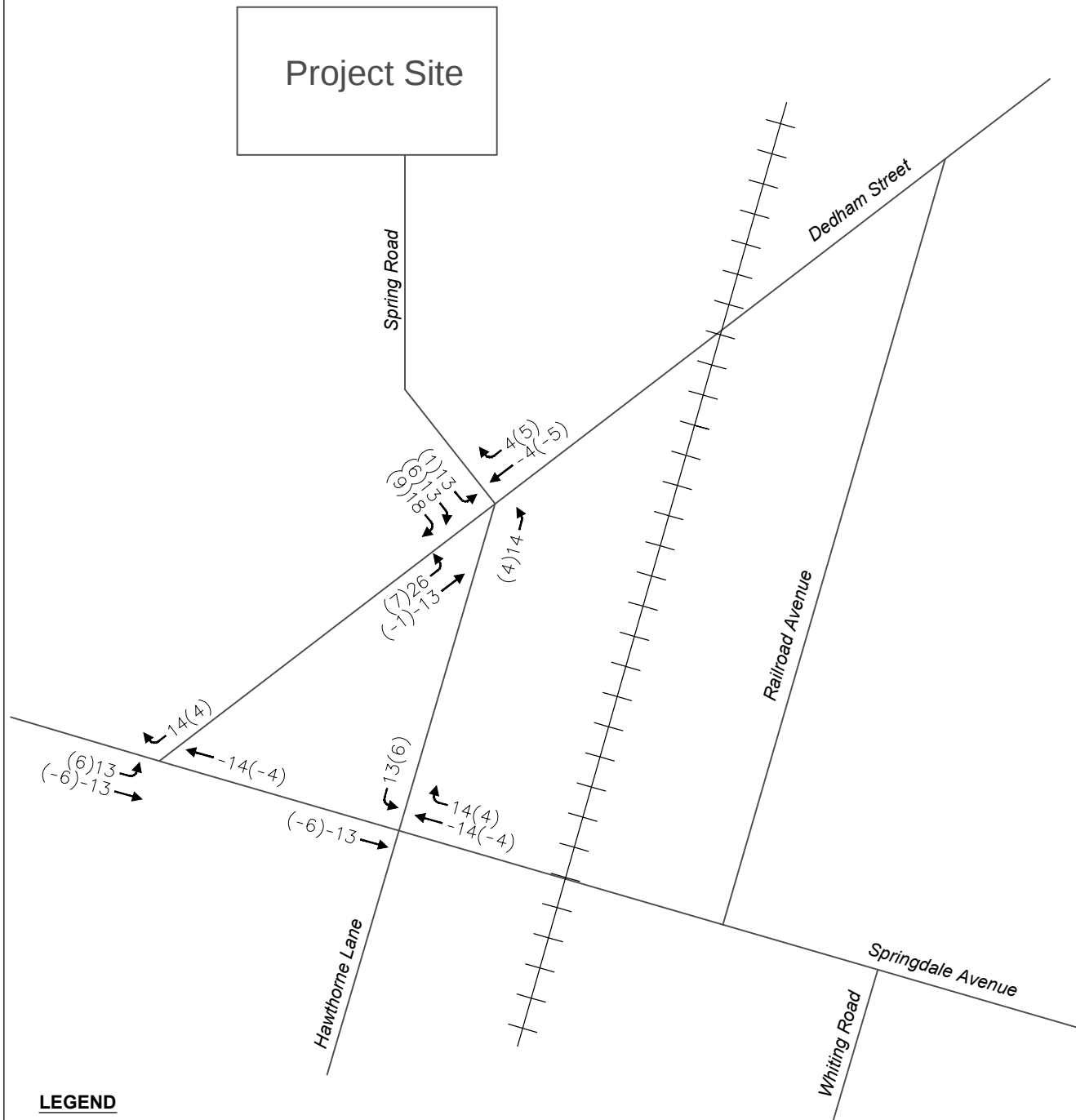
Railroad Tracks

AM (PM) Peak Hour Traffic Volumes



GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

Figure 7
Net New Generated Trips
Dunkin' Donuts
Dover, MA



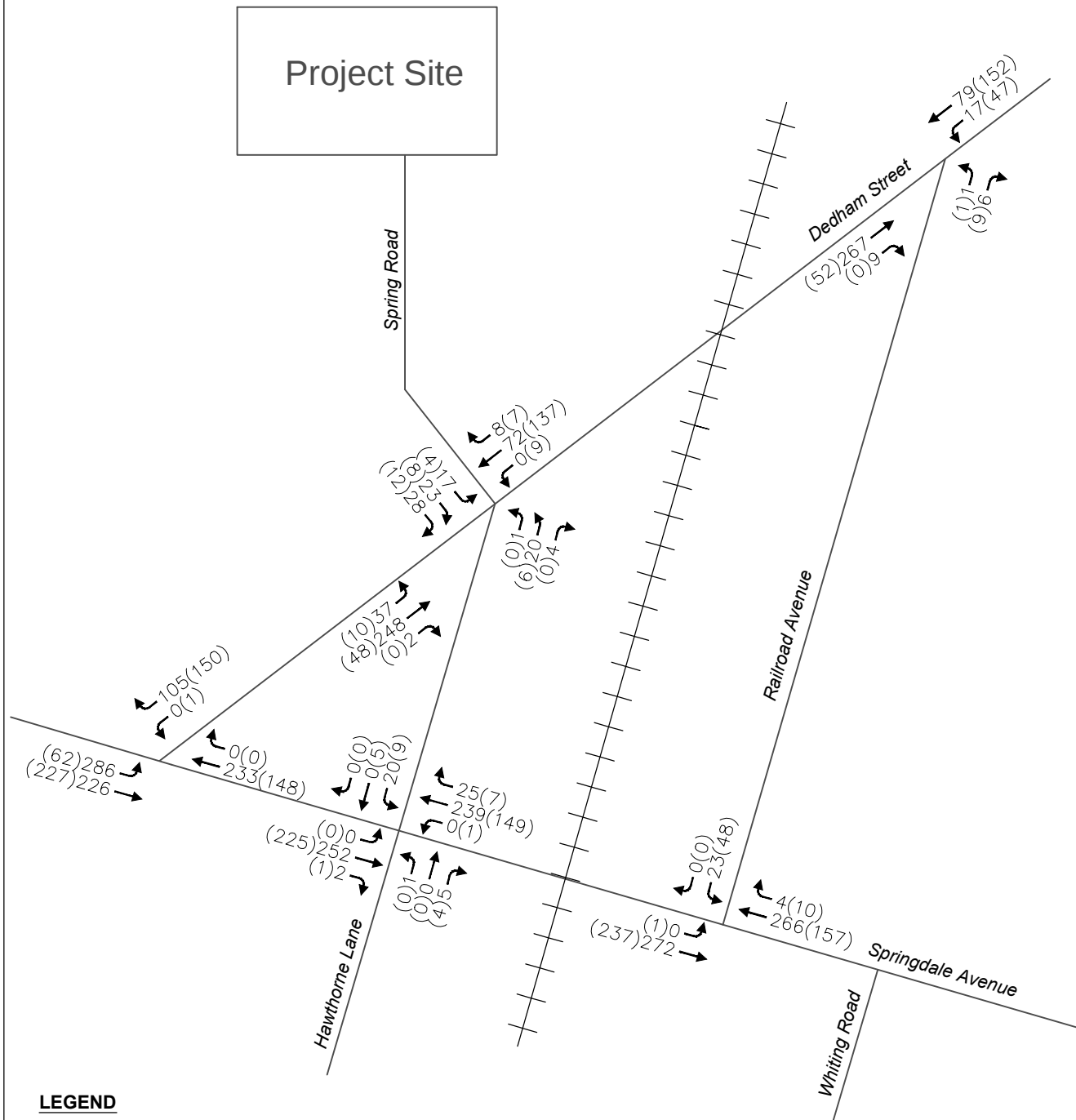
LEGEND

- +— Railroad Tracks
- AM (PM) Peak Hour Traffic Volumes



GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

Figure 8
Pass-by and Diverted Trips
Dunkin' Donuts
Dover, MA



GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

Figure 9
2023 Build Peak Hour Traffic Volumes
Dunkin' Donuts
Dover, MA

INTERSECTION CAPACITY ANALYSIS

Green conducted intersection capacity analyses at each study intersection for the 2016 Existing, 2023 No-Build, and 2023 Build scenarios. The Synchro software was used to complete the intersection capacity analyses, and is an approved software package by the Massachusetts Department of Transportation (MassDOT). The analysis evaluated flow rates, capacity, and delay characteristics to determine the Level of Service (LOS) as described in the 2010 Highway Capacity Manual (HCM)³ for each STOP-controlled or YIELD-controlled approach to each study intersection. Level of Service is an indicator of operating conditions which occur on a given roadway feature while accommodating varying levels of traffic volumes. It is a qualitative measure that accounts for a number of operational factors including roadway geometry, speed, traffic composition, peak hour factors, travel delay, freedom to maneuver and driver expectation. When all of these measures are assessed and a Level of Service is assigned to a roadway or intersection, it is equivalent to presenting an “index” to the operational qualities of the section under study. Level of Service is classified into six levels that are designated ‘A’ through ‘F’ based on the control delay ranges they fall under. In practice, any given roadway/intersection may operate at a wide LOS range depending upon time of day, day of week or period of year. Table 3 summarizes the LOS delay criteria for unsignalized intersections.

Table 3 – Level of Service Criteria

LOS	UNSIGNALIZED INTERSECTION (Sec)
A	≤10
B	>10 and ≤15
C	>15 and ≤25
D	>25 and ≤35
E	>35 and ≤50
F	>50

It is noted that YIELD-controlled approaches were modeled in Synchro as STOP-controlled. This results in a slightly conservative analysis; as drivers not required to stop will flow through the system more efficiently. Table 4 summarizes the intersection capacity analyses for the study intersections during the weekday morning and afternoon peak hours. It is noted that only the side-street approaches are summarized, as traffic on the main street flows freely. The intersection capacity analysis worksheets are contained in the Appendix.

³ Transportation Research Board, of the National Academies, Highway Capacity Manual, Washington, D.C., 2010.

Table 4 – Intersection Capacity Analysis

STUDY INTERSECTION APPROACH	2016 EXISTING CONDITIONS				2023 NO BUILD CONDITIONS				2023 BUILD CONDITIONS			
	DELAY (s)	LOS	v/c	95 TH % Q (FT)	DELAY (s)	LOS	v/c	95 TH % Q (FT)	DELAY (s)	LOS	v/c	95 TH % Q (FT)
Weekday Morning Peak Hour												
Springdale Avenue at Dedham Street												
Dedham Street SWB LR	10.1	B	0.11	10	10.3	B	0.12	10	10.4	B	0.15	13
Springdale Avenue at Railroad Avenue												
Railroad Avenue SB LR	12.5	B	0.05	3	12.9	B	0.05	5	13.1	B	0.05	5
Springdale Avenue at Hawthorne Lane												
Hawthorne Lane NB LTR	10.3	B	0.01	0	10.4	B	0.01	0	10.3	B	0.01	0
Hawthorne Lane SB LTR	13.0	B	0.01	0	13.4	B	0.01	0	13.6	B	0.05	5
Dedham Street at Spring Street/Hawthorne Lane												
Hawthorne Lane NB LTR	10.2	B	0.01	0	10.4	B	0.01	0	12.2	B	0.05	5
Spring Street SB LTR	10.3	B	0.02	0	10.5	B	0.02	0	11.6	B	0.12	10
Dedham Street at Railroad Avenue												
Railroad Avenue NB LR	9.9	A	0.01	0	10.1	B	0.01	0	10.1	B	0.01	0
Weekday Afternoon Peak Hour												
Springdale Avenue at Dedham Street												
Dedham Street SWB LR	9.8	A	0.16	15	10.0	B	0.18	15	10.0	B	0.18	18
Springdale Avenue at Railroad Avenue												
Railroad Avenue SB LR	11.5	B	0.08	8	11.8	B	0.09	8	11.9	B	0.09	8
Springdale Avenue at Hawthorne Lane												
Hawthorne Lane NB LTR	9.5	A	0.01	0	9.6	A	0.01	0	9.6	A	0.01	0
Hawthorne Lane SB LTR	11.7	B	0.01	0	11.9	B	0.01	0	11.9	B	0.03	3
Dedham Street at Spring Street/Hawthorne Lane												
Hawthorne Lane NB LTR	0.0	A	0.00	0	0.0	A	0.00	0	10.7	B	0.01	0
Spring Street SB LTR	9.9	A	0.00	0	10.0	B	0.00	0	9.9	A	0.03	3
Dedham Street at Railroad Avenue												
Railroad Avenue NB LR	8.8	A	0.01	0	8.8	A	0.01	0	8.8	A	0.01	0
Abbreviations:												
EB = Eastbound L=Left LR = Left and Right Delay = Average delay per vehicle (measured in seconds) WB = Westbound T=Through LTR = Left, Through, and Right LOS = Level of Service NB = Northbound R=Right v/c = Volume-to-Capacity Ratio SB = Southbound 95 th % Q = 95 th percentile queue length (measured in feet), assumes 25 feet per vehicle												

As shown in Table 4, all study intersections operate well during both the weekday morning and afternoon peak hours. Under the 2016 existing and 2023 Future No Build conditions, all STOP-controlled approaches operate at LOS A or B. The vehicle delays on all approaches are less than 15 seconds per vehicle and queue lengths are 15 feet or shorter, less than one vehicle. The intersections are expected to continue to operate well under 2023 Build conditions, with all approaches to the study intersections operating at LOS A or B. All of the approaches are expected to continue to have 95th percentile queue lengths of less than one vehicle and average delays of less than 15 seconds per vehicle.

The intersection capacity analyses show that the study area intersections are expected to continue to operate well, as all of the intersections have the capacity to accommodate the project-generated demand, and are expected to operate similarly to the existing conditions.

SIGHT DISTANCE ANALYSIS

Adequate sight distance is an important safety consideration at intersections. Sight distances were reviewed at the site driveway location. Stopping sight distance (SSD) is the distance required for an approaching driver (with an eye height of 3.5 feet) to perceive and stop in time to avoid a collision with an object 2 feet high in the roadway. The values are based on a perception and reaction time of 2.5 seconds and braking distance required under wet, level pavements. Corner or intersection sight distance (ISD) is based upon the time required to perceive, react, and complete a desired exiting maneuver from a driveway once the driver decides to execute the maneuver. Adjustments for the grade of the roadway are applied to both SSD and ISD if appropriate. SSD is considered the more critical of the two and relates specifically to safety.

Values for ISD represent the time to: (1) turn left or right, in addition to accelerating to the operating speed of the roadway, without causing approaching vehicles to reduce speed by more than 10 mph; and (2) upon turning left clearing the near half of the intersection without conflicting with the vehicles approaching from the left. ISD is more related to operations and to some degree, the convenience or inconvenience of oncoming motorists. The minimum criteria are defined by the American Association of State Highway and Transportation Officials (AASHTO)⁴. As indicated by AASHTO, if the available ISD meets or exceeds the minimum SSD criteria, then there is adequate safe sight distance available for motorists to avoid collisions. A criterion for calculating minimum required sight distances can be established based on operating speed, the speed at or under which most motorists (85th percentile) actually travel along a particular portion of roadway.

The posted speed limit on Dedham Street in the vicinity of the project site is 25 mph. The 85th percentile travel speeds were observed to be 31 mph in the eastbound travel direction and 32 mph in the westbound travel direction. These travel speeds were measured to the east of Railroad Avenue, and it is anticipated that speeds to the west of the site drive are lower, as vehicles either turn from Springdale Avenue onto Dedham Street or slow down as they approach the intersection. The sight distance analysis compares the available sight distance, as measured in the field, to the minimum requirements for both the posted speed of 25 mph and the 85th percentile speed of 30 mph, and is summarized in Table 5.

Table 5 – Summary of Sight Distance Analysis at the Site Drive

LOCATION	MEASURED	MINIMUM REQUIRED (25 MPH)	MINIMUM REQUIRED (30 MPH)	DESIRABLE (25 MPH)	DESIRABLE (30 MPH)
Stopping Sight Distance					
Dedham Street Eastbound	215	155	200	-	-
Dedham Street Westbound	570	155	200	-	-
Intersection Sight Distance					
Vehicles exiting the Site Drive, looking west	180	155	200	280	335
Vehicles exiting the Site Drive, looking east	335	155	200	280	335

⁴ American Association of State Highway and Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Streets, Washington, D.C., 2011.

As indicated in Table 5, the SSD's exceed the minimum requirements for vehicles traveling in both directions on Dedham Street. The ISD looking west from the site driveway (at eastbound drivers) is clear to the intersection with Springdale Avenue, and exceeds the minimum requirements for vehicles traveling at 25 mph. As discussed previously, vehicles in this portion of Dedham Street are generally traveling at a lower speed, after turning onto Dedham Street from Springdale Avenue.

CONCLUSIONS & RECOMMENDATIONS

The purpose of this traffic impact and access study was to evaluate the expected effects to the roadway network of opening a Dunkin' Donuts on Dedham Street in Dover in an abandoned Taffy Café building.

Trip generation forecasts indicate that approximately 29 net new vehicle trips are expected to be made during the weekday morning peak hour, and approximately 12 net new vehicle trips are expected during the afternoon peak hour. These relatively low net new vehicle trip estimates are the result of an expected 75% pass-by rate, and the majority of trips visiting the proposed Dunkin' Donuts are already on the local roadway network.

The trips generated by the proposed Dunkin' Donuts were distributed across the surrounding roadway network according to existing traffic patterns. The generated trips were added to the No-Build traffic volumes at each study intersection and intersection capacity analyses were conducted to evaluate the impact of the added traffic.

The intersection capacity analyses indicate that all of the study intersections are expected to continue to operate well, with minimal delays and queues. The available sight distances along Dedham Street exceed minimum requirements and the site driveway is expected to operate safely.

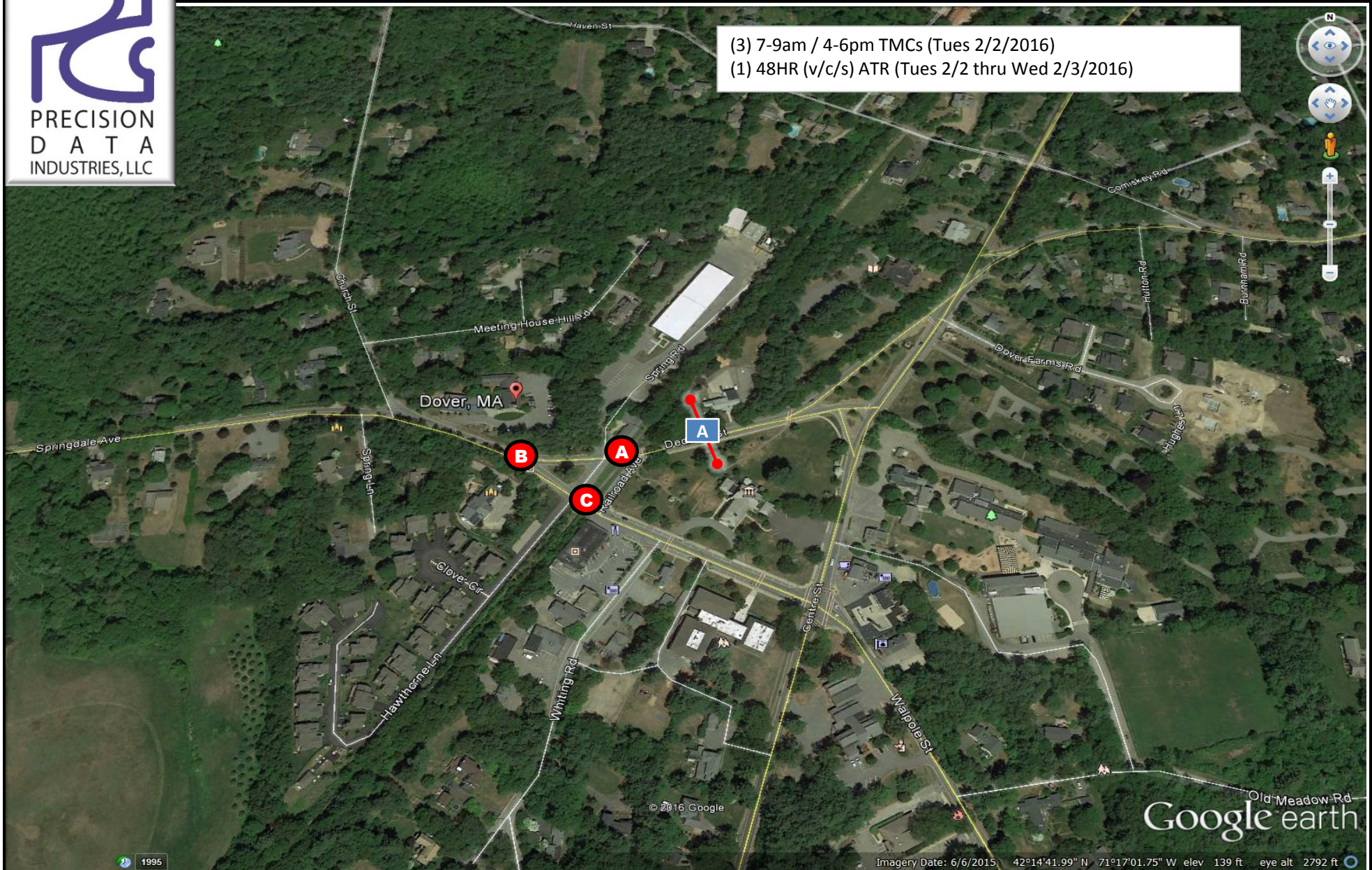
The analyses indicate that the proposed project can be safely accommodated by the existing roadway network, with minimal impact to traffic operations at the study intersections. However, several actions are recommended to improve conditions within the study area. These recommendations include the following:

- At the intersection of Springdale Avenue / Hawthorne Lane, the existing STOP sign on the Hawthorne Lane southbound approach is located on the left side of the roadway, in a location that may be unexpected to drivers. It is recommended that this STOP sign be relocated to the right side of the road, in accordance with standard engineering practice.
- To prevent on-street parking on Dedham Street in the vicinity of the proposed Dunkin' Donuts, "No Parking" signs are recommended on the north side of Dedham Street, between the site driveway and the American Legion property (approximately 200 ft east of the site driveway).
- "No Parking" signs are also recommended along the west side of Railroad Avenue.
- At the existing crosswalk across Dedham Street at Railroad Avenue, there is an existing pedestrian warning sign on the north side of the crosswalk. To enhance visibility of this pedestrian crossing, it is recommended that a pedestrian warning sign be posted on the south side of the crosswalk.
- It is recommended that a bicycle rack be provided on the east side of the building, adjacent to the railroad track, to allow convenient and safe bicycle parking.

The above recommendations are expected enhance traffic operations and safety in the project area.

