

# BROOKLINE

Preferred Schematic Report  
Brookline 9th Elementary School, Town of Brookline, Massachusetts





#### **4 Appendix - Existing Conditions Reports**

- 4.1 Site Survey
- 4.2 Geotechnical Engineering Data Report
- 4.3 Environmental Site Assessment
- 4.4 Asbestos Survey Report
- 4.5 Engineering Report
- 4.6 Transportation Impact Assessment
- 4.7 Traffic Study
- 4.8 Baldwin School Tree Assessment
- 4.9 Soule Playground Recreation Building Historic Record



#### 4.1 Site Survey

**SITE ADDRESS**  
**HEATH STREET**  
**BROOKLINE, MA**  
 484-490

**PREPARED FOR**  
**JONATHAN LEVI**  
**ARCHITECTS**  
 256 Beacon St.  
 Boston, MA 02116

**HANCOCK**  
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BY	DATE	ISSUE/PERSON RESPONSIBLE
SCALE	1/2" = 10'	DRAWN BY: JIL
APPROVED BY:	JOB CHECK BY:	DR

**EXISTING**  
**CONDITIONS**  
**PLAN OF LAND**

DWG: 20276-SV3.090  
 LAYOUT:  
 SHEET: 1 OF 1  
**EC**  
 PROJECT NO.: 20276

- OWNER OF RECORD**  
 TOWN OF BROOKLINE  
 PLAN BOOK 550, MAP 4 OF 2007  
 PLAN BOOK 566, MAP 6 OF 2007  
 PLAN BOOK 570, MAP 10 OF 1984  
 PLAN BOOK 579 OF 1984  
 PLAN BOOK 798 OF 1955  
 PLAN IN DEED # 410 PAGE 027  
 PLAN IN DEED # 410 PAGE 027
- ASSESSOR'S INFORMATION**  
 PARCELS ID: 432-20-24  
 DEED BK. 448 PG. 195  
 DEED BK. 448 PG. 195  
 DEED BK. 2369 PG. 280
- DANIEL J. CROWLEY & SUZANNE C. CROWLEY**  
 MAP 432, LOT 36-04  
 MAP 432, LOT 36-04
- JEFFERY H. SPIEGEL REVOCABLE TRUST**  
 DEED BOOK 6975, PAGE 172  
 MAP 432, LOT 23-06  
 REC. SB (SEE NOTE 7)
- OMR LESKIEWICZ REVOCABLE TRUST**  
 DEED BOOK 6975, PAGE 172  
 MAP 432, LOT 23-06  
 REC. SB (SEE NOTE 7)
- JOHN ROTENBERG**  
 DEED BOOK 6975, PAGE 172  
 MAP 432, LOT 25
- HEATH STREET**  
 PRIVATE WAY  
 30' WIDE  
 DETAIL "A"
- HEATH STREET**  
 PRIVATE WAY  
 30' WIDE  
 DETAIL "A"



- PLAN REFERENCES**  
 PLAN BOOK 550, MAP 4 OF 2007  
 PLAN BOOK 566, MAP 6 OF 2007  
 PLAN BOOK 570, MAP 10 OF 1984  
 PLAN BOOK 579 OF 1984  
 PLAN BOOK 798 OF 1955  
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 30' WIDE  
 DETAIL "A"

**LEGEND**

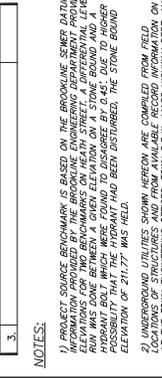
CC	SURFACE CONTOUR
ED	EDGE OF PAVEMENT
GR	GUARD RAIL
RR	RETAINING WALL FACE
SP	SEWER PIPE
WP	WATER PIPE
GL	GAS LINE
CC	GRANITE CURB
CB	BITUMINOUS CONCRETE BEAM
SP	SPOT ELEVATION
TR	PROMINENT DISCONTINUOUS TREE
TR	SMALLER DISCONTINUOUS TREE
TR	DRILL HOLE IN STONE BOUND
TR	LIPIE
TR	WATER VALVE
TR	GAS VALVE
TR	HYDRANT
TR	SEWER MANHOLE
TR	DRAIN MANHOLE
TR	ROUND CATCH BASIN
TR	ROUND CATCH BASIN

**ELEVATION BENCH MARKS**

NO.	DESCRIPTION	ELEV.
1.	FIRE HYDRANT - BOLT OVER MAIN OUTLET	204.70'
2.	MAGNETIC NAIL IN PAVEMENT	204.28'
3.		

**NOTES:**

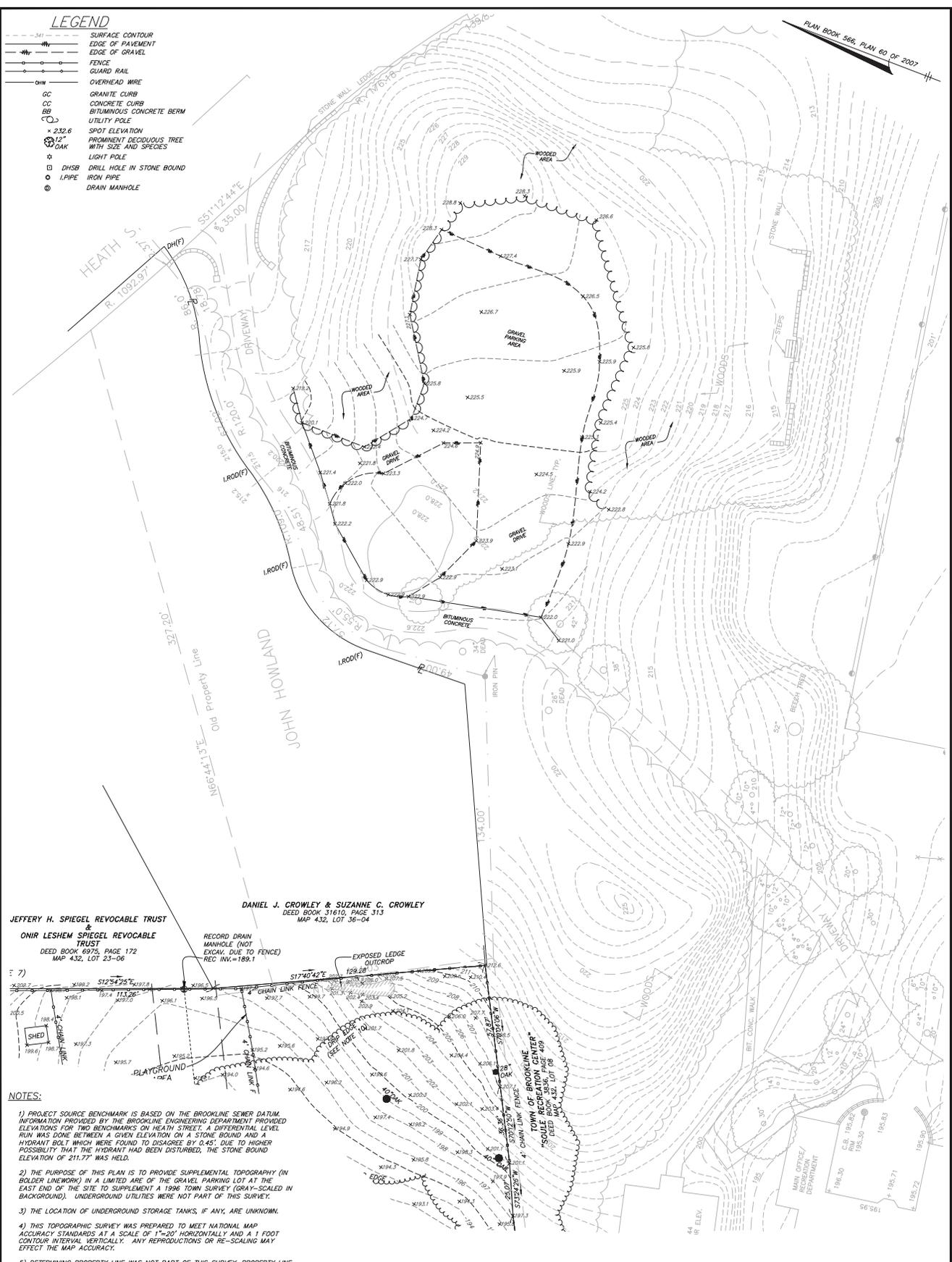
- PROJECT BOUNDARY IS BASED ON THE BROOKLINE SENIOR CENTER INFORMATION PROVIDED BY THE BROOKLINE ENGINEERING DEPARTMENT. PROVIDED INFORMATION FOR THE BENCHMARKS ON HEATH STREET IS APPROXIMATE. THE HYDRANT BOLT WHICH WERE FOUND TO DISAGREE BY 0.42', DUE TO HIGHER POSSIBILITY THAT THE HYDRANT HAD BEEN DISBURSED, THE STONE BOUND ELEVATION OF 204.77' WAS USED.
- THE PROPOSED SURVEY WAS CONDUCTED FROM FIELD LOCATIONS OF STRUCTURES AND FROM AVAILABLE RECORD INFORMATION ON FILE AT THE TOWN ENGINEERING OFFICES, TOWN D.P.M., MASS HIGHWAY DEPT., AND THE RESPONSIBILITY OF THE DESIGN ENGINEER AND THE CONTRACTOR TO VERIFY THE LOCATION, SIZE & ELEVATION OF ALL UTILITIES WITHIN THE AREA OF THE PROJECT PRIOR TO ANY EXCAVATION, DEMOLITION OR CONSTRUCTION.
- THE LOCATION OF UNDERGROUND STORAGE TANKS, IF ANY, ARE UNKNOWN.
- THE PROPOSED SURVEY WAS CONDUCTED TO MEET INTERNAL MAP ACCURACY STANDARDS AT A SCALE OF 1"=20' HORIZONTALLY AND A 1 FOOT CONTOUR INTERVAL VERTICALLY. ANY REPRODUCTIONS OR RE-SCALING MAY AFFECT THE MAP ACCURACY.
- DRAIN LINE LOCATION AND INTERSECTION ARE SHOWN PER "SEWER09-B" EXEMPTED. NEAR STRUCTURE EAST NOT EXAMINED AS UNDER FENCE OR ON PRIVATE PROPERTY; RECORD LOCATION SHOWN.
- OK PLACE IS SHOWN APPROXIMATELY. IT IS SUBJECT TO ANY EXISTING EASEMENT RIGHTS. (SEE NOTE 8)
- THREE NOTED STONE BOUNDS "NOT FOUND" ARE SHOWN PER BOOK 179, PAGES 12 & 13 AND LAYOUT MONUMENTS FOUND THEN AND NOW.
- THE PLAN OF RECORD FOR THE SOUTHERN OF THE FOUR PARCELS THAT MAKE UP LOCUS (PLAN 879 OF 1947) DOES NOT "CLOSE" BY 1.4' (NORTH-SOUTH) AND DISAGREES WITH OCCUPATION FENCES BY ABOUT 5' TO EASTERN ARBITRARY PLAN AND HAVE BEEN HELD FOR PROPERTY LINE.
- HEATH STREET IS A 40' WIDE 1987 TOWN LAYOUT IN FRONT OF LOCUS AND VARIABLE WIDTH EAST OF LOCUS.
- DRAIN EDGE SHOWN IS FOR SPECIFIC LARGE TREES REQUESTED BY THE CLIENT. THE DRAIN EDGE FOR SMALLER TREES AND ABUTTING TREES IS NOT SHOWN. DRAIN EDGE VARIES AND IS APPROXIMATE ONLY.



**LEGEND**

- 5ft --- SURFACE CONTOUR
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- FENCE
- GUARD RAIL
- OVERHEAD WIRE
- GRANITE CURB
- CONCRETE CURB
- BITUMINOUS CONCRETE BERM
- UTILITY POLE
- X 232.6 SPOT ELEVATION
- 12" PROMINENT DECIDUOUS TREE WITH SIZE AND SPECIES
- OAK LIGHT POLE
- DHSB DRILL HOLE IN STONE BOUND
- I PIPE IRON PIPE
- DM DRAIN MANHOLE

PLAN BOOK 566, PLAN 60 OF 2007



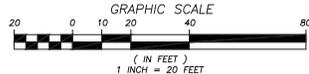
JEFFERY H. SPIEGEL REVOCABLE TRUST & ONIR LESHEM SPIEGEL REVOCABLE TRUST  
DEED BOOK 6975, PAGE 172  
MAP 432, LOT 23-06

DANIEL J. CROWLEY & SUZANNE C. CROWLEY  
DEED BOOK 31610, PAGE 313  
MAP 432, LOT 36-04

**NOTES:**

- 1) PROJECT SOURCE BENCHMARK IS BASED ON THE BROOKLINE SEWER DATUM. INFORMATION PROVIDED BY THE BROOKLINE ENGINEERING DEPARTMENT PROVIDED ELEVATIONS FOR TWO BENCHMARKS ON HEATH STREET. A DIFFERENTIAL LEVEL RUN WAS DONE BETWEEN A GIVEN ELEVATION ON A STONE BOUND AND A HYDRANT BOLT WHICH WERE FOUND TO DISAGREE BY 0.45'. DUE TO HIGHER POSSIBILITY THAT THE HYDRANT HAD BEEN DISTURBED, THE STONE BOUND ELEVATION OF 211.77' WAS HELD.
- 2) THE PURPOSE OF THIS PLAN IS TO PROVIDE SUPPLEMENTAL TOPOGRAPHY (IN BOLDER LINENWORK) IN A LIMITED AREA OF THE GRAVEL PARKING LOT AT THE EAST END OF THE SITE TO SUPPLEMENT A 1996 TOWN SURVEY (GRAY-SCALED IN BACKGROUND). UNDERGROUND UTILITIES WERE NOT PART OF THIS SURVEY.
- 3) THE LOCATION OF UNDERGROUND STORAGE TANKS, IF ANY, ARE UNKNOWN.
- 4) THIS TOPOGRAPHIC SURVEY WAS PREPARED TO MEET NATIONAL MAP ACCURACY STANDARDS AT A SCALE OF 1"=20' HORIZONTALLY AND A 1 FOOT CONTOUR INTERVAL VERTICALLY. ANY REPRODUCTIONS OR RE-SCALING MAY EFFECT THE MAP ACCURACY.
- 5) DETERMINING PROPERTY LINE WAS NOT PART OF THIS SURVEY. PROPERTY LINE SHOWN IS BASED ON A PURPORTED 1996 SURVEY OF THE SOULE CENTER CONDUCTED BY THE BROOKLINE DEPARTMENT OF PUBLIC WORKS AND IS VERY APPROXIMATE ONLY. UPON CLOSER REVIEW THE 1996 PLAN MAY NOT HAVE BEEN BASED ON A SURVEY AND MAY HAVE ONLY BEEN COMPILED G.S.

ELEVATION BENCH MARKS		
DATUM: SEE NOTE 1		
NO.	DESCRIPTION	ELEV.
1.	FIRE HYDRANT - BOLT OVER MAIN OUTLET	204.70'
2.	MAGNETIC NAIL IN PAVEMENT	208.28'
3.		



NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION

**HANCOCK ASSOCIATES**  
Civil Engineers Land Surveys  
Landscape Architects Wetland Scientists  
315 ELM STREET, MARLBOROUGH, MA 01752  
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PREPARED FOR:  
**JONATHAN LEVI ARCHITECTS**  
256 Beacon St.  
Boston, MA 02116

SITE ADDRESS:  
**"SOULE EARLY CHILDHOOD CENTER"**  
652 HAMMOND STREET  
BROOKLINE, MA

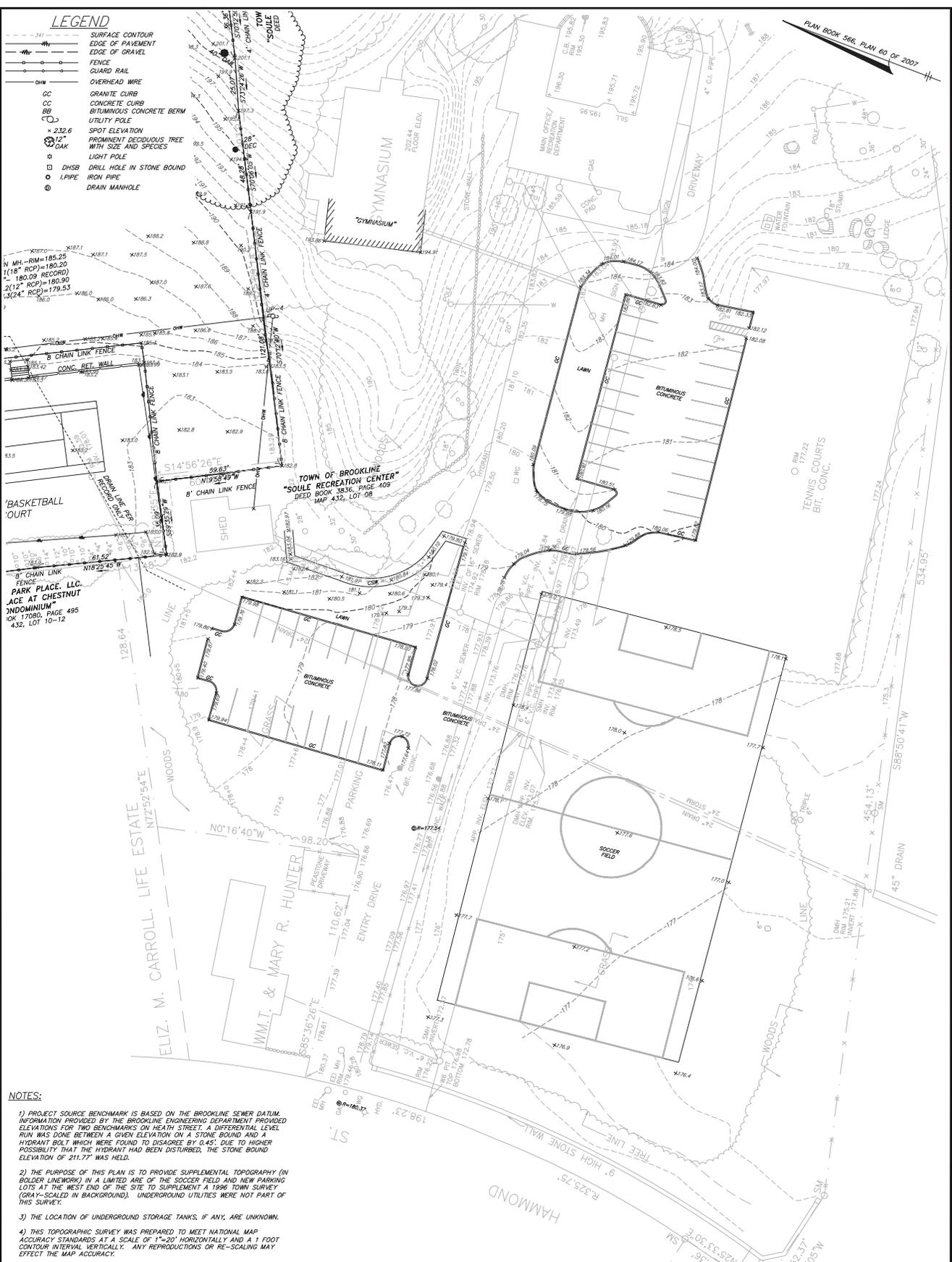
PLAN TITLE:  
**LIMITED TOPOGRAPHIC PLAN OF LAND**

DATE: 2/3/17  
SCALE: 1"=20'  
DESIGN BY: N/A  
DRAWN BY: CMC  
CHECK BY: JDB  
DWG: 20276 Pkg 02-17-17.dwg  
LAYOUT: EC (3) 1 OF 1  
**TO-1**  
PROJECT NO.: 20276

**LEGEND**

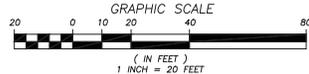
- SURFACE CONTOUR
- - - EDGE OF PAVEMENT
- - - EDGE OF GRAVEL
- FENCE
- GUARD RAIL
- OVERHEAD WIRE
- GRANITE CURB
- CONCRETE CURB
- BITUMINOUS CONCRETE BEAM
- UTILITY POLE
- 232.6 SPOT ELEVATION
- 18" DEC PROMINENT DECIDUOUS TREE WITH SIZE AND SPECIES
- 18" OAK
- LIGHT POLE
- DMSB DRILL HOLE IN STONE BOUND
- I PIPE IRON PIPE
- ⊙ DRAIN MANHOLE

PLAN BOOK 566, PLAN 80 OF 2007



- NOTES:**
- 1) PROJECT SOURCE BENCHMARK IS BASED ON THE BROOKLINE SEWER DATUM. INFORMATION PROVIDED BY THE BROOKLINE ENGINEERING DEPARTMENT PROVIDED ELEVATIONS FOR TWO BENCHMARKS ON HEATH STREET. A DIFFERENTIAL LEVEL RUN WAS DONE BETWEEN A GIVEN ELEVATION ON A STONE BOUND AND A HYDRANT BOLT WHICH WERE FOUND TO DISAGREE BY 0.45'. DUE TO HIGHER POSSIBILITY THAT THE HYDRANT HAD BEEN DISTURBED, THE STONE BOUND ELEVATION OF 211.77' WAS HELD.
  - 2) THE PURPOSE OF THIS PLAN IS TO PROVIDE SUPPLEMENTAL TOPOGRAPHY (IN BOLDER LINEWORK) IN A LIMITED AREA OF THE SOCCER FIELD AND NEW PARKING LOTS AT THE WEST END OF THE SITE TO SUPPLEMENT A 1996 TOWN SURVEY (GRAY-SCALED IN BACKGROUND). UNDERGROUND UTILITIES WERE NOT PART OF THIS SURVEY.
  - 3) THE LOCATION OF UNDERGROUND STORAGE TANKS, IF ANY, ARE UNKNOWN.
  - 4) THIS TOPOGRAPHIC SURVEY WAS PREPARED TO MEET NATIONAL MAP ACCURACY STANDARDS AT A SCALE OF 1"=20' HORIZONTALLY AND A 1 FOOT CONTOUR INTERVAL VERTICALLY. ANY REPRODUCTIONS OR RE-SCALING MAY AFFECT THE MAP ACCURACY.
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ELEVATION BENCH MARKS		
DATUM:		
NO.	DESCRIPTION	ELEV.
1.	FIRE HYDRANT - BOLT OVER MAIN OUTLET	204.70'
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NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION

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PREPARED FOR:  
**JONATHAN LEVI ARCHITECTS**  
256 Beacon St.  
Boston, MA 02116

816 ADDRESS:  
**"SOULE EARLY CHILDHOOD CENTER"**  
652 HAMMOND STREET  
BROOKLINE, MA

PLAN TITLE:  
**TOPOGRAPHIC PLAN OF LAND**

DATE: 2/7/17  
SCALE: 1"=20'  
DESIGN BY: T.V.A.  
DRAWN BY: CMC  
CHECK BY: JDB  
DWG#: 20276-EC-500CER.dwg  
LAYOUT: EC (2)  
SHEET: 1 OF 1  
**TO-1**  
PROJECT NO.: 20276





#### 4.2 Geotechnical Engineering Data Report



GEOTECHNICAL ENGINEERING DATA  
REPORT

PROPOSED ELEMENTARY SCHOOL  
BROOKLINE, MASSACHUSETTS

FEBRUARY 15, 2017

Prepared For:

Jonathan Levi Architects  
266 Beacon Street  
Boston, MA 02116

2269 Massachusetts Avenue  
Cambridge, MA 02140  
www.mcphailgeo.com  
(617) 868-1420

PROJECT NO. 6303



February 15, 2017

Jonathan Levi Architects  
266 Beacon Street  
Boston, MA 02116

Attention: Mr. Philip Gray

Reference: Proposed Elementary School; Brookline, Massachusetts  
Geotechnical Engineering Data Report

Ladies and Gentlemen:

This letter documents the results of our subsurface exploration program and geotechnical engineering data report for the proposed elementary school to be located in Brookline, Massachusetts. Refer to Figure 1 for the general site location.

This letter was prepared in accordance with our proposal for preliminary geotechnical engineering services dated November 30, 2016 and the subsequent authorization of Jonathan Levi Architects. These services are subject to the limitations contained in Appendix A.

#### Available Information

Available information provided to McPhail Associates, LLC (McPhail) included a 20-scale drawing entitled, "Existing Conditions Plan of Land" (Baldwin Site Plan) dated February 3, 2017 and prepared by Hancock Associates; and a 20-scale drawing entitled, "Existing Conditions Plan Soule Playground" (Soule Site Plan) dated March 11, 1996 and prepared by the Town of Brookline Department of Public Works.

Elevations as referenced herein are in feet and are understood to refer to the Brookline Sewer Datum.

#### Existing Conditions and Proposed Site Development

The proposed project site consists of two sites, the Baldwin Site which is currently owned by the Brookline School Department and the Soule Recreation Center Site which is owned by the Brookline Parks and Recreation Department.

The Baldwin Site fronts onto Heath Street to the north, Oak Street to the west and currently includes the existing Baldwin School, playground areas, tennis/basketball court, paved roadways and lightly wooded areas. Bedrock outcrops were observed at various locations throughout the site. The existing ground surface generally slopes downward from north to south across the site ranging from about Elevation +214 just north of the existing school building to about Elevation +183 within the tennis/basketball court.



The Soule Site is located south of the Baldwin Site and extends from Hammond Street to the west to Heath Street to the east. The site contains playing fields, parking lots, associated structures and lightly wooded areas. The existing ground surface generally slopes upward from southwest to northeast across the site from about Elevation +175 along Hammond Street to about Elevation +217 along Heath Street. It is noted that the topography is highly variable within the site with isolated knolls extending as high as Elevation +225 and Elevation +230.

The currently proposed project scope for the Baldwin Site includes the construction of a new 800 student elementary school structure with a gross square footage of approximately 150,000 square feet. It is understood that a new surface parking lot associated with the proposed school is planned to be located within the northeastern portion of the Soule Site.

### Investigation Procedures

On January 9 and 10, 2017, eight (8) borings were completed at the site by Carr-Dee Corp. (Carr-Dee) of Medford, Massachusetts under contract to McPhail. The approximate boring locations are indicated on the enclosed Figure 2A and Figure 2B. Please note that boring locations B-2 and B-5 were not accessible at the time of our subsurface exploration program; thus, borings were not performed at these locations.

The borings were performed at both the Baldwin and Soule sites to assess the subsurface soil and groundwater conditions at the site as they relate to foundation design and construction. The borings were performed utilizing truck-mounted and ATV-mounted drilling equipment and advanced using hollow-stem augers. Standard 2-inch O.D. split-spoon samples and standard penetration tests (SPT) were obtained in general accordance with the procedures described in ASTM D1586. With the exception of boring B-10, the borings were terminated within a natural glacial till deposit or weathered bedrock at depths ranging from about 1.6 to 16.5 feet below the existing ground surface. Boring B-10 was attempted at two locations and encountered refusal on what was believed to be obstructions in the fill deposit at depths of about 3.3 and 2.6 feet. Boring logs prepared by Carr-Dee are presented in Appendix B following the text of this report.

The explorations were monitored by a McPhail representative who performed field layout; prepared field logs; obtained and visually classified soil samples; monitored groundwater conditions in the completed boreholes; made minor relocations of the explorations; and determined the required exploration depths based upon the actual subsurface conditions encountered.

The existing conditions plans for the Baldwin and Soule sites were not available to us prior to our subsurface exploration program. Thus, the boring locations indicated on Figure 2A and Figure 2B should be considered approximate.



## Subsurface Conditions

Detailed descriptions of the subsurface conditions encountered at the boring locations are presented on the exploration logs contained in Appendix B. The generalized subsurface conditions across the site were inferred primarily from the subsurface explorations, but also from our general knowledge of the local geology based on our foundation design and construction experience in the area. The subsurface conditions encountered in the explorations are described below.

At borings B-1 and B-8, an approximate 6-inch and 2-inch thickness, respectively, of asphalt was encountered directly beneath the existing ground surface. At borings B-3, B-4, B-6, and B-10, an approximate 1 to 2-foot thickness of topsoil was encountered directly beneath the existing ground surface.

Underlying the topsoil at B-4 and the fill deposit at B-1, an approximate 1-foot thickness of subsoil was encountered. The subsoil generally consists of a loose to compact, orange-brown silt and sand with a trace of organic material.

Underlying the surface treatments, subsoil, or directly beneath the ground surface at borings B-1, B-7, B-8, B-9, and B-10, a fill deposit was encountered that generally consists of a very loose to compact, dark brown to gray, sand and gravel with some silt and containing trace amounts of brick, mortar, ash, and cinders. With the exception of boring B-10, the fill was observed to extend to depths ranging from about 1.5 to 6.5 feet below the existing ground surface. The fill deposit was not penetrated at boring B-10 due to the presence of below-grade obstructions.