APPENDIX A – TRAFFIC VOLUMES

Location Map: 164920 Dover, MA



(3) 7-9am / 4-6pm TMCs (Tues 2/2/2016)
(1) 48HR (v/c/s) ATR (Tues 2/2 thru Wed 2/3/2016)

Client: Green International	Engineer: J. Gauvin	Site Code: TBA	Date: Tues 2/2 thru Wed 2/3/2016	PDI Job # 164920	City, State: Dover, MA
--------------------------------	------------------------	-------------------	-------------------------------------	---------------------	---------------------------

Dedham Street
east of Spring Street
City, State: Dover, MA
Client: Green International/ J. Gauvin



164920 A Volume
Site Code: TBD

Start	WB			EB			Combin ed		02-Feb- 16 Tue			
Time	A.M.		P.M.	A.M.		P.M.	A.M.	P.M.				
12:00	2		27	0		10	2	37				
12:15	0		20	0		14	0	34				
12:30	1		17	0		17	1	34				
12:45	0	3	15	79	0	0	7	48	0	3	22	127
01:00	1		21		0		10		1		31	
01:15	1		23		0		14		1		37	
01:30	0		19		0		20		0		39	
01:45	0	2	22	85	0	0	15	59	0	2	37	144
02:00	0		24		2		10		2		34	
02:15	0		27		1		27		1		54	
02:30	0		37		0		26		0		63	
02:45	0	0	32	120	0	3	22	85	0	3	54	205
03:00	1		44		0		21		1		65	
03:15	0		42		0		21		0		63	
03:30	0		31		0		15		0		46	
03:45	0	1	40	157	0	0	22	79	0	1	62	236
04:00	1		38		0		19		1		57	
04:15	0		34		0		19		0		53	
04:30	0		54		0		11		0		65	
04:45	1	2	41	167	2	2	14	63	3	4	55	230
05:00	1		45		5		15		6		60	
05:15	0		44		5		15		5		59	
05:30	4		41		9		9		13		50	
05:45	3	8	35	165	20	39	9	48	23	47	44	213
06:00	6		43		22		6		28		49	
06:15	6		30		24		20		30		50	
06:30	10		36		37		9		47		45	
06:45	15	37	32	141	49	132	5	40	64	169	37	181
07:00	18		25		56		11		74		36	
07:15	33		17		56		8		89		25	
07:30	22		15		54		3		76		18	
07:45	11	84	12	69	67	233	8	30	78	317	20	99
08:00	18		0		35		0		53		0	
08:15	23		0		45		0		68		0	
08:30	17		0		40		0		57		0	
08:45	26	84	21	21	36	156	0	0	62	240	21	21
09:00	17		8		34		0		51		8	
09:15	15		8		16		2		31		10	
09:30	11		6		27		4		38		10	
09:45	14	57	7	29	19	96	4	10	33	153	11	39
10:00	14		8		23		3		37		11	
10:15	10		5		16		1		26		6	
10:30	15		5		22		1		37		6	
10:45	12	51	3	21	12	73	0	5	24	124	3	26
11:00	9		1		21		0		30		1	
11:15	19		0		11		0		30		0	
11:30	14		2		13		0		27		2	
11:45	21	63	1	4	20	65	0	0	41	128	1	4
Total	392		1058		799		467		1191		1525	
Percent	32.9%		69.4%		67.1%		30.6%					
Day Total			1450				1266				2716	
Peak	06:45	-	04:30	-	07:00	-	02:15	-	07:00	-	02:30	-
Vol.	88	-	184	-	233	-	96	-	317	-	245	-
P.H.F.	0.667		0.852		0.869		0.889		0.890		0.942	

Dedham Street
east of Spring Street
City, State: Dover, MA
Client: Green International/ J. Gauvin



PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

164920 A Volume
Site Code: TBD

Start	WB		EB		Combin		ed		03-Feb-16	
Time	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	Wed	
12:00	0	25	0	19	0	44				
12:15	2	29	2	17	4	46				
12:30	0	28	0	16	0	44				
12:45	0	25	1	23	1	48	5	182		
01:00	3	25	0	19	3	44				
01:15	1	19	0	14	1	33				
01:30	1	18	0	13	1	31				
01:45	0	22	1	12	1	34	6	142		
02:00	0	23	0	11	0	34				
02:15	1	26	0	25	1	51				
02:30	0	21	0	22	0	43				
02:45	0	27	1	12	1	39	2	167		
03:00	0	26	0	25	0	51				
03:15	0	46	0	20	0	66				
03:30	0	40	0	16	0	56				
03:45	0	34	0	15	0	49	0	222		
04:00	0	38	0	17	0	55				
04:15	1	53	0	21	1	74				
04:30	1	50	2	8	3	58				
04:45	2	47	0	12	2	59	6	246		
05:00	1	41	1	16	2	57				
05:15	1	40	2	12	3	52				
05:30	0	40	13	8	13	48				
05:45	4	43	19	35	9	52	41	209		
06:00	5	35	17	12	22	47				
06:15	5	34	20	16	25	50				
06:30	12	35	33	8	45	43				
06:45	16	26	43	113	10	36	151	176		
07:00	23	33	48		6	39				
07:15	35	32	65		6	38				
07:30	13	23	57		2	25				
07:45	25	15	59	229	16	31	325	133		
08:00	23	17	34		7	24				
08:15	23	8	37		2	10				
08:30	26	16	40		2	18				
08:45	21	13	49	160	10	23	253	75		
09:00	22	9	22		0	9				
09:15	13	12	23		1	13				
09:30	15	5	25		0	5				
09:45	12	6	20	90	6	12	152	39		
10:00	11	8	20		5	13				
10:15	21	5	14		0	5				
10:30	17	2	27		0	2				
10:45	14	1	20	81	0	1	144	21		
11:00	15	2	24		1	3				
11:15	20	0	12		0	0				
11:30	22	3	21		0	3				
11:45	18	0	26	83	0	0	158	6		
Total	445	1126	798	492	1243	1618				
Percent	35.8%	69.6%	64.2%	30.4%						
Day Total		1571		1290		2861				
Peak	07:45	-	04:15	-	07:00	-	04:15	-	-	-
Vol.	97	-	191	-	229	-	248	-	-	-
P.H.F.	0.693		0.901		0.881		0.838			

Dedham Street
east of Spring Street
City, State: Dover, MA
Client: Green International/ J. Gauvin



PRECISION
D A T A
INDUSTRIES, LLC
P.O.Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

164920 A Class
Site Code: TBD

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
02/02/1														
6	0	3	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	0	0	0	1	0	0	0	0	0	0	0	2
05:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
06:00	1	26	7	1	1	1	0	0	0	0	0	0	0	37
07:00	0	74	9	1	0	0	0	0	0	0	0	0	0	84
08:00	2	62	10	6	3	1	0	0	0	0	0	0	0	84
09:00	0	36	18	2	0	1	0	0	0	0	0	0	0	57
10:00	1	35	12	0	2	1	0	0	0	0	0	0	0	51
11:00	0	50	11	0	1	1	0	0	0	0	0	0	0	63
12 PM	1	61	15	0	1	1	0	0	0	0	0	0	0	79
13:00	0	68	13	1	1	1	0	1	0	0	0	0	0	85
14:00	1	89	27	1	2	0	0	0	0	0	0	0	0	120
15:00	1	123	21	7	4	1	0	0	0	0	0	0	0	157
16:00	1	137	25	0	3	1	0	0	0	0	0	0	0	167
17:00	0	149	14	1	1	0	0	0	0	0	0	0	0	165
18:00	1	131	8	0	1	0	0	0	0	0	0	0	0	141
19:00	1	62	4	1	1	0	0	0	0	0	0	0	0	69
20:00	0	20	1	0	0	0	0	0	0	0	0	0	0	21
21:00	0	28	1	0	0	0	0	0	0	0	0	0	0	29
22:00	0	20	1	0	0	0	0	0	0	0	0	0	0	21
23:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
Total	10	1188	199	21	21	10	0	1	0	0	0	0	0	1450
Percent	0.7%	81.9%	13.7%	1.4%	1.4%	0.7%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	09:00	08:00	08:00	04:00								07:00
Vol.	2	74	18	6	3	1								84
PM Peak	12:00	17:00	14:00	15:00	15:00	12:00		13:00						16:00
Vol.	1	149	27	7	4	1		1						167

Dedham Street
east of Spring Street
City, State: Dover, MA
Client: Green International/ J. Gauvin



PRECISION
D A T A
INDUSTRIES, LLC
P.O.Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

164920 A Class
Site Code: TBD

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
02/03/1														
6	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
05:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
06:00	0	27	8	2	1	0	0	0	0	0	0	0	0	38
07:00	1	84	8	1	1	0	0	1	0	0	0	0	0	96
08:00	1	74	10	7	0	0	0	1	0	0	0	0	0	93
09:00	0	48	9	1	2	1	0	0	1	0	0	0	0	62
10:00	0	44	15	1	2	1	0	0	0	0	0	0	0	63
11:00	0	62	11	0	1	1	0	0	0	0	0	0	0	75
12 PM	0	77	20	7	2	1	0	0	0	0	0	0	0	107
13:00	1	70	10	0	2	1	0	0	0	0	0	0	0	84
14:00	1	80	15	1	0	0	0	0	0	0	0	0	0	97
15:00	0	124	21	0	1	0	0	0	0	0	0	0	0	146
16:00	0	170	17	1	0	0	0	0	0	0	0	0	0	188
17:00	1	153	10	0	0	0	0	0	0	0	0	0	0	164
18:00	0	119	10	0	1	0	0	0	0	0	0	0	0	130
19:00	0	98	5	0	0	0	0	0	0	0	0	0	0	103
20:00	0	49	5	0	0	0	0	0	0	0	0	0	0	54
21:00	0	31	1	0	0	0	0	0	0	0	0	0	0	32
22:00	0	15	1	0	0	0	0	0	0	0	0	0	0	16
23:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
Total	5	1341	183	21	13	5	0	2	1	0	0	0	0	1571
Percent	0.3%	85.4%	11.6%	1.3%	0.8%	0.3%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	10:00	08:00	09:00	09:00		07:00	09:00					07:00
Vol.	1	84	15	7	2	1		1	1					96
PM Peak	13:00	16:00	15:00	12:00	12:00	12:00								16:00
Vol.	1	170	21	7	2	1								188

Dedham Street
east of Spring Street
City, State: Dover, MA
Client: Green International/ J. Gauvin



PRECISION
D A T A
INDUSTRIES, LLC
P.O.Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

164920 A Class
Site Code: TBD

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
02/02/1														
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	35	3	0	1	0	0	0	0	0	0	0	0	39
06:00	1	113	16	2	0	0	0	0	0	0	0	0	0	132
07:00	1	207	23	0	2	0	0	0	0	0	0	0	0	233
08:00	1	143	11	1	0	0	0	0	0	0	0	0	0	156
09:00	1	83	10	0	2	0	0	0	0	0	0	0	0	96
10:00	3	51	14	1	3	0	1	0	0	0	0	0	0	73
11:00	0	56	9	0	0	0	0	0	0	0	0	0	0	65
12 PM	3	30	13	1	0	1	0	0	0	0	0	0	0	48
13:00	0	47	10	0	2	0	0	0	0	0	0	0	0	59
14:00	0	71	12	1	0	1	0	0	0	0	0	0	0	85
15:00	1	69	8	0	1	0	0	0	0	0	0	0	0	79
16:00	0	57	5	0	1	0	0	0	0	0	0	0	0	63
17:00	0	42	5	1	0	0	0	0	0	0	0	0	0	48
18:00	0	38	1	0	1	0	0	0	0	0	0	0	0	40
19:00	0	27	3	0	0	0	0	0	0	0	0	0	0	30
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	7	3	0	0	0	0	0	0	0	0	0	0	10
22:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	11	1086	146	7	13	2	1	0	0	0	0	0	0	1266
Percent	0.9%	85.8%	11.5%	0.6%	1.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	06:00	10:00		10:00							07:00
Vol.	3	207	23	2	3		1							233
PM Peak	12:00	14:00	12:00	12:00	13:00	12:00								14:00
Vol.	3	71	13	1	2	1								85

Dedham Street
east of Spring Street
City, State: Dover, MA
Client: Green International/ J. Gauvin



PRECISION
D A T A
INDUSTRIES, LLC
P.O.Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

164920 A Class
Site Code: TBD

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
02/03/1														
6	0	2	1	0	0	0	0	0	0	0	0	0	0	3
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
05:00	0	30	5	0	0	0	0	0	0	0	0	0	0	35
06:00	0	96	15	2	0	0	0	0	0	0	0	0	0	113
07:00	2	203	23	1	0	0	0	0	0	0	0	0	0	229
08:00	2	133	24	1	0	0	0	0	0	0	0	0	0	160
09:00	1	72	15	0	2	0	0	0	0	0	0	0	0	90
10:00	0	71	9	0	1	0	0	0	0	0	0	0	0	81
11:00	0	60	16	3	3	1	0	0	0	0	0	0	0	83
12 PM	0	54	19	0	1	1	0	0	0	0	0	0	0	75
13:00	0	43	11	1	2	1	0	0	0	0	0	0	0	58
14:00	0	57	8	0	4	1	0	0	0	0	0	0	0	70
15:00	0	68	8	0	0	0	0	0	0	0	0	0	0	76
16:00	1	46	10	0	1	0	0	0	0	0	0	0	0	58
17:00	0	39	6	0	0	0	0	0	0	0	0	0	0	45
18:00	0	41	4	0	1	0	0	0	0	0	0	0	0	46
19:00	0	28	2	0	0	0	0	0	0	0	0	0	0	30
20:00	0	20	1	0	0	0	0	0	0	0	0	0	0	21
21:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
22:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	6	1079	178	8	15	4	0	0	0	0	0	0	0	1290
Percent	0.5%	83.6%	13.8%	0.6%	1.2%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	08:00	11:00	11:00	11:00								07:00
Vol.	2	203	24	3	3	1								229
PM Peak	16:00	15:00	12:00	13:00	14:00	12:00								15:00
Vol.	1	68	19	1	4	1								76

Dedham Street
 east of Spring Street
 City, State: Dover, MA
 Client: Green International/ J. Gauvin



PRECISION
 D A T A
 INDUSTRIES, LLC
 P.O. Box 301 Berlin, MA 01503
 Office: 508.481.3999 Fax: 508.545.1234
 Email: datarequests@pdillc.com

164920 A Speed
 Site Code: TBD

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
02/02/																
16	0	0	0	1	2	0	0	0	0	0	0	0	0	3	32	30
01:00	0	0	0	0	1	1	0	0	0	0	0	0	0	2	37	35
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1	33	32
04:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2	32	30
05:00	0	0	0	1	7	0	0	0	0	0	0	0	0	8	33	31
06:00	0	0	10	11	14	2	0	0	0	0	0	0	0	37	32	28
07:00	1	1	9	44	27	2	0	0	0	0	0	0	0	84	32	28
08:00	2	0	14	34	30	4	0	0	0	0	0	0	0	84	32	28
09:00	0	0	9	22	20	6	0	0	0	0	0	0	0	57	33	29
10:00	1	2	7	17	18	6	0	0	0	0	0	0	0	51	33	28
11:00	2	2	1	25	32	1	0	0	0	0	0	0	0	63	32	29
12 PM	0	3	4	44	23	4	1	0	0	0	0	0	0	79	32	29
13:00	1	0	10	43	29	2	0	0	0	0	0	0	0	85	32	28
14:00	1	0	8	62	43	5	1	0	0	0	0	0	0	120	32	29
15:00	1	3	12	67	68	6	0	0	0	0	0	0	0	157	32	29
16:00	1	4	21	89	48	4	0	0	0	0	0	0	0	167	31	28
17:00	4	4	26	85	42	4	0	0	0	0	0	0	0	165	31	27
18:00	1	4	13	83	36	4	0	0	0	0	0	0	0	141	31	28
19:00	2	3	9	41	10	4	0	0	0	0	0	0	0	69	30	27
20:00	2	1	2	4	11	1	0	0	0	0	0	0	0	21	33	27
21:00	0	0	0	10	16	3	0	0	0	0	0	0	0	29	33	31
22:00	0	2	4	7	8	0	0	0	0	0	0	0	0	21	32	27
23:00	0	0	0	1	3	0	0	0	0	0	0	0	0	4	33	31
Total	19	29	159	692	490	59	2	0	0	0	0	0	0	1450		
%	1.3%	2.0%	11.0%	47.7%	33.8%	4.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	10:00	08:00	07:00	11:00	09:00								07:00		
Vol.	2	2	14	44	32	6								84		
PM Peak	17:00	16:00	17:00	16:00	15:00	15:00	12:00							16:00		
Vol.	4	4	26	89	68	6	1							167		

Stats

15th Percentile :	24 MPH
50th Percentile :	27 MPH
85th Percentile :	32 MPH
95th Percentile :	33 MPH

Mean Speed(Average) :	28 MPH
10 MPH Pace Speed :	25-34 MPH
Number in Pace :	1182
Percent in Pace :	81.5%
Number of Vehicles > 30 MPH :	453
Percent of Vehicles > 30 MPH :	31.2%

Dedham Street
 east of Spring Street
 City, State: Dover, MA
 Client: Green International/ J. Gauvin



PRECISION
 D A T A
 INDUSTRIES, LLC
 P.O. Box 301 Berlin, MA 01503
 Office: 508.481.3999 Fax: 508.545.1234
 Email: datarequests@pdillc.com

164920 A Speed
 Site Code: TBD

WB

Start Time	14	15	20	25	30	35	40	45	50	55	60	65	70	Total	85th % ile	Ave Speed
														9999		
02/03/																
16	0	0	1	0	1	0	0	0	0	0	0	0	0	2	32	27
01:00	0	0	0	1	3	1	0	0	0	0	0	0	0	5	35	32
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1	28	27
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	1	2	0	1	0	0	0	0	0	0	4	41	33
05:00	0	0	0	0	5	1	0	0	0	0	0	0	0	6	34	33
06:00	0	1	9	10	13	4	1	0	0	0	0	0	0	38	33	29
07:00	0	0	6	52	34	4	0	0	0	0	0	0	0	96	32	29
08:00	0	1	16	46	30	0	0	0	0	0	0	0	0	93	31	28
09:00	0	1	13	24	21	3	0	0	0	0	0	0	0	62	32	28
10:00	0	1	8	35	15	4	0	0	0	0	0	0	0	63	32	28
11:00	1	1	10	33	26	4	0	0	0	0	0	0	0	75	32	28
12 PM	1	3	22	46	29	6	0	0	0	0	0	0	0	107	32	27
13:00	2	2	11	33	31	3	2	0	0	0	0	0	0	84	32	28
14:00	1	3	12	40	37	4	0	0	0	0	0	0	0	97	32	28
15:00	5	4	30	79	27	1	0	0	0	0	0	0	0	146	30	26
16:00	9	13	46	99	21	0	0	0	0	0	0	0	0	188	28	25
17:00	6	7	43	88	18	1	1	0	0	0	0	0	0	164	28	25
18:00	0	3	38	72	17	0	0	0	0	0	0	0	0	130	28	26
19:00	3	6	18	62	12	2	0	0	0	0	0	0	0	103	28	26
20:00	2	4	10	26	12	0	0	0	0	0	0	0	0	54	30	26
21:00	1	1	4	18	7	1	0	0	0	0	0	0	0	32	31	27
22:00	0	0	0	4	11	1	0	0	0	0	0	0	0	16	33	31
23:00	0	0	0	3	2	0	0	0	0	0	0	0	0	5	32	29
Total	31	51	297	773	374	40	5	0	0	0	0	0	0	1571		
%	2.0%	3.2%	18.9%	49.2%	23.8%	2.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	06:00	08:00	07:00	07:00	06:00	04:00							07:00		
Vol.	1	1	16	52	34	4	1							96		
PM Peak	16:00	16:00	16:00	16:00	14:00	12:00	13:00							16:00		
Vol.	9	13	46	99	37	6	2							188		

Stats

15th Percentile :	21 MPH
50th Percentile :	26 MPH
85th Percentile :	31 MPH
95th Percentile :	33 MPH

Mean Speed(Average) :	27 MPH
10 MPH Pace Speed :	25-34 MPH
Number in Pace :	1147
Percent in Pace :	73.0%
Number of Vehicles > 30 MPH :	344
Percent of Vehicles > 30 MPH :	21.9%

Dedham Street
 east of Spring Street
 City, State: Dover, MA
 Client: Green International/ J. Gauvin



PRECISION
 D A T A
 INDUSTRIES, LLC
 P.O. Box 301 Berlin, MA 01503
 Office: 508.481.3999 Fax: 508.545.1234
 Email: datarequests@pdillc.com

164920 A Speed
 Site Code: TBD

EB

Start Time	14	15	20	25	30	35	40	45	50	55	60	65	70	Total	85th % ile	Ave Speed
														9999		
02/02/16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	2	0	1	0	0	0	0	0	0	0	3	36	30
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	1	1	0	0	0	0	0	0	0	2	37	35
05:00	0	1	1	18	16	3	0	0	0	0	0	0	0	39	33	29
06:00	0	2	24	71	32	3	0	0	0	0	0	0	0	132	31	27
07:00	20	28	57	100	26	2	0	0	0	0	0	0	0	233	28	24
08:00	1	8	25	84	35	3	0	0	0	0	0	0	0	156	31	27
09:00	1	2	15	53	23	2	0	0	0	0	0	0	0	96	31	27
10:00	1	2	13	28	23	6	0	0	0	0	0	0	0	73	32	28
11:00	0	5	8	30	17	5	0	0	0	0	0	0	0	65	32	28
12 PM	2	9	10	16	11	0	0	0	0	0	0	0	0	48	30	24
13:00	0	4	8	34	13	0	0	0	0	0	0	0	0	59	30	27
14:00	0	2	17	43	22	1	0	0	0	0	0	0	0	85	31	27
15:00	1	2	10	38	26	2	0	0	0	0	0	0	0	79	32	28
16:00	1	6	10	31	15	0	0	0	0	0	0	0	0	63	30	26
17:00	3	4	14	19	7	1	0	0	0	0	0	0	0	48	29	24
18:00	0	4	8	20	8	0	0	0	0	0	0	0	0	40	30	26
19:00	1	1	9	13	5	1	0	0	0	0	0	0	0	30	30	26
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
21:00	1	0	0	6	3	0	0	0	0	0	0	0	0	10	31	27
22:00	0	0	0	2	3	0	0	0	0	0	0	0	0	5	32	30
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	32	80	229	608	286	31	0	0	0	0	0	0	0	1266		
%	2.5%	6.3%	18.1%	48.0%	22.6%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	08:00	10:00								07:00		
Vol.	20	28	57	100	35	6								233		
PM Peak	17:00	12:00	14:00	14:00	15:00	15:00								14:00		
Vol.	3	9	17	43	26	2								85		

Stats

15th Percentile :	20 MPH
50th Percentile :	26 MPH
85th Percentile :	31 MPH
95th Percentile :	33 MPH

Mean Speed(Average) :	26 MPH
10 MPH Pace Speed :	25-34 MPH
Number in Pace :	894
Percent in Pace :	70.6%
Number of Vehicles > 30 MPH :	260
Percent of Vehicles > 30 MPH :	20.5%

Dedham Street
 east of Spring Street
 City, State: Dover, MA
 Client: Green International/ J. Gauvin



PRECISION
 D A T A
 INDUSTRIES, LLC
 P.O.Box 301 Berlin, MA 01503
 Office: 508.481.3999 Fax: 508.545.1234
 Email: datarequests@pdillc.com

164920 A Speed
 Site Code: TBD

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
02/03/																
16	0	0	0	2	1	0	0	0	0	0	0	0	0	3	31	29
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1	28	27
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1	33	32
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	1	1	0	0	0	0	0	0	0	2	37	35
05:00	0	2	0	17	12	4	0	0	0	0	0	0	0	35	33	29
06:00	0	6	15	46	42	4	0	0	0	0	0	0	0	113	32	28
07:00	7	30	57	93	40	2	0	0	0	0	0	0	0	229	29	25
08:00	3	6	44	77	27	3	0	0	0	0	0	0	0	160	30	26
09:00	1	4	16	50	17	2	0	0	0	0	0	0	0	90	30	27
10:00	0	2	14	44	19	1	1	0	0	0	0	0	0	81	31	27
11:00	0	1	24	37	19	2	0	0	0	0	0	0	0	83	31	27
12 PM	1	4	22	32	15	1	0	0	0	0	0	0	0	75	30	26
13:00	0	3	10	30	12	3	0	0	0	0	0	0	0	58	31	27
14:00	2	5	19	27	17	0	0	0	0	0	0	0	0	70	30	26
15:00	0	7	16	36	16	1	0	0	0	0	0	0	0	76	30	26
16:00	3	7	10	30	8	0	0	0	0	0	0	0	0	58	28	25
17:00	1	12	10	16	6	0	0	0	0	0	0	0	0	45	28	23
18:00	1	5	9	25	5	1	0	0	0	0	0	0	0	46	28	25
19:00	0	3	7	19	1	0	0	0	0	0	0	0	0	30	28	25
20:00	0	1	6	7	6	1	0	0	0	0	0	0	0	21	32	27
21:00	0	0	1	4	2	0	0	0	0	0	0	0	0	7	31	28
22:00	0	0	1	1	3	0	0	0	0	0	0	0	0	5	32	29
23:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1	28	27
Total	19	98	281	595	270	26	1	0	0	0	0	0	0	1290		
%	1.5%	7.6%	21.8%	46.1%	20.9%	2.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	06:00	05:00	10:00							07:00		
Vol.	7	30	57	93	42	4	1							229		
PM Peak	16:00	17:00	12:00	15:00	14:00	13:00								15:00		
Vol.	3	12	22	36	17	3								76		

Stats

15th Percentile :	20 MPH
50th Percentile :	26 MPH
85th Percentile :	30 MPH
95th Percentile :	33 MPH

Mean Speed(Average) :	26 MPH
10 MPH Pace Speed :	20-29 MPH
Number in Pace :	876
Percent in Pace :	67.9%
Number of Vehicles > 30 MPH :	243
Percent of Vehicles > 30 MPH :	18.8%



PRECISION
D A T A
INDUSTRIES, LLC

PO. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S/NW: Spring Rd/ Spindale Ave/ Church
E/W/SE: Dedham St/ Railroad Ave
City, State: Dover, MA
Client: Green International/ J. Gauvin

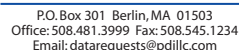
File Name : 164920 A
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Spring Road From North						Dedham Street From East						Railroad Avenue From Southeast						Spindale Avenue Access From South						Dedham Street From West						Dover Church Driveway From Northwest						
Start Time	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Int. Total
07:00 AM	0	0	2	0	0	0	0	0	13	0	2	0	4	1	0	0	0	0	0	1	0	0	1	0	1	1	55	0	1	0	0	0	0	0	0	0	82
07:15 AM	0	3	2	0	0	0	0	0	26	0	5	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	60	0	1	0	0	0	0	0	0	101
07:30 AM	0	1	0	0	1	0	0	0	18	0	6	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	52	0	1	0	0	0	0	0	0	81	
07:45 AM	0	0	1	0	0	0	0	0	11	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	62	0	1	0	0	0	0	0	79	
Total	0	4	5	0	1	0	0	0	68	0	15	0	6	1	0	0	0	0	1	3	0	1	1	0	2	2	229	0	4	0	0	0	0	0	0	343	
08:00 AM	0	0	0	1	0	0	0	1	8	0	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	55	
08:15 AM	0	0	1	0	0	0	0	2	15	0	4	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	46	0	1	0	0	0	0	0	0	72	
08:30 AM	0	0	1	0	0	0	0	2	12	0	5	0	1	0	0	0	1	0	0	2	0	4	0	0	0	0	40	0	6	0	0	0	0	0	0	74	
08:45 AM	0	0	0	0	0	0	2	1	19	0	5	0	2	1	1	0	0	0	0	0	0	2	0	0	1	0	33	0	2	0	0	0	0	0	0	69	
Total	0	0	2	1	0	0	2	6	54	0	20	0	6	1	1	0	1	0	0	3	0	7	0	0	1	0	156	0	9	0	0	0	0	0	0	270	
Grand Total	0	4	7	1	1	0	2	6	122	0	35	0	12	2	1	0	1	0	1	6	0	8	1	0	3	2	385	0	13	0	0	0	0	0	0	613	
Apprch %	0	30.8	53.8	7.7	7.7	0	1.2	3.6	73.9	0	21.2	0	75	12.5	6.2	0	6.2	0	6.2	37.5	0	50	6.2	0	0.7	0.5	95.5	0	3.2	0	0	0	0	0	0	0	
Total %	0	0.7	1.1	0.2	0.2	0	0.3	1	19.9	0	5.7	0	2	0.3	0.2	0	0.2	0	0.2	1	0	1.3	0.2	0	0.5	0.3	62.8	0	2.1	0	0	0	0	0	0	0	
Cars	0	2	4	0	0	0	1	6	112	0	35	0	10	1	1	0	1	0	0	4	0	8	0	0	3	2	378	0	12	0	0	0	0	0	0	580	
% Cars	0	50	57.1	0	0	0	50	100	91.8	0	100	0	83.3	50	100	0	100	0	0	66.7	0	100	0	0	100	100	98.2	0	92.3	0	0	0	0	0	0	94.6	
Heavy Vehicles																																					
% Heavy Vehicles	0	50	42.9	100	100	0	50	0	8.2	0	0	0	16.7	50	0	0	0	0	100	33.3	0	0	100	0	0	0	1.8	0	7.7	0	0	0	0	0	0	5.4	

	Spring Road From North							Dedham Street From East							Railroad Avenue From Southeast							Spindale Avenue Access From South							Dedham Street From West							Dover Church Driveway From Northwest								
Start Time	Hard Right	Right	Thru	Bear Left	Left	U- Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U- Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U- Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U- Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U- Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U- Turn	App. Total	Int. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																												
Peak Hour for Entire Intersection Begins at 07:00 AM																																												
07:00 AM	0	0	2	0	0	0	2	0	0	13	0	2	0	15	4	1	0	0	0	0	0	5	0	1	0	0	1	0	2	1	1	55	0	1	0	58	0	0	0	0	0	0	0	82
07:15 AM	0	3	2	0	0	0	5	0	0	26	0	5	0	31	2	0	0	0	0	0	0	2	0	0	0	1	0	0	1	0	1	60	0	1	0	62	0	0	0	0	0	0	0	101
07:30 AM	0	1	0	0	1	0	2	0	0	18	0	6	0	24	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	0	52	0	1	0	53	0	0	0	0	0	0	0	81
07:45 AM	0	0	1	0	0	0	1	0	0	11	0	2	0	13	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	62	0	1	0	64	0	0	0	0	0	0	0	79
Total Volume	0	4	5	0	1	0	10	0	0	68	0	15	0	83	6	1	0	0	0	0	7	1	3	0	1	1	0	6	2	2	229	0	4	0	237	0	0	0	0	0	0	0	343	
% App. Total	0	40	50	0	10	0		0	0	81.9	0	18.1	0		85.7	14.3	0	0	0	0		16.7	50	0	16.7	16.7	0		0.8	0.8	96.6	0	1.7	0		0	0	0	0	0	0			
PHF	.000	.333	.625	.000	.250	.000	.500	.000	.000	.654	.000	.625	.000	.669	.375	.250	.000	.000	.000	.000	.350	.250	.750	.000	.250	.250	.000	.750	.500	.500	.923	.000	1.000	.926	.000	.000	.000	.000	.000	.000	.000	.849		
Cars	0	2	3	0	0	0	5	0	0	66	0	15	0	81	5	1	0	0	0	0	6	0	3	0	1	0	0	4	2	2	223	0	3	0	230	0	0	0	0	0	0	0	326	
% Cars	0	50.0	60.0	0	0	0	50.0	0	0	97.1	0	100	0	97.6	83.3	100	0	0	0	0	85.7	0	100	0	100	0	0	66.7	100	100	97.4	0	75.0	0	97.0	0	0	0	0	0	0	0	95.0	
Heavy Vehicles	0	2	2	0	1	0	5	0	0	2	0	0	0	2	1	0	0	0	0	0	1	1	0	0	0	1	0	2	0	0	6	0	1	0	7	0	0	0	0	0	0	0	17	
% Heavy Vehicles	0	50.0	40.0	0	100	0	50.0	0	0	2.9	0	0	0	2.4	16.7	0	0	0	0	0	14.3	100	0	0	0	100	0	33.3	0	0	2.6	0	25.0	0	3.0	0	0	0	0	0	0	5.0		

Client: Green International/ J. Gauvin



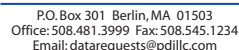
Page No : 1

Groups Printed- Cars

Groups Limited - Cars																																						
	Spring Road From North						Dedham Street From East						Railroad Avenue From Southeast						Spindale Avenue Access From South						Dedham Street From West						Dover Church Driveway From Northwest							
Start Time	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Int. Total	
07:00 AM	0	0	2	0	0	0	0	0	12	0	2	0	4	1	0	0	0	0	0	1	0	0	0	0	0	1	1	52	0	1	0	0	0	0	0	0	0	77
07:15 AM	0	2	0	0	0	0	0	0	26	0	5	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	57	0	0	0	0	0	0	0	0	0	93
07:30 AM	0	0	0	0	0	0	0	0	18	0	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	52	0	1	0	0	0	0	0	0	0	0	78
07:45 AM	0	0	1	0	0	0	0	0	10	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	62	0	1	0	0	0	0	0	0	0	78
Total	0	2	3	0	0	0	0	0	66	0	15	0	5	1	0	0	0	0	0	3	0	1	0	0	0	2	2	223	0	3	0	0	0	0	0	0	0	326
08:00 AM	0	0	0	0	0	0	0	1	8	0	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	54	
08:15 AM	0	0	0	0	0	0	0	0	2	9	0	4	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	45	0	1	0	0	0	0	0	0	0	63
08:30 AM	0	0	1	0	0	0	0	0	2	11	0	5	0	1	0	0	0	1	0	0	1	0	4	0	0	0	0	40	0	6	0	0	0	0	0	0	0	72
08:45 AM	0	0	0	0	0	0	1	1	18	0	5	0	1	0	1	0	0	0	0	0	0	2	0	0	1	0	33	0	2	0	0	0	0	0	0	0	0	65
Total	0	0	1	0	0	0	1	6	46	0	20	0	5	0	1	0	1	0	0	1	0	7	0	0	1	0	155	0	9	0	0	0	0	0	0	0	0	254
Grand Total	0	2	4	0	0	0	1	6	112	0	35	0	10	1	1	0	1	0	0	4	0	8	0	0	3	2	378	0	12	0	0	0	0	0	0	0	0	580
Apprch %	0	33.3	66.7	0	0	0	0.6	3.9	72.7	0	22.7	0	76.9	7.7	7.7	0	7.7	0	0	33.3	0	66.7	0	0	0.8	0.5	95.7	0	3	0	0	0	0	0	0	0	0	
Total %	0	0.3	0.7	0	0	0	0.2	1	19.3	0	6	0	1.7	0.2	0.2	0	0.2	0	0	0.7	0	1.4	0	0	0.5	0.3	65.2	0	2.1	0	0	0	0	0	0	0	0	

[illegible]

Client: Green International/ J. Gauvin



Page No : 1

Groups Printed- Heavy Vehicles

	Spring Road From North						Dedham Street From East						Railroad Avenue From Southeast						Spindale Avenue Access From South						Dedham Street From West						Dover Church Driveway From Northwest						
Start Time	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	5
07:15 AM	0	1	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	8	
07:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
07:45 AM	0	0	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	0	0	0	0	0	0	0	1	
Total	0	2	2	0	1	0	0	0	2	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	6	0	1	0	0	0	0	0	0	17	
08:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
08:15 AM	0	0	1	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	9		
08:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
08:45 AM	0	0	0	0	0	0	1	0	1	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	4		
Total	0	0	1	1	0	0	1	0	8	0	0	0	1	1	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	16		
Grand Total	0	2	3	1	1	0	1	0	10	0	0	0	2	1	0	0	0	0	1	2	0	0	1	0	0	0	7	0	1	0	0	0	0	0	33		
Apprch %	0	28.6	42.9	14.3	14.3	0	9.1	0	90.9	0	0	0	66.7	33.3	0	0	0	0	25	50	0	0	25	0	0	0	87.5	0	12.5	0	0	0	0	0	0		
Total %	0	6.1	9.1	3	3	0	3	0	30.3	0	0	0	6.1	3	0	0	0	0	3	6.1	0	0	3	0	0	0	21.2	0	3	0	0	0	0	0	0		

[illegible]

N/S/NW: Spring Rd/ Spindale Ave/ Church
 E/W/SE: Dedham St/ Railroad Ave
 City, State: Dover, MA
 Client: Green International/ J. Gauvin



File Name : 164920 A
 Site Code : TBA
 Start Date : 2/2/2016
 Page No : 1

Groups Printed- Peds and Bicycles

	Spring Road From North							Dedham Street From East							Railroad Avenue From Southeast							Spindale Avenue Access From South							Dedham Street From West							Dover Church Driveway From Northwest								
Start Time	Hard Right	Right	Thru	Bear Left	Left	Peds EB	Peds WB	Right	Bear Right	Thru	Left	Hard Left	Peds SB	Peds NB	Hard Right	Bear Right	Thru	Bear Left	Left	Peds SB	Peds NB	Hard Right	Right	Thru	Bear Left	Left	Peds WB	Peds EB	Right	Bear Right	Thru	Left	Hard Left	Peds NB	Peds SB	Hard Right	Bear Right	Thru	Bear Left	Left	Peds NB	Peds SB	Int. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:45 AM	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
Total	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5
Grand Total	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5
Apprch %	0	0	0	0	0	75	25	0	0	0	0	0	0	0	0	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
Total %	0	0	0	0	0	60	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	

	Spring Road From North							Dedham Street From East							Railroad Avenue From Southeast							Spindale Avenue Access From South							Dedham Street From West							Dover Church Driveway From Northwest							
Start Time	Har d Ri ght	Rig ht	Thru	Bear r Left	Left	Peds s E	Peds s W	App. Total	Rig ht	Bear r Ri ght	Thru	Left	Har d Left	Peds s S	Peds s N	App. Total	Har d Ri ght	Rig ht	Thru	Bear r Left	Left	Peds s W	Peds s E	App. Total	Rig ht	Bear r Ri ght	Thru	Left	Har d Left	Peds s N	Peds s S	App. Total	Har d Ri ght	Bear r Ri ght	Thru	Bear r Left	Har d Left	Peds s N	Peds s S	App. Total	Int. Total		
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																											
Peak Hour for Entire Intersection Begins at 08:00 AM																																											
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
08:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
08:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2		
Total Volume	0	0	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5	
% App. Total	0	0	0	0	0	75	25		0	0	0	0	0	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				
PHF	.000	.000	.000	.000	.000	.375	.250	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250		.625		

N/S/NW: Spring Rd/ Spindale Ave/ Church
 E/W/SE: Dedham St/ Railroad Ave
 City, State: Dover, MA
 Client: Green International/ J. Gauvin



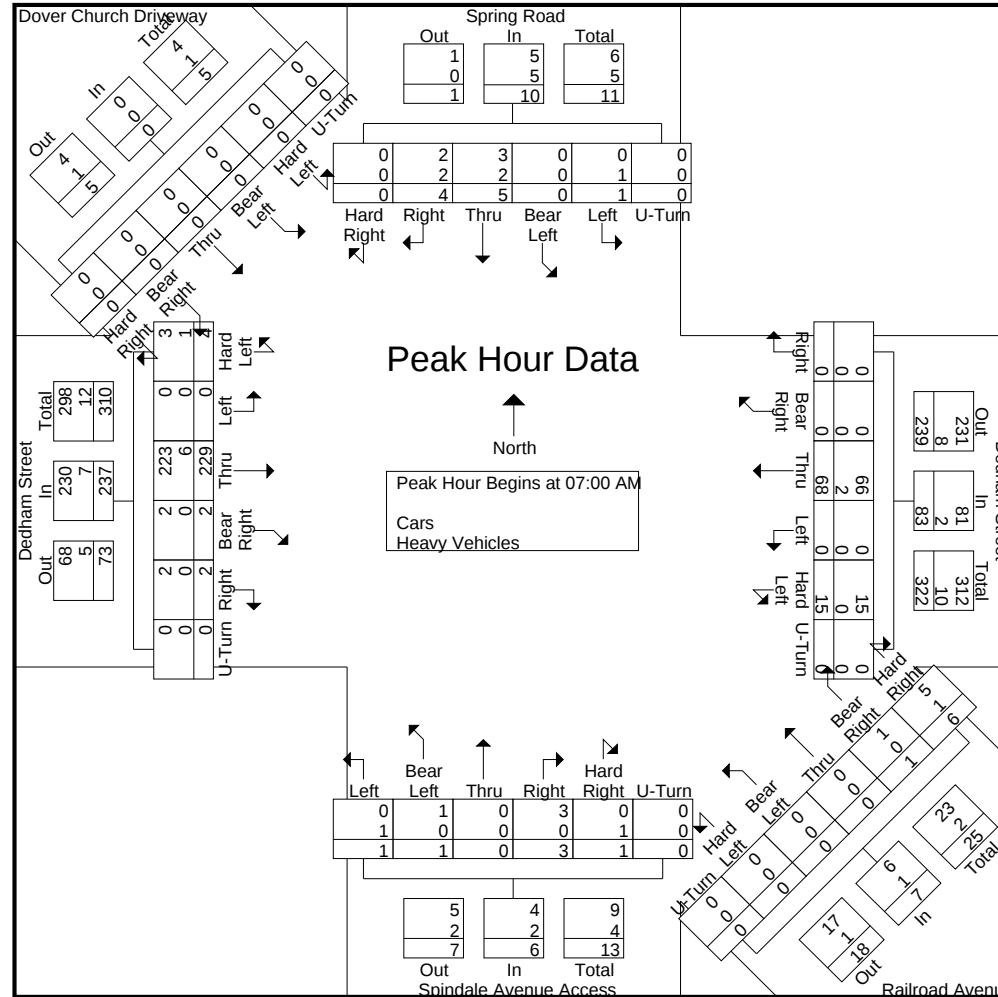
File Name : 164920 A
 Site Code : TBA
 Start Date : 2/2/2016
 Page No : 1

	Spring Road From North							Dedham Street From East							Railroad Avenue From Southeast							Spindale Avenue Access From South							Dedham Street From West							Dover Church Driveway From Northwest							
Start Time	Hard Right	Right	Thru	Bear Left	Left	U- Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U- Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U- Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U- Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U- Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U- Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																											
Peak Hour for Entire Intersection Begins at 07:00 AM																																											
07:00 AM	0	0	2	0	0	0	2	0	0	13	0	2	0	15	4	1	0	0	0	0	0	5	0	1	0	0	1	0	2	1	1	55	0	1	0	58	0	0	0	0	0	0	82
07:15 AM	0	3	2	0	0	0	5	0	0	26	0	5	0	31	2	0	0	0	0	0	2	0	0	0	1	0	0	1	0	1	60	0	1	0	62	0	0	0	0	0	0	101	
07:30 AM	0	1	0	0	1	0	2	0	0	18	0	6	0	24	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	0	52	0	1	0	53	0	0	0	0	0	0	81	
07:45 AM	0	0	1	0	0	0	1	0	0	11	0	2	0	13	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	62	0	1	0	64	0	0	0	0	0	0	79	
Total Volume	0	4	5	0	1	0	10	0	0	68	0	15	0	83	6	1	0	0	0	0	7	1	3	0	1	1	0	6	2	2	229	0	4	0	237	0	0	0	0	0	0	0	343
% App. Total	0	40	50	0	10	0		0	0	81.9	0	18.1	0		85.7	14.3	0	0	0	0		16.7	50	0	16.7	16.7	0		0.8	0.8	96.6	0	1.7	0		0	0	0	0	0	0		
PHF	.000	.333	.625	.000	.250	.000	.500	.000	.000	.654	.000	.625	.000	.669	.375	.250	.000	.000	.000	.000	.350	.250	.750	.000	.250	.250	.000	.750	.500	.500	.923	.000	1. 0 0	.000	.926	.000	.000	.000	.000	.000	.000	.849	
Cars	0	2	3	0	0	0	5	0	0	66	0	15	0	81	5	1	0	0	0	0	6	0	3	0	1	0	0	4	2	2	223	0	3	0	230	0	0	0	0	0	0	0	326
% Cars	0	50.0	60.0	0	0	0	50.0	0	0	97.1	0	100	0	97.6	83.3	100	0	0	0	0	85.7	0	100	0	100	0	0	66.7	100	100	97.4	0	75.0	0	97.0	0	0	0	0	0	0	0	95.0
Heavy Vehicles	0	2	2	0	1	0	5	0	0	2	0	0	0	2	1	0	0	0	0	0	1	1	0	0	0	1	0	2	0	0	6	0	1	0	7	0	0	0	0	0	0	0	17
% Heavy Vehicles	0	50.0	40.0	0	100	0	50.0	0	0	2.9	0	0	0	2.4	16.7	0	0	0	0	0	14.3	100	0	0	0	100	0	33.3	0	0	2.6	0	25.0	0	3.0	0	0	0	0	0	0	5.0	

N/S/NW: Spring Rd/ Spindale Ave/ Church
 E/W/SE: Dedham St/ Railroad Ave
 City, State: Dover, MA
 Client: Green International/ J. Gauvin