With the exception of borings B-6 and B-10, a natural glacial till deposit was encountered underlying the surface treatments, subsoil, or fill deposit. The surface of the glacial till deposit was generally encountered at depths ranging from about 1.5 to 6.5 feet below the existing ground surface. In general, the glacial till deposit consists of a very dense, gray to gray-brown well-graded mixture of silt and sand and gravel with cobbles.

With the exception of boring B-3, the borings were advanced to split-spoon and/or auger refusal at depths ranging from about 1.7 to 11.9 feet below the existing ground surface. With the exception of boring B-10, refusal of the drilling equipment was believed to have occurred on the bedrock surface, but may have been due to boulders within the glacial till deposit. At boring B-1, refusal of the drilling equipment was believed to have been caused by subsurface obstructions within the fill deposit. Published United States Geological Survey (USGS) bedrock maps for the general area of the site indicate that bedrock consists of Roxbury Conglomerate. Bedrock outcrops consisting of Roxbury Conglomerate were observed at various locations throughout the site.

Groundwater was observed during drilling in boreholes B-3 and B-4 at depths of about 14 and 8 feet below the existing ground surface, respectively. Due to the relatively impervious nature of the glacial till deposit and underlying bedrock, groundwater at the site is



considered to be “perched” on the surface of the glacial till deposit and/or bedrock during and after precipitation events.

It is anticipated that future groundwater levels across the project site may vary from those reported herein based on such factors such as normal seasonal changes, runoff during or following periods of heavy precipitation, and alterations to existing drainage patterns.

### Preliminary Foundation Design Recommendations

Based on our understanding of the proposed construction and on the subsurface conditions encountered at the site, it is recommended that the proposed school building be supported on conventional spread footing foundations in conjunction with a soil-supported slab-on-grade. The foundations should bear directly on the undisturbed glacial till deposit or underlying bedrock utilizing a maximum design bearing pressure of 4 tons per square foot.

Soil-supported perimeter foundations should be provided with a minimum 4-foot thickness of soil cover as frost protection. Bedrock-supported perimeter footings may be founded 2 feet below exterior grades and should be provided with a 6-inch thick cushion of compacted 3/4-inch crushed stone placed directly over the bedrock surface. Interior foundations should be located such that the top of the foundation concrete is a minimum of 6 inches below the underside of the lowest level slab.

It is recommended that the portions of the proposed school building extending below the adjacent exterior grades be provided with perimeter and underslab drainage in order to protect against intrusion of groundwater that may become temporarily “perched” on the surface of the glacial till deposit and/or bedrock during precipitation events.

Depending upon the location of the proposed school building and the elevation of the lowest level floor slab, bedrock excavation may be required for construction of footings, slabs-on-grade and utilities. Based on the extent of the bedrock excavation and the quality of the bedrock, shallow rock excavation may be feasible using mechanical means such as conventional excavating equipment, a hoe ram, or a combination of a hoe ram and line drilling. Where bedrock removal cannot be accomplished using mechanical means, it is recommended that controlled blasting techniques be employed to limit the depth of overblast below the proposed finished grades or foundation elevations, to minimize the potential of damage to adjacent structures due to vibration, and to create a uniform exposed rock cut face.

### Final Comments

Based on our current understanding of the project scope, a final subsurface exploration program will need to be conducted to obtain supplemental geotechnical information for final foundation design and for foundation pricing by potential Contractors. In addition, a final foundation engineering report should be prepared in conjunction with the final subsurface



Jonathan Levi Architects  
February 15, 2017  
Page 5

exploration program which provides final foundation recommendations and construction considerations for the proposed school building.

It is recommended that McPhail be retained to provide design assistance to the design team during the final design phase of this project. The purpose of this involvement would be to review the structural foundation drawings and foundation notes for conformance with the recommendations presented herein and to generate the earthwork and aggregate pier specification sections for inclusion into the Contract Documents for construction.

We trust that the above is sufficient for your present requirements. Should you have any questions concerning the recommendations presented herein, please do not hesitate to call us.

Very truly yours,

McPHAIL ASSOCIATES, LLC

A handwritten signature in blue ink, appearing to read "Scott S. Smith".

Scott S. Smith, P.E.

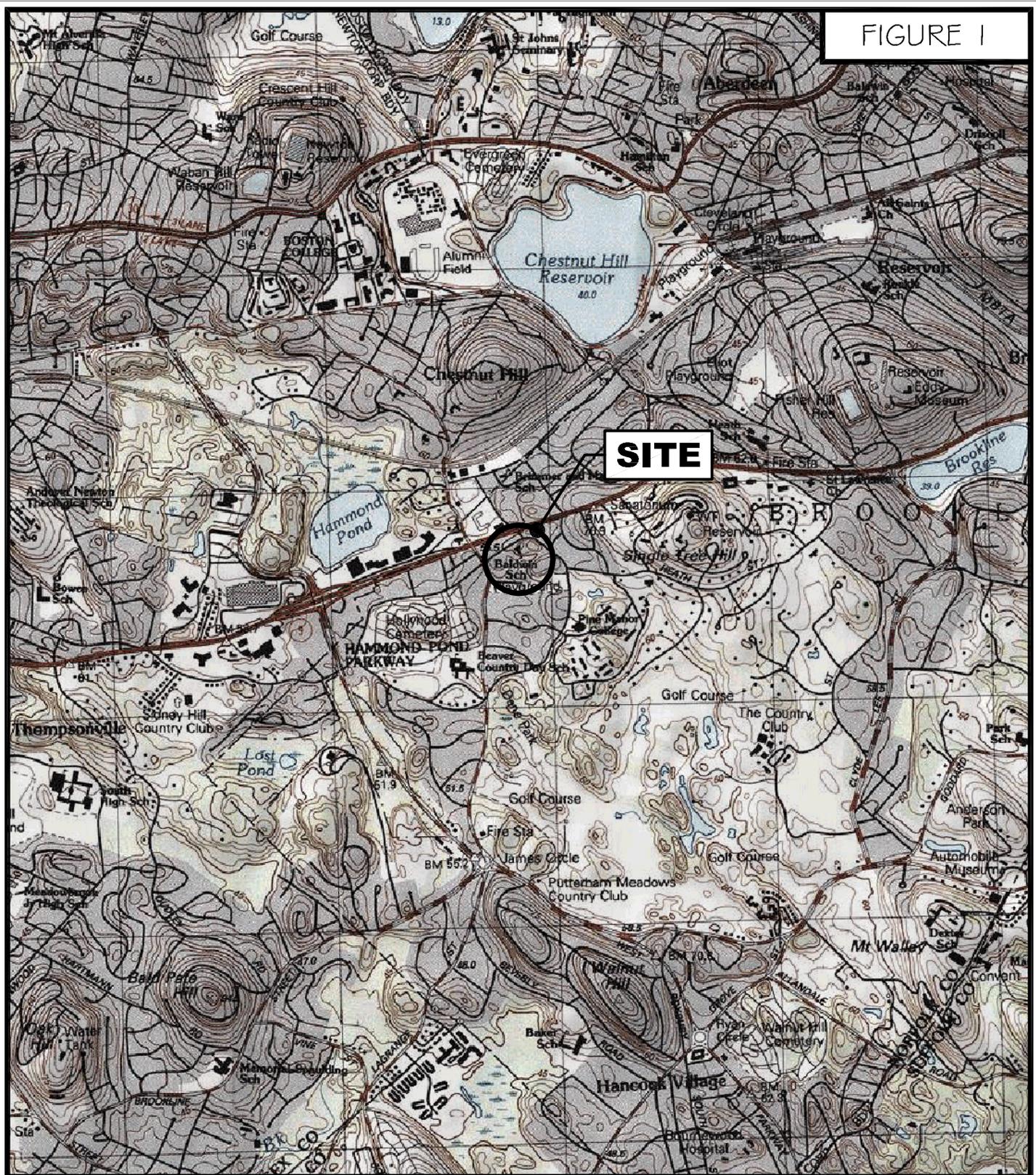
A handwritten signature in blue ink, appearing to read "Chris M. Erikson".

Chris M. Erikson, P.E.

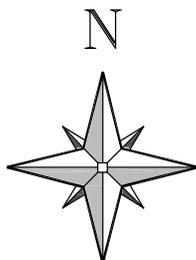
SSS/cme

N:\Working Documents\Reports\6303 GDR 021517.docx

FIGURE I



Geotechnical and  
 Geoenvironmental Engineers  
 2269 Massachusetts Avenue  
 Cambridge, MA 02140  
 617/868-1420  
 617/868-1423 (Fax)  
 www.mcphailgeo.com



SCALE 1:25,000

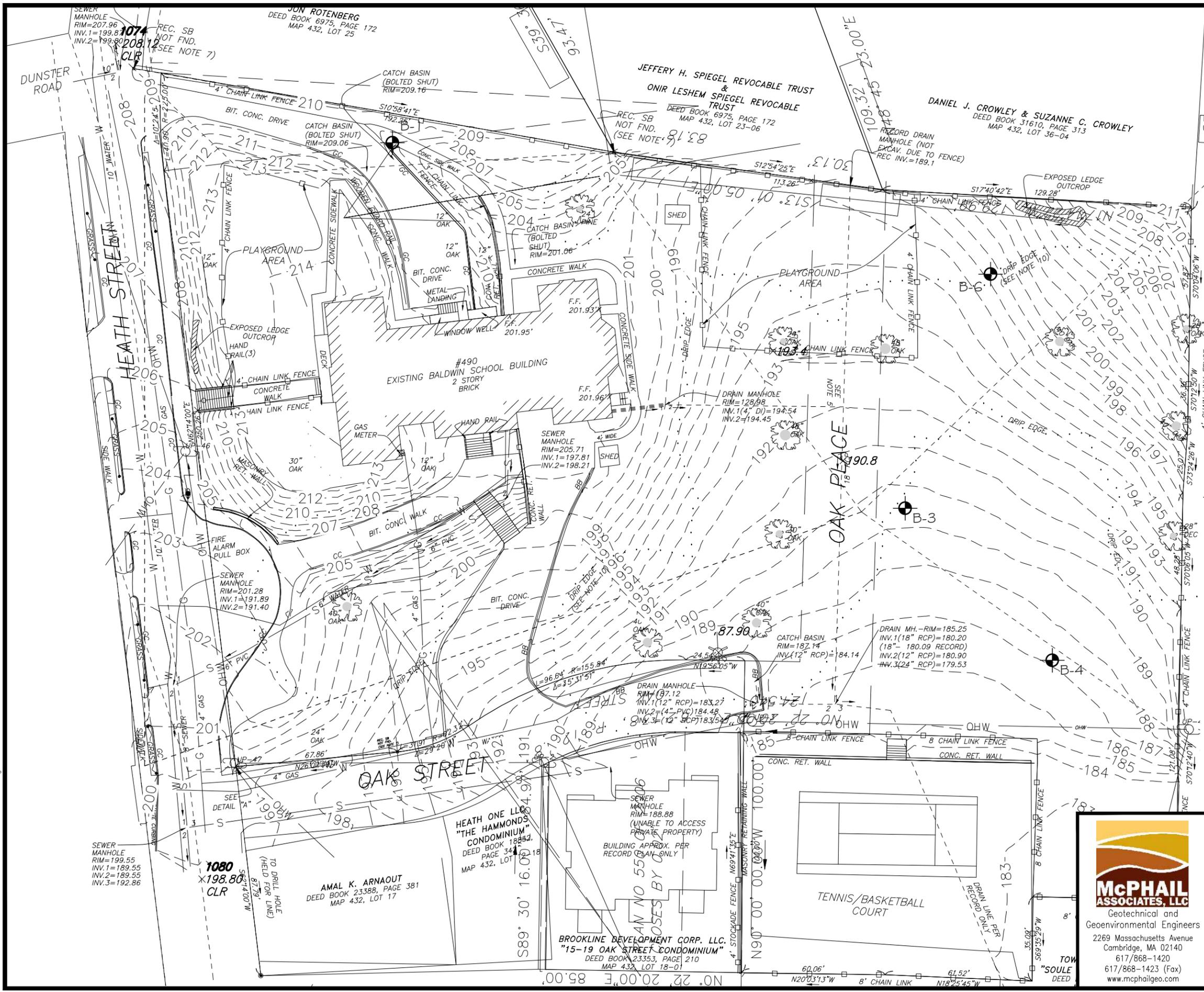
# PROJECT LOCATION PLAN

## PROPOSED ELEMENTARY SCHOOL

BROOKLINE

MASSACHUSETTS

FIGURE 2A



**LEGEND**  
 — APPROXIMATE LOCATION OF BORING PERFORMED BY CARR-DEE CORP ON JANUARY 9 AND 10, 2017 FOR McPHAIL ASSOCIATES, LLC

REFERENCE: THIS PLAN WAS PREPARED FROM A 20-SCALE DRAWING ENTITLED "EXISTING CONDITIONS PLAN OF LAND" DATED JANUARY 19, 2016 BY HANCOCK ASSOCIATES.




**McPHAIL ASSOCIATES, LLC**  
 Geotechnical and Geoenvironmental Engineers  
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 Cambridge, MA 02140  
 617/868-1420  
 617/868-1423 (Fax)  
 www.mcphailgeo.com

PROPOSED ELEMENTARY SCHOOL	
BROOKLINE	MASSACHUSETTS
SUBSURFACE EXPLORATION PLAN	
FOR	
JONATHAN LEVI ARCHITECTS	
BY	
McPHAIL ASSOCIATES, LLC	
Date: FEBRUARY 2017	Dwn: F.G.P. Chkd: S.S.S.
Project No: G303	Scale: 1" = 40'

FILE NAME: N:\Acad\JOBS\G303\G303-FO2A.dwg

FIGURE 2B



LEGEND

 — APPROXIMATE LOCATION OF BORING PERFORMED BY CARR-DEE CORP ON JANUARY 9 AND 10, 2017 FOR McPHAIL ASSOCIATES, LLC

REFERENCE: THIS PLAN WAS PREPARED FROM A 20-SCALE DRAWING ENTITLED "EXISTING CONDITIONS PLAN" DATED MARCH 11, 1996 BY TOWN OF BROOKLINE DEPARTMENT OF PUBLIC WORKS.

GRAPHIC SCALE



FILE NAME: N:\Acad\JOBS\G303\G303-FO2B.dwg



Geotechnical and  
Geoenvironmental Engineers  
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617/868-1423 (Fax)  
www.mcphailgeo.com

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Project No:	G303		



APPENDIX A:  
LIMITATIONS



## LIMITATIONS

This preliminary report has been prepared on behalf of and for the exclusive use of Jonathan Levi Architects for specific application to the proposed school building to be located in Brookline, Massachusetts in accordance with generally accepted soil and geotechnical engineering practices. No other warranty, expressed or implied, is made.

In the event that any changes in nature or design of the proposed construction are planned, the conclusions and preliminary recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing by McPhail Associates, LLC.

The analyses and preliminary recommendations presented in this report are based upon the data obtained from the subsurface explorations performed at the approximate locations indicated on the enclosed plan. If variations in the nature and extent of subsurface conditions between the widely spaced explorations become evident during the course of construction, it will be necessary for a re-evaluation of the recommendations of this report to be made after performing on-site observations during the construction period and noting the characteristics of any variations.



APPENDIX B:

CARR-DEE CORP.'S  
BORING LOGS B-1 THROUGH B-10

# CARR-DEE CORP.

37 LINDEN STREET

MEDFORD, MA 02155-0001

Telephone (781) 391-4500

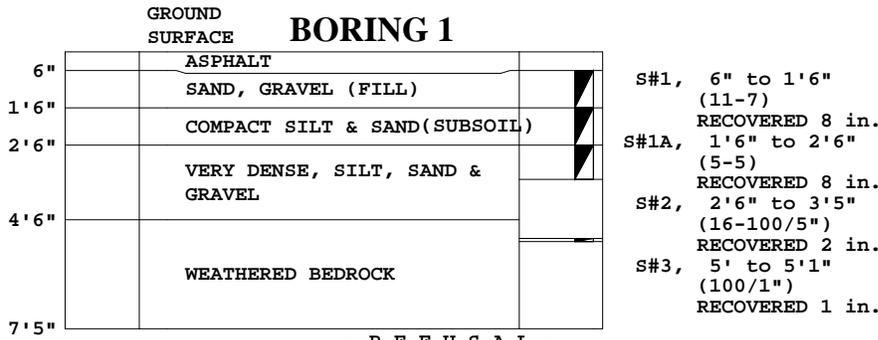
To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA

Date: 1-11-2017

Job No.: 2016-208

Location: BALDWIN SCHOOL & PLAYGROUND, BROOKLINE, MA

Scale: 1 in. = 5 ft.



- R E F U S A L -  
 (NO PENETRATION WITH AUGERS)  
 NO WATER ENCOUNTERED  
 SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 7'5"  
 DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN  
 DATE STARTED & COMPLETED: 1-9-2017

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

# CARR-DEE CORP.

37 LINDEN STREET

MEDFORD, MA 02155-0001

Telephone (781) 391-4500

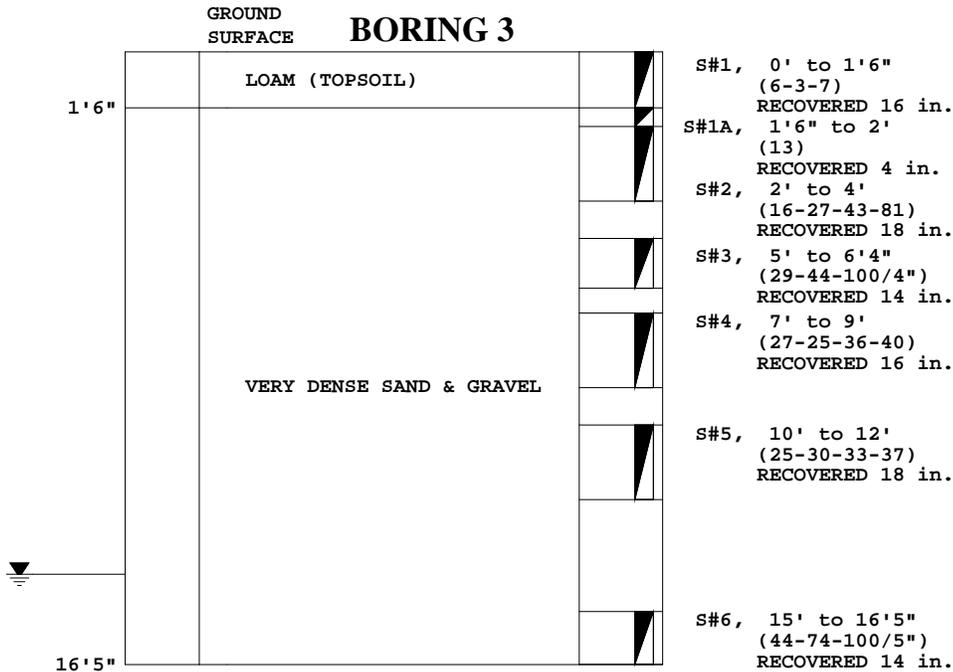
To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA

Date: 1-11-2017

Job No.: 2016-208

Location: BALDWIN SCHOOL & PLAYGROUND, BROOKLINE, MA

Scale: 1 in. = 5 ft.



SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 15'0"  
 DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN  
 DATE STARTED & COMPLETED: 1-10-2017

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

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Telephone (781) 391-4500

To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA

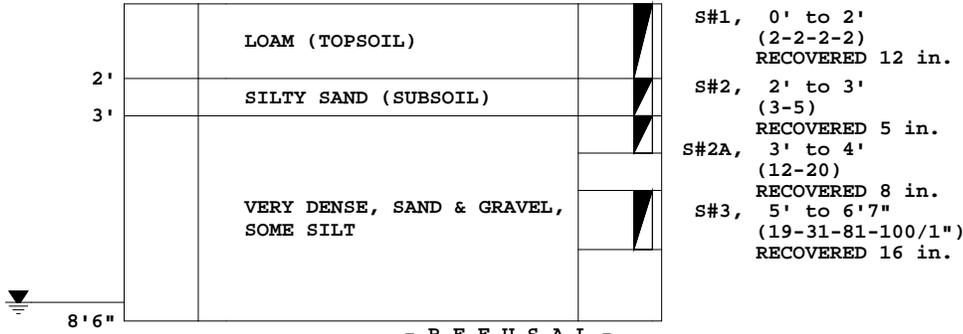
Date: 1-11-2017

Job No.: 2016-208

Location: BALDWIN SCHOOL & PLAYGROUND, BROOKLINE, MA

Scale: 1 in. = 5 ft.

## GROUND SURFACE BORING 4



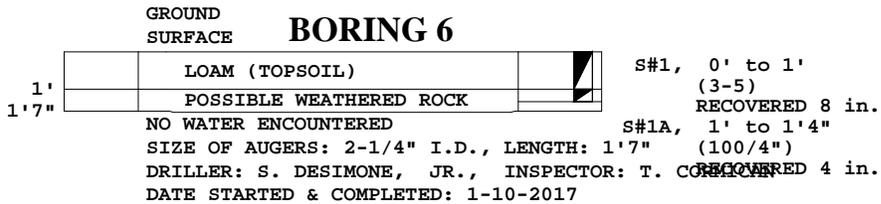
(100 BLOWS 2" S.S., 140 LB. WGT., NO PENETRATION)

WATER LEVEL 8'  
 SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 8'6"  
 DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN  
 DATE STARTED & COMPLETED: 1-10-2017

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

# CARR-DEE CORP.

37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500  
 To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 1-11-2017 Job No.: 2016-208  
 Location: BALDWIN SCHOOL & PLAYGROUND, BROOKLINE, MA Scale: 1 in.= 5 ft.



All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

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37 LINDEN STREET

MEDFORD, MA 02155-0001

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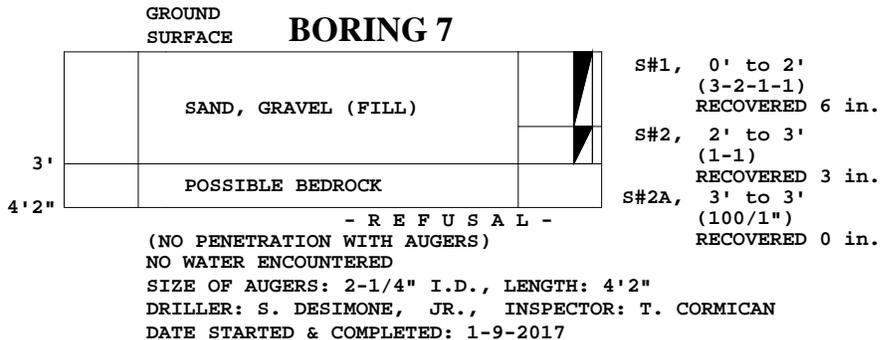
To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA

Date: 1-11-2017

Job No.: 2016-208

Location: BALDWIN SCHOOL & PLAYGROUND, BROOKLINE, MA

Scale: 1 in. = 5 ft.



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37 LINDEN STREET

MEDFORD, MA 02155-0001

Telephone (781) 391-4500

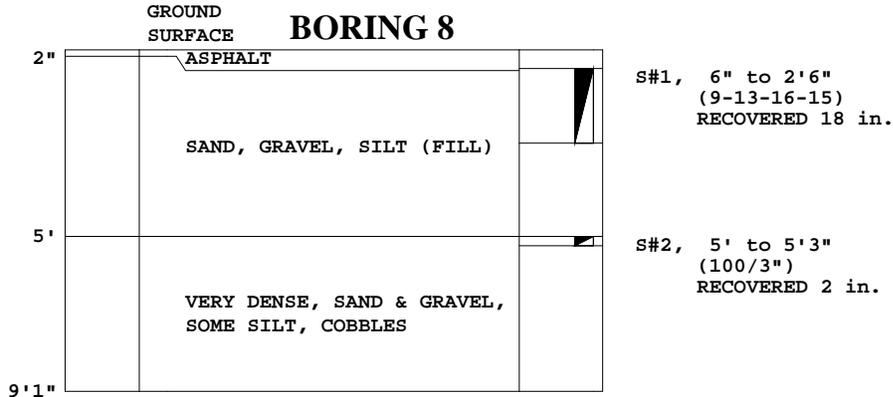
To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA

Date: 1-11-2017

Job No.: 2016-208

Location: BALDWIN SCHOOL & PLAYGROUND, BROOKLINE, MA

Scale: 1 in. = 5 ft.



- R E F U S A L -  
(100 BLOWS, 2" S.S., 140 LB. WGT., NO PENETRATION)  
NO WATER ENCOUNTERED  
SIZE OF AUGERS: 2-1/4" I.D., LENGTH: 9'1"  
DRILLER: S. DESIMONE, JR., INSPECTOR: T. CORMICAN  
DATE STARTED & COMPLETED: 1-9-2017

All samples have been visually classified by . Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

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MEDFORD, MA 02155-0001

Telephone (781) 391-4500

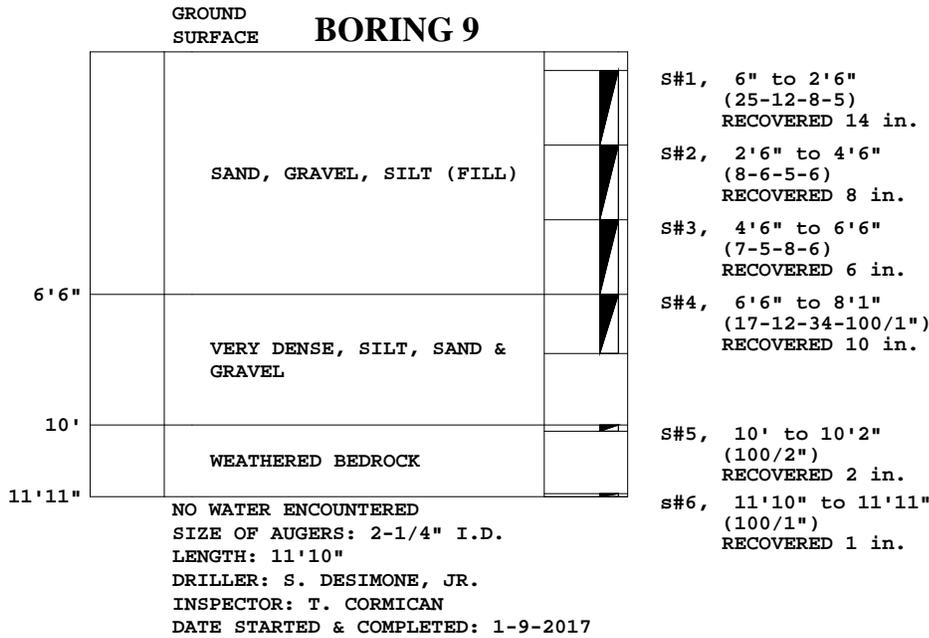
To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA

Date: 1-11-2017

Job No.: 2016-208

Location: BALDWIN SCHOOL & PLAYGROUND, BROOKLINE, MA

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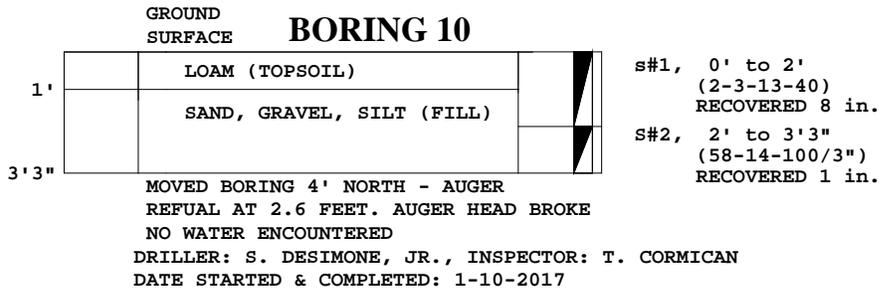
To: MCPHAIL ASSOC., LLC, 2269 MASS. AVE., CAMBRIDGE, MA

Date: 1-11-2017

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Scale: 1 in. = 5 ft.