File Name : 164920 A
 Site Code : TBA
 Start Date : 2/2/2016
 Page No : 2





N/S/NW: Spring Rd/ Spindale Ave/ Church
E/W/SE: Dedham St/ Railroad Ave
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 AA
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

	Spring Road From North						Dedham Street From East						Railroad Avenue From Southeast						Spindale Avenue Access From South						Dedham Street From West						Dover Church Driveway From Northwest								
Start Time	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Int. Total		
04:00 PM	0	0	0	0	0	0	0	1	27	1	7	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	19	0	0	0	0	0	1	0	0	0	0	58
04:15 PM	0	0	0	0	0	0	0	0	26	1	8	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	57		
04:30 PM	0	0	0	0	0	0	0	0	40	0	11	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	62		
04:45 PM	0	0	0	0	0	0	0	0	29	3	12	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	59		
Total	0	0	0	0	0	0	0	1	122	5	38	0	8	1	0	0	0	0	0	0	1	0	0	0	0	0	0	59	0	0	0	0	0	0	1	0	0	236	
05:00 PM	0	0	0	0	2	0	0	0	34	3	6	0	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	59		
05:15 PM	0	0	0	0	0	0	0	0	28	2	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	55		
05:30 PM	0	0	0	0	0	0	1	0	34	0	13	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	58		
05:45 PM	0	0	1	0	0	0	0	0	26	1	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	11	0	1	0	0	0	0	0	0	45		
Total	0	0	1	0	2	0	1	0	122	6	33	0	5	0	0	1	0	0	0	0	0	1	0	0	0	0	1	43	0	1	0	0	0	0	0	0	217		
Grand Total	0	0	1	0	2	0	1	1	244	11	71	0	13	1	0	1	0	0	0	0	1	1	0	0	0	0	1	102	0	1	0	0	0	1	0	0	453		
Apprch %	0	0	33.3	0	66.7	0	0.3	0.3	74.4	3.4	21.6	0	86.7	6.7	0	6.7	0	0	0	0	50	50	0	0	0	0	1	98.1	0	1	0	0	100	0	0	0	0		
Total %	0	0	0.2	0	0.4	0	0.2	0.2	53.9	2.4	15.7	0	2.9	0.2	0	0.2	0	0	0	0	0.2	0.2	0	0	0	0	0.2	22.5	0	0.2	0	0	0	0	0	0			
Cars	0	0	1	0	2	0	1	1	240	10	71	0	11	1	0	1	0	0	0	0	1	0	0	0	0	0	1	100	0	1	0	0	0	0	0	0	443		
% Cars	0	0	100	0	100	0	100	100	98.4	90.9	100	0	84.6	100	0	100	0	0	0	0	100	0	0	0	0	0	100	98	0	100	0	0	0	0	0	0	97.8</		

	Spring Road From North							Dedham Street From East							Railroad Avenue From Southeast							Spindale Avenue Access From South							Dedham Street From West							Dover Church Driveway From Northwest									
Start Time	Hard Right	Right	Thru	Bear Left	Left	U- Turn	App- Total	Right	Bear Right	Thru	Left	Hard Left	U- Turn	App- Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U- Turn	App- Total	Hard Right	Right	Thru	Bear Left	Left	U- Turn	App- Total	Right	Bear Right	Thru	Left	Hard Left	U- Turn	App- Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U- Turn	App- Total	Total		
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																													
Peak Hour for Entire Intersection Begins at 04:15 PM																																													
04:15 PM	0	0	0	0	0	0	0	0	0	26	1	8	0	35	3	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	18	0	0	0	0	0	0	0	57
04:30 PM	0	0	0	0	0	0	0	0	0	40	0	11	0	51	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	10	0	0	0	10	0	0	0	0	0	0	0	62	
04:45 PM	0	0	0	0	0	0	0	0	0	29	3	12	0	44	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	12	0	0	0	12	0	0	0	0	0	0	0	59	
05:00 PM	0	0	0	0	2	0	2	0	0	34	3	6	0	43	4	0	0	1	0	0	5	0	0	0	0	0	0	0	0	0	0	9	0	0	0	9	0	0	0	0	0	0	0	59	
Total Volume	0	0	0	0	2	0	2	0	0	129	7	37	0	173	11	1	0	1	0	0	13	0	0	0	0	0	0	0	0	0	0	49	0	0	0	49	0	0	0	0	0	0	0	237	
% App. Total	0	0	0	0	100	0		0	0	74.6	4	21.4	0		84.6	7.7	0	7.7	0	0		0	0	0	0	0	0	0	0	0	100	0	0	0		0	0	0	0	0	0				
PHF	.000	.000	.000	.000	.250	.000	.250	.000	.000	.806	.583	.771	.000	.848	.688	.250	.000	.250	.000	.000	.650	.000	.000	.000	.000	.000	.000	.000	.000	.000	.681	.000	.000	.000	.681	.000	.000	.000	.000	.000	.000	.000	.956		
Cars	0	0	0	0	2	0	2	0	0	128	6	37	0	171	9	1	0	1	0	0	11	0	0	0	0	0	0	0	0	0	0	48	0	0	0	48	0	0	0	0	0	0	0	232	
% Cars	0	0	0	0	100	0	100	0	0	99.2	85.7	100	0	98.8	81.8	100	0	100	0	0	84.6	0	0	0	0	0	0	0	0	0	0	98.0	0	0	0	98.0	0	0	0	0	0	0	0	97.9	
Heavy Vehicles	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	5		
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0.8	14.3	0	0	1.2	18.2	0	0	0	0	0	15.4	0	0	0	0	0	0	0	0	0	2.0	0	0	0	2.0	0	0	0	0	0	0	0	2.1		

N/S/NW: Spring Rd/ Spindale Ave/ Church
 E/W/SE: Dedham St/ Railroad Ave
 City, State: Dover, MA
 Client: Green International/ J. Gauvin



File Name : 164920 AA
 Site Code : TBA
 Start Date : 2/2/2016
 Page No : 1

Groups Printed- Cars

	Spring Road From North						Dedham Street From East						Railroad Avenue From Southeast						Spindale Avenue Access From South						Dedham Street From West						Dover Church Driveway From Northwest								
Start Time	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Int. Total		
04:00 PM	0	0	0	0	0	0	0	1	25	1	7	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	19	0	0	0	0	0	1	0	0	0	0	56
04:15 PM	0	0	0	0	0	0	0	0	26	0	8	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	56	
04:30 PM	0	0	0	0	0	0	0	0	40	0	11	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	62		
04:45 PM	0	0	0	0	0	0	0	0	29	3	12	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	56		
Total	0	0	0	0	0	0	0	1	120	4	38	0	6	1	0	0	0	0	0	0	1	0	0	0	0	0	0	58	0	0	0	0	0	1	0	0	0	230	
05:00 PM	0	0	0	0	2	0	0	0	33	3	6	0	4	0	0	1	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	58		
05:15 PM	0	0	0	0	0	0	0	0	28	2	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	55		
05:30 PM	0	0	0	0	0	0	1	0	34	0	13	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	57		
05:45 PM	0	0	1	0	0	0	0	0	25	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	11	0	1	0	0	0	0	0	0	43		
Total	0	0	1	0	2	0	1	0	120	6	33	0	5	0	0	1	0	0	0	0	0	0	0	0	0	0	1	42	0	1	0	0	0	0	0	0	213		
Grand Total	0	0	1	0	2	0	1	1	240	10	71	0	11	1	0	1	0	0	0	0	1	0	0	0	0	0	1	100	0	1	0	0	1	0	0	0	0	443	
Apprch %	0	0	33.3	0	66.7	0	0.3	0.3	74.3	3.1	22	0	84.6	7.7	0	7.7	0	0	0	100	0	0	0	0	0	0	1	98	0	1	0	0	100	0	0	0	0		
Total %	0	0	0.2	0	0.5	0	0.2	0.2	54.2	2.3	16	0	2.5	0.2	0	0.2	0	0	0	0.2	0	0	0	0	0	0	0.2	22.6	0	0.2	0	0	0.2	0	0	0	0		

	Spring Road From North							Dedham Street From East							Railroad Avenue From Southeast							Spindale Avenue Access From South							Dedham Street From West							Dover Church Driveway From Northwest								
Start Time	Hard Right	Right	Thru	Bear Left	Left	U- Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U- Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U- Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U- Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U- Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U- Turn	App. Total	Int. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																												
Peak Hour for Entire Intersection Begins at 04:15 PM																																												
04:15 PM	0	0	0	0	0	0	0	0	0	26	0	8	0	34	3	1	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	56
04:30 PM	0	0	0	0	0	0	0	0	0	40	0	11	0	51	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	62
04:45 PM	0	0	0	0	0	0	0	0	0	29	3	12	0	44	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	56
05:00 PM	0	0	0	0	2	0	2	0	0	33	3	6	0	42	4	0	0	1	0	0	0	5	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	58
Total Volume	0	0	0	0	2	0	2	0	0	128	6	37	0	171	9	1	0	1	0	0	11	0	0	0	0	0	0	0	0	0	0	48	0	0	0	0	0	0	0	0	0	0	0	232
% App. Total	0	0	0	0	100	0		0	0	74.9	3.5	21.6	0		81.8	9.1	0	9.1	0	0		0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0			
PHF	.000	.000	.000	.000	.250	.000	.250	.000	.000	.800	.500	.771	.000	.838	.563	.250	.000	.250	.000	.000	.550	.000	.000	.000	.000	.000	.000	.000	.000	.000	.667	.000	.000	.000	.667	.000	.000	.000	.000	.000	.000	.000	.935	



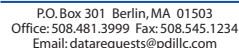
N/S/NW: Spring Rd/ Spindale Ave/ Church
E/W/SE: Dedham St/ Railroad Ave
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 AA
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

	Spring Road From North						Dedham Street From East						Railroad Avenue From Southeast						Spindale Avenue Access From South						Dedham Street From West						Dover Church Driveway From Northwest						
Start Time	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
04:15 PM	0	0	0	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	0	0	0	0	0	1		
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3		
Total	0	0	0	0	0	0	0	0	2	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	6		
05:00 PM	0	0	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	0	0	0	0	0	0	1		
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2		
Total	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	4		
Grand Total	0	0	0	0	0	0	0	0	4	1	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	10		
Apprch %	0	0	0	0	0	0	0	0	80	20	0	0	100	0	0	0	0	0	0	0	100	0	0	0	0	0	0	100	0	0	0	0	0	0	0		
Total %	0	0	0	0	0	0	0	0	40	10	0	0	20	0	0	0	0	0	0	0	10	0	0	0	0	0	0	20	0	0	0	0	0	0			

[illegible]

Client: Green International/ J. Gauvin



Page No : 1

Groups Printed- Peds and Bicycles

[illegible][illegible]

N/S/NW: Spring Rd/ Spindale Ave/ Church
 E/W/SE: Dedham St/ Railroad Ave
 City, State: Dover, MA
 Client: Green International/ J. Gauvin



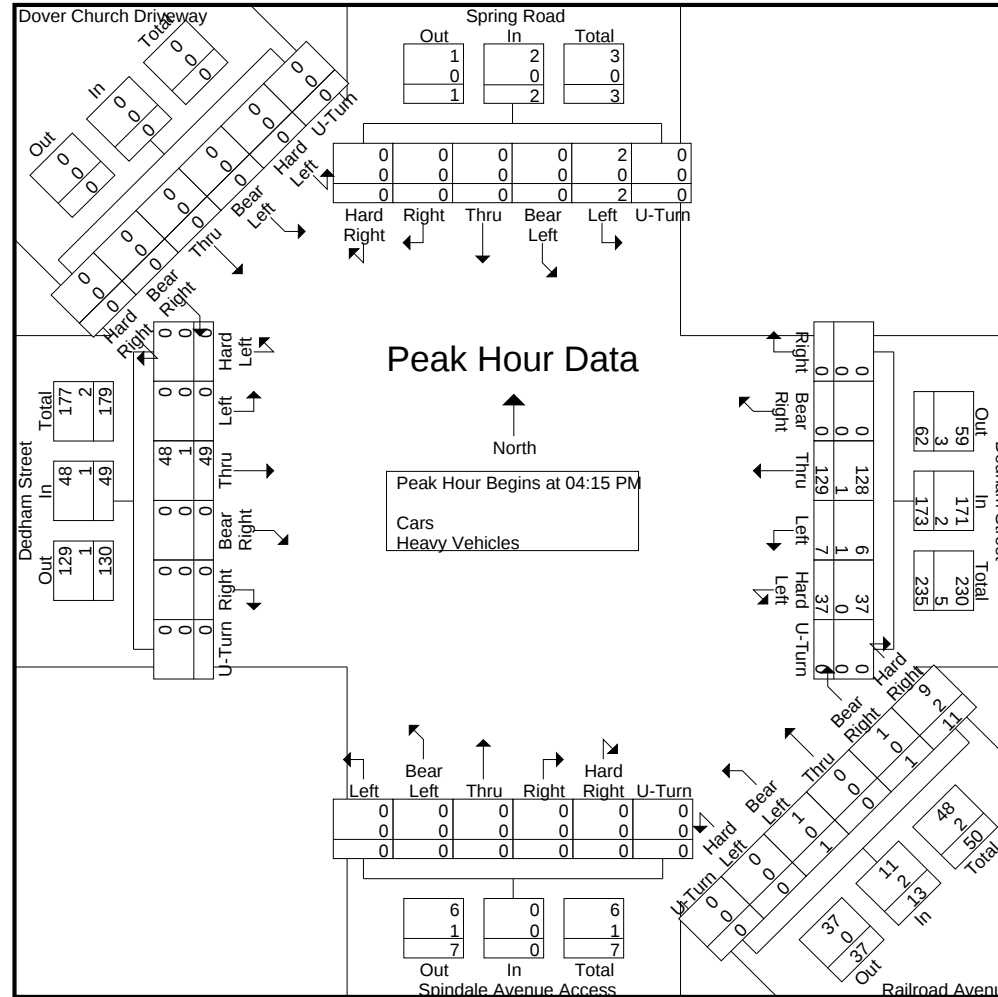
File Name : 164920 AA
 Site Code : TBA
 Start Date : 2/2/2016
 Page No : 1

	Spring Road From North							Dedham Street From East							Railroad Avenue From Southeast							Spindale Avenue Access From South							Dedham Street From West							Dover Church Driveway From Northwest									
Start Time	Hard Right	Right	Thru	Bear Left	Left	U- Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U- Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U- Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U- Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U- Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U- Turn	App. Total	Int. Total		
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																													
Peak Hour for Entire Intersection Begins at 04:15 PM																																													
04:15 PM	0	0	0	0	0	0	0	0	0	26	1	8	0	35	3	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	18	0	0	0	18	0	0	0	0	0	0	0	0	57	
04:30 PM	0	0	0	0	0	0	0	0	0	40	0	11	0	51	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	10	0	0	0	10	0	0	0	0	0	0	0	0	62		
04:45 PM	0	0	0	0	0	0	0	0	0	29	3	12	0	44	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	12	0	0	0	12	0	0	0	0	0	0	0	0	59		
05:00 PM	0	0	0	0	2	0	2	0	0	34	3	6	0	43	4	0	0	1	0	0	5	0	0	0	0	0	0	0	0	9	0	0	0	9	0	0	0	0	0	0	0	0	59		
Total Volume	0	0	0	0	2	0	2	0	0	129	7	37	0	173	11	1	0	1	0	0	13	0	0	0	0	0	0	0	0	49	0	0	0	49	0	0	0	0	0	0	0	0	237		
% App. Total	0	0	0	0	100	0		0	0	74.6	4	21.4	0		84.6	7.7	0	7.7	0	0		0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0				
PHF	.000	.000	.000	.000	.250	.000	.250	.000	.000	.806	.583	.771	.000	.848	.688	.250	.000	.250	.000	.000	.650	.000	.000	.000	.000	.000	.000	.000	.000	.681	.000	.000	.000	.681	.000	.000	.000	.000	.000	.000	.000	.000	.956		
Cars	0	0	0	0	2	0	2	0	0	128	6	37	0	171	9	1	0	1	0	0	11	0	0	0	0	0	0	0	0	48	0	0	0	48	0	0	0	0	0	0	0	0	232		
% Cars	0	0	0	0	100	0	100	0	0	99.2	85.7	100	0	98.8	81.8	100	0	100	0	0	84.6	0	0	0	0	0	0	0	0	98.0	0	0	0	98.0	0	0	0	0	0	0	0	0	97.9		
Heavy Vehicles	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	5			
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0.8	14.3	0	0	1.2	18.2	0	0	0	0	0	15.4	0	0	0	0	0	0	0	2.0	0	0	0	2.0	0	0	0	0	0	0	0	0	2.1			

N/S/NW: Spring Rd/ Spindale Ave/ Church
 E/W/SE: Dedham St/ Railroad Ave
 City, State: Dover, MA
 Client: Green International/ J. Gauvin



File Name : 164920 AA
 Site Code : TBA
 Start Date : 2/2/2016
 Page No : 2





PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street/ Episcopal Church
E/W: Springdale Avenue
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 B
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Dedham Street From North				Springdale Avenue From East				Episcopal Church Driveway From South				Springdale Avenue From West				Int. Total
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00 AM	15	0	0	0	0	51	0	0	0	0	0	0	0	36	56	0	158
07:15 AM	29	0	0	0	0	56	0	0	0	0	0	0	0	55	67	0	207
07:30 AM	19	0	0	0	0	53	0	0	0	0	0	0	0	63	51	0	186
07:45 AM	12	0	0	0	0	59	0	0	0	0	0	0	0	58	62	0	191
Total	75	0	0	0	0	219	0	0	0	0	0	0	0	212	236	0	742
08:00 AM	9	0	0	0	0	54	0	0	0	0	0	0	0	57	36	0	156
08:15 AM	14	0	0	0	0	60	0	0	0	0	0	0	0	58	50	0	182
08:30 AM	13	0	0	0	0	42	0	0	0	0	0	0	0	55	45	0	155
08:45 AM	18	0	0	0	0	46	0	0	0	0	0	1	0	43	36	0	144
Total	54	0	0	0	0	202	0	0	0	0	0	1	0	213	167	0	637
Grand Total	129	0	0	0	0	421	0	0	0	0	0	1	0	425	403	0	1379
Apprch %	100	0	0	0	0	100	0	0	0	0	0	100	0	51.3	48.7	0	
Total %	9.4	0	0	0	0	30.5	0	0	0	0	0	0.1	0	30.8	29.2	0	
Cars	116	0	0	0	0	407	0	0	0	0	0	1	0	407	395	0	1326
% Cars	89.9	0	0	0	0	96.7	0	0	0	0	0	100	0	95.8	98	0	96.2
Heavy Vehicles	13	0	0	0	0	14	0	0	0	0	0	0	0	18	8	0	53
% Heavy Vehicles	10.1	0	0	0	0	3.3	0	0	0	0	0	0	0	4.2	2	0	3.8

	Dedham Street From North					Springdale Avenue From East					Episcopal Church Driveway From South					Springdale Avenue From West					Int. Total
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	15	0	0	0	15	0	51	0	0	51	0	0	0	0	0	0	36	56	0	92	158
07:15 AM	29	0	0	0	29	0	56	0	0	56	0	0	0	0	0	0	55	67	0	122	207
07:30 AM	19	0	0	0	19	0	53	0	0	53	0	0	0	0	0	0	63	51	0	114	186
07:45 AM	12	0	0	0	12	0	59	0	0	59	0	0	0	0	0	0	58	62	0	120	191
Total Volume	75	0	0	0	75	0	219	0	0	219	0	0	0	0	0	0	212	236	0	448	742
% App. Total	100	0	0	0		0	100	0	0		0	0	0	0		0	47.3	52.7	0		
PHF	.647	.000	.000	.000	.647	.000	.928	.000	.000	.928	.000	.000	.000	.000	.000	.000	.841	.881	.000	.918	.896
Cars	71	0	0	0	71	0	212	0	0	212	0	0	0	0	0	0	200	229	0	429	712
% Cars	94.7	0	0	0	94.7	0	96.8	0	0	96.8	0	0	0	0	0	0	94.3	97.0	0	95.8	96.0
Heavy Vehicles	4	0	0	0	4	0	7	0	0	7	0	0	0	0	0	0	12	7	0	19	30
% Heavy Vehicles	5.3	0	0	0	5.3	0	3.2	0	0	3.2	0	0	0	0	0	0	5.7	3.0	0	4.2	4.0



PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street/ Episcopal Church
E/W: Springdale Avenue
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 B
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

Groups Printed- Cars

	Dedham Street From North				Springdale Avenue From East				Episcopal Church Driveway From South				Springdale Avenue From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	13	0	0	0	0	48	0	0	0	0	0	0	0	35	54	0	150
07:15 AM	28	0	0	0	0	56	0	0	0	0	0	0	0	49	64	0	197
07:30 AM	19	0	0	0	0	52	0	0	0	0	0	0	0	59	51	0	181
07:45 AM	11	0	0	0	0	56	0	0	0	0	0	0	0	57	60	0	184
Total	71	0	0	0	0	212	0	0	0	0	0	0	0	200	229	0	712
08:00 AM	9	0	0	0	0	51	0	0	0	0	0	0	0	56	36	0	152
08:15 AM	7	0	0	0	0	58	0	0	0	0	0	0	0	57	49	0	171
08:30 AM	12	0	0	0	0	40	0	0	0	0	0	0	0	53	45	0	150
08:45 AM	17	0	0	0	0	46	0	0	0	0	0	1	0	41	36	0	141
Total	45	0	0	0	0	195	0	0	0	0	0	1	0	207	166	0	614
Grand Total	116	0	0	0	0	407	0	0	0	0	0	1	0	407	395	0	1326
Apprch %	100	0	0	0	0	100	0	0	0	0	0	100	0	50.7	49.3	0	
Total %	8.7	0	0	0	0	30.7	0	0	0	0	0	0.1	0	30.7	29.8	0	

	Dedham Street From North					Springdale Avenue From East					Episcopal Church Driveway From South					Springdale Avenue From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	28	0	0	0	28	0	56	0	0	56	0	0	0	0	0	0	49	64	0	113	197
07:30 AM	19	0	0	0	19	0	52	0	0	52	0	0	0	0	0	0	59	51	0	110	181
07:45 AM	11	0	0	0	11	0	56	0	0	56	0	0	0	0	0	0	57	60	0	117	184
08:00 AM	9	0	0	0	9	0	51	0	0	51	0	0	0	0	0	0	56	36	0	92	152
Total Volume	67	0	0	0	67	0	215	0	0	215	0	0	0	0	0	0	221	211	0	432	714
% App. Total	100	0	0	0		0	100	0	0		0	0	0	0		0	51.2	48.8	0		
PHF	.598	.000	.000	.000	.598	.000	.960	.000	.000	.960	.000	.000	.000	.000	.000	.000	.936	.824	.000	.923	.906



PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street/ Episcopal Church
E/W: Springdale Avenue
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 B
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

Groups Printed- Heavy Vehicles

	Dedham Street From North				Springdale Avenue From East				Episcopal Church Driveway From South				Springdale Avenue From West				Int. Total
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00 AM	2	0	0	0	0	3	0	0	0	0	0	0	0	1	2	0	8
07:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	6	3	0	10
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	4	0	0	5
07:45 AM	1	0	0	0	0	3	0	0	0	0	0	0	0	1	2	0	7
Total	4	0	0	0	0	7	0	0	0	0	0	0	0	12	7	0	30
08:00 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0	4
08:15 AM	7	0	0	0	0	2	0	0	0	0	0	0	0	1	1	0	11
08:30 AM	1	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	5
08:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	3
Total	9	0	0	0	0	7	0	0	0	0	0	0	0	6	1	0	23
Grand Total	13	0	0	0	0	14	0	0	0	0	0	0	0	18	8	0	53
Apprch %	100	0	0	0	0	100	0	0	0	0	0	0	0	69.2	30.8	0	
Total %	24.5	0	0	0	0	26.4	0	0	0	0	0	0	0	34	15.1	0	

	Dedham Street From North					Springdale Avenue From East					Episcopal Church Driveway From South					Springdale Avenue From West					Int. Total
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	2	0	0	0	2	0	3	0	0	3	0	0	0	0	0	0	1	2	0	3	8
07:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	6	3	0	9	10
07:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	5
07:45 AM	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	0	1	2	0	3	7
Total Volume	4	0	0	0	4	0	7	0	0	7	0	0	0	0	0	0	12	7	0	19	30
% App. Total	100	0	0	0		0	100	0	0		0	0	0	0		0	63.2	36.8	0		
PHF	.500	.000	.000	.000	.500	.000	.583	.000	.000	.583	.000	.000	.000	.000	.000	.000	.500	.583	.000	.528	.750



PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street/ Episcopal Church
E/W: Springdale Avenue
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 B
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

Groups Printed- Peds and Bicycles

	Dedham Street From North					Springdale Avenue From East					Episcopal Church Driveway From South					Springdale Avenue From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	1	4
Grand Total	0	0	0	0	0	0	1	0	0	0	0	0	0	3	0	0	0	0	0	1	5
Apprch %	0	0	0	0	0	0	100	0	0	0	0	0	0	100	0	0	0	0	0	100	
Total %	0	0	0	0	0	0	20	0	0	0	0	0	0	60	0	0	0	0	0	20	

	Dedham Street From North						Springdale Avenue From East						Episcopal Church Driveway From South						Springdale Avenue From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 08:00 AM																									
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		1
08:15 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	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
08:45 AM	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 Volume	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	0	2	0	0	0	1	1		4
% App. Total	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	0	0	100			
PHF	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.000	.250	.000	.000	.000	.500	.000	.500	.000	.000	.000	.250	.250		1.00



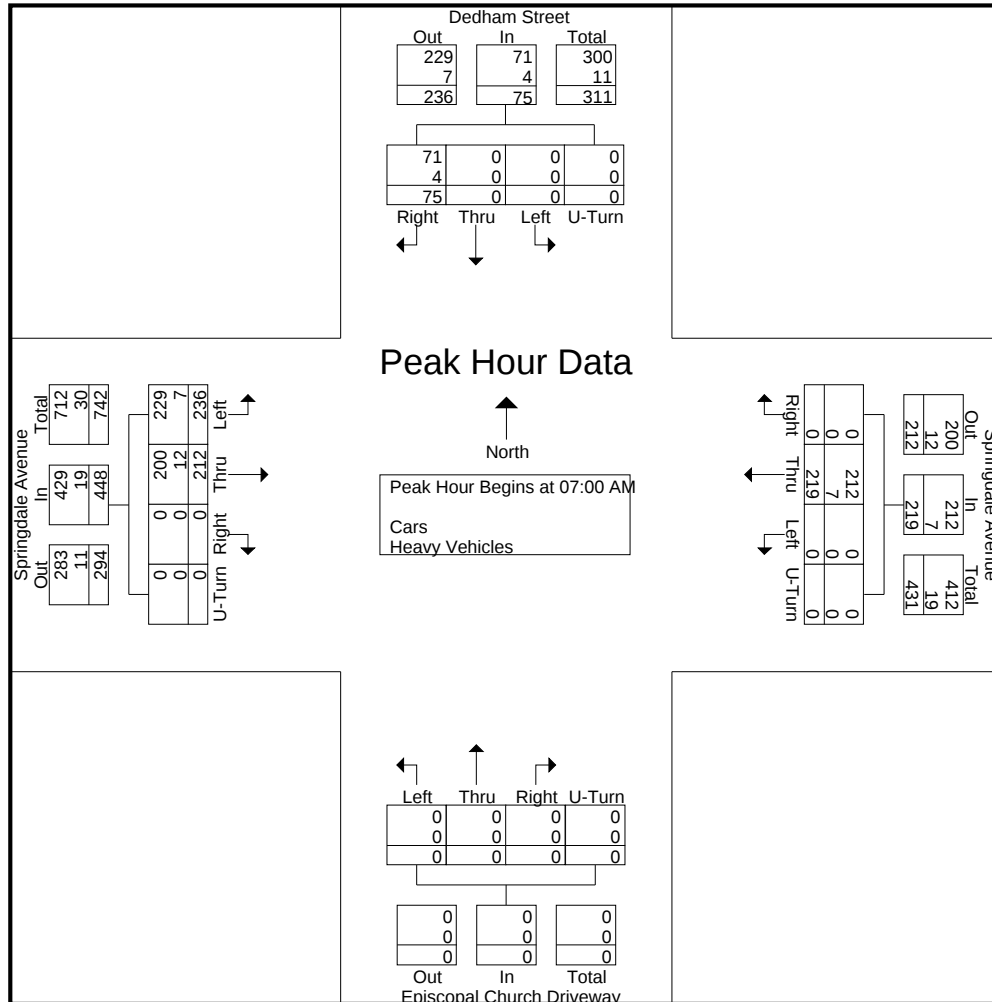
PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street/ Episcopal Church
E/W: Springdale Avenue
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 B
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

	Dedham Street From North					Springdale Avenue From East					Episcopal Church Driveway From South					Springdale Avenue From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	15	0	0	0	15	0	51	0	0	51	0	0	0	0	0	0	36	56	0	92	158
07:15 AM	29	0	0	0	29	0	56	0	0	56	0	0	0	0	0	0	55	67	0	122	207
07:30 AM	19	0	0	0	19	0	53	0	0	53	0	0	0	0	0	0	63	51	0	114	186
07:45 AM	12	0	0	0	12	0	59	0	0	59	0	0	0	0	0	0	58	62	0	120	191
Total Volume	75	0	0	0	75	0	219	0	0	219	0	0	0	0	0	0	212	236	0	448	742
% App. Total	100	0	0	0		0	100	0	0		0	0	0	0		0	47.3	52.7	0		
PHF	.647	.000	.000	.000	.647	.000	.928	.000	.000	.928	.000	.000	.000	.000	.000	.000	.841	.881	.000	.918	.896
Cars	71	0	0	0	71	0	212	0	0	212	0	0	0	0	0	0	200	229	0	429	712
% Cars	94.7	0	0	0	94.7	0	96.8	0	0	96.8	0	0	0	0	0	0	94.3	97.0	0	95.8	96.0
Heavy Vehicles	4	0	0	0	4	0	7	0	0	7	0	0	0	0	0	0	12	7	0	19	30
% Heavy Vehicles	5.3	0	0	0	5.3	0	3.2	0	0	3.2	0	0	0	0	0	0	5.7	3.0	0	4.2	4.0





PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street/ Episcopal Church
E/W: Springdale Avenue
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 BB
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Dedham Street From North				Springdale Avenue From East				Episcopal Church Driveway From South				Springdale Avenue From West				Int. Total
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	24	0	0	0	0	36	0	0	0	0	0	0	0	46	17	0	123
04:15 PM	27	0	0	0	0	28	0	0	0	0	0	0	0	45	18	0	118
04:30 PM	39	0	0	0	0	32	0	0	0	0	0	0	0	53	10	0	134
04:45 PM	30	0	0	0	0	33	0	0	0	0	0	0	0	52	13	0	128
Total	120	0	0	0	0	129	0	0	0	0	0	0	0	196	58	0	503
05:00 PM	36	0	1	0	0	34	0	0	0	0	0	0	0	43	9	0	123
05:15 PM	27	0	0	0	0	28	0	0	0	0	0	0	0	59	15	0	129
05:30 PM	34	0	0	0	0	40	0	0	0	0	0	0	0	53	10	0	137
05:45 PM	28	0	0	0	0	36	0	0	0	0	0	0	0	45	11	0	120
Total	125	0	1	0	0	138	0	0	0	0	0	0	0	200	45	0	509
Grand Total	245	0	1	0	0	267	0	0	0	0	0	0	0	396	103	0	1012
Apprch %	99.6	0	0.4	0	0	100	0	0	0	0	0	0	0	79.4	20.6	0	
Total %	24.2	0	0.1	0	0	26.4	0	0	0	0	0	0	0	39.1	10.2	0	
Cars	242	0	1	0	0	265	0	0	0	0	0	0	0	391	101	0	1000
% Cars	98.8	0	100	0	0	99.3	0	0	0	0	0	0	0	98.7	98.1	0	98.8
Heavy Vehicles	3	0	0	0	0	2	0	0	0	0	0	0	0	5	2	0	12
% Heavy Vehicles	1.2	0	0	0	0	0.7	0	0	0	0	0	0	0	1.3	1.9	0	1.2

	Dedham Street From North					Springdale Avenue From East					Episcopal Church Driveway From South					Springdale Avenue From West					Int. Total
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	30	0	0	0	30	0	33	0	0	33	0	0	0	0	0	0	52	13	0	65	128
05:00 PM	36	0	1	0	37	0	34	0	0	34	0	0	0	0	0	0	43	9	0	52	123
05:15 PM	27	0	0	0	27	0	28	0	0	28	0	0	0	0	0	0	59	15	0	74	129
05:30 PM	34	0	0	0	34	0	40	0	0	40	0	0	0	0	0	0	53	10	0	63	137
Total Volume	127	0	1	0	128	0	135	0	0	135	0	0	0	0	0	0	207	47	0	254	517
% App. Total	99.2	0	0.8	0		0	100	0	0		0	0	0	0		0	81.5	18.5	0		
PHF	.882	.000	.250	.000	.865	.000	.844	.000	.000	.844	.000	.000	.000	.000	.000	.000	.877	.783	.000	.858	.943
Cars	126	0	1	0	127	0	134	0	0	134	0	0	0	0	0	0	204	45	0	249	510
% Cars	99.2	0	100	0	99.2	0	99.3	0	0	99.3	0	0	0	0	0	0	98.6	95.7	0	98.0	98.6
Heavy Vehicles	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	3	2	0	5	7
% Heavy Vehicles	0.8	0	0	0	0.8	0	0.7	0	0	0.7	0	0	0	0	0	0	1.4	4.3	0	2.0	1.4



PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street/ Episcopal Church
E/W: Springdale Avenue
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 BB
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

Groups Printed- Cars

	Dedham Street From North				Springdale Avenue From East				Episcopal Church Driveway From South				Springdale Avenue From West				Int. Total
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	23	0	0	0	0	36	0	0	0	0	0	0	0	46	17	0	122
04:15 PM	27	0	0	0	0	28	0	0	0	0	0	0	0	44	18	0	117
04:30 PM	39	0	0	0	0	32	0	0	0	0	0	0	0	53	10	0	134
04:45 PM	30	0	0	0	0	33	0	0	0	0	0	0	0	51	12	0	126
Total	119	0	0	0	0	129	0	0	0	0	0	0	0	194	57	0	499
05:00 PM	35	0	1	0	0	34	0	0	0	0	0	0	0	42	9	0	121
05:15 PM	27	0	0	0	0	27	0	0	0	0	0	0	0	59	15	0	128
05:30 PM	34	0	0	0	0	40	0	0	0	0	0	0	0	52	9	0	135
05:45 PM	27	0	0	0	0	35	0	0	0	0	0	0	0	44	11	0	117
Total	123	0	1	0	0	136	0	0	0	0	0	0	0	197	44	0	501
Grand Total	242	0	1	0	0	265	0	0	0	0	0	0	0	391	101	0	1000
Apprch %	99.6	0	0.4	0	0	100	0	0	0	0	0	0	0	79.5	20.5	0	
Total %	24.2	0	0.1	0	0	26.5	0	0	0	0	0	0	0	39.1	10.1	0	

	Dedham Street From North					Springdale Avenue From East					Episcopal Church Driveway From South					Springdale Avenue From West					Int. Total
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	30	0	0	0	30	0	33	0	0	33	0	0	0	0	0	0	51	12	0	63	126
05:00 PM	35	0	1	0	36	0	34	0	0	34	0	0	0	0	0	0	42	9	0	51	121
05:15 PM	27	0	0	0	27	0	27	0	0	27	0	0	0	0	0	0	59	15	0	74	128
05:30 PM	34	0	0	0	34	0	40	0	0	40	0	0	0	0	0	0	52	9	0	61	135
Total Volume	126	0	1	0	127	0	134	0	0	134	0	0	0	0	0	0	204	45	0	249	510
% App. Total	99.2	0	0.8	0		0	100	0	0		0	0	0	0		0	81.9	18.1	0		
PHF	.900	.000	.250	.000	.882	.000	.838	.000	.000	.838	.000	.000	.000	.000	.000	.000	.864	.750	.000	.841	.944



PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street/ Episcopal Church
E/W: Springdale Avenue
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 BB
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

Groups Printed- Heavy Vehicles

	Dedham Street From North				Springdale Avenue From East				Episcopal Church Driveway From South				Springdale Avenue From West				Int. Total
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Total	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	4
05:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
05:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	3
Total	2	0	0	0	0	2	0	0	0	0	0	0	0	3	1	0	8
Grand Total	3	0	0	0	0	2	0	0	0	0	0	0	0	5	2	0	12
Apprch %	100	0	0	0	0	100	0	0	0	0	0	0	0	71.4	28.6	0	
Total %	25	0	0	0	0	16.7	0	0	0	0	0	0	0	41.7	16.7	0	

	Dedham Street From North					Springdale Avenue From East					Episcopal Church Driveway From South					Springdale Avenue From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
05:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	2
05:45 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	3
Total Volume	2	0	0	0	2	0	2	0	0	2	0	0	0	0	0	0	3	1	0	4	8
% App. Total	100	0	0	0		0	100	0	0		0	0	0	0		0	75	25	0		
PHF	.500	.000	.000	.000	.500	.000	.500	.000	.000	.500	.000	.000	.000	.000	.000	.000	.750	.250	.000	.500	.667



N/S: Dedham Street/ Episcopal Church
E/W: Springdale Avenue
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 BB
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

[illegible][illegible]



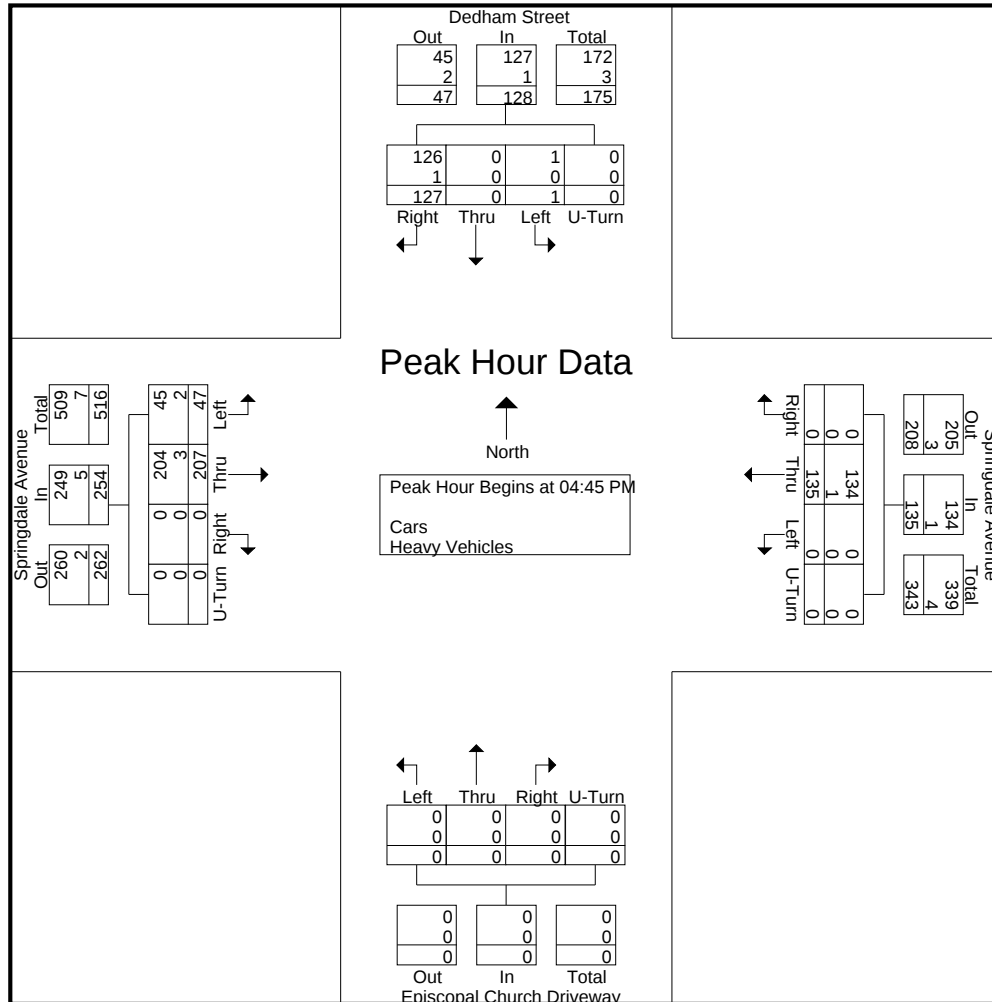
PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street/ Episcopal Church
E/W: Springdale Avenue
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 BB
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

	Dedham Street From North					Springdale Avenue From East					Episcopal Church Driveway From South					Springdale Avenue From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	30	0	0	0	30	0	33	0	0	33	0	0	0	0	0	0	52	13	0	65	128
05:00 PM	36	0	1	0	37	0	34	0	0	34	0	0	0	0	0	0	43	9	0	52	123
05:15 PM	27	0	0	0	27	0	28	0	0	28	0	0	0	0	0	0	59	15	0	74	129
05:30 PM	34	0	0	0	34	0	40	0	0	40	0	0	0	0	0	0	53	10	0	63	137
Total Volume	127	0	1	0	128	0	135	0	0	135	0	0	0	0	0	0	207	47	0	254	517
% App. Total	99.2	0	0.8	0		0	100	0	0		0	0	0	0		0	81.5	18.5	0		
PHF	.882	.000	.250	.000	.865	.000	.844	.000	.000	.844	.000	.000	.000	.000	.000	.000	.877	.783	.000	.858	.943
Cars	126	0	1	0	127	0	134	0	0	134	0	0	0	0	0	0	204	45	0	249	510
% Cars	99.2	0	100	0	99.2	0	99.3	0	0	99.3	0	0	0	0	0	0	98.6	95.7	0	98.0	98.6
Heavy Vehicles	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	3	2	0	5	7
% Heavy Vehicles	0.8	0	0	0	0.8	0	0.7	0	0	0.7	0	0	0	0	0	0	1.4	4.3	0	2.0	1.4





PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street Access/ Hawthoren Ln
E/W/NE: Springdale Avenue/ Railroad Ave
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 C
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Dedham Street Access From North					Railroad Avenue From Northeast					Springdale Avenue From East					Hawthorne Lane From South					Springdale Avenue From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Int. Total	
07:00 AM	0	0	3	0	0	0	0	0	3	0	5	1	50	0	0	0	0	0	0	1	0	0	35	0	0	0	98
07:15 AM	0	0	2	0	0	0	0	0	6	0	3	1	56	0	0	2	0	0	0	0	0	0	54	0	0	0	124
07:30 AM	0	0	0	0	0	0	0	0	7	0	0	2	54	0	0	2	0	0	0	0	0	0	62	0	0	0	127
07:45 AM	0	0	2	0	0	0	0	0	2	0	1	2	58	0	0	0	0	0	0	0	0	1	58	0	0	0	124
Total	0	0	7	0	0	0	0	0	18	0	9	6	218	0	0	4	0	0	0	1	0	1	209	0	0	0	473
08:00 AM	0	0	0	0	0	0	0	0	7	0	2	0	52	0	0	2	0	0	0	0	0	1	58	0	0	0	122
08:15 AM	0	0	0	0	0	0	0	0	4	0	1	2	61	0	0	1	0	0	1	0	0	0	57	0	0	0	127
08:30 AM	0	0	2	0	0	0	0	0	5	0	2	6	41	0	0	3	0	0	1	0	0	0	54	0	0	0	114
08:45 AM	0	0	1	0	0	0	0	0	5	0	3	2	43	1	0	0	0	0	1	0	1	45	0	0	0	102	
Total	0	0	3	0	0	0	0	0	21	0	8	10	197	1	0	6	0	0	0	3	0	2	214	0	0	0	465
Grand Total	0	0	10	0	0	0	0	0	39	0	17	16	415	1	0	10	0	0	4	0	3	423	0	0	0	938	
Apprch %	0	0	100	0	0	0	0	0	100	0	3.8	3.6	92.4	0.2	0	71.4	0	0	28.6	0	0.7	99.3	0	0	0		
Total %	0	0	1.1	0	0	0	0	0	4.2	0	1.8	1.7	44.2	0.1	0	1.1	0	0	0.4	0	0.3	45.1	0	0	0		
Cars	0	0	8	0	0	0	0	0	38	0	14	13	404	1	0	10	0	0	4	0	3	405	0	0	0	900	
% Cars	0	0	80	0	0	0	0	0	97.4	0	82.4	81.2	97.3	100	0	100	0	0	100	0	100	95.7	0	0	0	95.9	
Heavy Vehicles	0	0	2	0	0	0	0	0	1	0	3	3	11	0	0	0	0	0	0	0	0	18	0	0	0	38	
% Heavy Vehicles	0	0	20	0	0	0	0	0	2.6	0	17.6	18.8	2.7	0	0	0	0	0	0	0	0	4.3	0	0	0	4.1	