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#### 4.3 Environmental Site Assessment



**ENGINEERS & ENVIRONMENTAL PROFESSIONALS**

**PHASE I ENVIRONMENTAL SITE ASSESSMENT  
490 HEATH STREET AND 652 HAMMOND STREET  
THE BALDWIN SCHOOL AND SOULE RECREATION CENTER  
BROOKLINE, MASSACHUSETTS**

Prepared For:  
Jonathan Levi Architects  
266 Beacon Street  
Boston, MA 02116

EndPoint Project 2475-001  
February 7, 2017

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Londonderry, NH 03053  
P: 603-965-3810

101 Summer Street  
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225 Cedar Hill Street, Suite 200  
Marlborough, MA 01752  
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EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



## **FIGURES**

**Figure 1      Site Locus**

**Figure 2      Site Plan**

## **APPENDICES**

**Appendix A    Qualifications**

**Appendix B    Limitations, Terms, Conditions, and User Reliance**

**Appendix C    References**

**Appendix D    Photographs**

**Appendix E    Town Office Provided Documents**

**Appendix F    Search Report of Standard Environmental Record Sources**

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**PHASE I ENVIRONMENTAL SITE ASSESSMENT  
484 HEATH ST. AND 652 HAMMOND ST.  
BROOKLINE, MASSACHUSETTS**

**EXECUTIVE SUMMARY**

EndPoint, LLC (EndPoint), on behalf of Jonathan Levi Architects (the Client), conducted a Phase I Environmental Site Assessment (ESA) of properties located at 484 Heath Street and 652 Hammond Street in the Chestnut Hill neighborhood of Brookline, MA (the Subject Property). The ESA was conducted in accordance with the scope and limitations described in EndPoint Proposal 2475-001, which includes reference to American Society of Testing Materials (ASTM) Designations E1527-13 and E2600-10 regarding Phase I ESA and Vapor Encroachment Screening (VES), respectively. Limitations associated with this ESA are described in the **Limitations** section of this report.

For the purpose of keeping information clear and to avoid any confusion, the two properties that are considered “The Subject Property” will be discussed throughout this report as two separate entities, the Baldwin School (Baldwin), which includes 484 and 490 Heath Street, and the Soule Recreation Center (Soule), which includes 650, 652, and 654 Hammond Street.

Baldwin consists of one parcel of land totaling approximately 2.70 acres (ac) identified by the Brookline Tax Assessor’s Parcel 432-02-24 (Block 432, Lot 02, Sub lot 24) and is improved by a single 10,617 square feet (sf) building. The building is a two-story school constructed in 1927, and is located along the northern portion of the property. The remainder of the property consists of asphalt-paved parking and travel ways, as well as grassed recreational space. Soule consists of one parcel of land totaling approximately 9.61 ac identified by the Brookline Tax Assessor’s Parcel 432-08-00 (Block 432, Lot 08, Sub lot 00) and is improved by three buildings; a single-story environmental education building constructed in 1970 and located towards the western portion of the property, a 1½-story gymnasium constructed in 1970, and a three-story school building constructed in 1942, with a total area of 12,653 sf. The gymnasium and the school are centrally located on the property, and are surrounded by asphalt- and concrete-paved parking and travel ways, as well as grassed recreational space. Both properties are currently owned by the Town of Brookline. The surrounding area is primarily residential. This ESA has revealed one REC in connection with the Baldwin School:

---

**New Hampshire Office**  
25 Buttrick Road, Unit D-2  
Londonderry, NH 03053  
P:603-965-3810  
F:603-965-3827

**Boston Office**  
101 Summer Street  
Boston, MA 02110  
P:617-307-5058  
F:617-439-0325

**Marlborough Office**  
225 Cedar Hill Street, Suite 200  
Marlborough, MA 01752  
P: 508-630-2231  
F: 508-630-2101

- The presence of a 5,000-gallon #2 Fuel Oil tank, which is located in a room adjacent to the boiler room, within a block enclosure at the Baldwin School. The tank is also completely covered by sand and unable to be visually inspected, and is therefore considered an underground storage tank (UST). As a result of being buried and within an enclosure, EndPoint was unable to visually assess the tank or the surrounding floor. Documentation pertaining to the age and condition of the tank was unavailable at the time of this report. As a result, the 5,000-gallon #2 Fuel Oil UST on the Subject Property, which is not abandoned and is reportedly still used for at least one week each year, is considered an REC. (See Section **1.3 Limiting Conditions and Data Gaps.**)

## 1.0 INTRODUCTION

EndPoint, LLC (EndPoint), on behalf of Jonathan Levi Architects (the Client), conducted a Phase I Environmental Site Assessment (ESA) of properties located at 484 Heath Street and 652 Hammond Street in the Chestnut Hill neighborhood of Brookline, MA (the Subject Property). The Site Locus and Site Plan are illustrated, respectively, in **Figure 1** and **Figure 2**. EndPoint conducted this ESA in accordance with the scope and limitations described in EndPoint Proposal 2475-001, which includes reference to American Society of Testing Materials (ASTM) Designations E1527-13 and E2600-10 regarding Phase I ESA and Vapor Encroachment Screening (VES), respectively.

### 1.1 PURPOSE

The purpose of this ESA was to identify whether Recognized Environmental Conditions (RECs) and Vapor Encroachment Concerns (VECs) are associated with the Subject Property in accordance with the following definitions per ASTM Designations E1527-13 or E2600-10:

- REC means “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.” By contrast, a REC is not a *de minimis* condition, which is defined as “a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.”
- Historical REC or HREC means “a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.”
- Controlled REC or CREC means a REC “resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority..., with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.”

- VEC means “the presence or likely presence of chemicals of concern (COC) vapors in the subsurface of the [Subject Property] caused by the release of vapors from contaminated soil or groundwater or both either on or near the [Subject Property] as identified by Tier I or Tier 2 procedures....”

## 1.2 METHODOLOGY

This ESA consisted of a Phase I ESA conducted in accordance with ASTM Designation E1527-13 and a Tier I Vapor Encroachment Screen (VES) conducted in accordance with ASTM Designation E2600-10. EndPoint personnel working under the supervision of an Environmental Professional, as defined in Title 40 Section 312.10 of the Code of Federal Regulations (40 CFR 312.10), performed the component parts of this ESA; the qualifications of EndPoint personnel involved with this ESA are included in **Appendix A**.

## 1.3 LIMITING CONDITIONS AND DATA GAPS

This report, including conclusions and recommendations herein, is subject to the limitations presented in **Appendix B**. This ESA, including the term “Phase I” and “investigation” used herein, is independent of and nonequivalent to similar assessment and terms under the Massachusetts Contingency Plan (MCP). This ESA contains no material deviations from ASTM E1527-13 and ASTM E2600-10, no material exceptions to customary industry practice for subsurface investigations, and no Phase I ESA data gaps, except:

### *LIMITING CONDITIONS*

- EndPoint gathered information to complete this ESA from various sources listed in the **Appendix C** section of this report, and presumes such information to be correct and complete; EndPoint is not responsible for the quality or content of such information.
- The inclusion herein of a VES investigation is an addition to ASTM E1527-13.
- Target distance limits for vapor screening were adjusted using the “Buonicore Methodology for Identifying the Areas of Concern Around a Property Potentially Impacted by Vapor Migration from Nearby Contaminated Sources,” dated June 2011, which is a deviation from ASTM E2600-10.

### *DATA GAPS*

The User Questionnaire was not completed by the Client, who is the User of this Phase I ESA. This does not represent a significant data gap because other information gathered appears reasonably sufficient to identify RECs.

There were, however, a number of significant data gaps identified during this Phase I Environmental Site Assessment, and are as follows:

- The Town's Building Department was unable to locate their file for the Baldwin School property; therefore, EndPoint was unable to review said documentation, including any permits issued, significant renovations, and potentially the installation of the 5,000-gallon #2 Fuel Oil UST; and
- The Town's Fire Department did not have any documentation on the installation or maintenance of the Baldwin School's 5,000-gallon #2 Fuel Oil UST.

These are considered significant data gaps which contribute to the Baldwin School's 5,000-gallon #2 Fuel Oil UST being an REC.

## **2.0 RECONNAISSANCE**

EndPoint personnel performed reconnaissance of the Subject Property, adjoining properties, and surrounding area on December 27 and 28, 2016. Interior and exterior areas of the Subject Property were systematically traversed on foot; the adjoining properties and surrounding area were observed from the Subject Property, public thoroughfares, and satellite imagery. Access to the Baldwin School was provided by a member of the custodial and maintenance staff, Mr. James Hennessey. Access to the Soule Recreation Center buildings was provided by the Town's Resource Manager, Mr. Jesse Myott. Photographs taken during reconnaissance are presented in **Appendix D**. The following subsections describe EndPoint's observations made during reconnaissance supplemented, where applicable and for reader convenience, with related information obtained during interviews and records review.

## 2.1 SUBJECT PROPERTY LOCATION AND CURRENT USE

The Subject Property includes two separate plots of land, the Baldwin School and the Soule Recreation Center. Baldwin consists of one parcel of land totaling approximately 2.70 acres (ac) identified by the Brookline Tax Assessor's Parcel 432-02-24 (Block 432, Lot 02, sub lot 24) and is improved by a single 10,617 square feet (sf) building. The building is a two-story school building constructed in 1927, and is located along the northern portion of the property, atop of a hill, which slopes moderately in the southwest direction. The remainder of the property consists of asphalt-paved parking and travel ways, as well as grassed recreational space. Soule consists of one parcel of land totaling approximately 9.61 ac identified by the Brookline Tax Assessor's Parcel 432-08-00 (Block 432, Lot 08, Sub lot 00) and is improved by three buildings; a single-story environmental education building constructed in 1970 and located towards the western portion of the property, a 1½-story gymnasium constructed in 1970, and a three-story school building constructed in 1942, with a total area of 12,653 sf. The gymnasium and the school are centrally located on the property, and are surrounded by asphalt- and concrete-paved parking and travel ways, as well as grassed recreational space, a sports field, and multiple playgrounds. The slope of the Soule property is relatively flat, with the exception of the gymnasium, which slopes more moderately to the southwest. Both properties are currently owned by the Town of Brookline and its use is primarily institutional and recreational in nature with the following improvements:

### *Baldwin*

- The approximately 10,617 square-foot, two-story school building constructed in 1927, heating with both natural gas and #2 Fuel Oil. The exterior is primarily constructed with brick. It has a concrete foundation that appeared to be in good condition. The building basement has a partial, unfinished crawl space under the northernmost portion, which houses the building's plumbing and electrical conduit.
- The Baldwin property also has two wooden storage sheds, located southwest and southeast of the school building, which are used to store the school's recreational equipment, toys, and games for the students.
- The buildings are also surrounded by asphalt-paved parking and travel ways, as well as grassed recreational areas, and a recreational court (tennis/ basketball).

The Subject Property is bound to the north by Heath Street, beyond which are residential properties with some commercial properties (jeweler, coffee shop, convenience stores), Boylston Street, and the Longwood Cricket

Club; to the west is Oak Street, multifamily residential properties, and Hammond Street, beyond which are more residential properties with some commercial properties (auto repair, cleaner, banks, restaurants); to the south is the Soule Recreation Center; and to the east is a primarily residential neighborhood including Heath Street, Cary Road and Randolph Road.

### *Soule*

- An approximately 810 square-foot, single-story environmental education building constructed in 1970. The building is heated with natural gas via forced hot air, and is located towards the western portion of the property. The exterior of the building is a mix of stucco, metal, and wood, with a slab on grade foundation.
- An approximately 3,564 square-foot, 2-story gymnasium constructed in 1970. The building is heated with natural gas via space heaters, and is centrally located on the property. The exterior of the building is concrete blocks, with a concrete block foundation.
- An approximately 8,280 square-foot, three-story school building constructed in 1942. The building is heated with natural gas via a steam heating system, and is centrally located on the property. The exterior of the building is a mix of stone, wood, and stucco, with a stone foundation.
- The Soule property also has two wooden storage sheds. The shed associated with the environmental education building is used to store gardening equipment, but was observed to be empty at the time of the site visit. The shed associated with the gymnasium building is used to store several propane grills and some tables and chairs.
- The buildings are surrounded by asphalt- and concrete-paved parking and travel ways, as well as grassed recreational space, a sports field, and multiple playgrounds.

The Subject Property is bound to the north by the Baldwin School and several residential properties; to the west is Hammond Street, beyond which are residential properties and the Holyhood Cemetery; to the south is a primarily residential neighborhood including Pine Road and Glenoe Road; and to the east is primarily residential along Woodland Road and Heath Street, with some recreational space. Kings Colleges, Pine Manor College, and the Dane Estate also present to the east of the Subject Property.

### **2.1.1 Hazardous Substances and Petroleum Products**

#### *Baldwin*

EndPoint surveyed the Subject Property for indications of hazardous substances and petroleum products (e.g., drums, containers, stressed vegetation, stains, sheen, manufacturing activities), and observed none except relatively small quantities of typical janitorial and home cleaning supplies stored in original containers that were closed and stored in maintenance storage rooms and closets/cabinets of the residential units. The school's boiler room was found to have various cleaning supplies, floor wax and strippers, and paint cans stored on the floor or on pallets in several areas. The containers were observed to be in good condition with no signs of leaks or spills; however floor drains were observed in the area, which are believed to connect to the sanitary sewer system. An art storage closet with painting supplies (in good condition) and a shop sink were observed in the basement level. A locked corrosive cabinet was observed in the science classroom, but showed no signs of leaks or staining. No evidence of a release from any of the aforementioned areas was observed.

#### *Soule*

EndPoint surveyed the Subject Property for indications of hazardous substances and petroleum products (e.g., drums, containers, stressed vegetation, stains, sheen, manufacturing activities), and observed none except relatively small quantities of typical janitorial cleaning supplies stored in original containers that were closed and stored beneath sinks, and in maintenance storage rooms and closets/cabinets of the three buildings. Several storage areas for painting and arts and crafts supplies were observed in the Early Childhood Education Center building. Materials were observed to be in their original containers with no leaks noted. No evidence of a release from any of the aforementioned areas was observed.

### **2.1.2 Aboveground Storage Tanks**

#### *Baldwin*

EndPoint surveyed the Subject Property for indications of aboveground storage tanks or ASTs (e.g., pavement bolts, generators, reservoirs). A fill port, vent, and emergency shut off and alarm (visual and audible) were observed on the exterior of the building, along with the signage "Fuel Oil Fill" and a hand-painted note of "5,000" denoting the tanks capacity in gallons. The tank itself was located within the boiler room behind a concrete block wall. Upon further inspection it was noted that the tank was between 90%-100% buried by sand; therefore, the

tank is technically considered an underground storage tank (UST) and will be discussed further below. No other ASTs were observed at the property.

#### *Soule*

EndPoint surveyed the Subject Property for indications of aboveground storage tanks or ASTs (e.g., pavement bolts, generators, reservoirs). Two approximately 100-120-gallon propane tanks were observed within a fenced area adjacent to the Environmental Science building. Tanks were observed to be in good condition with no signs of leaks or spills. No other ASTs were observed at the property.

### **2.1.3 Underground Storage Tanks**

#### *Baldwin*

EndPoint surveyed the Subject Property for indications of underground storage tanks or USTs (e.g., vent piping, dispensing equipment, fill ports, pavement variations). As mentioned under **Section 2.1.2**, a fill port, vent, and emergency shut off and alarm (visual and audible) were observed on the exterior of the building, along with the signage “Fuel Oil Fill” and a hand-painted note of “5,000” denoting the tanks capacity in gallons. A tank, which was observed to be nearly 100% buried by sand, is located within the boiler room behind a concrete block wall. While the building is heating using natural gas, the #2 heating oil tank is maintained and used a couple of times each year to give the gas system a break. Because the 5,000-gallon UST is located within a walled enclosure and buried beneath sand, a full inspection of the tank was not possible, and the condition of the tank and the surrounding ground is unknown. A file review conducted at the Town’s Fire Prevention office did not turn up any documentation regarding this tank, including date of installation and the general construction of the tank. Due to the lack of available information about the tank and the inability to conduct a full inspection on the tank, the 5,000-gallon #2 heating oil tank is considered an REC. No other USTs were observed at the property.

#### *Soule*

EndPoint surveyed the Subject Property for indications of underground storage tanks or USTs (e.g., vent piping, dispensing equipment, fill ports, pavement variations), and observed none.

#### **2.1.4 Liquid Waste**

EndPoint surveyed the Subject Property for indications of liquid waste (e.g., sumps, drains, clarifiers, pools of liquid, pits, ponds, lagoons, septic systems, wastewater, storm water) and observed that sanitary sewage and storm water reportedly discharge to the municipal sewers, and storm water apparently sheet flows to on-site storm drains that reportedly discharge to the municipal sewer. Floor drains were observed in the boiler room of the Baldwin School, as well as in the bathrooms. There was also a floor drain observed within a basement storage room, which appeared to be a converted locker room, at the Soule Gymnasium building.

#### **2.1.5 Solid Waste**

##### *Baldwin*

EndPoint surveyed the Subject Property for indications of solid waste (e.g., mounding, depressions, fill, bins, debris), and observed that refuse is stored in interior waste bins within the class rooms and bathrooms. A dumpster is present on the property on the east side of the building. No evidence of a release was observed.

##### *Soule*

EndPoint surveyed the Subject Property for indications of solid waste (e.g., mounding, depressions, fill, bins, debris), and observed that refuse is stored in interior waste bins within each of the Soule buildings. Several municipal style waste bins were present on the property behind a small wooden fence at the west side of the Early Childhood Education Center building. No evidence of a release was observed.

#### **2.1.6 Polychlorinated Biphenyls**

##### *Baldwin*

EndPoint surveyed the Subject Property for indications of polychlorinated biphenyls (PCBs) (e.g., liquid-cooled transformers, capacitors, hydraulic lifts) and observed none. One pole-mounted transformer was observed along the northern Subject Property boundary on Heath Street; no evidence of a release was observed.

##### *Soule*

EndPoint surveyed the Subject Property for indications of polychlorinated biphenyls (PCBs) (e.g., liquid-cooled transformers, capacitors, hydraulic lifts) and observed none. One pad-mounted transformer was observed along

the western side of the Early Childhood Education Center building. The transformer was observed to be in good condition with no evidence of a release.

### **2.1.7 Wells**

EndPoint surveyed the Subject Property for indications of potable, irrigation, monitor, injection, dry, abandoned, or other wells (e.g., protruding pipes, cover plates, pumps, small sheds, large water storage containers, mounded grout), and observed none.

## **2.2 ADJOINING PROPERTIES AND SURROUNDING AREA USE**

### *Baldwin*

The Subject Property is bound to the north by Heath Street, beyond which are residential properties with some commercial properties (jeweler, coffee shop, convenience stores), Boylston Street, and the Longwood Cricket Club; to the west is Oak Street, multifamily residential properties, and Hammond Street, beyond which are more residential properties with some commercial properties (auto repair, cleaner, banks, restaurants); to the south is the Soule Recreation Center; and to the east is a primarily residential neighborhood including Heath Street, Cary Road and Randolph Road.

### *Soule*

The Subject Property is bound to the north by the Baldwin School and several residential properties; to the west is Hammond Street, beyond which are residential properties and the Holyhood Cemetery; to the south is a primarily residential neighborhood including Pine Road and Glenoe Road; and to the east is primarily residential along Woodland Road and Heath Street, with some recreational space, Kings Colleges, Pine Manor College, and the Dane Estate also present.

## **3.0 INTERVIEWS**

### **3.1 USERS**

The User of this ESA is the Client. EndPoint provided a questionnaire to the User; however, after repeated attempts at obtaining the completed questionnaire for review and inclusion in this report, one was not provided.

The Client representative, Mr. Philip Gray, indicated this ESA was sought as part of due diligence associated with potential Subject Property redevelopment.

### **3.2 CURRENT SITE OWNERS / OPERATORS / OCCUPANTS**

#### *Baldwin*

EndPoint interviewed a member of the custodial and maintenance staff, Mr. James Hennessey who indicated that:

- the Baldwin School was built in 1927 as a public school for the Town of Brookline, MA; and
- the building is heated using natural gas, but it also utilizes a 5,000-gallon #2 heating oil tank for approximately 1-2 weeks each year.

#### *Soule*

EndPoint interviewed the Town's Resource Manager, Mr. Jesse Myott who indicated that:

- the Soule Early Childhood Education Center building was built in 1942; and
- the Soule Gymnasium and Environmental Science buildings were both built in 1970.

### **3.3 PAST SITE OWNERS / OPERATORS / OCCUPANTS**

EndPoint did not identify past Subject Property owners / operators / occupants whose information was unlikely duplicative.

### **3.4 NEIGHBORING OR NEARBY PROPERTY OWNERS / OCCUPANTS**

EndPoint did not interview neighboring or nearby property owners / occupants because the Subject Property is not abandoned.

### **3.5 GOVERNMENT OFFICIALS**

EndPoint did not interview any government officials as a part of this Phase I ESA.

## 4.0 RECORDS REVIEW

EndPoint reviewed publically available, reasonably ascertainable records pertaining to the Subject Property that were likely to be useful. In addition, where practicable, EndPoint reviewed similar records indicating uses at the adjoining properties and surrounding area within approximate minimum search distances from the Subject Property. EndPoint also reviewed helpful documents that were likely to be useful, if any were provided by the User or others.

### 4.1 PHYSICAL SETTING

#### 4.1.1 Physiography

EndPoint reviewed physiographic information presented on United States Geological Survey (USGS) Historical Topographic Maps from 1903 to 1950. Data provided within these maps and within the EDR Summary Radius Map Report describes the Subject Property as being approximately 194 feet above mean sea level (amsl). The nearest surface water body to the Subject Property is Hammond Pond, which is located approximately 0.36-miles to the northwest. The Chestnut Hill Reservoir is located hydraulically upgradient to the Subject Property, approximately 0.60-miles to the northeast. Local topography slopes in the southwesterly direction. Other than roadways and the Holyhood Cemetery, no specific building or other structures are shown and labeled on the USGS Topo Maps.

#### 4.1.2 Geology

EndPoint reviewed local geologic data presented in the SSURGO Soil Map section of the EDR Summary Radius Map Report. The Subject Property is located in an area of multiple soil component categories, including: Urban Land, which does not have any reported characteristics, and the Charlton soil component, which is comprised of fine sandy loam and is known to be well drained soils. To the east of the Subject Property, soil is recorded as being silty loam to a 9-inch depth and channery silty loam from a depth of 9 to 59-inches below the ground surface. It is identified as Class C, or as having slow infiltration rates and well drained soils. To the west of the Subject Property, soil is recorded as being fine sandy loam to a 18-inch depth, gravelly loamy sand from a depth of 18 to 22-inches, and very gravelly coarse sand from a depth of 22 to 59-inches and is identified as Class A soil with high infiltration rates, and as being somewhat excessively drained. The Chestnut Hill Reservoir is located

hydraulically upgradient to and approximately 0.60-miles northeast of the Subject Property. Hammond Pond is located hydraulically cross-gradient to the Subject Property, approximately 0.35-miles to the northwest.

#### **4.1.3 Hydrology**

EndPoint reviewed local hydrology data presented in the SSURGO Soil Map section of the EDR Summary Radius Map Report. Groundwater depth is not presented for the Subject Property or the immediate vicinity of the Subject Property. Based on the local topography, groundwater flow at the Subject Property is inferred to be southwest.

## **4.2 REGULATORY AGENCIES**

EndPoint reviewed records regarding the Subject Property from various local agencies. Copies of the records are provided in **Appendix E**.

### **4.2.1 Local Assessor's Office**

EndPoint reviewed records regarding the Subject Property from the Brookline Assessor's Office. The Subject Property includes two separate plots of land, the Baldwin School and the Soule Recreation Center.

#### *Baldwin*

Baldwin consists of one parcel of land totaling approximately 2.70 acres (ac) identified by the Brookline Tax Assessor's Parcel 432-02-24 (Block 432, Lot 02, Sub lot 24) and is improved by a single 10,617 square feet (sf) building. The building is a two-story school building constructed in 1927, and is located along the northern portion of the property, atop of a hill, which slopes moderately in the southwest direction. The remainder of the property consists of asphalt-paved parking and travel ways, as well as grassed recreational space.

#### *Soule*

Soule consists of one parcel of land totaling approximately 9.61 ac identified by the Brookline Tax Assessor's Parcel 432-08-00 (Block 432, Lot 08, Sub lot 00) and is improved by three buildings; a single-story environmental education building constructed in 1970 and located towards the western portion of the property, a 1½-story gymnasium constructed in 1970, and a three-story school building constructed in 1942, with a total area

of 12,653 sf. The gymnasium and the school are centrally located on the property, and are surrounded by asphalt- and concrete-paved parking and travel ways, as well as grassed recreational space, a sports field, and multiple playgrounds. The slope of the Soule property is relatively flat, with the exception of the gymnasium, which slopes more moderately to the southwest. Both properties are currently owned by the Town of Brookline and its use is primarily institutional and recreational in nature.

#### **4.2.2 Local Building Department**

##### *Baldwin*

EndPoint attempted to obtain records regarding the Baldwin School from the Brookline Building Department; however, after much correspondence with various building department employees, it was determined that the property file was unable to be located, and was therefore, not reviewed under this ESA.

##### *Soule*

EndPoint reviewed records regarding the Soule Recreation Center from the Brookline Building Department, which included permits for various repairs and renovations, both minor and major in nature (plumbing in 1968, roof repairs in 1992, electrical work in 1999, truss repair on Gymnasium in 2013, etc.). The file also included building inspection reports related to the building.

#### **4.2.3 Local Fire Department**

EndPoint reviewed records regarding the Subject Property from the Brookline Fire Department. Review results follow:

##### *Baldwin*

The Building Inspection Report within the file indicated that during the 2009 inspection, the custodian was not present, and was, therefore, not able to provide access to some of the rooms, including parts of the boiler room. There was no mention of a 5,000-gallon fuel oil storage tank. A note was made to have paint stored within the boiler room removed. During this ESA, it was noted that paint cans were present in the rooms immediately adjacent to the boiler room.

#### *Soule*

A 1996 UST Closure and Limited Removal Action (LRA) Report from VERTEX was included in the file, regarding an abandoned 275-gallon UST within the basement level of a maintenance shed formerly located within the Soule Recreation Center's playground area. Approximately 62 cubic yards of petroleum impacted soil was excavated and disposed of, and post-excavation soil samples were noted to be below laboratory reporting limits. This work was done in accordance with 310 CMR 40.0318, and no additional remedial activities were recommended for the Site.

#### **4.2.4 Local Health Department**

EndPoint reviewed records regarding the Subject Property from the Town of Brookline Health Department. Review results follow.

#### *Baldwin*

While there were not a lot of records for the Baldwin Property on file with the Health Department, an Asbestos Abatement report from July 5, 2007 was reviewed. Approximately 200 lf of asbestos-containing pipe wrap and approximately 100 sf of miscellaneous suspected asbestos-containing material was removed from the Baldwin School building between July 2-9, 2007.

#### *Soule*

While there were not a lot of records for the Soule Property on file with the Health Department, an Asbestos Abatement report from August 2001 was reviewed. Approximately 1,200 sf of non-friable roof flashing was removed from the 652 Hammond Street building between August 16-20, 2001.

### **4.3 HISTORICAL INFORMATION**

EndPoint reviewed the UNH obtained and EDR supplied report of historical records concerning the Subject Property, including aerial photographs, historical topographic maps, Sanborn Fire Insurance maps, and city directories. Copies of these materials are included in **Appendix F**. A review of the historical information is summarized as follows:

Sanborn Fire Insurance Maps, Historical Topographic Maps, Aerial Photographs, and City Directories

EndPoint reviewed historical Sanborn fire insurance maps of the Subject Property as well as the adjoining properties and surrounding area (where shown) from the EDR collection. EndPoint also reviewed aerial photographs and topographic maps from the USGS and Google Earth collections. Review results follow.

*Baldwin*

- 1925: The Subject Property appears improved with one structure. A Fire Department is located at the northwest corner of the lot.
- 1950: The Fire Department building has been reestablished as a Recreation Building and the Baldwin School is now present, as it was constructed in 1927.
- 1957: The Subject Property generally appears unchanged.
- 1965: The Fire Department Building turned Recreation Building is no longer present on the Subject Property. The Baldwin School appears generally unchanged.
- 1969: The Subject Property generally appears unchanged.

*Soule*

- 1925: The Subject Property appears improved with five structures. A residential dwelling, an auto house (garage), a green house, and a two-part cow barn. It is likely this property was used as a farm at this time.
- 1950: The Subject Property appears generally unchanged, with the exception of the addition of a gymnasium building; however, the uses of the other five buildings differ from that of 1925. The residential dwelling is now listed as the “Rivers Country Day School”, the garage is now the “Lower School”, and the cow barns are now listed as “lockers”. The green house remains unchanged.
- 1957: The Subject Property appears generally unchanged, with the exception of the removal of one of the cow-barn turned lockers buildings. Also, the green house is now listed as “lockers”.

- 1965: The Rivers Country Day School building and the green house turned lockers building are no longer present on the Subject Property. The entire property is now listed as the “Augustus W. Soule Recreation Center”.
- 1969: The Subject Property generally appears unchanged.

#### 4.4 ENVIRONMENTAL LIENS AND AULS

An environmental liens and AULs record search was not performed as a part of this Phase I ESA.

#### 4.5 STANDARD ENVIRONMENTAL RECORD SOURCES

EndPoint subcontracted EDR to prepare an environmental database search summary report that EndPoint reviewed. A copy of the EDR report is provided in **Appendix F**. The Subject Property was not identified in the Map Findings Summary (summary of locations with environmental issues that are located within the search radius of the Property).

There were 47 findings in the EDR report within ½ of a mile of the Subject Property. Six of those properties were identified to be hydraulically upgradient or immediately adjacent to the Subject Property, and are as follows:

- 640 Hammond Street is located less than 35 feet to the west of the Subject Property. It is listed on the Reportable Releases (RELEASE) database and the State Reportable Release (SHWS) database, as well as the Reportable Spills (SPILLS) and the Underground Storage Tank (UST) databases. This property is currently listed by the MassDEP under RTN 3-0020733 with a Class A-2 Response Action Outcome (RAO) associated with an oil and hazardous materials release. A permanent solution has been achieved, though contamination has not been reduced to background levels.
- 1075 Boylston Street is located approximately 0.11 miles to the northeast of the Subject Property. It is listed on the RELEASE and SHWS databases. This property is currently listed by the MassDEP under RTN 3-0023648 with a Class A-2 RAO associated with a polychlorinated biphenyl (PCB) and petroleum hydrocarbon release. A permanent solution has been achieved, though contamination has not been reduced to background levels.

- 400 Heath Street is located approximately 0.15 miles to the east of the Subject Property. It is listed on the Very Small Quantity Generator (VSQG) of Hazardous Materials database. There are no releases or issues associated with this property.
- 30 Norfolk Road is located approximately 0.18 miles to the northeast of the Subject Property. It is listed on the RELEASE database and the Leaking Underground Storage Tank (LUST) database. This property is currently listed by the MassDEP under RTN 3-0015731 with a Class A-2 RAO associated with a #2 fuel oil release. A permanent solution has been achieved, though contamination has not been reduced to background levels.
- 375 Heath Street is located approximately 0.24 miles to the west of the Subject Property. It is listed on the RELEASE and LUST databases. This property is currently listed by the MassDEP under RTN 3-0012797 with a Class A-2 RAO associated with a #2 fuel oil release. A permanent solution has been achieved, though contamination has not been reduced to background levels.
- 910 Boylston Street is located approximately 0.33 miles to the west of the Subject Property. It is listed on the RELEASE, SHWS, and LUST databases, as well as Hazardous Waste Generator (HW GEN) database. This property is currently listed by the MassDEP under RTN 3-0024837 with a Class B-1 RAO associated with a naphthalene release. Remedial actions have not been conducted because a level of No Significant Risk exists.

Based on the status of the aforementioned Map Findings and the location of these properties in relation to the Subject Property, it is determined that these properties do not represent RECs for the Subject Property.

## 5.0 VAPOR ENCROACHMENT SCREENING

In accordance with ASTM Designation E2600-10, EndPoint reviewed the report described in the **Standard Environmental Record Sources** section of this report to evaluate the potential for VECs within the standard distances and in conjunction with the Buonicore Methodology. Thirty-one findings were identified in the EDR VEC App™ within the standard distances and with cases of potential concern. These facilities include the same facilities identified in the surrounding area discussion in the **Standard Environmental Record Sources** section of this report. Based on EndPoint's evaluation of reasonably ascertainable environmental data associated with those facilities, VECs at each can be ruled out. The Tier 1 VES is included as **Appendix G**.

## 6.0 EVALUATION

### 6.1 FINDINGS AND OPINIONS

EndPoint identified obvious uses of the Subject Property since 1846 when the parcels were first developed. The adjoining properties and surrounding area have been mixed residential and commercial since at least 1903.

Presented below are the findings of this ESA and EndPoint professional opinions:

#### *Baldwin*

- **Current Site Use:** Current use of the Subject Property is institutional in nature and involves relatively small quantities of janitorial cleaners and maintenance chemicals stored in closed containers. Sanitary wastewater and stormwater are discharged to the municipal sewer. Solid waste collection is collected in small, classroom trash cans and transferred into the custodial barrels before being placed into the School's dumpsters, which are located on the eastern side of the building. The building has a 5,000-gallon #2 heating oil UST located in the basement of the building, adjacent to the boiler room with a walled enclosure. The UST is buried, and, therefore, unable to be inspected. The UST is, therefore, considered an REC.
- **Historical Site Use:** A former fire department building turned recreation building, formerly located on the western side of the property was no longer visible on Sanborn Fire Insurance Maps in 1957. The school building has been operated as a school since its construction in 1927.

#### *Soule*

- **Current Site Use:** Current use of the Subject Property is institutional in nature and involves relatively small quantities of household and janitorial cleaners stored in closed containers. The sanitary wastewater and stormwater discharges to the municipal sewer. Solid waste in each of the buildings is collected in classroom waste bins before being placed in larger, municipal-style trash bins for waste pickup. No indications of significant past, present, or threatened releases of hazardous substances or petroleum products were observed or reported. Therefore, this finding represents a *de minimis* condition.

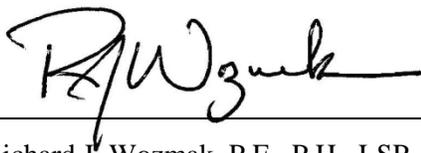
- Historical Site Use – REM Chevrolet: Until approximately 1927, the Soule Recreation Center property appears to have been operated as a residential dwelling and farm. Also, a combined UST Closure and LRA Report was completed in 1996 by VERTEX for a former maintenance shed; however, a recommendation of no further remedial actions was made. No indications of significant past, present, or threatened releases of hazardous substances or petroleum products were observed or reported. Therefore, this finding represents a *de minimis* condition.
- Current and Historical Off-Site Uses: Current and historical use of the adjoining properties and surrounding area is and has been primarily residential, with limited commercial properties. Several off-Site facilities have documented releases of hazardous substances and petroleum products, but are not identified with a potential to adversely affect the Site based on the nature of the release, the investigative data associated with the release, and/or the location or distance of the release relative to the Site.

## 6.2 CONCLUSIONS AND RECOMMENDATIONS

EndPoint has performed this ESA, which consisted of a Phase I ESA and a Tier 1 VES subject to the limiting conditions and data gaps described herein, in conformance with the scope and limitations of ASTM Designation E1527-13 as well as of ASTM Designation E2600-10 of the Subject Property located at 490 Heath Street and 652 Hammond Street in the Chestnut Hill neighborhood of Brookline, MA. This ESA has revealed evidence of one REC in connection with the Subject Property:

- The presence of a 5,000-gallon #2 heating oil UST located within a cinderblock enclosure in Baldwin School's basement (adjacent to the boiler room). No documentation or information was available from either the School Department's custodial staff or the Town's Fire Department, regarding the age of the tank or the presence or absence of leaks or spills. It is EndPoint's recommendation that use of the UST be ceased, and that it be emptied and removed from the property, following an appropriate UST closure process.

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312 and I have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the Subject Property. I have developed and performed All Appropriate Inquiries in conformance with the standards and practices set forth in 40 CFR Part 312



Richard J. Wozmak, P.E., P.H., LSP, LEP

Principal

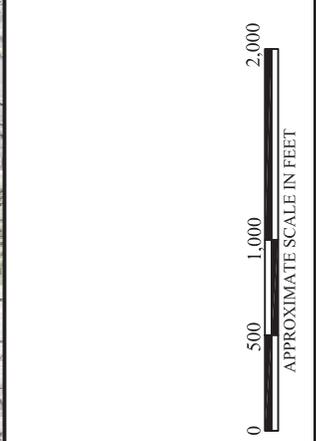
EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



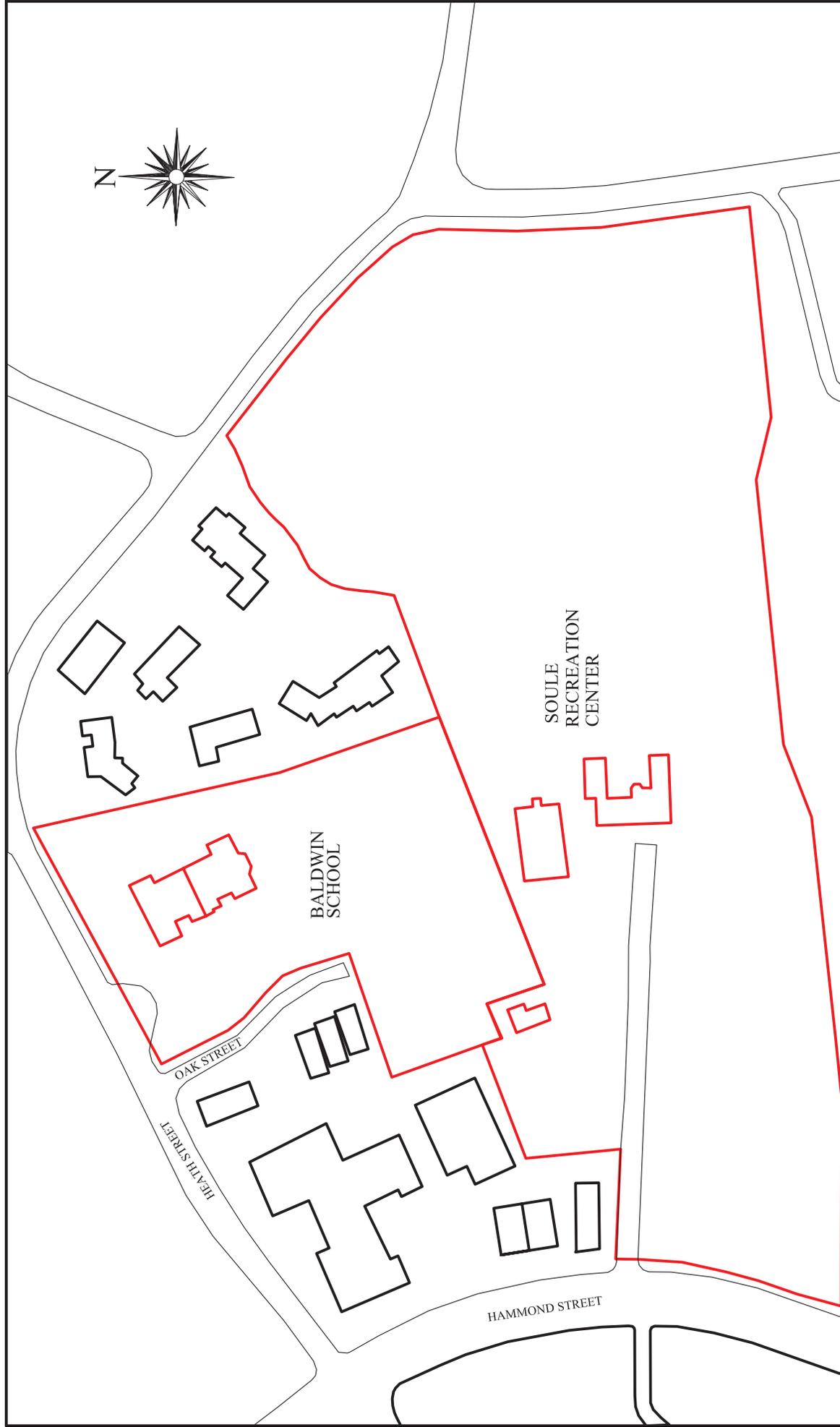
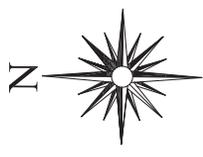
## FIGURES



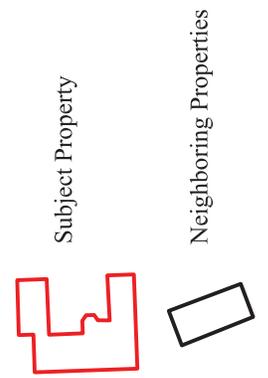
<b>EndPoint</b> ENGINEERS & ENVIRONMENTAL PROFESSIONALS		CLIENT: Jonathan Levi Architects	FIGURE NO.:
25 Buttrick Road, Unit D2 Londonderry, NH 03053		PROJECT: 490 Heath Street and 652 Hammond Street	APPROVED: RIW
TITLE: Site Locus		CHECKED: KLS	FILE NO.:
DESIGNED: KLS	DRAWN: KLS	DATE: 01/20/2017	PROJECT NO.:
SCALE: 1" = 1,000'			2475-001
			FIGURE NO.:
			1



Note: Figure based on MyTopo.com USGS Topographic Map.



<b>EndPoint</b> ENGINEERS & ENVIRONMENTAL PROFESSIONALS		CLIENT: Jonathan Levi Architects		PROJECT: 490 Heath Street and 652 Hammond Street	
25 Buttrick Road, Unit D2 Londonderry, NH 03053		DESIGNED: KLS	DRAWN: KLS	CHECKED: KLS	APPROVED: RJW
TITLE: Site Locus		SCALE: Not to Scale	DATE: 01/20/2017	FILE NO.: site plan	PROJECT NO.: 2475-001
					FIGURE NO.: 2



EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



## APPENDIX A

### Qualifications

**EDUCATION:**

M.S., Northeastern University, 1989. Environmental Engineering - Water Resources  
B.S., University of New Hampshire, 1981. Hydrology

**PROFESSIONAL REGISTRATIONS AND CERTIFICATIONS:**

Massachusetts Licensed Site Professional  
Connecticut Licensed Environmental Professional  
Professional Engineer: New Hampshire, Massachusetts  
Professional Hydrologist (Ground Water), American Institute of Hydrology

**BACKGROUND:**

For over the past 30 years, Mr. Wozmak has been a consultant and educator on the procedures and methods for investigating and remediating environmental media contamination caused by releases of hazardous substances and petroleum products under both federal and state environmental regulations. Mr. Wozmak has conducted and managed numerous hydrogeologic, hazardous waste investigation, and corrective action programs in the United States encompassing source delineation and characterization; ground water flow and dissolved contaminant fate and transport modeling; evaluation of impacts and risk to human and environmental receptors; evaluation, design, and operation of remedial technologies; and state and federal environmental regulatory compliance. As part of these programs, Mr. Wozmak has conducted and supervised field activities including boring and monitoring well installation activities; soil, soil vapor, sediment, surface water, ground water, and indoor air sampling; and various techniques and procedures to estimate the fate and transport of contaminants in the environment. Mr. Wozmak has performed these activities for industry as well as the U.S. Environmental Protection Agency (USEPA) as part of Technical Enforcement Support (TES) contracts. Mr. Wozmak has also performed litigation support activities and provided expert testimony for cases involving building and environmental media contamination, fate and transport of dissolve- phase organic compounds in ground water, subsurface transport of non-aqueous phase liquids (NAPLs) such as petroleum products and solvents in soil and ground water, and ground water and soil remediation.

**PUBLICATIONS AND PRESENTATIONS:**

Authored "Indoor Air Contamination Evaluation – A Weight of Evidence Approach," Morrison Mahoney, LLP Environmental Law and Policy, Summer 2006.

Authored "Apparent vs. Actual LNAPL Thickness – Is Your Release as Bad as it Appears?" Morrison Mahoney, LLP Environmental Law and Policy, July 2003.

Presented "Decoding Site Investigation Reports," Toxics Action Center Conference, 2001.

Presented "Use of Risk Characterization and Activity and Use Limitations in Site Closure," University of Massachusetts Annual Soils Conference, 1998.

Presented "New Hampshire Reimbursement Program Requirements for Petroleum Releases" to Sunapee Board of Realtors, April 1996.

"Soiliner Model - Documentation and User's Guide (Version 1)," prepared for the U. S. Environmental Protection Agency, Office of Solid Waste, Washington, D. C. Contract No. 68-01-6871, Assignment No. 48. Co-authored with Russell A. Johnson and Eric S. Wood, April 1986.

"The Potable Water Well Field Protection Program for Broward County, Florida," co-authored with Thomas D. Walker and Mary M. Johnson, Water Resources Management Division, December 1983.

Presented "2003 Buzzards Bay Oil Spill: History and Cleanup under the MCP,"; University of Massachusetts Annual Soils Conference, 2009.

"The Application of the Massachusetts Licensed Site Professional Program during a Marine Oil Spill Response," Prepared for the 2008 International Oil Spill Conference; Co-authored with Richard F. Packard, MassDEP, Oil Spill Prevention and Response Program and Kevin Trainer, C.P.G., P.G., L.S.P., GeoInsight, Inc.

**A complete resume summarizing Mr. Wozmak's experience can be furnished upon request.**

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



## APPENDIX B

### Limitations, Terms, Conditions, and User Reliance

## LIMITATIONS

1. The conclusions and observations described in this response action document and associated with the Licensed Site Professional (LSP) opinion as part of the attached Bureau of Waste Site Cleanup form (LSP opinion) are based solely upon the services provided to the Client and under the conditions stated herein and in EndPoint's agreement with the Client. Neither EndPoint nor the LSP who signed the LSP opinion shall be liable for the presence of any condition, the discovery of which would have required the performance of services not undertaken by EndPoint or authorized by the Client.
2. In preparing this report, EndPoint may have relied upon certain information obtained by or from state, federal and local agencies; previous consultants or contractors; or the Client. EndPoint did not verify the completeness or accuracy of all information reviewed or received during the course of response actions and cannot itself guarantee or warrant the information provided by non-EndPoint sources.
3. The conclusions and LSP opinion in this report may have been based upon data obtained from a limited number of samples and/or subsurface explorations agreed upon by the Client. Sampling and/or explorations may have been widely spaced in distance and/or time. The adequacy of sample and/or exploration spacing may not become evident until further exploration is conducted. If inadequate sample and/or exploration spacing becomes evident, it will be necessary to re-evaluate the conclusions and LSP opinion of this report.
4. Visual inspections or observations may have been made of the site and site structures as indicated in the report. Where EndPoint was unable to observe or inspect portions of the site or structures, or access was limited or obstructed, EndPoint cannot render a conclusion or LSP opinion regarding the presence of oil and hazardous materials in that portion of the site or structure.
5. Surface and/or ground water levels may have been gauged and used to evaluate distribution, discharge and flow rate. It should be noted that fluctuations in the level or location of water may occur seasonally due to variations in precipitation or other factors different from those present at the time measurements were made. These changes may also cause seasonal variations in water quality measurements as well as variations in the movement and distribution of contaminants in the environment.

6. The conclusions and LSP opinion may be based in part upon various types of field screening and laboratory data, and are contingent upon its validity, accuracy and representativeness. The validity, accuracy and representativeness of these data may have been evaluated in accordance with the Massachusetts Department of Environmental Protection's policy. EndPoint or the LSP who signed the LSP opinion shall not be liable for equipment or laboratory errors that are typically not discovered during this evaluation. Also, it should be noted that variations in environmental conditions such as moisture can affect concentrations or levels of contaminants in the environment.
7. Chemical analyses have been performed for specific chemicals or parameters during the course of response actions as described in the report. EndPoint or the LSP is not liable for the presence of contaminants in environmental media not tested or searched for during the course of response actions.
8. The passage of time may result in changes in technology, regulatory standards, manifestation of latent conditions, or the occurrence of future events which could render the report conclusions or LSP opinion inaccurate, incomplete or inapplicable. Neither EndPoint nor the LSP shall be liable or responsible for the consequences of any changed circumstances or conditions on the accuracy of this report or LSP opinion.
9. Except as required under the Massachusetts Contingency Plan, this response document shall not be used or relied upon by any third-party without the written approval of EndPoint.
10. Should EndPoint or the LSP be required or requested to review additional information or defend a MassDEP audit, or authorize others to use this report after its submission date, EndPoint shall be entitled to additional compensation at then existing rates and terms as may be agreed upon between EndPoint and the Client. Nothing contained herein shall be deemed to require EndPoint or the LSP to undertake any such review or authorize others to use this report.
11. This report and opinion is rendered for the purpose of meeting Massachusetts Contingency Plan response action requirements for the Client, and should not be deemed to be an opinion concerning compliance of any past or present owner or operator of the site with any federal, state and local laws or regulations. Without limiting the generality of the foregoing, no warranty or guarantee is made that all contamination at the site or sources of contamination have been detected or identified, that any action or

recommended action will achieve all of its objectives, or that the report conclusions and LSP opinion, or any action as to which this LSP opinion relates will be upheld by any audit conducted by MassDEP or any other party.

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



## APPENDIX C

### References

## REFERENCES

- EDR, Radius Map™ Report with GeoCheck® (No. 4795721.2s), December 2, 2016.
- EDR, Certified Sanborn® Map Report (No. 4795721.3), December 2, 2016.
- EDR, City Directory Image Report (No. 4795721.5), December 2, 2016.
- EDR, Vapor Encroachment Screen (No. 4795721.8s), February 6, 2017.
- USGS, Historical Topographic Maps, obtained from UNH website, December 1, 2016.
- EDR, Aerial Photo Decade Package (No. 4734979.9), September 23, 2016.
- Brookline Assessor's Department, Subject Property records provided via online database, obtained December 1, 2016.
- Brookline Fire Department – Fire Prevention; Located at 350 Washington Street, Brookline, MA; visited December 27, 2016.
- Brookline Health Department; Located at 11 Pierce Street, Brookline, MA; visited December 27, 2016.
- Brookline Town Hall – Building Department, School Department, Public Works Department; Located at 333 Washington Street, Brookline, MA; visited December 27, 2016.
- Brookline Water & Sewer Department; Contacted February 3, 2017.
- Massachusetts Department of Environmental Protection, Site records at <http://public.dep.state.ma.us/SearchableSites2/Search.aspx>; last accessed February 6, 2017.

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



## APPENDIX D

### Photographs

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017

**The Baldwin School**



484/490 Heath Street, Brookline, MA  
The Baldwin School  
(view from North on Heath Street)



484/490 Heath Street, Brookline, MA  
The Baldwin School  
(view from South on the Baldwin School Playground)

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



484/490 Heath Street, Brookline, MA  
The Baldwin School  
(view from North on Heath Street)



484/490 Heath Street, Brookline, MA  
5,000-gallon #2 Fuel Oil UST Fill and Vent Port



484/490 Heath Street, Brookline, MA  
5,000-gallon #2 Fuel Oil UST – behind concrete block enclosure



484/490 Heath Street, Brookline, MA  
5,000-gallon #2 Fuel Oil UST – buried under sand



484/490 Heath Street, Brookline, MA  
Boiler Room Chemical Storage



484/490 Heath Street, Brookline, MA  
Boiler Room Chemical Storage



484/490 Heath Street, Brookline, MA  
Boiler Room Chemical Storage



484/490 Heath Street, Brookline, MA  
Custodial and Art Supply Closets with Sinks



484/490 Heath Street, Brookline, MA  
Solid Waste Dumpster  
located on east side of building



484/490 Heath Street, Brookline, MA  
Bathroom Floor Drains



484/490 Heath Street, Brookline, MA  
Science Room – Chemical Storage Cabinet



484/490 Heath Street, Brookline, MA  
Stormwater Drainage

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



484/490 Heath Street, Brookline, MA  
Pole Mounted Transformer



484/490 Heath Street, Brookline, MA  
Storage Sheds

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017

**Soule Recreation Center**



654 Hammond Street, Brookline, MA  
Soule Environmental Science Building

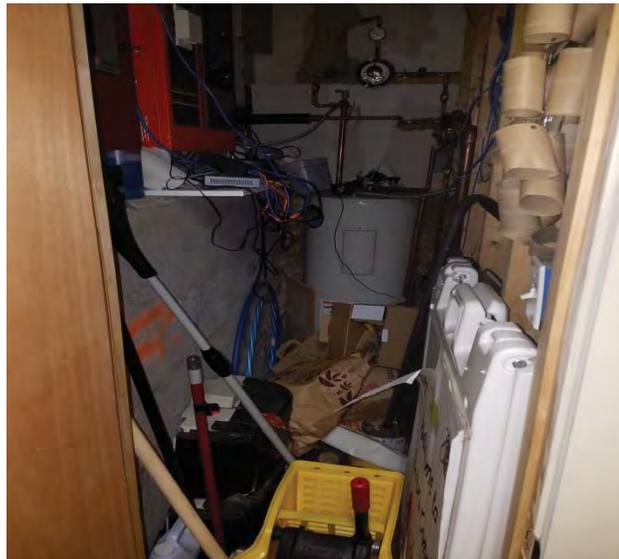


654 Hammond Street, Brookline, MA  
Soule Environmental Science Building  
Classroom Cleaning Material Storage – Under Sink

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



654 Hammond Street, Brookline, MA  
Soule Environmental Science Building  
Two 120-gallon Propane Tanks



654 Hammond Street, Brookline, MA  
Soule Environmental Science Building  
Hot Water Tank and Janitorial Closet

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



654 Hammond Street, Brookline, MA  
Soule Environmental Science Building  
Heating System



654 Hammond Street, Brookline, MA  
Soule Environmental Science Building  
Storage Shed

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



650 Hammond Street, Brookline, MA  
Soule Gymnasium



650 Hammond Street, Brookline, MA  
Soule Gymnasium  
Natural Gas Connection



650 Hammond Street, Brookline, MA  
Soule Gymnasium  
Heating System



650 Hammond Street, Brookline, MA  
Soule Gymnasium  
Basement Storage Room with Floor Drain



650 Hammond Street, Brookline, MA  
Soule Gymnasium  
Stormwater Drainage



650 Hammond Street, Brookline, MA  
Soule Gymnasium  
Storage Shed – Gas Grills with no Tanks

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



652 Hammond Street, Brookline, MA  
Soule Early Childhood Education Center



652 Hammond Street, Brookline, MA  
Soule Early Childhood Education Center  
Natural Gas Connection and Vents

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



652 Hammond Street, Brookline, MA  
Soule Early Childhood Education Center  
Paint Supply Storage



652 Hammond Street, Brookline, MA  
Soule Early Childhood Education Center  
Heating System



652 Hammond Street, Brookline, MA  
Soule Early Childhood Education Center  
Basement Chemical Storage



652 Hammond Street, Brookline, MA  
Soule Early Childhood Education Center  
Basement Paint/Chemical Storage

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



652 Hammond Street, Brookline, MA  
Soule Early Childhood Education Center  
Classroom Cleaning Material Storage – Under Sink



652 Hammond Street, Brookline, MA  
Soule Early Childhood Education Center  
Paint Supply Storage

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



652 Hammond Street, Brookline, MA  
Soule Early Childhood Education Center  
Transformer on Concrete Pad and Solid Waste Storage Area



652 Hammond Street, Brookline, MA  
Soule Early Childhood Education Center  
Stormwater Drainage

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



652 Hammond Street, Brookline, MA  
Soule Early Childhood Education Center  
Recreational Fields



652 Hammond Street, Brookline, MA  
Soule Early Childhood Education Center  
View of Property from Hammond Street

**Surrounding Area**



Residential Properties along Oak Street



Residential Properties along Heath Street

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



Residential Properties along Hammond Street



Residential Properties along Hammond Street

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



Residential Properties along Hammond Street



Residential Properties along Hammond Street

EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



## APPENDIX E

### Town Office Provided Documents

COMMONWEALTH OF MASSACHUSETTS

OFFICE FOR CHILDREN

DAY CARE CONSULTATION AND LICENSING UNIT

FIRE INSPECTION REPORT

Brookline Schools Staff Childrens Center

This is to certify that \_\_\_\_\_  
Name of Facility  
located at 484 Heath St (490 Heath St)  
Address  
was inspected on NOV 12 2009 by Joseph Angstrom  
Date Name of Inspector

I certify that the above day care facility complies with the Rules and Regulations of the Board of Fire Prevention.

YES

NO

Violations (if any):

Recommendations (if any):

Move paint out of Boiler room.