	Dedham Street Access From North						Railroad Avenue From Northeast						Springdale Avenue From East						Hawthorne Lane From South						Springdale Avenue From West							
Start Time	Right	Thru	Left	Hard Left	U- Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U- Turn	App. Total	Hard Right	Right	Thru	Left	U- Turn	App. Total	Right	Bear Right	Thru	Left	U- Turn	App. Total	Right	Thru	Bear Left	Left	U- Turn	App. Total	Int. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																
Peak Hour for Entire Intersection Begins at 07:30 AM																																
07:30 AM	0	0	0	0	0	0	0	0	0	7	0	7	0	2	54	0	0	56	2	0	0	0	0	2	0	62	0	0	0	62	127	
07:45 AM	0	0	2	0	0	2	0	0	0	2	0	2	1	2	58	0	0	61	0	0	0	0	0	0	1	58	0	0	0	59	124	
08:00 AM	0	0	0	0	0	0	0	0	0	7	0	7	2	0	52	0	0	54	2	0	0	0	0	2	1	58	0	0	0	59	122	
08:15 AM	0	0	0	0	0	0	0	0	0	4	0	4	1	2	61	0	0	64	1	0	0	1	0	2	0	57	0	0	0	57	127	
Total Volume	0	0	2	0	0	2	0	0	0	20	0	20	4	6	225	0	0	235	5	0	0	1	0	6	2	235	0	0	0	237	500	
% App. Total	0	0	100	0	0		0	0	0	100	0		1.7	2.6	95.7	0	0		83.3	0	0	16.7	0		0.8	99.2	0	0	0			
PHF	.000	.000	.250	.000	.000	.250	.000	.000	.000	.714	.000	.714	.500	.750	.922	.000	.000	.918	.625	.000	.000	.250	.000	.750	.500	.948	.000	.000	.000	.956	.984	
Cars	0	0	2	0	0	2	0	0	0	19	0	19	4	4	219	0	0	227	5	0	0	1	0	6	2	227	0	0	0	229	483	
% Cars	0	0	100	0	0	100	0	0	0	95.0	0	95.0	100	66.7	97.3	0	0	96.6	100	0	0	100	0	100	100	96.6	0	0	0	96.6	96.6	
Heavy Vehicles	0	0	0	0	0	0	0	0	0	1	0	1	0	2	6	0	0	8	0	0	0	0	0	0	0	8	0	0	0	8	17	
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	5.0	0	5.0	0	33.3	2.7	0	0	3.4	0	0	0	0	0	0	0	3.4	0	0	0	3.4	3.4	



PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street Access/ Hawthoren Ln
E/W/NE: Springdale Avenue/ Railroad Ave
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 C
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

Groups Printed- Cars

	Dedham Street Access From North					Railroad Avenue From Northeast					Springdale Avenue From East					Hawthorne Lane From South					Springdale Avenue From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Int. Total	
07:00 AM	0	0	3	0	0	0	0	0	3	0	5	1	47	0	0	0	0	0	1	0	0	0	34	0	0	0	94
07:15 AM	0	0	0	0	0	0	0	0	6	0	2	1	56	0	0	2	0	0	0	0	0	48	0	0	0	115	
07:30 AM	0	0	0	0	0	0	0	0	6	0	0	1	53	0	0	2	0	0	0	0	0	57	0	0	0	119	
07:45 AM	0	0	2	0	0	0	0	0	2	0	1	2	57	0	0	0	0	0	0	0	1	57	0	0	0	122	
Total	0	0	5	0	0	0	0	0	17	0	8	5	213	0	0	4	0	0	1	0	1	196	0	0	0	450	
08:00 AM	0	0	0	0	0	0	0	0	7	0	2	0	49	0	0	2	0	0	0	0	1	57	0	0	0	118	
08:15 AM	0	0	0	0	0	0	0	0	4	0	1	1	60	0	0	1	0	0	1	0	0	56	0	0	0	124	
08:30 AM	0	0	2	0	0	0	0	0	5	0	2	5	39	0	0	3	0	0	1	0	0	52	0	0	0	109	
08:45 AM	0	0	1	0	0	0	0	0	5	0	1	2	43	1	0	0	0	0	1	0	1	44	0	0	0	99	
Total	0	0	3	0	0	0	0	0	21	0	6	8	191	1	0	6	0	0	3	0	2	209	0	0	0	450	
Grand Total	0	0	8	0	0	0	0	0	38	0	14	13	404	1	0	10	0	0	4	0	3	405	0	0	0	900	
Apprch %	0	0	100	0	0	0	0	0	100	0	3.2	3	93.5	0.2	0	71.4	0	0	28.6	0	0.7	99.3	0	0	0		
Total %	0	0	0.9	0	0	0	0	0	4.2	0	1.6	1.4	44.9	0.1	0	1.1	0	0	0.4	0	0.3	45	0	0	0		

	Dedham Street Access From North						Railroad Avenue From Northeast						Springdale Avenue From East						Hawthorne Lane From South						Springdale Avenue From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
07:30 AM	0	0	0	0	0	0	0	0	0	6	0	6	0	1	53	0	0	54	2	0	0	0	0	2	0	57	0	0	0	57	119
07:45 AM	0	0	2	0	0	2	0	0	0	2	0	2	1	2	57	0	0	60	0	0	0	0	0	0	1	57	0	0	0	58	122
08:00 AM	0	0	0	0	0	0	0	0	0	7	0	7	2	0	49	0	0	51	2	0	0	0	0	2	1	57	0	0	0	58	118
08:15 AM	0	0	0	0	0	0	0	0	0	4	0	4	1	1	60	0	0	62	1	0	0	1	0	2	0	56	0	0	0	56	124
Total Volume	0	0	2	0	0	2	0	0	0	19	0	19	4	4	219	0	0	227	5	0	0	1	0	6	2	227	0	0	0	229	483
% App. Total	0	0	100	0	0		0	0	0	100	0		1.8	1.8	96.5	0	0		83.3	0	0	16.7	0		0.9	99.1	0	0	0		
PHF	.000	.000	.250	.000	.000	.250	.000	.000	.000	.679	.000	.679	.500	.500	.913	.000	.000	.915	.625	.000	.000	.250	.000	.750	.500	.996	.000	.000	.000	.987	.974

Peak Hour for Entire Intersection Begins at 07:30 AM

07:30 AM	0	0	0	0	0	0	0	0	0	6	0	6	0	1	53	0	0	54	2	0	0	0	0	2	0	57	0	0	0	57	119
07:45 AM	0	0	2	0	0	2	0	0	0	2	0	2	1	2	57	0	0	60	0	0	0	0	0	0	1	57	0	0	0	58	122
08:00 AM	0	0	0	0	0	0	0	0	0	7	0	7	2	0	49	0	0	51	2	0	0	0	0	2	1	57	0	0	0	58	118
08:15 AM	0	0	0	0	0	0	0	0	0	4	0	4	1	1	60	0	0	62	1	0	0	1	0	2	0	56	0	0	0	56	124
Total Volume	0	0	2	0	0	2	0	0	0	19	0	19	4	4	219	0	0	227	5	0	0	1	0	6	2	227	0	0	0	229	483
% App. Total	0	0	100	0	0		0	0	0	100	0		1.8	1.8	96.5	0	0		83.3	0	0	16.7	0		0.9	99.1	0	0	0		
PHF	.000	.000	.250	.000	.000	.250	.000	.000	.000	.679	.000	.679	.500	.500	.913	.000	.000	.915	.625	.000	.000	.250	.000	.750	.500	.996	.000	.000	.000	.987	.974



PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street Access/ Hawthoren Ln
E/W/NE: Springdale Avenue/ Railroad Ave
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 C
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

Groups Printed- Heavy Vehicles

	Dedham Street Access From North					Railroad Avenue From Northeast					Springdale Avenue From East					Hawthorne Lane From South					Springdale Avenue From West					
Start Time	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	4
07:15 AM	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6	0	0	0	9
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	5	0	0	0	8
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	2
Total	0	0	2	0	0	0	0	0	1	0	1	1	5	0	0	0	0	0	0	0	0	13	0	0	0	23
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	4
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	3
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	2	0	0	0	5
08:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	2	2	6	0	0	0	0	0	0	0	0	5	0	0	0	15
Grand Total	0	0	2	0	0	0	0	0	1	0	3	3	11	0	0	0	0	0	0	0	0	18	0	0	0	38
Apprch %	0	0	100	0	0	0	0	0	100	0	17.6	17.6	64.7	0	0	0	0	0	0	0	0	100	0	0	0	
Total %	0	0	5.3	0	0	0	0	0	2.6	0	7.9	7.9	28.9	0	0	0	0	0	0	0	0	47.4	0	0	0	

	Dedham Street Access From North						Railroad Avenue From Northeast						Springdale Avenue From East						Hawthorne Lane From South						Springdale Avenue From West							
Start Time	Right	Thru	Left	Hard Left	U- Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U- Turn	App. Total	Hard Right	Right	Thru	Left	U- Turn	App. Total	Right	Bear Right	Thru	Left	U- Turn	App. Total	Right	Thru	Bear Left	Left	U- Turn	App. Total	Int. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																
Peak Hour for Entire Intersection Begins at 07:00 AM																																
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	1	4
07:15 AM	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	6	0	0	0	6	9
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	0	0	2	0	0	0	0	0	0	0	0	5	0	0	0	5	8
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	2
Total Volume	0	0	2	0	0	2	0	0	0	1	0	1	1	1	5	0	0	7	0	0	0	0	0	0	0	0	13	0	0	0	13	23
% App. Total	0	0	100	0	0		0	0	0	100	0		14.3	14.3	71.4	0	0		0	0	0	0	0		0	100	0	0	0			
PHF	.000	.000	.250	.000	.000	.250	.000	.000	.000	.250	.000	.250	.250	.250	.417	.000	.000	.583	.000	.000	.000	.000	.000	.000	.000	.000	.542	.000	.000	.000	.542	.639

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM



N/S: Dedham Street Access/ Hawthoren Ln
E/W/NE: Springdale Avenue/ Railroad Ave
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 C
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

	Dedham Street Access From North						Railroad Avenue From Northeast						Springdale Avenue From East						Hawthorne Lane From South						Springdale Avenue From West							
Start Time	Right	Thru	Left	Hard Left	Peds EB	Peds WB	Hard Right	Bear Right	Bear Left	Hard Left	Peds EB	Peds WB	Hard Right	Right	Thru	Left	Peds SB	Peds NB	Right	Bear Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Bear Left	Left	Peds NB	Peds SB	Int. Total	
07:00 AM	0	0	0	0	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	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	3	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	5	
Grand Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	6	
Apprch %	0	0	0	0	0	0	0	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	50	50	0	0	0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	16.7	0	0	0	16.7	0	0	0	0	0	0	0	33.3	33.3	0	0	0	0	0	0		

[illegible]



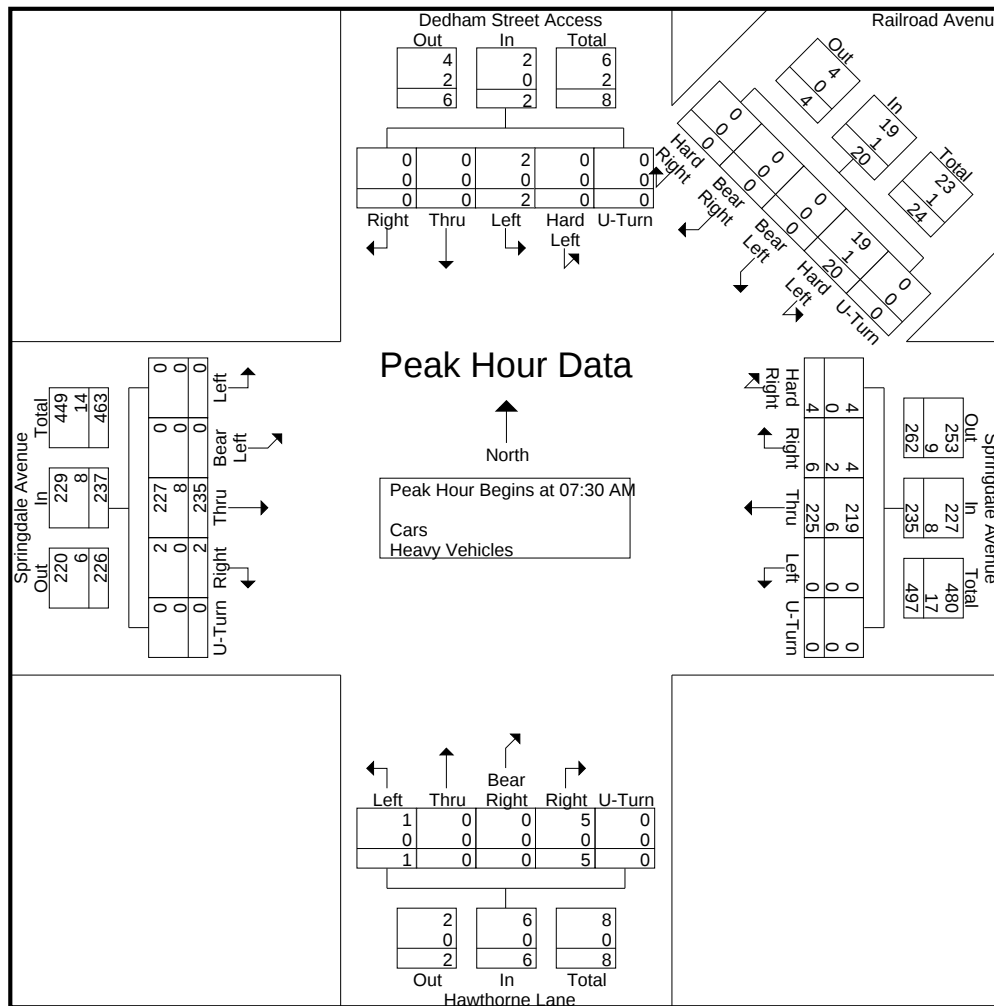
PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street Access/ Hawthoren Ln
E/W/NE: Springdale Avenue/ Railroad Ave
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 C
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

	Dedham Street Access From North						Railroad Avenue From Northeast						Springdale Avenue From East						Hawthorne Lane From South						Springdale Avenue From West						
Start Time	Right	Thru	Left	Hard Left	U- Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U- Turn	App. Total	Hard Right	Right	Thru	Left	U- Turn	App. Total	Right	Bear Right	Thru	Left	U- Turn	App. Total	Right	Thru	Bear Left	Left	U- Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 07:30 AM																															
07:30 AM	0	0	0	0	0	0	0	0	0	7	0	7	0	2	54	0	0	56	2	0	0	0	0	2	0	62	0	0	0	62	127
07:45 AM	0	0	2	0	0	2	0	0	0	2	0	2	1	2	58	0	0	61	0	0	0	0	0	0	1	58	0	0	0	59	124
08:00 AM	0	0	0	0	0	0	0	0	0	7	0	7	2	0	52	0	0	54	2	0	0	0	0	2	1	58	0	0	0	59	122
08:15 AM	0	0	0	0	0	0	0	0	0	4	0	4	1	2	61	0	0	64	1	0	0	1	0	2	0	57	0	0	0	57	127
Total Volume	0	0	2	0	0	2	0	0	0	20	0	20	4	6	225	0	0	235	5	0	0	1	0	6	2	235	0	0	0	237	500
% App. Total	0	0	100	0	0		0	0	0	100	0		1.7	2.6	95.7	0	0		83.3	0	0	16.7	0		0.8	99.2	0	0	0		
PHF	.000	.000	.250	.000	.000	.250	.000	.000	.000	.714	.000	.714	.500	.750	.922	.000	.000	.918	.625	.000	.000	.250	.000	.750	.500	.948	.000	.000	.000	.956	.984
Cars	0	0	2	0	0	2	0	0	0	19	0	19	4	4	219	0	0	227	5	0	0	1	0	6	2	227	0	0	0	229	483
% Cars	0	0	100	0	0	100	0	0	0	95.0	0	95.0	100	66.7	97.3	0	0	96.6	100	0	0	100	0	100	100	96.6	0	0	0	96.6	96.6
Heavy Vehicles	0	0	0	0	0	0	0	0	0	1	0	1	0	2	6	0	0	8	0	0	0	0	0	0	0	8	0	0	0	8	17
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	5.0	0	5.0	0	33.3	2.7	0	0	3.4	0	0	0	0	0	0	0	3.4	0	0	0	3.4	3.4





PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street Access/ Hawthoren Ln
E/W/NE: Springdale Avenue/ Railroad Ave
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 CC
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Dedham Street Access From North					Railroad Avenue From Northeast					Springdale Avenue From East					Hawthorne Lane From South					Springdale Avenue From West					
Start Time	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Int. Total
04:00 PM	0	1	2	0	0	0	1	0	7	0	1	1	34	0	0	1	0	1	0	0	0	44	0	0	0	93
04:15 PM	0	0	0	0	0	0	0	0	8	0	4	0	28	1	0	0	0	0	1	0	0	48	0	0	0	90
04:30 PM	0	0	0	0	0	0	0	0	11	0	1	0	30	0	0	0	0	0	0	0	0	52	0	0	0	94
04:45 PM	0	1	0	0	0	0	0	0	12	0	3	1	32	0	0	1	0	0	0	0	1	48	0	0	0	99
Total	0	2	2	0	0	0	1	0	38	0	9	2	124	1	0	2	0	1	1	0	1	192	0	0	0	376
05:00 PM	0	2	1	0	0	0	0	0	7	0	5	0	34	0	0	2	0	0	0	0	0	46	1	0	0	98
05:15 PM	0	2	0	0	0	0	0	0	10	0	0	0	31	0	0	0	0	0	0	0	0	58	0	0	0	101
05:30 PM	0	0	0	0	0	0	0	0	14	0	1	0	39	1	0	1	0	0	0	0	0	52	0	0	0	108
05:45 PM	0	1	1	0	0	0	0	0	4	0	0	1	37	1	0	1	0	0	0	0	0	47	0	0	0	93
Total	0	5	2	0	0	0	0	0	35	0	6	1	141	2	0	4	0	0	0	0	0	203	1	0	0	400
Grand Total	0	7	4	0	0	0	1	0	73	0	15	3	265	3	0	6	0	1	1	0	1	395	1	0	0	776
Apprch %	0	63.6	36.4	0	0	0	1.4	0	98.6	0	5.2	1	92.7	1	0	75	0	12.5	12.5	0	0.3	99.5	0.3	0	0	
Total %	0	0.9	0.5	0	0	0	0.1	0	9.4	0	1.9	0.4	34.1	0.4	0	0.8	0	0.1	0.1	0	0.1	50.9	0.1	0	0	
Cars	0	7	4	0	0	0	1	0	73	0	13	2	263	3	0	6	0	1	1	0	1	391	1	0	0	767
% Cars	0	100	100	0	0	0	100	0	100	0	86.7	66.7	99.2	100	0	100	0	100	100	0	100	99	100	0	0	98.8
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	2	1	2	0	0	0	0	0	0	0	0	4	0	0	0	9
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	13.3	33.3	0.8	0	0	0	0	0	0	0	0	1	0	0	0	1.2

	Dedham Street Access From North						Railroad Avenue From Northeast						Springdale Avenue From East						Hawthorne Lane From South						Springdale Avenue From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 04:45 PM																															
04:45 PM	0	1	0	0	0	1	0	0	0	12	0	12	3	1	32	0	0	36	1	0	0	0	0	1	1	48	0	0	0	49	99
05:00 PM	0	2	1	0	0	3	0	0	0	7	0	7	5	0	34	0	0	39	2	0	0	0	0	2	0	46	1	0	0	47	98
05:15 PM	0	2	0	0	0	2	0	0	0	10	0	10	0	0	31	0	0	31	0	0	0	0	0	0	0	58	0	0	0	58	101
05:30 PM	0	0	0	0	0	0	0	0	0	14	0	14	1	0	39	1	0	41	1	0	0	0	0	1	0	52	0	0	0	52	108
Total Volume	0	5	1	0	0	6	0	0	0	43	0	43	9	1	136	1	0	147	4	0	0	0	0	4	1	204	1	0	0	206	406
% App. Total	0	83.3	16.7	0	0		0	0	0	100	0		6.1	0.7	92.5	0.7	0		100	0	0	0	0		0.5	99	0.5	0	0		
PHF	.000	.625	.250	.000	.000	.500	.000	.000	.000	.768	.000	.768	.450	.250	.872	.250	.000	.896	.500	.000	.000	.000	.000	.500	.250	.879	.250	.000	.000	.888	.940
Cars	0	5	1	0	0	6	0	0	0	43	0	43	7	1	135	1	0	144	4	0	0	0	0	4	1	201	1	0	0	203	400
% Cars	0	100	100	0	0	100	0	0	0	100	0	100	77.8	100	99.3	100	0	98.0	100	0	0	0	0	100	100	98.5	100	0	0	98.5	98.5
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3	0	0	0	0	0	0	0	3	0	0	0	3	6
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	22.2	0	0.7	0	0	2.0	0	0	0	0	0	0	0	1.5	0	0	0	1.5	1.5

N/S: Dedham Street Access/ Hawthoren Ln
 E/W/NE: Springdale Avenue/ Railroad Ave
 City, State: Dover, MA
 Client: Green International/ J. Gauvin



File Name : 164920 CC
 Site Code : TBA
 Start Date : 2/2/2016
 Page No : 1

Groups Printed- Cars

	Dedham Street Access From North					Railroad Avenue From Northeast					Springdale Avenue From East					Hawthorne Lane From South					Springdale Avenue From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Int. Total	
04:00 PM	0	1	2	0	0	0	1	0	7	0	1	1	34	0	0	1	0	1	0	0	0	0	44	0	0	0	93
04:15 PM	0	0	0	0	0	0	0	0	8	0	4	0	28	1	0	0	0	0	1	0	0	48	0	0	0	90	
04:30 PM	0	0	0	0	0	0	0	0	11	0	1	0	30	0	0	0	0	0	0	0	0	52	0	0	0	94	
04:45 PM	0	1	0	0	0	0	0	0	12	0	1	1	32	0	0	1	0	0	0	0	1	47	0	0	0	96	
Total	0	2	2	0	0	0	1	0	38	0	7	2	124	1	0	2	0	1	1	0	1	191	0	0	0	373	
05:00 PM	0	2	1	0	0	0	0	0	7	0	5	0	34	0	0	2	0	0	0	0	0	45	1	0	0	97	
05:15 PM	0	2	0	0	0	0	0	0	10	0	0	0	30	0	0	0	0	0	0	0	0	58	0	0	0	100	
05:30 PM	0	0	0	0	0	0	0	0	14	0	1	0	39	1	0	1	0	0	0	0	0	51	0	0	0	107	
05:45 PM	0	1	1	0	0	0	0	0	4	0	0	0	36	1	0	1	0	0	0	0	0	46	0	0	0	90	
Total	0	5	2	0	0	0	0	0	35	0	6	0	139	2	0	4	0	0	0	0	0	200	1	0	0	394	
Grand Total	0	7	4	0	0	0	1	0	73	0	13	2	263	3	0	6	0	1	1	0	1	391	1	0	0	767	
Apprch %	0	63.6	36.4	0	0	0	1.4	0	98.6	0	4.6	0.7	93.6	1.1	0	75	0	12.5	12.5	0	0.3	99.5	0.3	0	0		
Total %	0	0.9	0.5	0	0	0	0.1	0	9.5	0	1.7	0.3	34.3	0.4	0	0.8	0	0.1	0.1	0	0.1	51	0.1	0	0		

Start Time	Dedham Street Access From North						Railroad Avenue From Northeast						Springdale Avenue From East						Hawthorne Lane From South						Springdale Avenue From West						Int. Total
	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	
04:45 PM	0	1	0	0	0	1	0	0	0	12	0	12	1	1	32	0	0	34	1	0	0	0	0	1	1	47	0	0	0	48	96
05:00 PM	0	2	1	0	0	3	0	0	0	7	0	7	5	0	34	0	0	39	2	0	0	0	0	2	0	45	1	0	0	46	97
05:15 PM	0	2	0	0	0	2	0	0	0	10	0	10	0	0	30	0	0	30	0	0	0	0	0	0	0	58	0	0	0	58	100
05:30 PM	0	0	0	0	0	0	0	0	0	14	0	14	1	0	39	1	0	41	1	0	0	0	0	1	0	51	0	0	0	51	107
Total Volume	0	5	1	0	0	6	0	0	0	43	0	43	7	1	135	1	0	144	4	0	0	0	0	4	1	201	1	0	0	203	400
% App. Total	0	83.3	16.7	0	0		0	0	0	100	0		4.9	0.7	93.8	0.7	0		100	0	0	0	0		0.5	99	0.5	0	0		
PHF	.000	.625	.250	.000	.000	.500	.000	.000	.000	.768	.000	.768	.350	.250	.865	.250	.000	.878	.500	.000	.000	.000	.000	.500	.250	.866	.250	.000	.000	.875	.935

Peak Hour for Entire Intersection Begins at 04:45 PM

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1



PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street Access/ Hawthoren Ln
E/W/NE: Springdale Avenue/ Railroad Ave
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 CC
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

Groups Printed- Heavy Vehicles

	Dedham Street Access From North					Railroad Avenue From Northeast					Springdale Avenue From East					Hawthorne Lane From South					Springdale Avenue From West					
Start Time	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Int. Total
04:00 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
04:15 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
04:30 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
04:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3
05:00 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	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 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	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3	0	0	0	6
Grand Total	0	0	0	0	0	0	0	0	0	0	2	1	2	0	0	0	0	0	0	0	0	4	0	0	0	9
Apprch %	0	0	0	0	0	0	0	0	0	0	40	20	40	0	0	0	0	0	0	0	0	100	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	22.2	11.1	22.2	0	0	0	0	0	0	0	0	44.4	0	0	0	

	Dedham Street Access From North						Railroad Avenue From Northeast						Springdale Avenue From East						Hawthorne Lane From South						Springdale Avenue From West							
Start Time	Right	Thru	Left	Hard Left	U- Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U- Turn	App. Total	Hard Right	Right	Thru	Left	U- Turn	App. Total	Right	Bear Right	Thru	Left	U- Turn	App. Total	Right	Thru	Bear Left	Left	U- Turn	App. Total	Int. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																
Peak Hour for Entire Intersection Begins at 04:45 PM																																
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	3
05:00 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	1	0	0	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3	0	0	0	0	0	0	0	0	3	0	0	0	3	6
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	66.7	0	33.3	0	0		0	0	0	0	0	0	0	0	100	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.375	.000	.000	.000	.000	.000	.000	.000	.000	.750	.000	.000	.000	.750	.500

Peak Hour for Entire Intersection Begins at 04:45 PM

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1



PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street Access/ Hawthorn Ln
E/W/NE: Springdale Avenue/ Railroad Ave
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 CC
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

Groups Printed- Peds and Bicycles

	Dedham Street Access From North						Railroad Avenue From Northeast						Springdale Avenue From East						Hawthorne Lane From South						Springdale Avenue From West						
Start Time	Right	Thru	Left	Hard Left	Peds EB	Peds WB	Hard Right	Bear Right	Bear Left	Hard Left	Peds EB	Peds WB	Hard Right	Right	Thru	Left	Peds SB	Peds NB	Right	Bear Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Bear Left	Left	Peds NB	Peds SB	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	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	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	3
Grand Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	1	0	5
Apprch %	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	66.7	33.3	0	0	0	0	100	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	40	20	0	0	0	0	20	0	

	Dedham Street Access From North							Railroad Avenue From Northeast							Springdale Avenue From East							Hawthorne Lane From South							Springdale Avenue From West								
Start Time	Right	Thru	Left	Hard Left	Peds s EB	Peds s WB	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds s EB	Peds s WB	App. Total	Hard Right	Right	Thru	Left	Peds s SB	Peds s NB	App. Total	Right	Bear Right	Thru	Left	Peds s WB	Peds s EB	App. Total	Right	Thru	Bear Left	Left	Peds s NB	Peds s SB	App. Total	Int. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 04:30 PM																																					
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
05:00 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	1	1	2	0	0	0	0	0	0	2		
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1			
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	1	0	4	
% App. 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	50	50	0	0	0	0	100	0				
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.250	.000	.250	.500			



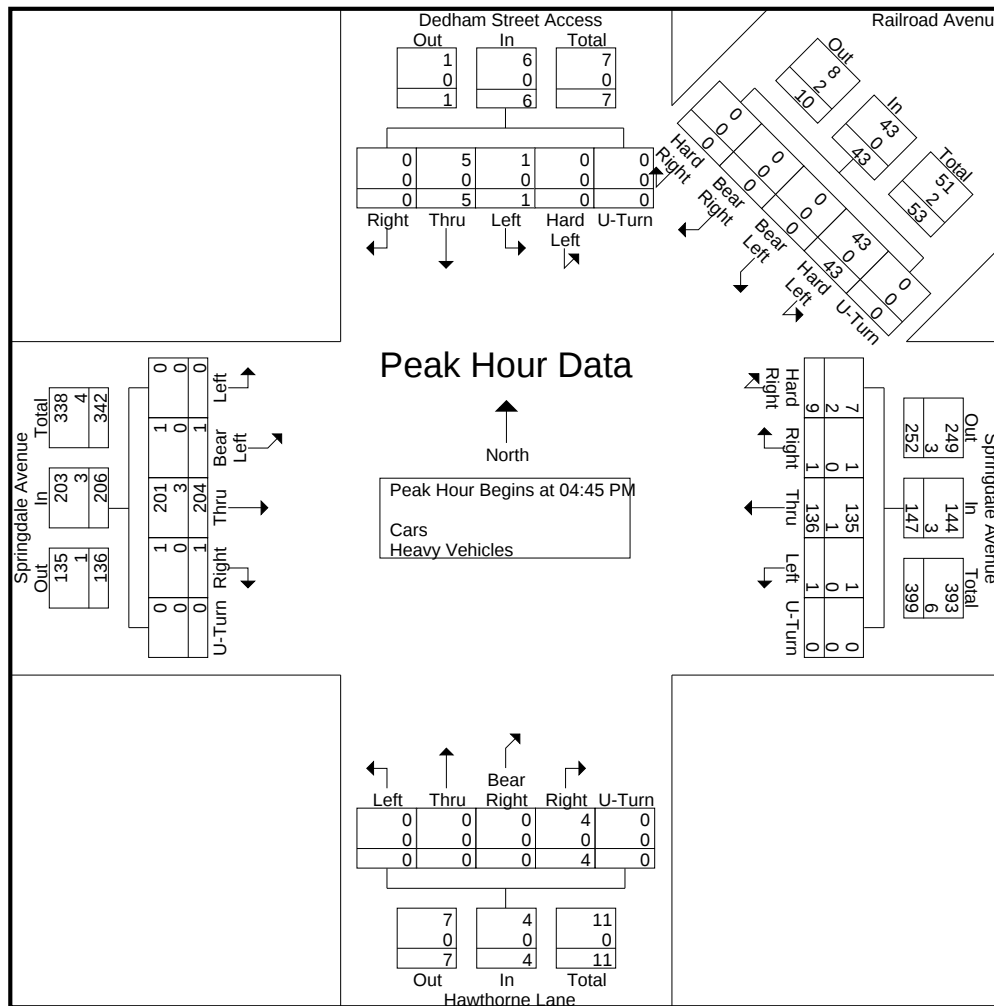
PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Dedham Street Access/ Hawthoren Ln
E/W/NE: Springdale Avenue/ Railroad Ave
City, State: Dover, MA
Client: Green International/ J. Gauvin

File Name : 164920 CC
Site Code : TBA
Start Date : 2/2/2016
Page No : 1

	Dedham Street Access From North						Railroad Avenue From Northeast						Springdale Avenue From East						Hawthorne Lane From South						Springdale Avenue From West						
Start Time	Right	Thru	Left	Hard Left	U- Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U- Turn	App. Total	Hard Right	Right	Thru	Left	U- Turn	App. Total	Right	Bear Right	Thru	Left	U- Turn	App. Total	Right	Thru	Bear Left	Left	U- Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 04:45 PM																															
04:45 PM	0	1	0	0	0	1	0	0	0	12	0	12	3	1	32	0	0	36	1	0	0	0	0	1	1	48	0	0	0	49	99
05:00 PM	0	2	1	0	0	3	0	0	0	7	0	7	5	0	34	0	0	39	2	0	0	0	0	2	0	46	1	0	0	47	98
05:15 PM	0	2	0	0	0	2	0	0	0	10	0	10	0	0	31	0	0	31	0	0	0	0	0	0	0	58	0	0	0	58	101
05:30 PM	0	0	0	0	0	0	0	0	0	14	0	14	1	0	39	1	0	41	1	0	0	0	0	1	0	52	0	0	0	52	108
Total Volume	0	5	1	0	0	6	0	0	0	43	0	43	9	1	136	1	0	147	4	0	0	0	0	4	1	204	1	0	0	206	406
% App. Total	0	83.3	16.7	0	0		0	0	0	100	0		6.1	0.7	92.5	0.7	0		100	0	0	0	0		0.5	99	0.5	0	0		
PHF	.000	.625	.250	.000	.000	.500	.000	.000	.000	.768	.000	.768	.450	.250	.872	.250	.000	.896	.500	.000	.000	.000	.000	.500	.250	.879	.250	.000	.000	.888	.940
Cars	0	5	1	0	0	6	0	0	0	43	0	43	7	1	135	1	0	144	4	0	0	0	0	4	1	201	1	0	0	203	400
% Cars	0	100	100	0	0	100	0	0	0	100	0	100	77.8	100	99.3	100	0	98.0	100	0	0	0	0	100	100	98.5	100	0	0	98.5	98.5
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3	0	0	0	0	0	0	0	3	0	0	0	3	6
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	22.2	0	0.7	0	0	2.0	0	0	0	0	0	0	0	1.5	0	0	0	1.5	1.5





APPENDIX B – SEASONAL VARIATION CALCULATIONS



MASSDOT STATION NO. 6189 - DEDHAM - RTE.I-95 (128) - NORTH OF RTE.109													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
2005 MONTHLY ADT	138000	132174	136654	142226	145240	152638	138350	146758	142964	139299	131242	132683	139852
Seasonal Growth Factor	98.7%	94.5%	97.7%	101.7%	103.9%	109.1%	98.9%	104.9%	102.2%	99.6%	93.8%	94.9%	100.0%

APPENDIX C – BACKGROUND GROWTH RATE DATA

**GREEN INTERNATIONAL AFFILIATES, INC.****Civil and Structural Engineers**239 Littleton Road, Suite 3
WESTFORD, MA 01886

JOB 16008.015 Dover Dunkin' Donuts

SHEET NO. _____ OF _____

CALCULATED BY JF DATE 1/27/2016

CHECKED BY JS DATE _____

DESCRIPTION Background Growth Rate Calculations

Daily Avg. Counts on Weekdays

From MassDOT Interactive Transportation Data Management System

MassDOT spot count, location ID 41 - Interstate 95 between Exits 18 and 19		
Year	2010	2014
Daily traffic volume	146,000	149,026
Average Annual Growth Rate		0.51%
MassDOT spot count, location ID 6207 - U.S. Route 1, 1 mile south of I-95 Exit 15, Norwood		
Year	2002	2014
Daily traffic volume	49,384	55,441
Average Annual Growth Rate		0.97%

APPENDIX D – TRIP GENERATION

TRIP GENERATION WORKSHEET

LAND USE:

LUC 936 Coffee/Donut Shop without Drive-Through Window

LAND USE CODE:

936

Independent Variable---1000 SF GFA

PROJECT NAME:

Dover Dunkin' Donuts

PROJECT #:

16008.015

Gross Floor Area (KSF):

1.080

WEEKDAY

RATES:

	Total Trip Ends			Directional Dist.		Number of Studies
	Average	Low	High	Enter	Exit	
DAILY	<----- Not Given ----->					
AM PEAK	108.38	54.29	254.50	51%	49%	15
PM PEAK	40.75	25.00	74.55	50%	50%	8
PK GEN AM	64.21	49.82	112.78	51%	49%	5
PK GEN PM	25.81	18.19	39.10	49%	51%	5

TRIPS:

	BY AVERAGE			BY REGRESSION			
	Total	Enter	Exit	Total	Enter	Exit	R ²
DAILY	<----- Not Given ----->						
AM PEAK	117	60	57	<----- Not Given ----->			
PM PEAK	44	22	22	<----- Not Given ----->			
PK GEN AM	69	35	34	<----- Not Given ----->			
PK GEN PM	28	14	14	<----- Not Given ----->			

SATURDAY

RATES:

	Total Trip Ends			Directional Dist.		Number of Studies
	Average	Low	High	Enter	Exit	
DAILY	<----- Not Given ----->			<----- Not Given ----->		
GEN PEAK HR	65.96	36.67	116.97	48%	52%	4

BY AVERAGE

Total	Enter	Exit
<----- Not Given ----->		
DAILY		
GEN PEAK HR	71	34

BY REGRESSION

Total	Enter	Exit	R ²
<----- Not Given ----->			
<----- Not Given ----->			

SUNDAY

RATES:

	Total Trip Ends			Directional Dist.		Number of Studies	
	Average	Low	High	Enter	Exit		
DAILY	<----- Not Given ----->						
GEN PEAK HR	<----- Not Given ----->						

BY AVERAGE

Total	Enter	Exit
<----- Not Given ----->		
DAILY		
GEN PEAK HR		

BY REGRESSION

Total	Enter	Exit	R ²
<----- Not Given ----->			
<----- Not Given ----->			



APPENDIX E – INTERSECTION CAPACITY WORKSHEETS



Synchro 9: HCM 2010 TWSC
2: Springdale Avenue & Dedham Street

2/9/2016

Intersection

Int Delay, s/veh 3.7

Movement	EBL	EBT	WBT	WBR	SWL	SWR
Traffic Vol, veh/h	248	223	230	0	0	79
Future Vol, veh/h	248	223	230	0	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	270	242	250	0	0	86

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	250	0	1032
Stage 1	-	-	250
Stage 2	-	-	782
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1316	-	258
Stage 1	-	-	792
Stage 2	-	-	451
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1316	-	197
Mov Cap-2 Maneuver	-	-	197
Stage 1	-	-	792
Stage 2	-	-	344

Approach	EB	WB	SW
HCM Control Delay, s	4.4	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SWLn1
Capacity (veh/h)	1316	-	-	-	789
HCM Lane V/C Ratio	0.205	-	-	-	0.109
HCM Control Delay (s)	8.4	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.8	-	-	-	0.4

Synchro 9: HCM 2010 TWSC
3: Springdale Avenue & Railroad Avenue

2/9/2016

Intersection

Int Delay, s/veh 0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	249	243	4	21	0
Future Vol, veh/h	0	249	243	4	21	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	271	264	4	23	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	268	0	537
Stage 1	-	-	266
Stage 2	-	-	271
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1296	-	505
Stage 1	-	-	779
Stage 2	-	-	775
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1296	-	505
Mov Cap-2 Maneuver	-	-	505
Stage 1	-	-	779
Stage 2	-	-	775

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1296	-	-	-	505
HCM Lane V/C Ratio	-	-	-	-	0.045
HCM Control Delay (s)	0	-	-	-	12.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Synchro 9: HCM 2010 TWSC
5: Hawthorne Lane & Springdale Avenue

2/9/2016

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	247	2	0	236	6	1	0	5	2	0	0
Future Vol, veh/h	0	247	2	0	236	6	1	0	5	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	268	2	0	257	7	1	0	5	2	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	263	0	0	271	0	0	530	533	270	532	531	260
Stage 1	-	-	-	-	-	-	270	270	-	260	260	-
Stage 2	-	-	-	-	-	-	260	263	-	272	271	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1301	-	-	1292	-	-	460	453	769	458	454	779
Stage 1	-	-	-	-	-	-	736	686	-	745	693	-
Stage 2	-	-	-	-	-	-	745	691	-	734	685	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1301	-	-	1292	-	-	460	453	769	455	454	779
Mov Cap-2 Maneuver	-	-	-	-	-	-	460	453	-	455	454	
Stage 1	-	-	-	-	-	-	736	686	-	745	693	-
Stage 2	-	-	-	-	-	-	745	691	-	729	685	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			10.3			13		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	692	1301	-	-	1292	-	-	455				
HCM Lane V/C Ratio	0.009	-	-	-	-	-	-	0.005				
HCM Control Delay (s)	10.3	0	-	-	0	-	-	13				
HCM Lane LOS	B	A	-	-	A	-	-	B				
HCM 95th %tile O(veh)	0	0	-	-	0	-	-	0				

Synchro 9: HCM 2010 TWSC
6: Hawthorne Lane/Spring Street & Dedham Street

2/9/2016

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	4	243	2	0	71	1	1	1	4	1	5	4
Future Vol, veh/h	4	243	2	0	71	1	1	1	4	1	5	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	264	2	0	77	1	1	1	4	1	5	4
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	78	0	0	266	0	0	357	352	265	355	353	78
Stage 1	-	-	-	-	-	-	274	274	-	78	78	-
Stage 2	-	-	-	-	-	-	83	78	-	277	275	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1520	-	-	1298	-	-	598	573	774	600	572	983
Stage 1	-	-	-	-	-	-	732	683	-	931	830	-
Stage 2	-	-	-	-	-	-	925	830	-	729	683	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1520	-	-	1298	-	-	590	571	774	594	570	983
Mov Cap-2 Maneuver	-	-	-	-	-	-	590	571	-	594	570	
Stage 1	-	-	-	-	-	-	730	681	-	928	830	-
Stage 2	-	-	-	-	-	-	915	830	-	722	681	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0			10.2			10.3		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	697	1520	-	-	1298	-	-	688				
HCM Lane V/C Ratio	0.009	0.003	-	-	-	-	-	0.016				
HCM Control Delay (s)	10.2	7.4	0	-	0	-	-	10.3				
HCM Lane LOS	B	A	A	-	A	-	-	B				
HCM 95th %tile O(veh)	0	0	-	-	0	-	-	0				

Synchro 9: HCM 2010 TWSC
8: Railroad Avenue & Dedham Street

2/9/2016

Intersection

Int Delay, s/veh 0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	246	8	16	71	1	6
Future Vol, veh/h	246	8	16	71	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	267	9	17	77	1	7

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	384
Stage 1	-	-	272
Stage 2	-	-	112
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1287	619
Stage 1	-	-	774
Stage 2	-	-	913
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1287	610
Mov Cap-2 Maneuver	-	-	610
Stage 1	-	-	774
Stage 2	-	-	900

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	740	-	-	1287	-
HCM Lane V/C Ratio	0.01	-	-	0.014	-
HCM Control Delay (s)	9.9	-	-	7.8	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Synchro 9: HCM 2010 TWSC
2: Springdale Avenue & Dedham Street

2/9/2016

Intersection

Int Delay, s/veh 3.1

Movement	EBL	EBT	WBT	WBR	SWL	SWR
Traffic Vol, veh/h	49	217	142	0	1	133
Future Vol, veh/h	49	217	142	0	1	133
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	236	154	0	1	145

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	154	0	496
Stage 1	-	-	154
Stage 2	-	-	342
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1426	-	533
Stage 1	-	-	874
Stage 2	-	-	719
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1426	-	510
Mov Cap-2 Maneuver	-	-	510
Stage 1	-	-	874
Stage 2	-	-	688

Approach	EB	WB	SW
HCM Control Delay, s	1.4	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBRSWLn1
Capacity (veh/h)	1426	-	-	892
HCM Lane V/C Ratio	0.037	-	-	0.162
HCM Control Delay (s)	7.6	0	-	9.8
HCM Lane LOS	A	A	-	A
HCM 95th %tile Q(veh)	0.1	-	-	0.6

Synchro 9: HCM 2010 TWSC
3: Springdale Avenue & Railroad Avenue

2/9/2016

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	1	219	145	9	45	0
Future Vol, veh/h	1	219	145	9	45	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	238	158	10	49	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	167	0	403
Stage 1	-	-	163
Stage 2	-	-	240
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1411	-	603
Stage 1	-	-	866
Stage 2	-	-	800
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1411	-	602
Mov Cap-2 Maneuver	-	-	602
Stage 1	-	-	866
Stage 2	-	-	799

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1411	-	-	-	602
HCM Lane V/C Ratio	0.001	-	-	-	0.081
HCM Control Delay (s)	7.6	0	-	-	11.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Existing Conditions - PM Peak Hour

F:\Projects\2016\16008\16008.015\Design Calculations\Synchro\2016 Existing Conditions PM Peak Hour.syn

Synchro 9: HCM 2010 TWSC
5: Hawthorne Lane & Springdale Avenue

2/9/2016

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	215	1	1	143	1	0	0	4	1	5	0
Future Vol, veh/h	0	215	1	1	143	1	0	0	4	1	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	234	1	1	155	1	0	0	4	1	5	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	157	0	0	235	0	0	395	393	234	394	393	156
Stage 1	-	-	-	-	-	-	234	234	-	158	158	-
Stage 2	-	-	-	-	-	-	161	159	-	236	235	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1423	-	-	1332	-	-	565	543	805	566	543	890
Stage 1	-	-	-	-	-	-	769	711	-	844	767	-
Stage 2	-	-	-	-	-	-	841	766	-	767	710	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1423	-	-	1332	-	-	560	542	805	563	542	890
Mov Cap-2 Maneuver	-	-	-	-	-	-	560	542	-	563	542	
Stage 1	-	-	-	-	-	-	769	711	-	844	766	-
Stage 2	-	-	-	-	-	-	834	765	-	763	710	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			9.5			11.7		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	805	1423	-	-	1332	-	-	545				
HCM Lane V/C Ratio	0.005	-	-	-	0.001	-	-	0.012				
HCM Control Delay (s)	9.5	0	-	-	7.7	0	-	11.7				
HCM Lane LOS	A	A	-	-	A	A	-	B				
HCM 95th %tile O(veh)	0	0	-	-	0	-	-	0				

Existing Conditions - PM Peak Hour

F:\Projects\2016\16008\16008.015\Design Calculations\Synchro\2016 Existing Conditions PM Peak Hour.syn