(F.F.) Joseph Angstrom  
Name and Title

Please return this report to:

The Commonwealth of Massachusetts  
 Department of Fire Services

(2 of 2)

Inspector: **FIREPREVENT**  
 Inspection Time: **10:45 AM**  
 Inspection Date: **Thursday, November 12, 2009**

**TOWN OF BROOKLINE**  
 350 WASHINGTON STREET  
 BROOKLINE, MASSACHUSETTS 02445

Jane Pinto,  
 617-730-2575  
 Annual  
 Inspector

Received of: **BROOKLINE SCHOOL STAFF CHILDREN CENTER**  
 Property: **484 HEATH ST**

**FIRE DEPARTMENT INSPECTION AND PERMIT FEES**

Ammunition - License to Store	\$	75.00	
Blasting Permit		75.00	
Fuel Oil Equipment - Install/Alter		100.00	
Gasoline Tanks - Removal/Installation		250.00	
Underground Fuel Oil Tank Removal/Installation		200.00	
Oxygen Acetylene - Use Storage		75.00	
LP Gas Use Storage		75.00	
Tar Kettles		50.00	
Fire Protection System/Permit to Shut Down		50.00	
Smoke Detector Inspection - 26F, 26F1/2 Per Units: 1=\$50, 2=\$100, 3-6=\$150, >6=\$500			
Each Smoke Detector Re-Inspection - 26F, 26F1/2		50.00	
Fire Protection System/Plan Review/Permit to Install		50.00	
Certificate of Occupancy Inspection Cost Per Units: 1=\$50, 2=\$100, 3-6=\$150 >6=\$500			
Commercial Cert. of Occup. Insp: <=1000 sq.ft.=\$50; >1000 sq.ft. rounded up to next 1000 sq.ft., =\$50 base fee + (\$25 per each additional 1000 sq.ft.)			
Fire Reports Copies		15.00	
Site Assessment Review - 21 E		50.00	
Other			

TOTAL RECEIVED \$ \_\_\_\_\_

PERMIT NO. **FMT090270**

ADDRESS OF PROPERTY: **484 HEATH ST**

INSPECTION MADE/PERMIT ISSUED BY: \_\_\_\_\_

Received by: \_\_\_\_\_

**Please pay amount due at the Brookline Public Safety Building,  
 350 Washington St., between 8:30 and 10:00 AM, Monday thru Friday.**

BROOKLINE FIRE DEPARTMENT

PREPLAN FACT SHEET  
BUILDING INSPECTION REPORT

ADDRESS: 484 Heath St (490 Heath St) LOT/BLOCK# \_\_\_\_\_

BUILDING NAME: George S. Baldwin School

OWNER: Town of Brookline TELEPHONE # \_\_\_\_\_

OWNERS ADDRESS: \_\_\_\_\_

CITY: Brookline STATE: MA ZIP \_\_\_\_\_

MANAGEMENT COMPANY: Town of Brookline

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

EMERGENCY NOTIFICATION NUMBER: \_\_\_\_\_

ALARM SYS. TYPE: City Box ALARM SYS. STATUS? (NORMAL/TROUBLE) \_\_\_\_\_

LOCATION OF RESET PANEL: Front Hall / Basement Boiler Room

FIRE ALARM MASTER BOX: YES/NO NUMBER: 6521

MASTER BOX LOCATION: RT Side ~~door~~ Entrance

KNOX BOX LOCATION: RT side door Entrance

ALARM COMPANY: Town of Brookline TELEPHONE: \_\_\_\_\_

SPRINKLER SYSTEM: (YES/NO) (FULL or PARTIAL)

LOCATION OF SPRINKLER VALVE: Basement Boiler Room

VALVE OPEN? (YES/NO) UNOBSTRUCTED? YES

SPRINKLER VALVE: (WET/DRY) PRESSURE: 120 psi

NUMBER OF RISERS: 1 STANDPIPE: (WET/DRY) \_\_\_\_\_

LOCATION: \_\_\_\_\_

LOCATION OF FIRE DEPT. CONNECTION:  RT side of Building (missing Ca)

IS FIRE DEPT. CONNECTION VISIBLE AND UNOBSTRUCTED? (YES/NO) (YES)

FIRE PUMP LOCATION: \_\_\_\_\_

EXTINGUISHERS? (YES/NO) DATE OF LAST INSPECTION: Aug 2009

EMERGENCY GENERATOR? (YES/NO) LOCATION: ?

AMOUNT OF APARTMENTS? N/A AMOUNT OF FLOORS? 2 Floor

BUILDING DIMENSIONS: 50 x 100

CONSTRUCTION TYPE: Brick & wood

ARE THE EXITS? (FREE, CLEAR, & UNOBSTRUCTED) yes

IF NOT WHICH LOCATIONS? \_\_\_\_\_

FIRE ESCAPES? (FRONT/BACK/SIDE) ARE THEY CLEAR? (YES/NO) (YES)

HEATING SYSTEM: (GAS/OIL/ELECTRIC) Both gas heat/oil

LOCATION OF HEATING SYSTEM: Basement 2 Boilers



The Commonwealth of Massachusetts  
Department of Fire Prevention

? Can't get into Room, locked (pad lock)

IF OIL, HOW MANY TANKS? 1 TOTAL CAPACITY: ?  
ARE ANY UNDERGROUND? ? ENCLOSED? ?  
IS THE HEATING SYSTEM IN A SEPARATE ROOM? yes  
IS THERE A FIRE DOOR ON THE BOILER ROOM? yes IS IT CLOSED? yes  
IS THERE AN AUTOMATIC DOOR CLOSER? yes  
CONDITIONS OVER BOILER? good  
FLUE PIPE PROPERLY CONNECTED? (YES/NO) IS IT CLEAN? unknown

GIVE LOCATIONS OF THE FOLLOWING: ?  
GAS SHUTOFF? ?  
MAIN ELECTRICAL SHUTOFF? Basement  
EMERGENCY OIL BURNER SWITCH? Basement Hall  
MAIN WATER SHUTOFF? Basement

IS THERE AN ELEVATOR? NO DATE OF LAST INSPECTION: \_\_\_\_\_  
WHERE ARE THE ELEVATOR CONTROLS? N/A  
IS THE ELEVATOR PIT CLEAN? N/A  
KEY SWITCH INSTALLED? (YES/NO) \_\_\_\_\_  
WHO IS THE ELEVATOR SERVICE COMPANY? \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ CITY: N/A STATE: \_\_\_\_\_  
TELEPHONE: \_\_\_\_\_

WHERE IS THE RUBBISH STORED? left side of Building  
ARE THE HALLWAYS AND STAIRS CLEAR? yes  
GENERAL CONDITION OF THE BUILDING? good  
ARE EXIT SIGNS POSTED? yes  
ARE THE FIRE DOORS CLOSED? yes  
IS THERE TEMPORARY WIRING? NO

OTHER VIOLATIONS, EXPLAIN IN DETAIL; USE EXTRA SHEET IF NEEDED:  
Custodian was out sick, unable to get into all rooms especially Basement Area.  
Correction needed w/ battery back up.  
Fire dept connection needs copy

ABATEMENT ISSUED TO: \_\_\_\_\_  
DATE OF RE-INSPECTION: \_\_\_\_\_  
REFERRALS TO OTHER TOWN DEPARTMENTS: Building Dept

INSPECTORS NAME: Joseph Hingsta DATE: 11/12/2009



# The Commonwealth of Massachusetts Department of Education

350 Main Street, Malden, Massachusetts 02148-5023

Telephone: (617) 388-3300  
TTY: N.E.T. Relay 1-800-439-2370

## MEMORANDUM

TO: Fire Inspector  
FROM: Program Quality Assurance Cluster  
SUBJECT: Fire Inspections for Private Occupational Schools

The Regulations (603 CMR 15:06; 15.19 AND 603 CMR 3.06; 3.19) for Massachusetts General Laws c.75D and c.93 require inspection. We would appreciate it if you would arrange for the inspection of the school listed below and advise us whether all locations serving students meet all standards for the fire code.

Name of School/Facility: Winthrop Program

Address: 484 Heath St

City, Zip, Code, Brookline MASS 02057

REMARKS: CO detection w/ battery back up.

IS THIS FACILITY IN COMPLIANCE WITH APPLICABLE FIRE AND SAFETY CODES/REGULATIONS?

YES  NO  NEXT INSPECTION DATE 11/12/2009

NAME OF INSPECTOR Joe Angsten SIGNATURE OF INSPECTOR [Signature]

ADDRESS 350 Washington St TEL.# 617-730-2270

DATE OF INSPECTION: 11/12/2009

PLEASE RETURN THE COMPLETED FORM TO THE SCHOOL WHICH WAS INSPECTED. THE SCHOOL WILL FORWARD THE COMPLETED FORM TO THE DEPARTMENT OF EDUCATION.

Revised "95"

\*

Inspector: FIREPREVENT  
Inspection Time: 10:30 AM  
Inspection Date: Thursday, November 12, 2009

(1-of-2)

**TOWN OF BROOKLINE**

350 WASHINGTON STREET  
BROOKLINE, MASSACHUSETTS 02445

Annual Inspection

Received of: BALDWIN SCHOOL  
Property: 484 HEATH ST

Winthrop House

Owen  
Office Minott

617-739-7647

**FIRE DEPARTMENT INSPECTION AND PERMIT FEES**

Ammunition - License to Store	\$ 75.00	
Blasting Permit	75.00	
Fuel Oil Equipment - Install/Alter	100.00	
Gasoline Tanks - Removal/Installation	250.00	
Underground Fuel Oil Tank Removal/Installation	200.00	
Oxygen Acetylene - Use Storage	75.00	
LP Gas Use Storage	75.00	
Tar Kettles	50.00	
Fire Protection System/Permit to Shut Down	50.00	
Smoke Detector Inspection - 26F, 26F1/2 Per Units: 1=\$50, 2=\$100, 3-6=\$150, >6=\$500		
Each Smoke Detector Re-Inspection - 26F, 26F1/2	50.00	
Fire Protection System/Plan Review/Permit to Install	50.00	
Certificate of Occupancy Inspection Cost Per Units: 1=\$50, 2=\$100, 3-6=\$150 >6=\$500		
Commercial Cert of Occup. Insp: <=1000 sq.ft.=\$50; >1000 sq.ft. rounded up to next 1000 sq.ft., =\$50 base fee + (\$25 per each additional 1000 sq.ft.)		
Fire Reports Copies	15.00	
Site Assessment Review - 21 E	50.00	
Other		

TOTAL RECEIVED \$ \_\_\_\_\_

PERMIT NO. **FMT090269**

ADDRESS OF PROPERTY: **484 HEATH ST**

INSPECTION MADE/PERMIT ISSUED BY: \_\_\_\_\_

Received by: \_\_\_\_\_

**Please pay amount due at the Brookline Public Safety Building,  
350 Washington St., between 8:30 and 10:00 AM, Monday thru Friday.**

The Commonwealth of Massachusetts

# TOWN OF BROOKLINE

Office of the Building Code Inspector, 100 State Street, Boston, MA 02109

## CERTIFICATE OF INSPECTION

**PROJECT:** CHASE ELEMENTARY SCHOOL, 15 E. BUCKINGHAM, BROOKLINE, MASSACHUSETTS

**CLIENT:** BLDG DEPT, 15 E. BUCKINGHAM, BROOKLINE, MASSACHUSETTS

**DATE OF INSPECTION:** 10/12/11

**INSPECTOR:** [Signature]

NO.	DESCRIPTION	STATUS	DATE
1	PERMITS	ISSUED	10/12/11
2	CONTRACT	ISSUED	10/12/11
3	FOUNDATION	ISSUED	10/12/11
4	FRAMING	ISSUED	10/12/11
5	MECHANICAL	ISSUED	10/12/11
6	ELECTRICAL	ISSUED	10/12/11
7	PLUMBING	ISSUED	10/12/11
8	FINAL	ISSUED	10/12/11

**PROJECT:** CHASE ELEMENTARY SCHOOL

**DATE OF INSPECTION:** 10/12/11

**INSPECTOR:** [Signature]

**STATUS:** ISSUED

**DATE:** 10/12/11

[Signature]

Building Code Inspector

BROOKLINE FIRE DEPARTMENT

PREPLAN FACT SHEET  
BUILDING INSPECTION REPORT

ADDRESS: 484 Heath St (490 Heath St) LOT/BLOCK# \_\_\_\_\_

BUILDING NAME: George S. Baldwin School

OWNER: Town of Brookline TELEPHONE # \_\_\_\_\_

OWNERS ADDRESS: \_\_\_\_\_

CITY: Brookline STATE: MA ZIP \_\_\_\_\_

MANAGEMENT COMPANY: Town of Brookline

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

EMERGENCY NOTIFICATION NUMBER: \_\_\_\_\_

ALARM SYS. TYPE: City Box II ALARM SYS. STATUS? (NORMAL/TROUBLE) \_\_\_\_\_

LOCATION OF RESET PANEL: Front Hall / Basement Boiler Room

FIRE ALARM MASTER BOX? YES/NO NUMBER: 6521

MASTER BOX LOCATION: RT Side ~~Entrance~~ Entrance

KNOX BOX LOCATION: RT side door Entrance

ALARM COMPANY: Town of Brookline TELEPHONE: \_\_\_\_\_

SPRINKLER SYSTEM: (YES/NO) (FULL or PARTIAL)

LOCATION OF SPRINKLER VALVE: Basement Boiler Room

VALVE OPEN? (YES/NO) UNOBSTRUCTED? yes

SPRINKLER VALVE: (WET/DRY) WET PRESSURE: 90 psi

NUMBER OF RISERS: 1 STANDPIPE: (WET/DRY) \_\_\_\_\_

LOCATION: \_\_\_\_\_

LOCATION OF FIRE DEPT. CONNECTION:  RT side of Building (missing cap)

IS FIRE DEPT. CONNECTION VISIBLE AND UNOBSTRUCTED? (YES/NO) (YES)

FIRE PUMP LOCATION: \_\_\_\_\_

EXTINGUISHERS? (YES/NO) (YES) DATE OF LAST INSPECTION: Aug 2009

EMERGENCY GENERATOR? (YES/NO) LOCATION: ?

AMOUNT OF APARTMENTS? N/A AMOUNT OF FLOORS? 2 Floor

BUILDING DIMENSIONS: 50 x 100

CONSTRUCTION TYPE: Brick framed

ARE THE EXITS? (FREE, CLEAR, & UNOBSTRUCTED) yes

IF NOT WHICH LOCATIONS? \_\_\_\_\_

FIRE ESCAPES? (FRONT/BACK/SIDE) ARE THEY CLEAR? (YES/NO) (YES)

HEATING SYSTEM: (GAS/OIL/ELECTRIC) Both Gas Heat/oil

LOCATION OF HEATING SYSTEM: Basement 2 Boilers

? Can't get into Room, locked (pad lock)  
IF OIL, HOW MANY TANKS? \_\_\_\_\_ TOTAL CAPACITY: \_\_\_\_\_  
ARE ANY UNDERGROUND? \_\_\_\_\_ ENCLOSED? \_\_\_\_\_  
IS THE HEATING SYSTEM IN A SEPARATE ROOM? yes  
IS THERE A FIRE DOOR ON THE BOILER ROOM? yes IS IT CLOSED? yes  
IS THERE AN AUTOMATIC DOOR CLOSER? yes  
CONDITIONS OVER BOILER? good  
FLUE PIPE PROPERLY CONNECTED? (YES/NO) IS IT CLEAN? unknown

GIVE LOCATIONS OF THE FOLLOWING: ?  
GAS SHUTOFF? \_\_\_\_\_  
MAIN ELECTRICAL SHUTOFF? Basement  
EMERGENCY OIL BURNER SWITCH? Basement Hall  
MAIN WATER SHUTOFF? Basement

IS THERE AN ELEVATOR? NO DATE OF LAST INSPECTION: \_\_\_\_\_  
WHERE ARE THE ELEVATOR CONTROLS? N/A  
IS THE ELEVATOR PIT CLEAN? N/A  
KEY SWITCH INSTALLED? (YES/NO) \_\_\_\_\_  
WHO IS THE ELEVATOR SERVICE COMPANY? \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ CITY: N/A STATE: \_\_\_\_\_  
TELEPHONE: \_\_\_\_\_

WHERE IS THE RUBBISH STORED? left side of Building  
ARE THE HALLWAYS AND STAIRS CLEAR? yes  
GENERAL CONDITION OF THE BUILDING? good  
ARE EXIT SIGNS POSTED? yes  
ARE THE FIRE DOORS CLOSED? yes  
IS THERE TEMPORARY WIRING? NO

OTHER VIOLATIONS, EXPLAIN IN DETAIL; USE EXTRA SHEET IF NEEDED:

Custodian was out sick, unable to get into all rooms especially basement area.  
Consolation needed w/ battery back up.  
Fire dept connection needs cap

ABATEMENT ISSUED TO: \_\_\_\_\_  
DATE OF RE-INSPECTION: \_\_\_\_\_  
REFERRALS TO OTHER TOWN DEPARTMENTS: Building Dept

INSPECTORS NAME: Joseph Hingston DATE: 11/12/2009

484 Heath St.

REFE

INSPE

Rev 03/08

490 Health  
Baldwin School



FP6 (rev. 3/00)

The Commonwealth of Massachusetts  
Department of Fire Services - Office of the State Fire Marshal  
P.O. Box 1025, State Road, Stow, MA 01775



APPLICATION FOR PERMIT

City or Town BROOKLINE  
Date 7/31/07

DIG SAFE NUMBER  
Start Date: \_\_\_\_\_

In accordance with the provisions of M.G.L. Chapter 148, as provided in Section \_\_\_\_\_ application is hereby made by Industrial Burner Systems Inc.

Address 97 Rawson Rd. Quincy ma. (617-479-3900)  
(Street or P.O. Box) (City or Town)

For permission to (state clearly purpose for which permit is requested) welding & cutting steel pipe in boiler room

Name of competent operator (if applicable) Richard A. Leger Cert. No. \_\_\_\_\_

Date issued-rejected 7/31/07 By [Signature]  
(Signature of Applicant)

Date of expiration 8/10/07 Fee \$0.- \$ Paid \$0.00 Due \_\_\_\_\_



FP6 (rev. 3/00)

The Commonwealth of Massachusetts  
Department of Fire Services - Office of the State Fire Marshal  
P.O. Box 1025, State Road, Stow, MA 01775



PERMIT

City or Town BROOKLINE  
Date 7/31/07

DIG SAFE NUMBER  
Start Date: \_\_\_\_\_

Permit Number (if applicable) 07-231

In accordance with the provisions of M.G.L. Chapter 148, as provided in \_\_\_\_\_ this permit is granted to Industrial Burner Systems Inc.

for Cutting/Welding in boiler room for installation of new boiler/Gas line  
(Full name of person, Firm or Corporation)

Restrictions: Fire Detail Required.

at 490 Heath St. Baldwin School  
(Give location by street and no., or describe in such manner as to provide adequate identification of location)

Fee Paid \$ 0 - (Town Building) This Permit will expire on 8/10/07

Signature of Official Granting Permit [Signature] Title Inspector

➔ This permit must be conspicuously posted upon the premises ➔  
ADDRESS FILE COPY



FP6 (rev. 3/00)

The Commonwealth of Massachusetts  
Department of Fire Services - Office of the State Fire Marshal  
P.O. Box 1025, State Road, Stow, MA 01775



APPLICATION FOR PERMIT

City or Town BROOKLINE

Date 12/3/04

DIG SAFE NUMBER

Start Date: \_\_\_\_\_

In accordance with the provisions of M.G.L. Chapter 148, as provided in Section \_\_\_\_\_ application is hereby made  
by Mirabella Electric Co.

(Full name of person, firm or corporation)

Address 170 School St. Somerville MA

(Street or P.O. Box) (City or Town)

For permission to (state clearly purpose for which permit is requested) repair fire alarm panel

Name of competent operator (if applicable) Steve Mirabella Cert. No. \_\_\_\_\_

Date issued-rejected \_\_\_\_\_ By \_\_\_\_\_

(Signature of Applicant)

Date of expiration \_\_\_\_\_ Fee \_\_\_\_\_ \$ Paid \_\_\_\_\_ Due \_\_\_\_\_



FP6 (rev. 3/00)

The Commonwealth of Massachusetts  
Department of Fire Services - Office of the State Fire Marshal  
P.O. Box 1025, State Road, Stow, MA 01775



PERMIT

City or Town BROOKLINE

Date 12/3/04

DIG SAFE NUMBER

Start Date: \_\_\_\_\_

In accordance with the provisions of M.G.L. Chapter 148, as provided in \_\_\_\_\_ this permit is granted  
to \_\_\_\_\_

(Full name of person, firm or corporation)

for for alarm panel repair at Baldwin school 490 Heath St.

Restrictions: \_\_\_\_\_

at Baldwin School 490 Heath St.

(Give location by street and no., or describe in such manner as to provide adequate identification of location)

Fee Paid \$ \_\_\_\_\_ This Permit will expire on \_\_\_\_\_

Signature of Official Granting Permit \_\_\_\_\_ Title \_\_\_\_\_

➔ This permit must be conspicuously posted upon the premises ➔  
ORIGINAL

Marshal



Dig Safe Number

on is hereby made

mond Street

Town owned Property  
132-C

(800) 822-1300

Due

652 Hagen and St.  
Sole Exec. Power



The Commonwealth of Massachusetts  
 Department of Fire Services - Office of the State Fire Marshal  
 P.O. Box 1025, State Road, Stow, MA 01775



FP-5 (rev. 3/00)

Will call when ready

APPLICATION FOR PERMIT

City or Town Brockline

Dig Safe Number \_\_\_\_\_  
 Start Date: \_\_\_\_\_

Date 7-5-08

In accordance with the provisions of M.G.L. Chapter 148, as provided in Section 10A, application is hereby made by EnergyUSA Propane, Inc.  
(Full name of person, firm or corporation)

Address 110 Myles Standish Blvd. Taunton, MA 02780  
(Street or P.O. Box) (City or Town)

For permission to (state clearly purpose for which permit is requested)  
Installation of propane storage tanks 2-100 gallon Tanks Aboveground

Appliances: Unit Address 650 Hammond Street  
Town owned property

Name of complainant operator (If Applicable) \_\_\_\_\_ Cert No. 132-C

Date Issued-rejected \_\_\_\_\_ By Steven Dambit  
(Signature of Applicant) (800) 822-1300

Date of expiration \_\_\_\_\_ Fee N/C \$ Paid N/C Due \_\_\_\_\_



The Commonwealth of Massachusetts  
 Department of Fire Services - Office of the State Fire Marshal  
 P.O. Box 1025, State Road, Stow, MA 01775



FP-5 (rev. 12/99)

PERMIT

City or Town Brockline

Dig Safe Number \_\_\_\_\_  
 Start Date: \_\_\_\_\_

Date 8-5-08

In accordance with the provisions of M.G.L. Chapter 148, as provided in Section 10A, this permit is granted to EnergyUSA Propane, Inc.  
(Full name of person, firm or corporation)

for Home ST NEW OFFICE ON SOLE RESIDENCE PROPERTY 650 HAMMOND ST

Restrictions: None

at 650 Hammond St  
(Give location by street and no., or in such manners to provide adequate identification of location)

Fee Paid \$ N/C This Permit will expire on 8-5-09

Signature of Official Granting Permit S. Dambit Title D/C

→ This permit must be conspicuously posted upon the premises ←



The Commonwealth of Massachusetts  
 Department of Fire Services - Office of the State Fire Marshal  
 P.O. Box 1025, State Road, Stow, MA 01775



FP-5 (rev. 3/00)

Will call when ready

APPLICATION FOR PERMIT

City or Town Brookline

Dig Safe Number  
 Start Date:

Date 8-5-08

In accordance with the provisions of M.G.L. Chapter 148, as provided in Section 10A, application is hereby made by EnergyUSA Propane, Inc.

(Full name of person, firm or corporation)

Address 110 Myle Standish Blvd. Taunton, MA 02780

(Street or P.O. Box) (City or Town)

For permission to (state clearly purpose for which permit is requested)

Installation of propane storage tanks 2 - 100 gallon Tanks Aboveground

Appliances: Heat

Address: 650 Hammond Street

Name of complainant operator (if applicable)

Cert. No. 132-C

Date Issued/rejected

By Steven Dambel

(800) 822-1300

Date of expiration

Fee nil

\$ Paid nil

Due



The Commonwealth of Massachusetts  
 Department of Fire Services - Office of the State Fire Marshal  
 P.O. Box 1025, State Road, Stow, MA 01775



FP-5 (rev. 12/99)

PERMIT

City or Town Brookline

Dig Safe Number  
 Start Date:

Date 8-5-08

In accordance with the provisions of M.G.L. Chapter 148, as provided in Section 10A, this permit is granted to EnergyUSA Propane, Inc.

(Full name of person, firm or corporation)

for Heat AT NEW OFFICE ON SCALE RECONSTRUCTED PROPERTY 650 HAMMOND ST

Restrictions: None

at 650 HAMMOND ST  
 (Give location by street and no., or in such manners to provide adequate identification of location)

Fee Paid \$ nil

This Permit will expire on 8-5-09

Signature of Official Granting Permit [Signature]

Title D/K

This permit must be conspicuously posted upon the premises

652 MASSACHUSETTS

652 Herms  
Scale

LSU-DPLVU  
157  
ANI 151

1980-84  
ANI

# EnergyUSA™ - Propane

## Receipt of Propane Storage Application

Date: 2/15/08

Propane storage to be located at:

Name: Town of Brookline

Address: 650 Hermond CT

City/Town: Brookline, MA

Application left at:

Address: \_\_\_\_\_

City/Town: Brookline And Dept

Application received by: DK SR

Title: DK

Date Received: 2-5-08

Fee Paid: N/A

Paid by Customer: \_\_\_\_\_ Check # \_\_\_\_\_

Cash: N/A

# SOULE GYMNASIUM UPPER LINE

652

Permit Number 99-149



The Commonwealth of Massachusetts  
Executive Office of Public Safety  
Department of Fire Services - Office of the State Fire Marshal  
P.O. Box 1025, State Road, Shaw, West 01775



## APPLICATION FOR PERMIT

Date: 6-4-99  
C. 82 S.40 M.G.L.

Brookline Fire Dept. 338 Washington St. Brookline

To: Head of Fire Department: \_\_\_\_\_  
City / Town

In accordance with the provisions of Chapter 148, M.G.L. as provided in Section 10A-21A application is hereby made by:

Name: Richard T. Lovarso Services

(Full name of person, firm or corporation)

Address: P.O. Box 988 Braintree MA. 02185

(Street or P.O. Box)

(City/Town)

(State)

(Zip Code)

For Permission to: add one to the 1st floor

State clearly the purpose for which the permit is requested:

Location: 652 Hammond Street

Name of competent operator if applicable: \_\_\_\_\_

Certificate of Competency #: CS38423

Date Issued: 6/4/99

By: \_\_\_\_\_

Date of Expiration: \_\_\_\_\_

Fee Paid { } Fee Due { } Amount: \_\_\_\_\_

Applicant Signature: \_\_\_\_\_

Fire Department Number: \_\_\_\_\_  
(If Applicable)

**PERMIT MUST BE CONSPICUOUSLY POSTED UPON THE PREMISES**

TITLE

SLIP

SOULE GYMNASIUM  
VIA HAMMOND  
BROOKLINE, MASS.

SOULE GYMNASIUM  
652 HAMMOND  
BROOKLINE, MASS.

MARCH 26

652 HAMMOND ST  
MASH  
UPGRAD  
GYMNAS



NE,  
The Commonwealth of Massachusetts  
DEPARTMENT OF PUBLIC SAFETY — DIVISION OF FIRE PREVENTION  
1010 COMMONWEALTH AVENUE, BOSTON

# PERMIT

In accordance with the provisions of Chapter 148, G. L. as provided in \_\_\_\_\_  
this permit is granted to \_\_\_\_\_

Name BRITE LITE ELECTRIC CO. INC. 373 GRANITE AVE QUINCY  
(Full name of person, firm or corporation granted permit)

State clearly  
purpose for  
which permit  
is granted

to INSTALL FIRE ALARM IN GYMNASIUM AT SOULE RECREATION  
252 HAMMOND ST.

Restrictions: \_\_\_\_\_

at \_\_\_\_\_  
(Give location by street and no., or describe in such manner as to provide adequate identification of location)

Fee Paid \$ \_\_\_\_\_

INSPECTOR Willie R. ...  
(Signature of official granting permit)

FIRE INSPECTOR  
(Title)

This permit will expire NOV 26 1997

**(THIS PERMIT MUST BE CONSPICUOUSLY POSTED UPON THE PREMISES.)**

MAR 26, 1997

DWG NO  
1-1

BROO

SOUL

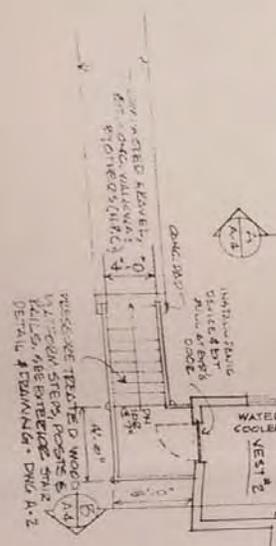
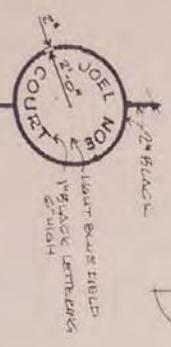
652

BROOKLINE

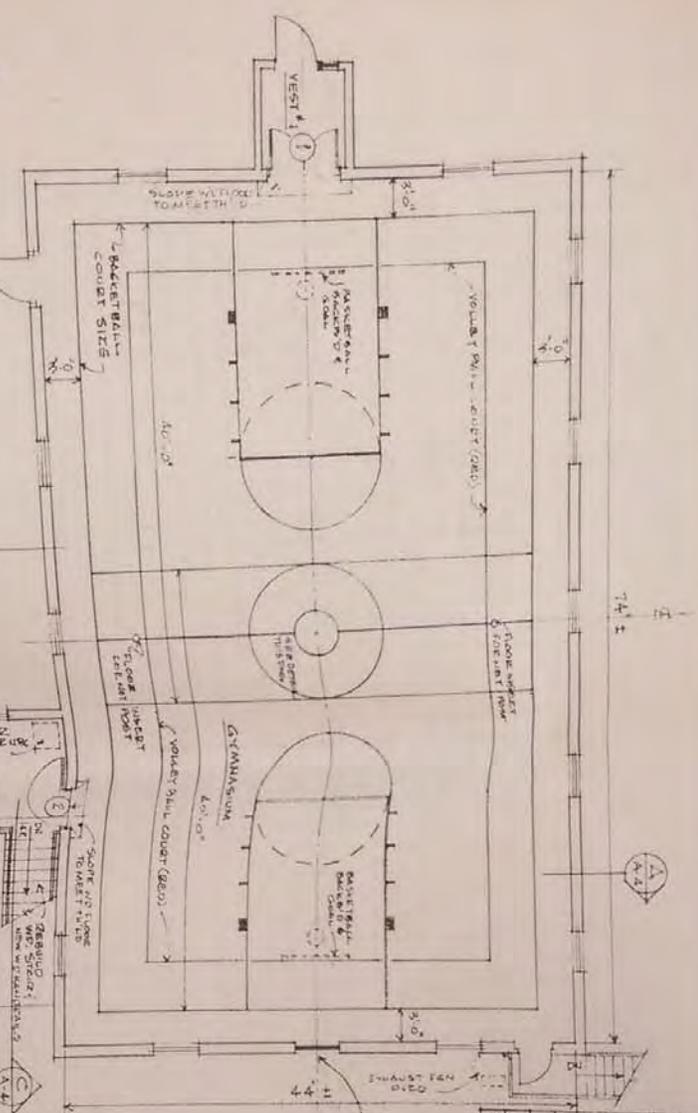
GYMNASIUM  
652 HAMMOND ST.  
BROOKLINE MASSACHUSETTS



DETAIL #1 CENTER CIRCLE  
SCALE 1/8" = 1'-0"



FLOOR PLAN  
SCALE 1/8" = 1'-0"



NOTES:

ALL WALLS TO BE CONCRETE OR GYPSUM BOARD  
ALL FLOORS TO BE CONCRETE OR GYPSUM BOARD  
ALL CEILING TO BE GYPSUM BOARD  
ALL DOORS TO BE 2 1/2" MIN. THICK  
ALL WINDOWS TO BE 2 1/2" MIN. THICK  
ALL STAIRS TO BE 4 1/2" MIN. THICK  
ALL STAIRS TO BE 4 1/2" MIN. THICK

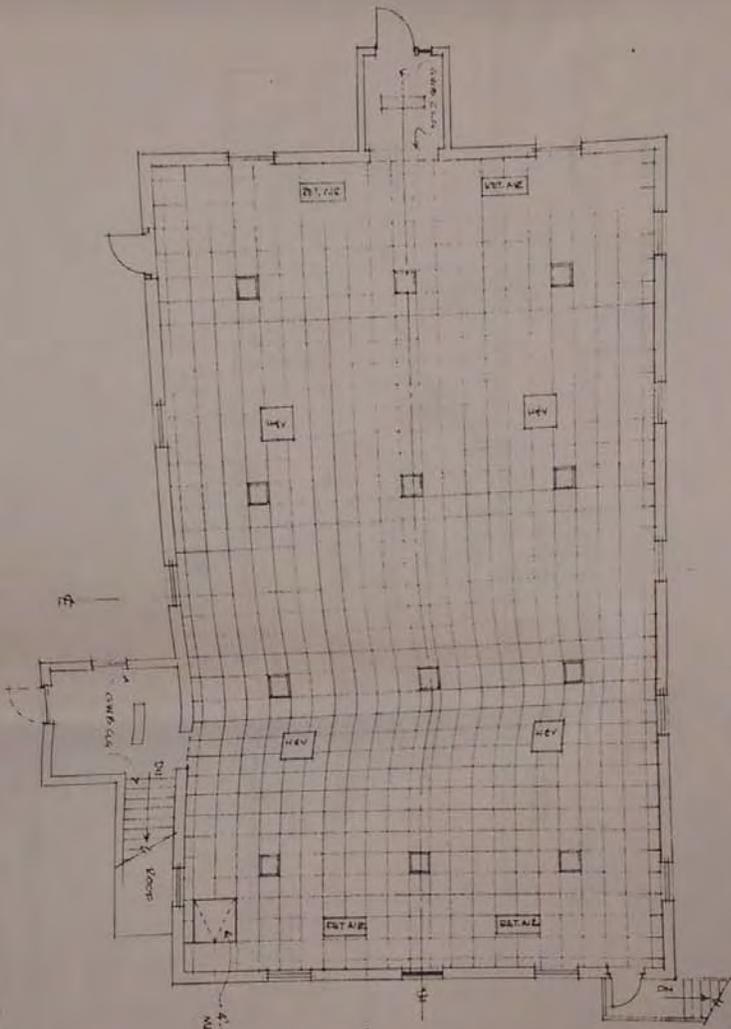
ZOOM FINISH SCHEDULE			
ROOM	FLOOR	BASE	WALLS G/LG
VEST #1	CONCRETE		
VEST #2	SHEET VINYL		
GYMNASIUM	VINYL		
	WOOD		
	VENTED		
	WOOD		
	GR. DRY'D		
	G.W.B.		
	WOOD		
	G.M.U.		
	G.W.B.		
	ACOUST. T.		

MARCH 26, 1987

DWG NO. 1  
SOULE GYMNASIUM  
852 HAMMOND STREET  
BROOKLINE, MASSACHUSETTS

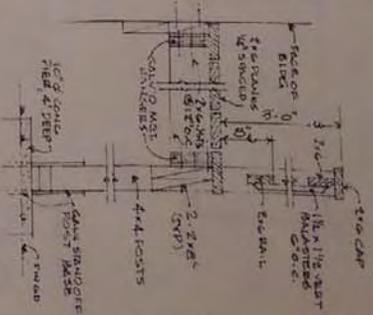
FLOOR PLAN

R. L. C. ARCHITECTS, INC.  
P.O. BOX 259  
ROCKFORD, MA 01748-0259



REFLECTED CEILING PLAN  
SCALE: 1/8" = 1'-0"

EXTERIOR STAIR  
DETAIL & FRAMING  
NOT TO SCALE

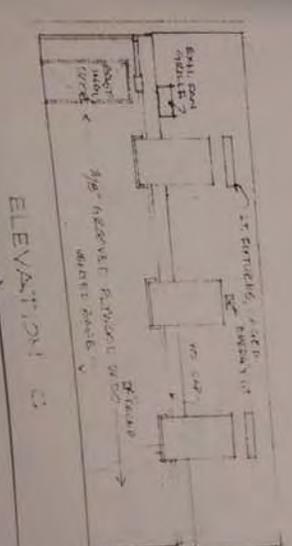


MARCH 25, 1997

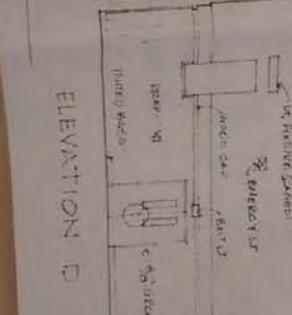
DRG NO. **A-2**  
 SOULE GYMNASIUM  
 852 RAINBOW STREET  
 BROOKLINE, MASSACHUSETTS

REFLECTED CEILING PLAN  
 & EXTERIOR STAIR DETAIL

H. L. C. ARCHITECTS, INC.  
 110 STATE STREET  
 BOSTON, MA 02109-2525



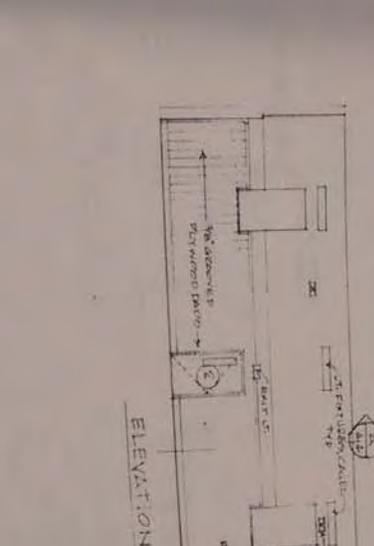
ELEVATION A



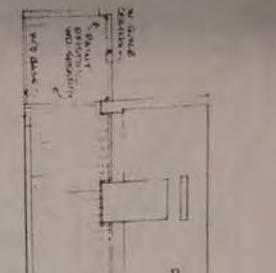
ELEVATION B



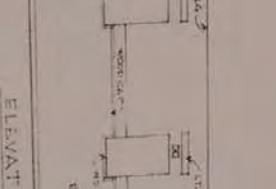
ELEVATION C



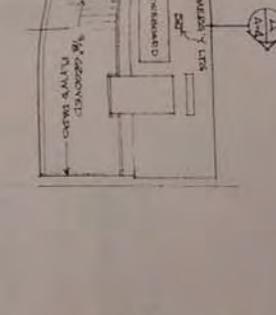
ELEVATION D



KEY PLAN  
NOT TO SCALE



NOTES



SECTION

DWG NO. A-3  
SOULE GYMNASIUM  
637 HANFORD STREET  
BROOKLINE, MASSACHUSETTS

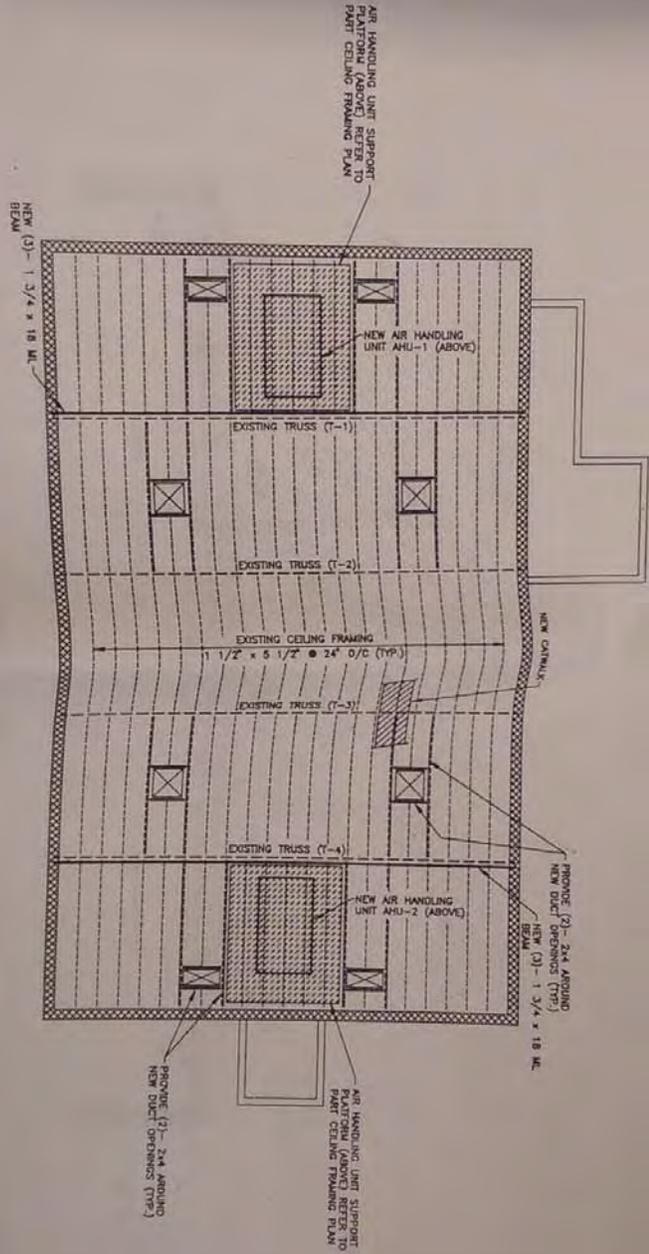
INTERIOR ELEVATIONS  
SCALE 1/8" = 1'-0"

A. J. C. ARCHITECTS, INC.  
P.O. BOX 257  
ROPERINTON, MA 01766-0257

MARCH 26, 1987







**CEILING FRAMING / TRUSS BOTTOM CHORD**

SCALE 1/8" = 1'-0"

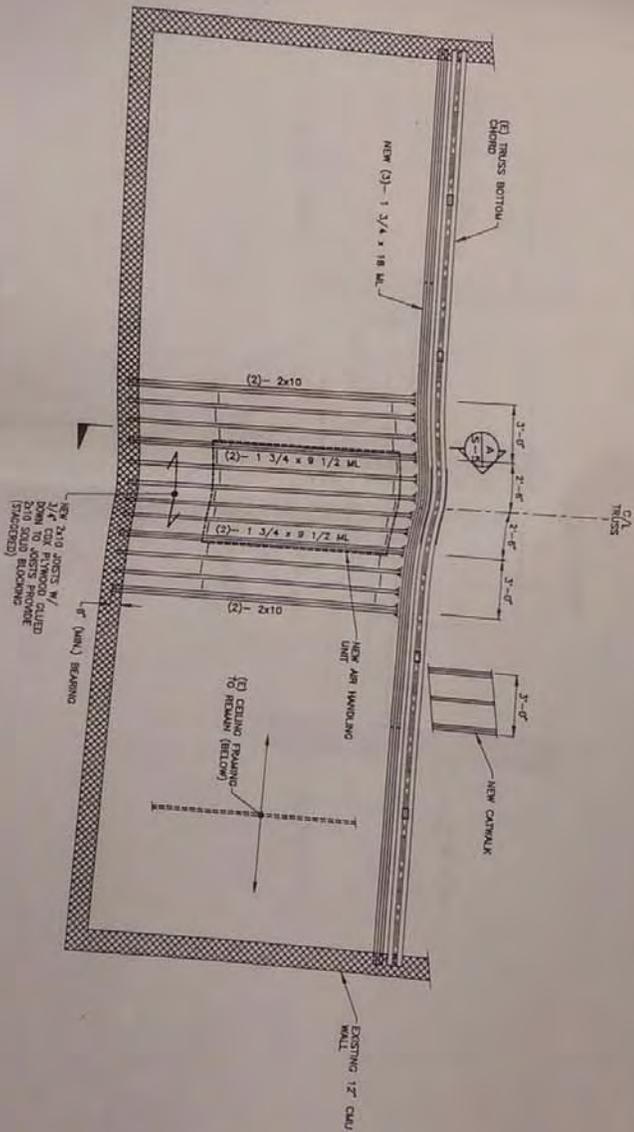
**COWEN ASSOCIATES**  
 Consulting Structural Engineers  
 1000 Massachusetts Avenue  
 Boston, Massachusetts 02126  
 Telephone (608) 655-1978  
 Telex (508) 555-4224  
 FAX (508) 555-4224  
 MARCH 26, 1991

SOILE GYMNASIUM  
 652 HAMPDEN STREET  
 BROOKLINE, MASSACHUSETTS

**CEILING FRAMING**

**H. L. C. ARCHITECTS, INC.**  
 P.O. BOX 837  
 HOPKINTON, MA 01748-0837





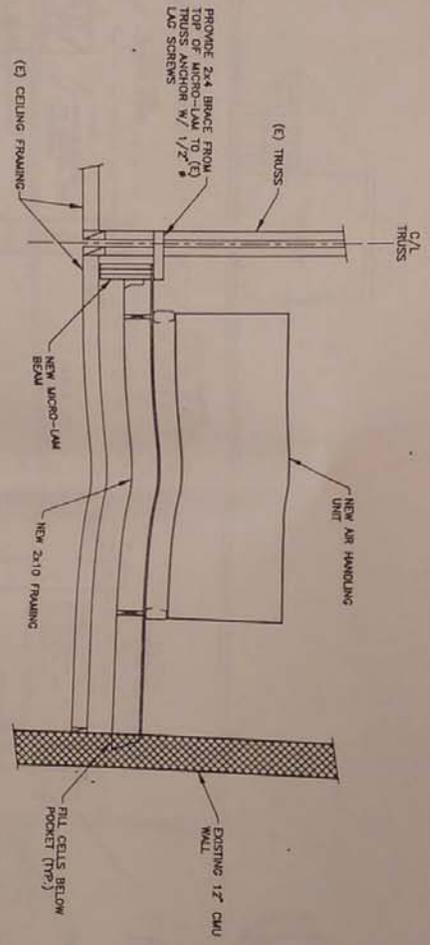
**PART CEILING FRAMING PLAN**  
 SCALE 1/4" = 1'-0"  
 AIR HANDLING UNIT SUPPORT PLATFORM FRAMING

**COWEN ASSOCIATES**  
 Consulting Structural Engineers  
 100 North Main Street  
 North Attleboro, Massachusetts 01960  
 Telephone (508) 635-4120  
 Facsimile (508) 635-4284  
 MARCH 25, 1997

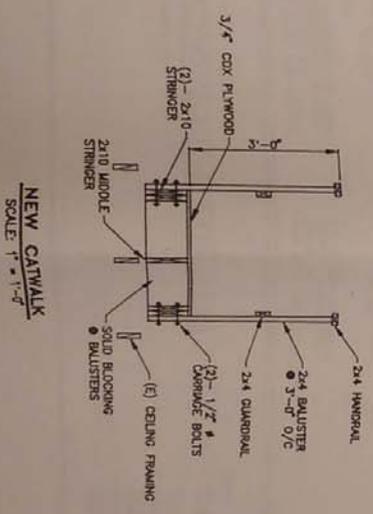
DWG No. **S-4**  
 SOULE GYMNASIUM  
 852 HAMMOND STREET  
 BROOKLINE, MASSACHUSETTS

**PART CEILING FRAMING**

R L C ARCHITECTS, INC.  
 P.O. BOX 257  
 HOPKINTON, MA 01748-0257



SECTION  
SCALE 3/8" = 1'-0"



NEW CATWALK  
SCALE 1" = 1'-0"

**COWEN ASSOCIATES**  
 Consulting Structural Engineers  
 28 Vassar Road, 01760  
 North Andover, MA  
 Telephone (508) 655-3370  
 Facsimile (508) 655-4284  
 MARCH 26, 1997

DATE: 1/97  
 NO: 1/97

SOULE GYMNASIUM  
 852 HAMMOND STREET  
 BROOKLINE, MASSACHUSETTS

SECTIONS / DETAILS

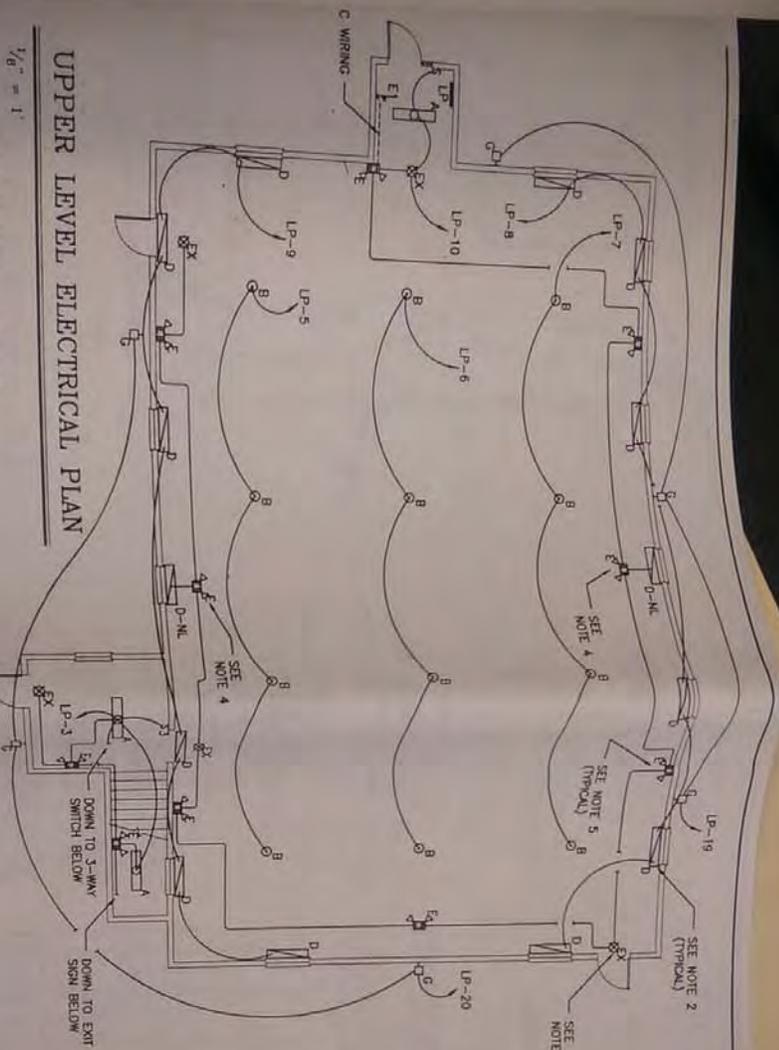
R L C ARCHITECTS, INC.  
 P.O. BOX 257  
 HOPKINTON, MA 01748-0257











### UPPER LEVEL ELECTRICAL PLAN

1/8" = 1'

#### GENERAL NOTES:

1. ELECTRICIAN SHALL CONNECT MECHANICAL CONTRACTOR SUPPLIED DUCT SMOKE DETECTOR.
2. WHERE FIRE ALARM SYSTEM COMPONENTS ARE SHOWN, THEY ARE INTENDED TO INDICATE THE TYPE OF PROTECTION OR ALARM INDICATION AND NOT THE REQUIRED NUMBER OF DEVICES.
3. ELECTRICIAN SHALL CONNECT ALL HARD-WIRED ELECTRICAL EQUIPMENT AND WIRE PER MANUFACTURER'S INSTRUCTIONS.
4. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR ACTUAL LOCATION OF FIXTURES.
5. FURNISH ALL ELECTRICAL DEVICES WITH WIRE GUARDS SUCH AS FOR LIGHT FIXTURES, EXIT SIGNS, EGRESS LIGHTS, ETC.

#### DRAWING NOTES:

1. FOR GENERAL NOTES & LEGEND REFER TO THIS DRAWING.
2. HOMET LIGHT FIXTURE 15" ABOVE TOP OF WINDOW.
3. HOMET EXIT SIGN 5" ABOVE TOP OF DOOR.
4. HOMET EMERGENCY LIGHT ABOVE TYPICAL WINDOW & BELOW LIGHT FIXTURES AT THE HOMET EMERGENCY LIGHT FIXTURES AT THE SAME HEIGHT AS THE TYPICAL IN NOTE 4.

ELECTRICAL LEGEND	
○	NONRECURRENCE OR HO ORANGE LIGHT
□	WALL PACE
○	FLUORESCENT LIGHT
▭	FLUORESCENT LIGHT
⊗	EXIT SIGN
⊗	EMERGENCY LIGHTING BATTERY UNIT
⊖	REMOTE EMERGENCY LIGHT
⊖	OVERLAP RECEPTACLE
⊖	QUAD RECEPTACLE
S	SINGLE POLE SWITCH
S	TRIPLE POLE SWITCH
▼	TELEPHONE OUTLET
▼	MANUAL FIRE STATION
⊖	FIRE ALARM CONTROL PANEL
⊖	DISCONNECT SWITCH
⊖	PANEL (UP)
⊖	ABOVE FINISHED FLOOR

### ELECTRICAL LIGHTING PLAN

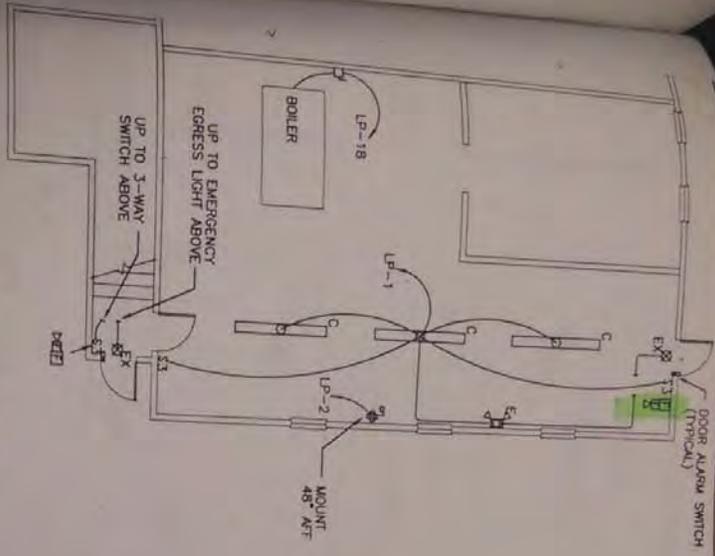
SCALE AS NOTED

R L C ARCHITECTS, INC.  
P.O. BOX 257  
INDOORVILLE, MA 01740-0257

SOULE GYMNASIUM  
652 HAMMOND ST.  
BROOKLINE, MASSACHUSETTS

MARCH 26, 1987

DWG NO  
1



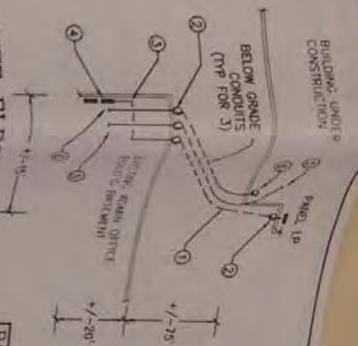
### LOWER LEVEL ELECTRICAL PLAN

SCALE: 1/8" = 1'

ITEM	DESCRIPTION	MANUFACTURER	CATALOG NO.	VOLTAGE	NO. OF LAMPS/ TYPE/MULTIAGE	WATTAGE	REMARKS
A	FLORESCENT	HUBBELL	N448019-120	120V	2 / F32T8/3500 / 32W	CL10	
B	FLORESCENT	HUBBELL	R41-25049-402	120V	1 / MH / 250W	CL10	
C	FLORESCENT	HUBBELL	S482R-81-120	120V	2 / F32T8/3500 / 32W	PRE GUARD	
D	WALL MTD FLOR	HUBBELL	N448019-120	120V	2 / F32T8/3500 / 32W	CL10	
E	DRUM LIGHT	GE	5740-7	120V	1 / PAR 19 / 75W	CL10	
F	EM. EGRESS	HUBBELL	HE6-12-2-R61-WO-L	120V	N/A	WIRE GUARD	
EX	EXT SIGN	HUBBELL	LED1-EM-R-B-W-WOW	120V	LED	WIRE GUARD	
EX	WALL PACK	HUBBELL	PRP-2504-118	120V	1 / MH / 250W	WIRE GUARD	

### SITE ELECTRICAL PLAN

NOT TO SCALE



### SITE NOTES:

1. BELOW GRADE UNDER 2 1/2" PVC (4) 1 1/2" AME 1 1/2" AME (2) 200A
2. WEATHERPROOF JUNCTION BOX
3. EXPOSED CONDUIT 1 1/2" PVC (4) 1 1/2" AME 2 1/2" AME (2) 200A
4. EXISTING PANEL FINISH & INSTALL NEW EXISTING PANEL MANUFACTURER MATCH
5. 3/4" PVC EMPT. CONDUIT WITH PULL LINE TO EXISTING TERNSE SERVICE ENTRANCE. LOCATE OTHER END AS DIRECTED BY OWNER (EXPOSED CONDUIT IS 1 1/2")
6. 1" PVC CONDUIT FOR AIRLISON ALARM CABLES TO AIRLISON ALARM AND FIRE ALARM SERVICE ENTRANCE. LOCATE OTHER END IN A JUNCTION BOX AS DIRECTED BY ALARM COMPANY

### DRAWING NOTES:

FOR GENERAL NOTES & LEGEND REFER TO DRAWING NO. E-1

### PANEL SCHEDULE "1P"

NO.	AMPS	PAGES	LOAD	DESCRIPTION	REMARKS
1	20	1	400	BASEMENT LIGHTING	
2	20	1	360	BASEMENT RECEPTACLE	
3	20	1	500	SIDE HALL RECEPTACLE	
4	20	1	360	SIDE HALL RECEPTACLE	
5	20	1	1200	MAIN HALL LIGHTING CMT 1	
6	20	1	1200	MAIN HALL LIGHTING CMT 2	
7	20	1	1200	MAIN HALL LIGHTING CMT 3	
8	20	1	600	MAIN HALL LIGHTING CMT 4	
9	20	1	600	MAIN HALL LIGHTING CMT 5	
10	20	1	1200	EMERGENCY LIGHTING	
11	20	1	1440	MAIN HALL RECEPTACLES	
12	20	1	500	FIRE ALARM SYSTEM	
13	20	1	1440	SCOREBOARD POWER	
14	20	1	300	EXHAUST FAN (EF-1) POWER	
15	20	3	5000	FEED TO AMB-1	
16	20	3	5000	FEED TO AMB-2	
17	20	1	500	AIRFC LIGHT & RECEPT	
18	20	1	1440	FEED TO BOILER	
19	20	1	1440	EXTERIOR LIGHT CMT 1	VA TIMELOCK
20	20	1	1440	EXTERIOR LIGHT CMT 2	VA TIMELOCK
21	20	1	600	TIMELOCK CONTROL POWER	
22	20	1	1440	SPRINK	
23	20	1	1440	SPRINK	
24	20	1	1440	SPRINK	
25	20	1	1440	SPRINK	
26	20	1	1440	SPRINK	
27	20	1	1440	SPRINK	
28	20	1	1440	SPRINK	
29	20	1	1440	SPRINK	
30	20	1	1440	SPRINK	

NOTE: THIS IS A 30 CIRCUIT PANEL.