Page 3

Synchro 9: HCM 2010 TWSC
6: Hawthorne Lane/Spring Street & Dedham Street

2/9/2016

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	46	0	8	132	1	0	0	0	2	0	0
Future Vol, veh/h	0	46	0	8	132	1	0	0	0	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	50	0	9	143	1	0	0	0	2	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	145	0	0	50	0	0	211	212	50	211	211	144
Stage 1	-	-	-	-	-	-	50	50	-	161	161	-
Stage 2	-	-	-	-	-	-	161	162	-	50	50	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1437	-	-	1557	-	-	746	685	1018	746	686	903
Stage 1	-	-	-	-	-	-	963	853	-	841	765	-
Stage 2	-	-	-	-	-	-	841	764	-	963	853	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1437	-	-	1557	-	-	743	681	1018	743	682	903
Mov Cap-2 Maneuver	-	-	-	-	-	-	743	681	-	743	682	
Stage 1	-	-	-	-	-	-	963	853	-	841	760	-
Stage 2	-	-	-	-	-	-	836	759	-	963	853	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.4			0			9.9		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	1437	-	-	1557	-	-	743				
HCM Lane V/C Ratio	-	-	-	-	0.006	-	-	0.003				
HCM Control Delay (s)	0	0	-	-	7.3	0	-	9.9				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile O(veh)	-	0	-	-	0	-	-	0				

Synchro 9: HCM 2010 TWSC
8: Railroad Avenue & Dedham Street

2/9/2016

Intersection

Int Delay, s/veh 1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	48	0	44	141	1	8
Future Vol, veh/h	48	0	44	141	1	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	0	48	153	1	9

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	52
Stage 1	-	-	52
Stage 2	-	-	249
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1554	691
Stage 1	-	-	970
Stage 2	-	-	792
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1554	668
Mov Cap-2 Maneuver	-	-	668
Stage 1	-	-	970
Stage 2	-	-	765

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	960	-	-	1554	-
HCM Lane V/C Ratio	0.01	-	-	0.031	-
HCM Control Delay (s)	8.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Synchro 9: HCM 2010 TWSC
2: Springdale Avenue & Dedham Street

2/9/2016

Intersection						
Int Delay, s/veh	3.8					
Movement	EBL	EBT	WBT	WBR	SWL	SWR
Traffic Vol, veh/h	266	239	247	0	0	85
Future Vol, veh/h	266	239	247	0	0	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	289	260	268	0	0	92
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	268	0	-	0	1106	268
Stage 1	-	-	-	-	268	-
Stage 2	-	-	-	-	838	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1296	-	-	-	233	771
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	424	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1296	-	-	-	172	771
Mov Cap-2 Maneuver	-	-	-	-	172	-
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	313	-
Approach	EB		WB		SW	
HCM Control Delay, s	4.5		0		10.3	
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SWLn1	
Capacity (veh/h)	1296	-	-	-	771	
HCM Lane V/C Ratio	0.223	-	-	-	0.12	
HCM Control Delay (s)	8.6	0	-	-	10.3	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile O(veh)	0.9	-	-	-	0.4	

Synchro 9: HCM 2010 TWSC
3: Springdale Avenue & Railroad Avenue

2/9/2016

Intersection

Int Delay, s/veh 0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	267	261	4	23	0
Future Vol, veh/h	0	267	261	4	23	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	290	284	4	25	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	288	0	576
Stage 1	-	-	286
Stage 2	-	-	290
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1274	-	479
Stage 1	-	-	763
Stage 2	-	-	759
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1274	-	479
Mov Cap-2 Maneuver	-	-	479
Stage 1	-	-	763
Stage 2	-	-	759

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1274	-	-	-	479
HCM Lane V/C Ratio	-	-	-	-	0.052
HCM Control Delay (s)	0	-	-	-	12.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Synchro 9: HCM 2010 TWSC
5: Hawthorne Lane & Springdale Avenue

2/9/2016

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	265	2	0	253	6	1	0	5	2	0	0
Future Vol, veh/h	0	265	2	0	253	6	1	0	5	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	288	2	0	275	7	1	0	5	2	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	282	0	0	290	0	0	567	571	289	570	568	278
Stage 1	-	-	-	-	-	-	289	289	-	278	278	-
Stage 2	-	-	-	-	-	-	278	282	-	292	290	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1280	-	-	1272	-	-	434	431	750	432	432	761
Stage 1	-	-	-	-	-	-	719	673	-	728	680	-
Stage 2	-	-	-	-	-	-	728	678	-	716	672	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1280	-	-	1272	-	-	434	431	750	429	432	761
Mov Cap-2 Maneuver	-	-	-	-	-	-	434	431	-	429	432	
Stage 1	-	-	-	-	-	-	719	673	-	728	680	-
Stage 2	-	-	-	-	-	-	728	678	-	711	672	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			10.4			13.4		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	669	1280	-	-	1272	-	-	429				
HCM Lane V/C Ratio	0.01	-	-	-	-	-	-	0.005				
HCM Control Delay (s)	10.4	0	-	-	0	-	-	13.4				
HCM Lane LOS	B	A	-	-	A	-	-	B				
HCM 95th %tile O(veh)	0	0	-	-	0	-	-	0				

Synchro 9: HCM 2010 TWSC
6: Hawthorne Lane/Spring Street & Dedham Street

2/9/2016

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	4	261	2	0	76	1	1	1	4	1	5	4
Future Vol, veh/h	4	261	2	0	76	1	1	1	4	1	5	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	284	2	0	83	1	1	1	4	1	5	4
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	84	0	0	286	0	0	381	377	285	379	378	83
Stage 1	-	-	-	-	-	-	293	293	-	83	83	-
Stage 2	-	-	-	-	-	-	88	84	-	296	295	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1513	-	-	1276	-	-	577	555	754	579	554	976
Stage 1	-	-	-	-	-	-	715	670	-	925	826	-
Stage 2	-	-	-	-	-	-	920	825	-	712	669	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1513	-	-	1276	-	-	569	553	754	573	552	976
Mov Cap-2 Maneuver	-	-	-	-	-	-	569	553	-	573	552	
Stage 1	-	-	-	-	-	-	713	668	-	922	826	-
Stage 2	-	-	-	-	-	-	910	825	-	705	667	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0			10.4			10.5		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	676	1513	-	-	1276	-	-	671				
HCM Lane V/C Ratio	0.01	0.003	-	-	-	-	-	0.016				
HCM Control Delay (s)	10.4	7.4	0	-	0	-	-	10.5				
HCM Lane LOS	B	A	A	-	A	-	-	B				
HCM 95th %tile O(veh)	0	0	-	-	0	-	-	0				

Synchro 9: HCM 2010 TWSC
8: Railroad Avenue & Dedham Street

2/9/2016

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	264	9	17	76	1	6
Future Vol, veh/h	264	9	17	76	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	287	10	18	83	1	7
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	297	0	412	292
Stage 1	-	-	-	-	292	-
Stage 2	-	-	-	-	120	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1264	-	596	747
Stage 1	-	-	-	-	758	-
Stage 2	-	-	-	-	905	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1264	-	587	747
Mov Cap-2 Maneuver	-	-	-	-	587	-
Stage 1	-	-	-	-	758	-
Stage 2	-	-	-	-	891	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.4		10.1	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	719	-	-	1264	-	
HCM Lane V/C Ratio	0.011	-	-	0.015	-	
HCM Control Delay (s)	10.1	-	-	7.9	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Synchro 9: HCM 2010 TWSC
2: Springdale Avenue & Dedham Street

2/9/2016

Intersection

Int Delay, s/veh 3.2

Movement	EBL	EBT	WBT	WBR	SWL	SWR
Traffic Vol, veh/h	53	233	152	0	1	143
Future Vol, veh/h	53	233	152	0	1	143
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	253	165	0	1	155

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	165	0	533
Stage 1	-	-	165
Stage 2	-	-	368
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1413	-	507
Stage 1	-	-	864
Stage 2	-	-	700
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1413	-	483
Mov Cap-2 Maneuver	-	-	483
Stage 1	-	-	864
Stage 2	-	-	666

Approach	EB	WB	SW
HCM Control Delay, s	1.4	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SWLn1
Capacity (veh/h)	1413	-	-	-	879
HCM Lane V/C Ratio	0.041	-	-	-	0.177
HCM Control Delay (s)	7.7	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Synchro 9: HCM 2010 TWSC
3: Springdale Avenue & Railroad Avenue

2/9/2016

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	1	235	155	10	48	0
Future Vol, veh/h	1	235	155	10	48	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	255	168	11	52	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	179	0	432
Stage 1	-	-	174
Stage 2	-	-	258
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1397	-	581
Stage 1	-	-	856
Stage 2	-	-	785
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1397	-	580
Mov Cap-2 Maneuver	-	-	580
Stage 1	-	-	856
Stage 2	-	-	784

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1397	-	-	-	580
HCM Lane V/C Ratio	0.001	-	-	-	0.09
HCM Control Delay (s)	7.6	0	-	-	11.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Synchro 9: HCM 2010 TWSC
5: Hawthorne Lane & Springdale Avenue

2/9/2016

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	231	1	1	153	1	0	0	4	1	5	0
Future Vol, veh/h	0	231	1	1	153	1	0	0	4	1	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	251	1	1	166	1	0	0	4	1	5	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	167	0	0	252	0	0	424	422	252	423	421	167
Stage 1	-	-	-	-	-	-	252	252	-	169	169	-
Stage 2	-	-	-	-	-	-	172	170	-	254	252	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1411	-	-	1313	-	-	540	523	787	541	524	877
Stage 1	-	-	-	-	-	-	752	698	-	833	759	-
Stage 2	-	-	-	-	-	-	830	758	-	750	698	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1411	-	-	1313	-	-	535	522	787	538	523	877
Mov Cap-2 Maneuver	-	-	-	-	-	-	535	522	-	538	523	
Stage 1	-	-	-	-	-	-	752	698	-	833	758	-
Stage 2	-	-	-	-	-	-	823	757	-	746	698	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			9.6			11.9		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	787	1411	-	-	1313	-	-	525				
HCM Lane V/C Ratio	0.006	-	-	-	0.001	-	-	0.012				
HCM Control Delay (s)	9.6	0	-	-	7.7	0	-	11.9				
HCM Lane LOS	A	A	-	-	A	A	-	B				
HCM 95th %tile O(veh)	0	0	-	-	0	-	-	0				

Synchro 9: HCM 2010 TWSC
6: Hawthorne Lane/Spring Street & Dedham Street

2/9/2016

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	49	0	9	142	1	0	0	0	2	0	0
Future Vol, veh/h	0	49	0	9	142	1	0	0	0	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	53	0	10	154	1	0	0	0	2	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	155	0	0	53	0	0	227	228	53	227	227	155
Stage 1	-	-	-	-	-	-	53	53	-	174	174	-
Stage 2	-	-	-	-	-	-	174	175	-	53	53	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1425	-	-	1553	-	-	728	671	1014	728	672	891
Stage 1	-	-	-	-	-	-	960	851	-	828	755	-
Stage 2	-	-	-	-	-	-	828	754	-	960	851	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1425	-	-	1553	-	-	724	666	1014	724	667	891
Mov Cap-2 Maneuver	-	-	-	-	-	-	724	666	-	724	667	
Stage 1	-	-	-	-	-	-	960	851	-	828	750	-
Stage 2	-	-	-	-	-	-	822	749	-	960	851	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.4			0			10		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	1425	-	-	1553	-	-	724				
HCM Lane V/C Ratio	-	-	-	-	0.006	-	-	0.003				
HCM Control Delay (s)	0	0	-	-	7.3	0	-	10				
HCM Lane LOS	A	A	-	-	A	A	-	B				
HCM 95th %tile O(veh)	-	0	-	-	0	-	-	0				

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	51	0	47	151	1	9
Future Vol, veh/h	51	0	47	151	1	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	55	0	51	164	1	10
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	55	0	321	55
Stage 1	-	-	-	-	55	-
Stage 2	-	-	-	-	266	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1550	-	673	1012
Stage 1	-	-	-	-	968	-
Stage 2	-	-	-	-	779	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1550	-	649	1012
Mov Cap-2 Maneuver	-	-	-	-	649	-
Stage 1	-	-	-	-	968	-
Stage 2	-	-	-	-	751	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.8		8.8	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	958	-	-	1550	-	
HCM Lane V/C Ratio	0.011	-	-	0.033	-	
HCM Control Delay (s)	8.8	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile O(veh)	0	-	-	0.1	-	

Synchro 9: HCM 2010 TWSC
2: Springdale Avenue & Dedham Street

2/15/2016

Intersection

Int Delay, s/veh 4.2

Movement	EBL	EBT	WBT	WBR	SWL	SWR
Traffic Vol, veh/h	286	226	233	0	0	105
Future Vol, veh/h	286	226	233	0	0	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	311	246	253	0	0	114

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	253	0	1120
Stage 1	-	-	253
Stage 2	-	-	867
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1312	-	228
Stage 1	-	-	789
Stage 2	-	-	411
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1312	-	165
Mov Cap-2 Maneuver	-	-	165
Stage 1	-	-	789
Stage 2	-	-	298

Approach	EB	WB	SW
HCM Control Delay, s	4.8	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBRSWLn1
Capacity (veh/h)	1312	-	-	786
HCM Lane V/C Ratio	0.237	-	-	0.145
HCM Control Delay (s)	8.6	0	-	10.4
HCM Lane LOS	A	A	-	B
HCM 95th %tile Q(veh)	0.9	-	-	0.5

Synchro 9: HCM 2010 TWSC
3: Springdale Avenue & Railroad Avenue

2/15/2016

Intersection

Int Delay, s/veh 0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	272	266	4	23	0
Future Vol, veh/h	0	272	266	4	23	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	296	289	4	25	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	293	0	587
Stage 1	-	-	291
Stage 2	-	-	296
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1269	-	472
Stage 1	-	-	759
Stage 2	-	-	755
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1269	-	472
Mov Cap-2 Maneuver	-	-	472
Stage 1	-	-	759
Stage 2	-	-	755

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1269	-	-	-	472
HCM Lane V/C Ratio	-	-	-	-	0.053
HCM Control Delay (s)	0	-	-	-	13.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Synchro 9: HCM 2010 TWSC
5: Hawthorne Lane & Springdale Avenue

2/15/2016

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	252	2	0	239	25	1	0	5	20	0	0
Future Vol, veh/h	0	252	2	0	239	25	1	0	5	20	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	274	2	0	260	27	1	0	5	22	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	287	0	0	276	0	0	548	562	275	551	549	273
Stage 1	-	-	-	-	-	-	275	275	-	273	273	-
Stage 2	-	-	-	-	-	-	273	287	-	278	276	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1275	-	-	1287	-	-	447	436	764	445	443	766
Stage 1	-	-	-	-	-	-	731	683	-	733	684	-
Stage 2	-	-	-	-	-	-	733	674	-	728	682	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1275	-	-	1287	-	-	447	436	764	442	443	766
Mov Cap-2 Maneuver	-	-	-	-	-	-	447	436	-	442	443	
Stage 1	-	-	-	-	-	-	731	683	-	733	684	-
Stage 2	-	-	-	-	-	-	733	674	-	723	682	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			10.3			13.6		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	683	1275	-	-	1287	-	-	442				
HCM Lane V/C Ratio	0.01	-	-	-	-	-	-	0.049				
HCM Control Delay (s)	10.3	0	-	-	0	-	-	13.6				
HCM Lane LOS	B	A	-	-	A	-	-	B				
HCM 95th %tile O(veh)	0	0	-	-	0	-	-	0.2				

Synchro 9: HCM 2010 TWSC
6: Hawthorne Lane/Spring Street & Dedham Street

2/15/2016

Intersection												
Int Delay, s/veh		3										
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	37	248	2	0	72	8	1	20	4	17	23	28
Future Vol, veh/h	37	248	2	0	72	8	1	20	4	17	23	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	270	2	0	78	9	1	22	4	18	25	30
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	87	0	0	272	0	0	461	438	271	447	435	83
Stage 1	-	-	-	-	-	-	351	351	-	83	83	-
Stage 2	-	-	-	-	-	-	110	87	-	364	352	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1509	-	-	1291	-	-	511	512	768	522	514	976
Stage 1	-	-	-	-	-	-	666	632	-	925	826	-
Stage 2	-	-	-	-	-	-	895	823	-	655	632	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1509	-	-	1291	-	-	465	496	768	490	498	976
Mov Cap-2 Maneuver	-	-	-	-	-	-	465	496	-	490	498	
Stage 1	-	-	-	-	-	-	645	612	-	896	826	-
Stage 2	-	-	-	-	-	-	841	823	-	609	612	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			0			12.2			11.6		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	524	1509	-	-	1291	-	-	621				
HCM Lane V/C Ratio	0.052	0.027	-	-	-	-	-	0.119				
HCM Control Delay (s)	12.2	7.5	0	-	0	-	-	11.6				
HCM Lane LOS	B	A	A	-	A	-	-	B				
HCM 95th %tile O(veh)	0.2	0.1	-	-	0	-	-	0.4				

Synchro 9: HCM 2010 TWSC
8: Railroad Avenue & Dedham Street

2/15/2016

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	267	9	17	79	1	6
Future Vol, veh/h	267	9	17	79	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	290	10	18	86	1	7
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	300	0	418	295
Stage 1	-	-	-	-	295	-
Stage 2	-	-	-	-	123	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1261	-	591	744
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	902	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1261	-	582	744
Mov Cap-2 Maneuver	-	-	-	-	582	-
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	888	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.4		10.1	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	716	-	-	1261	-	
HCM Lane V/C Ratio	0.011	-	-	0.015	-	
HCM Control Delay (s)	10.1	-	-	7.9	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Synchro 9: HCM 2010 TWSC
2: Springdale Avenue & Dedham Street

2/15/2016

Intersection

Int Delay, s/veh 3.4

Movement	EBL	EBT	WBT	WBR	SWL	SWR
Traffic Vol, veh/h	62	227	148	0	1	150
Future Vol, veh/h	62	227	148	0	1	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	67	247	161	0	1	163

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	161	0	543
Stage 1	-	-	161
Stage 2	-	-	382
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1418	-	501
Stage 1	-	-	868
Stage 2	-	-	690
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1418	-	473
Mov Cap-2 Maneuver	-	-	473
Stage 1	-	-	868
Stage 2	-	-	652

Approach	EB	WB	SW
HCM Control Delay, s	1.6	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SWLn1
Capacity (veh/h)	1418	-	-	-	884
HCM Lane V/C Ratio	0.048	-	-	-	0.184
HCM Control Delay (s)	7.7	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

Synchro 9: HCM 2010 TWSC
3: Springdale Avenue & Railroad Avenue

2/15/2016

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	1	237	157	10	48	0
Future Vol, veh/h	1	237	157	10	48	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	258	171	11	52	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	182	0	436
Stage 1	-	-	176
Stage 2	-	-	260
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1393	-	578
Stage 1	-	-	855
Stage 2	-	-	783
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1393	-	577
Mov Cap-2 Maneuver	-	-	577
Stage 1	-	-	855
Stage 2	-	-	782

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1393	-	-	-	577
HCM Lane V/C Ratio	0.001	-	-	-	0.09
HCM Control Delay (s)	7.6	0	-	-	11.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Synchro 9: HCM 2010 TWSC
5: Hawthorne Lane & Springdale Avenue

2/15/2016

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	225	1	1	149	7	0	0	4	9	5	0
Future Vol, veh/h	0	225	1	1	149	7	0	0	4	9	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	245	1	1	162	8	0	0	4	10	5	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	170	0	0	246	0	0	416	417	245	415	414	166
Stage 1	-	-	-	-	-	-	245	245	-	168	168	-
Stage 2	-	-	-	-	-	-	171	172	-	247	246	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1407	-	-	1320	-	-	547	527	794	548	529	878
Stage 1	-	-	-	-	-	-	759	703	-	834	759	-
Stage 2	-	-	-	-	-	-	831	756	-	757	703	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1407	-	-	1320	-	-	542	526	794	545	528	878
Mov Cap-2 Maneuver	-	-	-	-	-	-	542	526	-	545	528	
Stage 1	-	-	-	-	-	-	759	703	-	834	758	-
Stage 2	-	-	-	-	-	-	824	755	-	753	703	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			9.6			11.9		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	794	1407	-	-	1320	-	-	539				
HCM Lane V/C Ratio	0.005	-	-	-	0.001	-	-	0.028				
HCM Control Delay (s)	9.6	0	-	-	7.7	0	-	11.9				
HCM Lane LOS	A	A	-	-	A	A	-	B				
HCM 95th %tile O(veh)	0	0	-	-	0	-	-	0.1				

Synchro 9: HCM 2010 TWSC
6: Hawthorne Lane/Spring Street & Dedham Street

2/15/2016

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	10	48	0	9	137	7	0	6	0	4	8	12
Future Vol, veh/h	10	48	0	9	137	7	0	6	0	4	8	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	52	0	10	149	8	0	7	0	4	9	13
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	157	0	0	52	0	0	257	250	52	249	246	153
Stage 1	-	-	-	-	-	-	74	74	-	172	172	-
Stage 2	-	-	-	-	-	-	183	176	-	77	74	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1423	-	-	1554	-	-	696	653	1016	705	656	893
Stage 1	-	-	-	-	-	-	935	833	-	830	756	-
Stage 2	-	-	-	-	-	-	819	753	-	932	833	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1423	-	-	1554	-	-	671	643	1016	692	646	893
Mov Cap-2 Maneuver	-	-	-	-	-	-	671	643	-	692	646	
Stage 1	-	-	-	-	-	-	928	826	-	823	751	-
Stage 2	-	-	-	-	-	-	792	748	-	917	826	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0.4			10.7			9.9		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	643	1423	-	-	1554	-	-	759				
HCM Lane V/C Ratio	0.01	0.008	-	-	0.006	-	-	0.034				
HCM Control Delay (s)	10.7	7.5	0	-	7.3	0	-	9.9				
HCM Lane LOS	B	A	A	-	A	A	-	A				
HCM 95th %tile O(veh)	0	0	-	-	0	-	-	0.1				

Synchro 9: HCM 2010 TWSC
8: Railroad Avenue & Dedham Street

2/15/2016

Intersection						
Int Delay, s/veh	1.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	52	0	47	152	1	9
Future Vol, veh/h	52	0	47	152	1	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	57	0	51	165	1	10
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	57	0	324	57
Stage 1	-	-	-	-	57	-
Stage 2	-	-	-	-	267	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1547	-	670	1009
Stage 1	-	-	-	-	966	-
Stage 2	-	-	-	-	778	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1547	-	646	1009
Mov Cap-2 Maneuver	-	-	-	-	646	-
Stage 1	-	-	-	-	966	-
Stage 2	-	-	-	-	750	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.7		8.8	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	955	-	-	1547	-	
HCM Lane V/C Ratio	0.011	-	-	0.033	-	
HCM Control Delay (s)	8.8	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.1	-	