TOTAL LOAD: 34640 LOAD CURRENT: 97

DATE: MARCH 26, 1981

DWG NO: E-2

SOULE GYMNASIUM  
452 HAMMOND ST.  
BROOKLINE, MASSACHUSETTS

### LOWER LEVEL ELECTRICAL PLAN

SCALE AS NOTED

R L C ARCHITECTS, INC.  
P.O. BOX 257  
HOPKINTON, MA 01748-0257

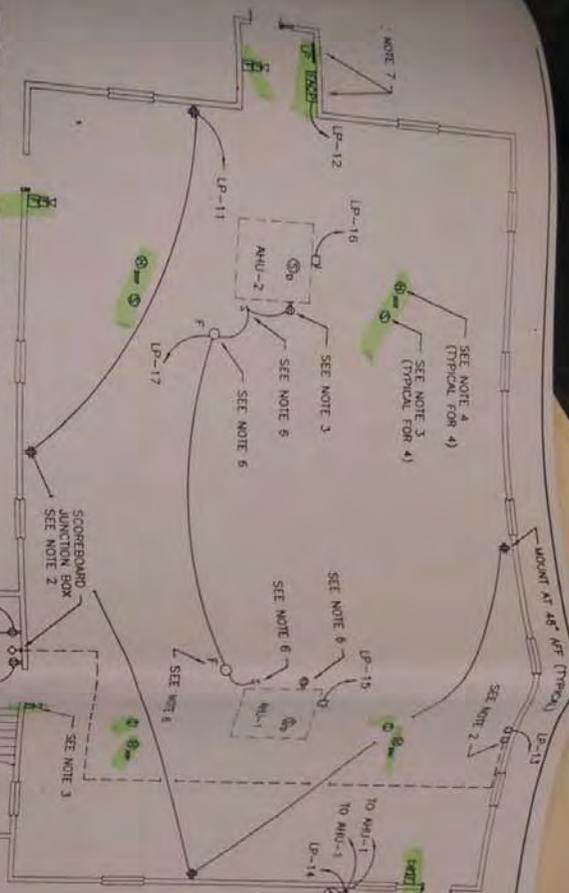
*Copy on file  
H. J. O'Connell  
R. L. C. Architects, Inc.  
Beaman*

# UPPER LEVEL POWER PLAN

SCALE: 1/8" = 1'

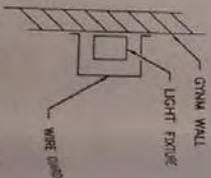
## DRAWING NOTES:

1. FOR GENERAL NOTES & LEGEND REFER TO DRAWING NO. E-1
2. FURNISH POWER TO RECEPTACLE & JUNCTION BOX AT SCOREBOARD, ROUTE CONTROL CABLES VIA 1/2" EMT CONDUIT TO SCOREBOARD LOCATION DESIGNATED BY THE ARCHITECT.
3. FURNISH DEVICES WITH A WIRE GUARD
4. LOCATE HEAT DETECTORS IN THE ATTIC AS SHOWN
5. FOR BID PURPOSES, USE 100 FEET OF 1/2" PVC AND 100 FEET OF 1/2" EMT CONDUIT TO CONNECT TO EXISTING MASTER BOX
6. LOCATE ADJACENT TO HVAC EQUIPMENT AS NECESSARY
7. FURNISH PANELS WITH LOCKABLE DOORS
8. CONNECT FAN INTERLOCK TO AHU's



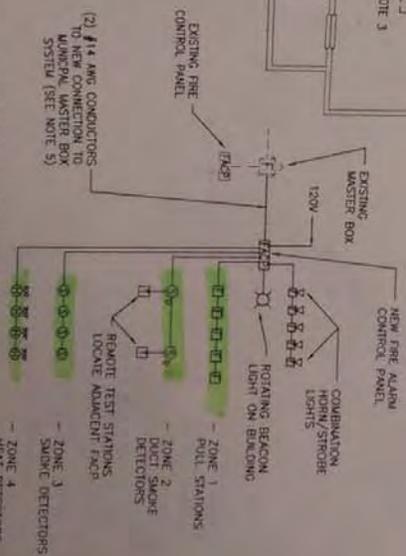
## WIRE GUARD DETAIL

NOT TO SCALE



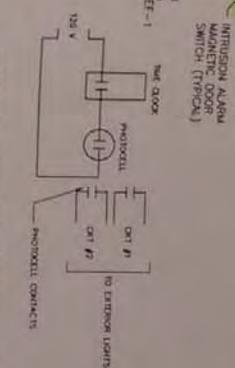
## FIRE ALARM RISER DIAGRAM

NOT TO SCALE



## EXTERIOR LIGHTING CONTROL CIRCUIT

NOT TO SCALE



DWG NO. 101  
SOULE GYMNASIUM  
652 HAMMOND ST.  
BROOKLINE, MASSACHUSETTS

# UPPER LEVEL POWER PLAN

SCALE AS NOTED

R. L. C. ARCHITECTS, INC.  
P.O. BOX 287  
HOPKINTON, MA 01749-0287

MARCH 28, 1981

Underground Storage Tank (UST) Closure and  
Limited Removal Action (LRA)  
**Town of Brookline Soule Recreation Center**  
652 Hammond Street  
Brookline, Massachusetts  
VERTEX Project No. 0197

---

**VERTEX**

Health of Massachusetts  
Fire Services  
Marshal



Hammond St.

652 Hammond St.  
Brookline, Mass.

# VERTEX

Engineering Services Inc.

Underground Storage Tank (UST) Closure and  
Limited Removal Action (LRA)  
**Town of Brookline Soule Recreation Center**  
652 Hammond Street  
Brookline, Massachusetts  
VERTEX Project No. 0197

Engineers

Scientists

Construction Managers



**Underground Storage Tank (UST) Closure and  
Limited Removal Action (LRA)  
Town of Brookline Soule Recreation Center  
652 Hammond Street  
Brookline, Massachusetts**

**1.0 INTRODUCTION**

On June 28, 1996, VERTEX Engineering Services, Inc. (VERTEX) was contracted to oversee the excavation and removal of an underground storage tank (UST) from property known as the Soule Recreation Center, located at 652 Hammond Street, Brookline, Massachusetts (the "site"). Please see Figure 1 - Site Locus Map.

Petroleum hydrocarbon impacted soil was encountered during storage tank closure activities conducted on June 27 and 28, 1996. The storage tank was encountered in the basement level of a former maintenance shed during site work associated with a new recreation center and playground for the site. Apparently, the maintenance shed was raised while the foundation was abandoned in place. The partially filled oil tank was backfilled in the basement following the demolition of the maintenance shed. Pursuant with 527 CMR 9.00, if 10 percent or more of a storage tank is touching the ground surface, the storage tank shall be considered a UST.

The UST was found on its side during the June 1996 closure activities. Most of the contents of the UST were pumped; however, oil was also observed on the soil immediately surrounding the tank and on the underlying concrete surface, formerly the basement floor.

Figure 2 is a Site Schematic which depicts the location of the former UST and other pertinent site features. Appendix A is Photographic Documentation of the closure activities.

**2.0 RESPONSE ACTIONS**

All soil was removed from the basement floor and from within each of the four remaining walls and stockpiled on site for off-site disposal. Following the excavation of the soil from the basement, all walls and base of the foundation were removed in order to assess the underlying soil conditions. Soil samples were placed into 250 mL driller jars for field screening according to the standard "jar headspace" protocol. Field screening was conducted utilizing an HNu model 10.2 eV photo-ionization detector (PID) calibrated "as benzene" to an isobutylene standard. Approximately 62 cubic yards of No. 2 fuel oil contaminated soil was stockpiled onto 6-mil polyethylene sheeting for off-site disposal.

Five grab samples (S-1 through S-5) were collected from beneath the foundation and submitted to Mitkem Corporation, Warwick, Rhode Island for total petroleum hydrocarbon (TPH) analysis according to EPA Method 8100 Modified. One composite soil sample was collected from the stockpile for disposal characterization in accordance with DEP's Interim Remediation Waste Management Policy for Petroleum Contaminated Soils #WSC-94-400. None of the grab samples exhibited TPH concentrations exceeding the laboratory reporting limits; therefore, further soil excavation was not warranted. Copies of the laboratory analytical data reports are included with this report as Appendix B.



serial 57.

1-2 19 \_\_\_\_\_

### 3.0 PETROLEUM IMPACTED SOIL MANAGEMENT

On July 31, 1996, 93.03 tons of petroleum impacted soil was loaded and hauled from the site for off-site asphalt batching at Bardon Trimount's facility located in Stoughton, Massachusetts under DEP Bill of Lading (BWSC-012). Excavation of soil from the vicinity of the former UST was performed as part of a Limited Removal Action (LRA) in accordance with 310 CMR 40.0318. A copy of the Bill of Lading Package has been included as Appendix C.

### 4.0 CONCLUSION AND RECOMMENDATIONS

The presumed background concentrations for Oil and Hazardous Materials (OHM) encountered in the soil at the site are not non-detectable concentrations (ND). Approximately 62 cubic yards of petroleum impacted soil was excavated and disposed of off-site in July 1996.

Post excavation soil samples collected from the vicinity of the former No. 2 fuel oil UST were analyzed for TPH according to EPA Method 8100 Modified. TPH concentrations did not exceed the laboratories reporting limits. Therefore, VERTEX does not recommend additional remedial work at the site.

Commonwealth of Massachusetts  
Fire Services  
Marshal



Small St.

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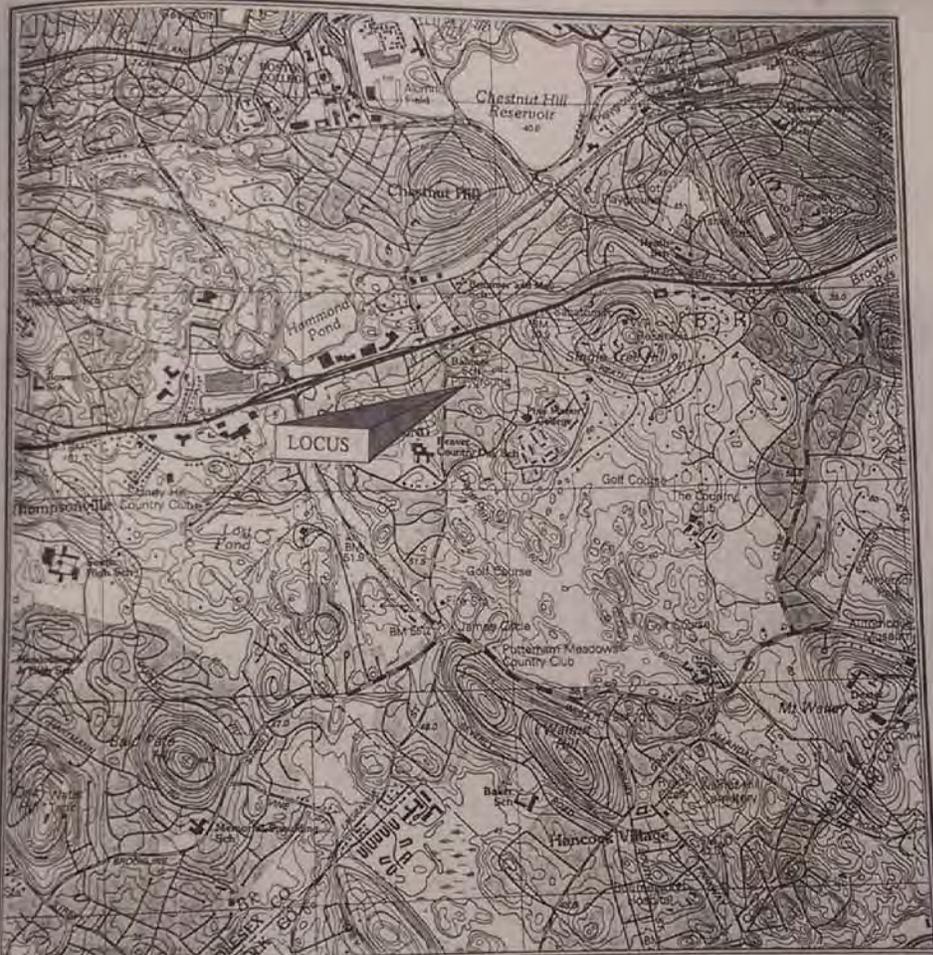
FIGURES

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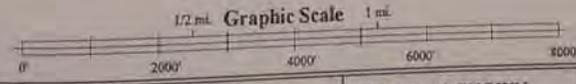
Commonwealth of Massachusetts  
Fire Services  
Fire Marshal



257



USGS Topographic Map  
Boston South, Massachusetts Quadrangle (1987)  
Contour Interval: 3 Meters

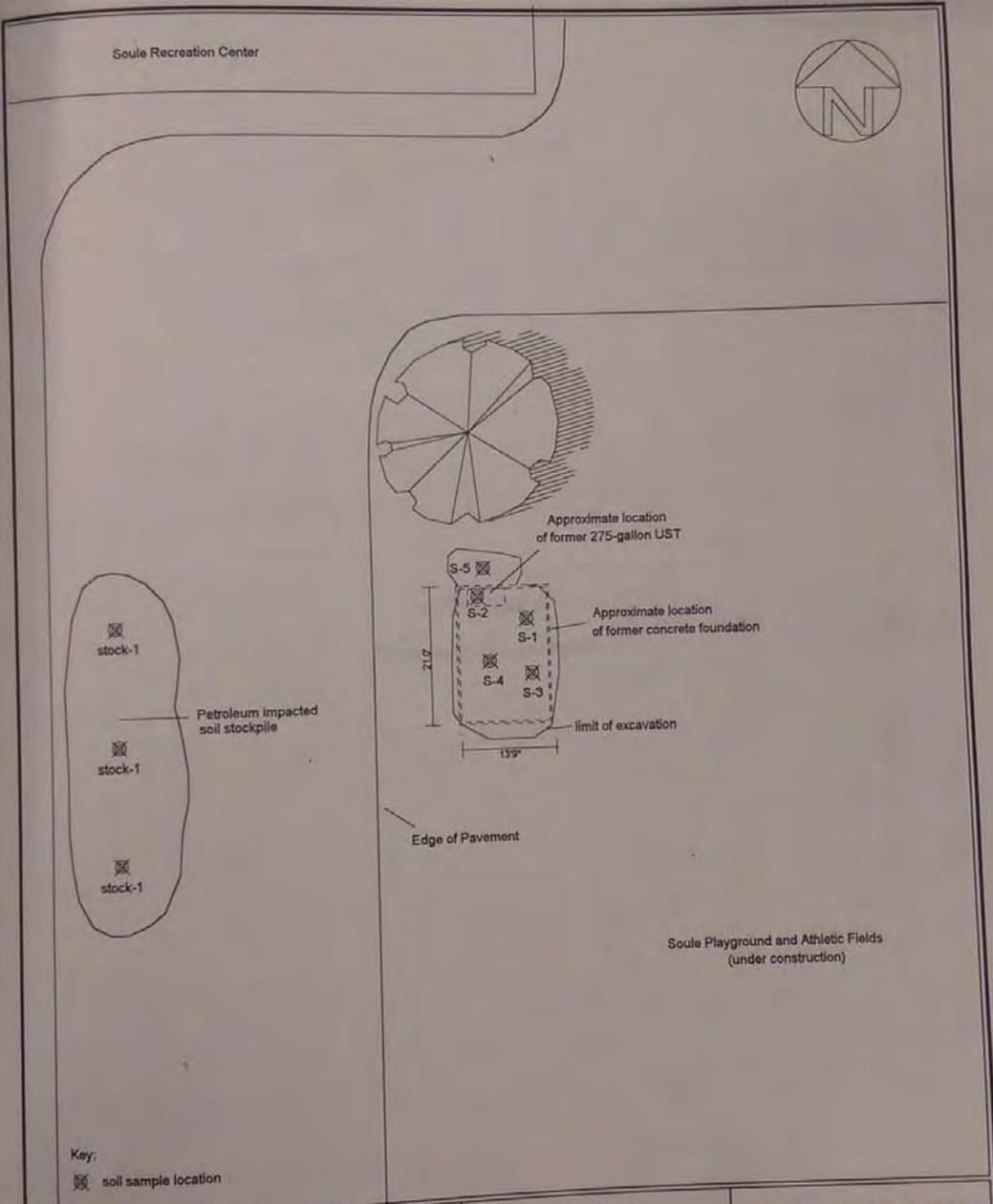


<b>SITE LOCUS MAP</b> Town of Brookline Soule Recreation Center 652 Hammond Street Brookline, Massachusetts	SCALE AS SHOWN	<b>VERTEX</b> Engineering Services, Inc. FIGURE NO. 1
	October 8, 1996	
	VERTEX PROJ. NO. 0197	



Hammond St.

652 Hammond St.  
Scale 1/4" = 1'-0"



<b>SITE SCHEMATIC</b> Town of Brookline Soule Recreation Center 652 Hammond Street Brookline, Massachusetts	SCALE: Not to Scale	<b>VERTEX</b> Engineering Services, Inc. Figure No. 2
	October 8, 1996	
	VERTEX PROJ. NO. 0197	



Handwritten initials: "Hand St."

APPENDIX A

Photographic Documentation

PHOTOGRAPHIC  
DOCUMENTATION

VENTER

**VERTEX**  
Engineering Services, Inc.

VERTEX PROJ. NO. 0197  
October 8, 1996

**PHOTOGRAPHIC  
DOCUMENTATION**  
Town of Brookline Soule Recreation Center  
652 Hammond Street  
Brookline, Massachusetts

Photograph depicts the No. 2 impacted soil located in the immediate vicinity of the UST.



A-5

Photograph depict the 275-gallon No. 2 fuel oil storage tank upon removal from the basement.



A-1



Commonwealth of Massachusetts  
Fire Services - Marshal

10  
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and St.

A-3



Photograph depict the basement floor (post excavation), prior to demolition of the walls.

A-4



Photograph depicts soil exploration activities along the exterior of the eastern basement wall.

**PHOTOGRAPHIC  
DOCUMENTATION**

Town of Brookline Soule Recreation Center  
652 Hammond Street  
Brookline, Massachusetts

VERTEX PROJ. NO. 0197

October 8, 1996

**VERTEX**

Engineering Services, Inc.



**APPENDIX B**

Laboratory Analytical Results



Handwritten initials



July 12, 1996

Vertex Engineering Services  
400 Libbey Parkway  
Weymouth, MA 02189

Attn: Mr. Jim O' Brien

Dear Mr. O' Brien

RE: Project # 197  
Lab Project # C0616

Enclosed is the Data Report of the analyses required for the samples associated with the Project. If you have any questions regarding this report, please contact either Kin Chiu or myself.

We appreciate your business.

Sincerely,

Reinier A. Courant  
QA/QC Director



Client: Vertex Engineering Services

Client Project: 197 (Brookline)

Lab Project No.: C0616

Date Samples Received: June 28, 1996

#### Project Narrative

Six (6) soil samples were received from Vertex Engineering Services on June 28, 1996 and analyzed for the parameters specified in the Chain of Custody Form. For reference, a copy of the Mitkem Sample Log-in Sheet is included for cross-referencing the Client sample ID and laboratory sample ID.

No unusual observation was made for the analysis.

The enclosed data package has been reviewed and is authorized for release as evidenced by the signature below.

A handwritten signature in dark ink, appearing to read "RC", written over a horizontal line.

Reinier A. Courant  
QA/QC Director



Data Qualifiers:

- J Detected below the Reporting Limit
- B The analyte was detected in the associated Method Blank
- D The analyte concentration is obtained from a diluted analysis
- E The analyte concentration exceeded the calibration range



Massachusetts



road st.



Analysis Report: Wet Chemistry Parameters

Client: Vertex Engineering Services  
Client ID: Stock-1  
Lab ID: C0616-06

Matrix: Soil

Analyte	Results	Reporting Limit	Units	Analysis Method	Analysis Date
Cyanide, reactive	ND	0.5	mg/kg	SW846 7.3.3.2	7/6/96
Flashpoint	No Flash	*	degF	SW846 1010	7/1/96
pH	7.8		S.U.	SM 4500-H B	7/3/96
Sulfides, reactive	ND	1	mg/kg	SW846 7.3.4.2	7/6/96

ND = Not detected

\* Up to 200 deg F

37.61

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(12)







Massachusetts



Small St.



Analysis Report: Total Metals

Client: Vertex Engineering Services

Client ID:

Lab ID: Lab Control Sample, 0703 LCSS

Analysis Method: 7471 (Mercury)

6010 (Others)

Matrix: Soil

Analysis Date: 7/5/96

Analyte

% Recovery

Arsenic	151
Cadmium	139
Chromium	126
Lead	139
Mercury	96

QC Batch: 0703 PBS

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### Analysis Report: Polychlorinated Biphenyls (PCB)

Client: Vertex Engineering Services  
Client ID:  
Lab ID: Method Blank, P0703-B1  
Analysis: Method 8080

Analysis Date: 7/3/96  
Matrix: Soil  
Concentration in: ug/kg  
Dilution: 1

Analyte	Results	Reporting Limits
Aroclor-1016	ND	33
Aroclor-1221	ND	66
Aroclor-1232	ND	33
Aroclor-1242	ND	33
Aroclor-1248	ND	33
Aroclor-1254	ND	33
Aroclor-1260	ND	33

Surrogate Recovery:  
2,4,5,6-Tetrachloro-m-xylene 72%  
Decachlorobiphenyl 70%

ND=Not Detected

QC Batch: P0703-B1

10

C0616-MB



Handwritten initials: "ST."



Analysis Report: Volatile Organic Compounds

Client: Vertex Engineering Services  
Client ID: Stock-1  
Lab ID: C0616-06  
Analysis: Method 8260

Analysis Date: 7/2/96  
Matrix: Soil, 89% solids  
Concentration in: ug/kg, dry weight basis  
Dilution: 1

Analyte	Results	Reporting Limits
Dichlorodifluoromethane	ND	6
Chloromethane	ND	6
Vinyl chloride	ND	6
Bromomethane	ND	6
Chloroethane	ND	6
Trichlorofluoromethane	ND	6
1,1-Dichloroethene	ND	6
Carbon disulfide	ND	6
Iodomethane	ND	6
Acetone	ND	6
Methylene chloride	9 B	6
trans-1,2-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
Vinyl acetate	ND	6
2,2-Dichloropropane	ND	6
cis-1,2-Dichloroethene	ND	6
Methyl ethyl ketone	ND	6
Bromochloromethane	ND	6
Chloroform	ND	6
1,1,1-Trichloroethane	ND	6
Carbon tetrachloride	ND	6
1,1-Dichloropropene	ND	6
Benzene	ND	6
1,2-Dichloroethane	ND	6
Trichloroethene	ND	6
1,2-Dichloropropane	ND	6
Dibromomethane	ND	6
Bromodichloromethane	ND	6
2-Chloroethyl vinyl ether	ND	6
cis-1,3-Dichloropropene	ND	6
4-Methyl-2-pentanone	4 J	6
Toluene		



anal. st.



Client ID: Stock-1

Lab ID: C0616-06

Analyte	Results	Reporting Limits
trans-1,3-Dichloropropene	ND	6
1,1,2-Trichloroethane	ND	6
Tetrachloroethene	ND	6
1,3-Dichloropropane	ND	6
2-Hexanone	ND	6
Dibromochloromethane	ND	6
1,2-Dibromoethane (EDB)	ND	6
Chlorobenzene	ND	6
1,1,1,2-Tetrachloroethane	ND	6
Ethylbenzene	8	6
Xylenes, total	48	6
Styrene	ND	6
Bromoform	ND	6
Isopropylbenzene	4 J	6
Bromobenzene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
1,2,3-Trichloropropane	ND	6
n-Propylbenzene	10	6
2-Chlorotoluene	ND	6
4-Chlorotoluene	ND	6
1,3,5-Trimethylbenzene	45	6
tert-Butylbenzene	ND	6
1,2,4-Trimethylbenzene	96	6
sec-Butylbenzene	5 J	6
1,3-Dichlorobenzene	ND	6
4-Isopropyltoluene	8	6
1,4-Dichlorobenzene	ND	6
1,2-Dichlorobenzene	ND	6
n-Butylbenzene	28	6
1,2-Dibromo-3-chloropropane	ND	6
1,2,4-Trichlorobenzene	ND	6
Hexachlorobutadiene	ND	6
1,2,3-Trichlorobenzene	ND	6
MTBE	ND	6

QC Batch: V2B0702A

Surrogate Recovery:	102%
1,2-Dichloroethane-d4	102%
Toluene-d8	95%
Bromofluorobenzene	

ND = Not detected



Analysis Report: Volatile Organic Compounds

Client: Vertex Engineering Services  
 Client ID:  
 Lab ID: Method Blank, V2B0702A  
 Analysis: Method 8260

Analysis Date: 7/2/96  
 Matrix: Soil  
 Concentration in: ug/kg  
 Dilution: 1

Analyte	Results	Reporting Limits
Dichlorodifluoromethane	ND	5
Chloromethane	ND	5
Vinyl chloride	ND	5
Bromomethane	ND	5
Chloroethane	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
Carbon disulfide	ND	5
Iodomethane	ND	5
Acetone	ND	5
Methylene chloride	14	5
trans-1,2-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
Vinyl acetate	ND	5
2,2-Dichloropropane	ND	5
cis-1,2-Dichloroethene	ND	5
Methyl ethyl ketone	ND	5
Bromochloromethane	ND	5
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
1,1-Dichloropropene	ND	5
Benzene	ND	5
1,2-Dichloroethane	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Dibromomethane	ND	5
Bromodichloromethane	ND	5
2-Chloroethyl vinyl ether	ND	5
cis-1,3-Dichloropropene	ND	5
4-Methyl-2-pentanone	ND	5
Toluene	ND	5



MITKEM CORPORATION

Client ID:

Lab ID: Method Blank, V2B0702A

Analyte	Results	Reporting Limits
trans-1,3-Dichloropropene	ND	5
1,1,2-Trichloroethane	ND	5
Tetrachloroethene	ND	5
1,3-Dichloropropane	ND	5
2-Hexanone	ND	5
Dibromochloromethane	ND	5
1,2-Dibromoethane (EDB)	ND	5
Chlorobenzene	ND	5
1,1,1,2-Tetrachloroethane	ND	5
Ethylbenzene	ND	5
Xylenes, total	ND	5
Styrene	ND	5
Bromoform	ND	5
Isopropylbenzene	ND	5
Bromobenzene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,2,3-Trichloropropane	ND	5
n-Propylbenzene	ND	5
2-Chlorotoluene	ND	5
4-Chlorotoluene	ND	5
1,3,5-Trimethylbenzene	ND	5
tert-Butylbenzene	ND	5
1,2,4-Trimethylbenzene	ND	5
sec-Butylbenzene	ND	5
1,3-Dichlorobenzene	ND	5
4-Isopropyltoluene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
n-Butylbenzene	ND	5
1,2-Dibromo-3-chloropropane	ND	5
1,2,4-Trichlorobenzene	ND	5
Hexachlorobutadiene	ND	5
1,2,3-Trichlorobenzene	ND	5
MTBE		

QC Batch: V2B070

Surrogate Recovery: 103%  
 1,2-Dichloroethane-d4 103%  
 Toluene-d8 99%  
 Bromofluorobenzene

ND = Not detected

**MITCHELL CORPORATION**

175 Metro Center Boulevard • Warwick, Rhode Island 02886-1755  
 (401) 732-3400 • Fax (401) 732-3499  
 1222 East Broadway Road • Suite 210 • Tempe, Arizona 85282  
 (602) 303-9335 • Fax (602) 921-2883

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

LAB REFERENCE #: \_\_\_\_\_

TURNAROUND TIME: ASAP

INVOICE TO: \_\_\_\_\_

LABORATORY: \_\_\_\_\_

PHONE: \_\_\_\_\_

FAX: \_\_\_\_\_

COMPANY: SAME

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY/STATE/ZIP: \_\_\_\_\_

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	CLIENT PROJECT #:				LAB ID	# OF CONTAINERS	REQUESTED ANALYSES						COMMENTS					
		COMPOSITE	GRAB	WATER	SOIL			OTHER	PH	PCB's	AS	CO	LEAD		PH				
S-1	6-28 / 8:30	X	X	X	X		1	X											
S-2	6-28 / 8:30	X	X	X	X		1	X											
S-3	6-28 / 8:30	X	X	X	X		1	X											
S-4	6-28 / 8:30	X	X	X	X		1	X											
S-5	6-28 / 8:30	X	X	X	X		6	X	X	X	X	X	X	X	X	X	X	X	X
STOCK-1	6-28 / 10:00																		

CLIENT PROJECT #: 197

CLIENT P.O.#: 197

DATE/TIME: 6/28 / 2:00

DATE/TIME: 6/28 / 12:00

ACCEPTED BY: [Signature]

ADDITIONAL REMARKS: \_\_\_\_\_

COOLER TEMP: \_\_\_\_\_

WHITE: LABORATORY COPY

YELLOW: REPORT COPY

PINK: CLIENT'S COPY

Health of Massachusetts  
 Services  
 Marshal



12B



Commonwealth of Massachusetts  
Fire Services  
Marshal



mail st.



August 1, 1996

Vertex Engineering Corporation  
400 Libbey Parkway  
Weymouth, MA 02189

Attn: Mr. Jim O'Brien

RE: Project: 197  
Lab Project # C0712

Dear Mr. O'Brien:

Enclosed is the Data Report of the analyses required for the sample associated with the Project. If you have any questions regarding this report please contact either Kin Chiu or myself.

We appreciate your business.

Sincerely,

Reinier A. Courant  
QA/QC Director

175 Metro Center Boulevard • Warwick, Rhode Island 02886-1755 • (401) 732-3400 Fax (401) 732-3499  
1232 East Broadway Road, Suite 210 • Tempe, Arizona • (602) 303-9535 • Fax (602) 921-2883  
email: mitkem19@mail.idt.net

... P. Massachusetts



... St.



Client: Vertex Engineering Services

Client Project: 0197

Lab Project No.: C0712

Date Samples Received: June 28, 1996

#### Project Narrative

Per client's request on July 25, 1996, additional TCLP analysis for lead was performed for one (1) soil sample that was received from Vertex Engineering Services on June 28, 1996. For reference, a copy of the Mitkem Sample Log-in Sheet is included for cross-referencing the Client sample ID and laboratory sample ID.

No unusual observation was made for the analysis.

The enclosed data package has been reviewed and is authorized for release as evidenced by the signature below.

A handwritten signature in dark ink, appearing to read "Reinier A. Courant".

Reinier A. Courant  
QA/QC Director

Commonwealth of Massachusetts  
Department of Fire Services  
State Fire Marshal  
MA 01775  
BOSTON



6/24/02

19

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658  
Scale  
Leachate  
P...



Analysis Report: TCLP Lead

Client: Vertex Engineering Services  
Analysis Method: 6010A

Matrix: TCLP Leachate  
Concentration in: mg/L  
Analysis Date: 7/29/96

Lab ID	Client ID	Result
C0712-01	Stock-1	1.7

Reporting Limits 0.005

QA/QC

TCLP Blank  
0726FL1 ND

ND = Not detected

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am/pm

Massachusetts



Central St.

CB 21

BWSC-012B

Release Tracking Number:  
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Page Representative:  
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Last Page of Data Report

Page

Massachusetts



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APPENDIX C  
Bill of Lading Package



Date: 6/24/02  
SAFE NUMBER  
17.2.40

**Massachusetts Department of Environmental Protection** BWSC-012A  
**Bureau of Waste Site Cleanup**  
**DEP**  
**BILL OF LADING** (pursuant to 310 CMR 40.0030)

**LOCATION OF SITE OR DISPOSAL SITE WHERE REMEDIATION WASTE WAS GENERATED:**  
Release Name (optional): Town of Brookline Soule Recreation Center  
Address: 652 Hammond Street Location Aid: \_\_\_\_\_  
City/Town: Brookline Zip Code: 02167  
Period of Generation: 6/27/96 to 6/28/96  
Release Tracking Numbers Associated with this Bill of Lading: \_\_\_\_\_

\*Note: If this Bill of Lading is the result of a Limited Removal Action (LRA) taken prior to Notification, a Release Tracking Number is not needed.

**B. PERSON CONDUCTING RESPONSE ACTION ASSOCIATED WITH BILL OF LADING:**  
Name of Organization: Town of Brookline Department of Public Works Engineering Div.  
Name of Contact: Keith Coleman, P.E. Title: Project Engineer  
Street: 333 Washington Street  
Town: Brookline State: MA Zip Code: 02146  
Telephone: 617-730-2316 Ext. \_\_\_\_\_

**C. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON CONDUCTING RESPONSE ACTION ASSOCIATED WITH BILL OF LADING:**  
(check one/specify)  
 RP Specify (circle one): Owner Operator Generator Transporter Other RP: \_\_\_\_\_  
 PRP Specify (circle one): Owner Operator Generator Transporter Other PRP: \_\_\_\_\_  
 Fiduciary/Secured Lender  
 Agency/Public Utility on a Right of Way  
 Other Person: \_\_\_\_\_  
If an owner and/or operator is not conducting the response action associated with the Bill of Lading, provide on an attachment the name, address and telephone number, including any area code and extension, for each, if known.

**D. TRANSPORTER/Common CARRIER INFORMATION:**  
Transporter/Common Carrier Name: Bardon Trimont, Inc.  
Contact Person: David Peters Title: Dir. Environmental Services  
Street: 1101 Turnpike Street  
City/Town: Stoughton State: MA Zip Code: 02072  
Telephone: 617-341-5500 Ext. \_\_\_\_\_

**E. RECEIVING FACILITY/TEMPORARY STORAGE LOCATION:**  
Operator/Facility Name: Bardon Trimont, Inc.  
Contact Person: David Peters Title: Dir. Environmental Services  
Street: 1101 Turnpike Street  
City/Town: Stoughton State: MA Zip Code: 02072  
Telephone: 617-341-5500 Ext. \_\_\_\_\_  
Type of Facility: (check one)  
 Asphalt Batch/Cold Mix  Landfill/Disposal  Incinerator  
 Asphalt Batch/Hot Mix  Landfill/Daily Cover  Temporary Storage  
 Thermal Processing  Landfill/Structural Fill  Other: \_\_\_\_\_  
Division of Hazardous Waste/Class A Permit #: S-90-020 Division of Solid Waste Management Permit #: N/A EPA Identification #: MAD981213331  
Actual/Anticipated Period of Temporary Storage (specify dates if applicable): \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Reason for Temporary Storage (if applicable): \_\_\_\_\_



**Massachusetts Department of Environmental Protection**  
Bureau of Waste Site Cleanup

BWSC-012A

Release Tracking Number

N/A

**BILL OF LADING** (pursuant to 310 CMR 40.0030)

**E. RECEIVING FACILITY/TEMPORARY STORAGE LOCATION (continued):**

Temporary Storage Address:  
Street: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
City/Town: \_\_\_\_\_ State: \_\_\_\_\_

**F. DESCRIPTION OF REMEDIATION WASTE:**

(check all that apply)

Contaminated Media (circle all that apply): Soil Groundwater Surface Water Other: \_\_\_\_\_  
 Contaminated Debris (circle all that apply): Demolition/Construction Waste Vegetation/Organic Materials  
 Inorganic Absorbent Materials Other: \_\_\_\_\_  
 Non-hazardous Uncontainerized Waste (circle all that apply): Non-aqueous Phase Liquid Other: \_\_\_\_\_  
 Non-hazardous Containerized Waste (circle all that apply): Tank Bottoms/Sludges Containers Drums  
 Engineered Impoundments Other: \_\_\_\_\_  
 Type of Contamination (circle all that apply): Gasoline Diesel Fuel #2 Oil #4 Oil #6 Oil Waste Oil  
 Kerosene Jet Fuel Other: \_\_\_\_\_  
 Estimated Volume of Materials: Cubic Yards: less than 100 Tons: 100-150 Other: \_\_\_\_\_  
 Contaminant Source (check one/specify):  Transportation Accident  Underground Storage Tank  Other: \_\_\_\_\_  
 Response Action Associated with Bill of Lading (circle one): Immediate Response Action Release Abatement Measure  
 Utility-Related Abatement Measure Limited Removal Action (LRA) Comprehensive Response Action  
 Other (specify): \_\_\_\_\_

Remediation Waste Characterization Support Documentation attached:

Site History Information  Sampling and Analytical Methods and Procedures  Laboratory Data  Field Screening Data

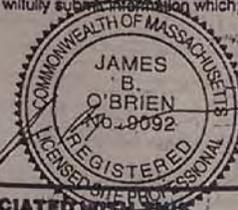
If supporting documentation is not appended, provide an attachment stating the date and in connection with what document such information was previously submitted to DEP.

**G. LICENSED SITE PROFESSIONAL (LSP) OPINION:**

Name of Organization: Vertex Engineering Services, Inc.  
 LSP Name: James B. O'Brien Title: President  
 Telephone: 617 - 335 - 6361 Ext. \_\_\_\_\_

I have personally examined and am familiar with the information contained on and submitted with this form. Based on this information, it is my opinion that the testing and assessment actions undertaken were adequate to characterize the Remediation Waste, in accordance with 310 CMR 40.0030, and that the facility or location can accept remediation wastes with the characteristics described in this submittal. I am aware that significant penalties including, but not limited to, possible fines and imprisonment may result if I wilfully submit information which I know to be false, inaccurate, or materially incomplete.

Signature: \_\_\_\_\_ Seal: \_\_\_\_\_  
 Date: 7/24/96  
 License Number: 9092



**H. CERTIFICATION OF PERSON CONDUCTING RESPONSE ACTION ASSOCIATED WITH THIS BILL OF LADING:**

I certify under penalties of law that I have personally examined and am familiar with the information contained in this submittal, including any notes and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for wilfully submitting false, inaccurate, or incomplete information.

Signature: Keith A. Coleman Date: 7/24/96  
 Keith Coleman, P.E.



Handwritten initials: "Hand SF"

Handwritten number: "6587 H"

Handwritten number: "CB 21"

Handwritten number: "37.6"



Massachusetts Department of Environmental Protection **BWSC-012B**  
Bureau of Waste Site Cleanup

**BILL OF LADING (pursuant to 310 CMR 40.0030)**  
**LOG SHEET** \_\_\_\_\_ **OF** \_\_\_\_\_

Release Tracking Number:

-  N/A

**I. LOAD INFORMATION:**

**LOAD 1:** Signature of Transporter Representative: \_\_\_\_\_

Date of Shipment: 2/31/96 Time of Shipment: 7:40 (circle one) am/pm

Truck/Tractor Registration: E13 903 Trailer Registration (if any): 11978

Receiving Facility/Temporary Storage Representative: \_\_\_\_\_

Date of Receipt: 2/31/96 Time of Receipt: 7:45

Load Size (cu. yds./tons): # 289471 (circle one) am/pm 27.35

**LOAD 2:** Signature of Transporter Representative: \_\_\_\_\_

Date of Shipment: 2/31/96 Time of Shipment: 9:10 (circle one) am/pm

Truck/Tractor Registration: E13 903 Trailer Registration (if any): 11978

Receiving Facility/Temporary Storage Representative: \_\_\_\_\_

Date of Receipt: 2/31/96 Time of Receipt: 9:52

Load Size (cu. yds./tons): # 289499 (circle one) am/pm 37.93

**LOAD 3:** Signature of Transporter Representative: \_\_\_\_\_

Date of Shipment: \_\_\_/\_\_\_/\_\_\_ Time of Shipment: \_\_\_:\_\_\_ (circle one) am/pm

Truck/Tractor Registration: \_\_\_\_\_ Trailer Registration (if any): \_\_\_\_\_

Receiving Facility/Temporary Storage Representative: \_\_\_\_\_

Date of Receipt: \_\_\_/\_\_\_/\_\_\_ Time of Receipt: \_\_\_:\_\_\_ (circle one) am/pm

Load Size (cu. yds./tons): \_\_\_\_\_

**LOAD 4:** Signature of Transporter Representative: \_\_\_\_\_

Date of Shipment: \_\_\_/\_\_\_/\_\_\_ Time of Shipment: \_\_\_:\_\_\_ (circle one) am/pm

Truck/Tractor Registration: \_\_\_\_\_ Trailer Registration (if any): \_\_\_\_\_

Receiving Facility/Temporary Storage Representative: \_\_\_\_\_

Date of Receipt: \_\_\_/\_\_\_/\_\_\_ Time of Receipt: \_\_\_:\_\_\_ (circle one) am/pm

Load Size (cu. yds./tons): \_\_\_\_\_

**LOAD 5:** Signature of Transporter Representative: \_\_\_\_\_

Date of Shipment: \_\_\_/\_\_\_/\_\_\_ Time of Shipment: \_\_\_:\_\_\_ (circle one) am/pm

Truck/Tractor Registration: \_\_\_\_\_ Trailer Registration (if any): \_\_\_\_\_

Receiving Facility/Temporary Storage Representative: \_\_\_\_\_

Date of Receipt: \_\_\_/\_\_\_/\_\_\_ Time of Receipt: \_\_\_:\_\_\_ (circle one) am/pm

Load Size (cu. yds./tons): \_\_\_\_\_

**LOAD 6:** Signature of Transporter Representative: \_\_\_\_\_

Date of Shipment: \_\_\_/\_\_\_/\_\_\_ Time of Shipment: \_\_\_:\_\_\_ (circle one) am/pm

Truck/Tractor Registration: \_\_\_\_\_ Trailer Registration (if any): \_\_\_\_\_

Receiving Facility/Temporary Storage Representative: \_\_\_\_\_

Date of Receipt: \_\_\_/\_\_\_/\_\_\_ Time of Receipt: \_\_\_:\_\_\_ (circle one) am/pm

Load Size (cu. yds./tons): \_\_\_\_\_

**LOAD 7:** Signature of Transporter Representative: \_\_\_\_\_

Date of Shipment: \_\_\_/\_\_\_/\_\_\_ Time of Shipment: \_\_\_:\_\_\_ (circle one) am/pm

Truck/Tractor Registration: \_\_\_\_\_ Trailer Registration (if any): \_\_\_\_\_

Receiving Facility/Temporary Storage Representative: \_\_\_\_\_

Date of Receipt: \_\_\_/\_\_\_/\_\_\_ Time of Receipt: \_\_\_:\_\_\_ (circle one) am/pm

Load Size (cu. yds./tons): \_\_\_\_\_

**J. LOG SHEET VOLUME INFORMATION:**

Total Volume This Page (cu. yds./tons): \_\_\_\_\_

Total Carried Forward (cu. yds./tons): \_\_\_\_\_

Total Carried Forward and This Page (cu. yds./tons): \_\_\_\_\_



Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

MARSHALL

BWSC-012B

BILL OF LADING (pursuant to 310 CMR 40.0030)  
LOG SHEET OF \_\_\_\_\_

Release Tracking Number:

N/A

I. LOAD INFORMATION:

LOAD 1: Signature of Transporter Representative: [Signature]

Date of Shipment: 7/31/96 Time of Shipment: 7:59 (circle one) am/pm

Truck/Tractor Registration: AH 982 Trailer Registration (if any): 61518

Receiving Facility/Temporary Storage Representative: [Signature]

Date of Receipt: 7/31/96 Time of Receipt: 8:30 (circle one) am/pm

Load Size (cu. yds./tons): # 289481 27.81

LOAD 2: Signature of Transporter Representative: \_\_\_\_\_

Date of Shipment: \_\_\_/\_\_\_/\_\_\_ Time of Shipment: \_\_\_:\_\_\_ (circle one) am/pm

Truck/Tractor Registration: \_\_\_\_\_ Trailer Registration (if any): \_\_\_\_\_

Receiving Facility/Temporary Storage Representative: \_\_\_\_\_

Date of Receipt: \_\_\_/\_\_\_/\_\_\_ Time of Receipt: \_\_\_:\_\_\_ (circle one) am/pm

Load Size (cu. yds./tons): \_\_\_\_\_

LOAD 3: Signature of Transporter Representative: \_\_\_\_\_

Date of Shipment: \_\_\_/\_\_\_/\_\_\_ Time of Shipment: \_\_\_:\_\_\_ (circle one) am/pm

Truck/Tractor Registration: \_\_\_\_\_ Trailer Registration (if any): \_\_\_\_\_

Receiving Facility/Temporary Storage Representative: \_\_\_\_\_

Date of Receipt: \_\_\_/\_\_\_/\_\_\_ Time of Receipt: \_\_\_:\_\_\_ (circle one) am/pm

Load Size (cu. yds./tons): \_\_\_\_\_

LOAD 4: Signature of Transporter Representative: \_\_\_\_\_

Date of Shipment: \_\_\_/\_\_\_/\_\_\_ Time of Shipment: \_\_\_:\_\_\_ (circle one) am/pm

Truck/Tractor Registration: \_\_\_\_\_ Trailer Registration (if any): \_\_\_\_\_

Receiving Facility/Temporary Storage Representative: \_\_\_\_\_

Date of Receipt: \_\_\_/\_\_\_/\_\_\_ Time of Receipt: \_\_\_:\_\_\_ (circle one) am/pm

Load Size (cu. yds./tons): \_\_\_\_\_

LOAD 5: Signature of Transporter Representative: \_\_\_\_\_

Date of Shipment: \_\_\_/\_\_\_/\_\_\_ Time of Shipment: \_\_\_:\_\_\_ (circle one) am/pm

Truck/Tractor Registration: \_\_\_\_\_ Trailer Registration (if any): \_\_\_\_\_

Receiving Facility/Temporary Storage Representative: \_\_\_\_\_

Date of Receipt: \_\_\_/\_\_\_/\_\_\_ Time of Receipt: \_\_\_:\_\_\_ (circle one) am/pm

Load Size (cu. yds./tons): \_\_\_\_\_

LOAD 6: Signature of Transporter Representative: \_\_\_\_\_

Date of Shipment: \_\_\_/\_\_\_/\_\_\_ Time of Shipment: \_\_\_:\_\_\_ (circle one) am/pm

Truck/Tractor Registration: \_\_\_\_\_ Trailer Registration (if any): \_\_\_\_\_

Receiving Facility/Temporary Storage Representative: \_\_\_\_\_

Date of Receipt: \_\_\_/\_\_\_/\_\_\_ Time of Receipt: \_\_\_:\_\_\_ (circle one) am/pm

Load Size (cu. yds./tons): \_\_\_\_\_

LOAD 7: Signature of Transporter Representative: \_\_\_\_\_

Date of Shipment: \_\_\_/\_\_\_/\_\_\_ Time of Shipment: \_\_\_:\_\_\_ (circle one) am/pm

Truck/Tractor Registration: \_\_\_\_\_ Trailer Registration (if any): \_\_\_\_\_

Receiving Facility/Temporary Storage Representative: \_\_\_\_\_

Date of Receipt: \_\_\_/\_\_\_/\_\_\_ Time of Receipt: \_\_\_:\_\_\_ (circle one) am/pm

Load Size (cu. yds./tons): \_\_\_\_\_

J. LOG SHEET VOLUME INFORMATION:

Total Volume This Page (cu.yds./tons): \_\_\_\_\_

Total Carried Forward (cu.yds./tons): \_\_\_\_\_

Total Carried Forward and This Page (cu.yds./tons): \_\_\_\_\_





Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

**BILL OF LADING** (pursuant to 310 CMR 40.0030)  
**SUMMARY SHEET**

BWSC-012C

Release Tracking Number:  
 - LPA

**L. ACKNOWLEDGEMENT OF RECEIPT OF REMEDIATION WASTE AT RECEIVING FACILITY OR TEMPORARY STORAGE LOCATION:**

Receiving Facility/Temporary Location Representative (print): David M. Peter Title: Manager-Env. Services  
Signature: David M. Peter Date: 8/2/96

**M. ACKNOWLEDGEMENT OF SHIPMENT AND RECEIPT OF REMEDIATION WASTE BY PERSON CONDUCTING RESPONSE ACTION ASSOCIATED WITH THIS BILL OF LADING:**

I certify under penalties of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for wilfully submitting false, inaccurate, or incomplete information.

Signature: Keith A. Coleman Date: 8/22/96  
Name of Person (print): Keith A. Coleman

October 8, 1996

Mr. Gregg Berkley  
G.M. Berkley Corporation  
P.O. Box 1617  
North Falmouth, Massachusetts 02556

RE: Underground Storage Tank Closure and  
Limited Removal Action (LRA)  
**Town of Brookline Soule Recreation Center**  
652 Hammond Street  
Brookline, Massachusetts  
VERTEX Project No. 0197

Dear Mr. Berkley:

Vertex Engineering Services, Inc. (VERTEX) is pleased to present the following information which documents the excavation and removal a No. 2 fuel oil underground storage tank (UST) and associated petroleum impacted soil from the above referenced location (the "site").

Petroleum hydrocarbon impacted soil was encountered during the UST closure activities conducted on June 27 and 28, 1996. The excavation of soil from the vicinity of the former UST was performed as part of a Limited Removal Action (LRA) and was completed in accordance with 310 CMR 40.0318. It is required that the Town of Brookline retain all documentation associated with the UST closure activities and the LRA for at least five years.

Thank for the opportunity to work with you on this project. Please feel free to contact our office should you have any questions or require additional information.

Sincerely,

Vertex Engineering Service, Inc.

Amy Salvadore-Trombly  
Project Manager

James B. O'Brien, LSP  
President

cc: Mr. Keith Coleman - Town of Brookline Dept. of Public Works, Engineering Division  
Inspector Mark Jefferson - Town of Brookline Fire Department, Office of Fire Prevention

achusetts



small 5/

10/23

**VERTEX**  
Engineering Services, Inc.

Main Office  
400 Libbey Parkway  
Weymouth, MA 02189  
Office (617) 335-6361  
Fax (617) 335-3543

New York Office  
102 West 85th Street, Suite 7H  
New York, NY 10024  
Office (212) 721-8011  
Fax (212) 721-6353

October 8, 1996

Mr. Gregg Berkley  
G.M. Berkley Corporation  
P.O. Box 1617  
North Falmouth, Massachusetts 02556

RE: Underground Storage Tank Closure and  
Limited Removal Action (LRA)  
**Town of Brookline Soule Recreation Center**  
652 Hammond Street  
Brookline, Massachusetts  
VERTEX Project No. 0197

Dear Mr. Berkley:

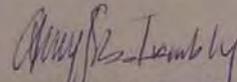
Vertex Engineering Services, Inc. (VERTEX) is pleased to present the following information which documents the excavation and removal a No. 2 fuel oil underground storage tank (UST) and associated petroleum impacted soil from the above referenced location (the "site").

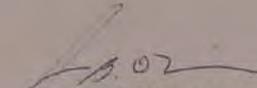
Petroleum hydrocarbon impacted soil was encountered during the UST closure activities conducted on June 27 and 28, 1996. The excavation of soil from the vicinity of the former UST was performed as part of a Limited Removal Action (LRA) and was completed in accordance with 310 CMR 40.0318. It is required that the Town of Brookline retain all documentation associated with the UST closure activities and the LRA for at least five years.

Thank for the opportunity to work with you on this project. Please feel free to contact our office should you have any questions or require additional information.

Sincerely,

Vertex Engineering Services, Inc.

  
Amy Salvadore-Trombly  
Project Manager

  
James B. O'Brien, LSP  
President

cc: Mr. Keith Coleman - Town of Brookline Dept. of Public Works, Engineering Division  
Inspector Mark Jefferson - Town of Brookline Fire Department, Office of Fire Prevention ✓

Engineers

• Scientists

• Construction Managers



The Commonwealth of Massachusetts  
 Department of Fire Services  
 Office of the State Fire Marshal  
 P.O. Box 1025, State Road, Stow, MA 01775  
**APPLICATION FOR PERMIT**



Brookline (City or Town) Permit No 02-182 (If Applicable) Date: 6/24/02 19  

In accordance with the provisions of M.G.L. Chapter 148, as provided in Section \_\_\_\_\_ application is hereby made

by WCI Corp / G & S Iron Works  
(Full name of person, Firm or Corporation)

Address 652 Hammond Street Brookline, MA  
(Street or P.O. Box) (City or Town)

For permission to Use Cutting/Welding Equipment  
To weld a structural post to an existing I-beam

Use clearly  
 space for  
 which permit  
 requested

Name of competent operator Sal Morle' Cert. No. \_\_\_\_\_  
(If Applicable)

Date issued-rejected 6-24-02 to 7-1-02 By [Signature]  
(Signature of Applicant)

Date of expiration 7-1-02 to 7-1-02 Fee \$ \_\_\_\_\_ Paid \$ \_\_\_\_\_ Due \$ \_\_\_\_\_

Cut



The Commonwealth of Massachusetts  
 Department of Fire Services  
 Office of the State Fire Marshal  
 P.O. Box 1025, State Road, Stow, MA 01775  
**PERMIT**



Brookline (City or Town) Permit No \_\_\_\_\_ (If Applicable) Date: \_\_\_\_\_ 19  

In accordance with the provisions of M.G.L. Chapter 148 as provided in \_\_\_\_\_  
 this Permit is granted to: \_\_\_\_\_  
(Full name of person, Firm or Corporation)

or \_\_\_\_\_

Restrictions: \_\_\_\_\_

at \_\_\_\_\_  
(Give location by street and no., or describe in such manner as to provide adequate identification of location)

Fee Paid \$ \_\_\_\_\_  
 This Permit will expire \_\_\_\_\_ 19   \_\_\_\_\_  
(Signature of official granting permit) Brookline Fire Dept.-Fire Prevent (Title) Division

**THIS PERMIT MUST BE CONSPICUOUSLY POSTED UPON THE PREMISES**

Tank Data

Gallons 275  
Previous Contents #2  
Diameter \_\_\_\_\_ Length \_\_\_\_\_  
Date Received 7-1-96  
Serial # (if available) \_\_\_\_\_  
Tank I.D. # (Form FP-290) \_\_\_\_\_

Tank Removed From:  
652 Hammond St.  
(No. and Street)  
Brookline  
(City or Town)

6/7/1/96  
Grant

ation

Fire Dept. Permit # 96-162

TANK YARD

27/1996

Owner/Operator to mail revised copy of Notification Form (FP-290, or Fp-290R) to: UST Compliance, Office of the State Fire Marshal, 1010 Commonwealth Avenue, Boston, Ma. 02215.

Fee Paid: \$ \_\_\_\_\_

start date 6/26/96

In accordance with the provisions of Chapter 148, Sec. 38A, M.G.L.,  
527 CMR 9.00 application is hereby made by: G.M. Berkley Corp

Street Address & City or Town: North Falmouth Rd North Falmouth Ma

Signature of applicant: [Signature]

Applicants name printed: Gregg Berkley

For permission to remove and transport one underground storage tank from.

Owner: Town of Brookline Street Address: 652 Hammond St.

Firm transporting waste: Enpro State Lic. # 261

Hazardous waste manifest # MAH 562 155 E.P.A. # Mad 980670004

Approved tank yard: Grant Co # 008

Tank yard Address: R28 Wolcott St Boston

Type of inert gas: \_\_\_\_\_ UL tank #: \_\_\_\_\_

Tank capacity: 275 Substance last stored: Fuel oil

Date of issue: 6/27/1996 Date of expiration: 6/28/1996

Signature/Title of officer granting permit: M. Jefferson

**KEEP ORIGINAL AS APPLICATION AND ISSUE DUPLICATE AS PERMIT**  
F.P. 730-2270  
F.A. 730-2260



The Commonwealth of Massachusetts  
Department of Public Safety  
Division of Fire Prevention and Regulation

6/27/96  
Grant

APPLICATION FOR PERMIT, AND PERMIT, FOR REMOVAL AND TRANSPORTATION TO APPROVED TANK YARD

FDID# \_\_\_\_\_

Permit # 95-162

Date 6/27/1996

Brookline  
City, Town or District

C. 82 S. 40 H. G. L.

Fee Paid: \$ \_\_\_\_\_

DIG SAFE NUMBER  
962206136  
start date 6/26/96

In accordance with the provisions of Chapter 148, Sec. 38A, M.G.L.,  
527 CMR 9.00 application is hereby made by: G.M. Berkley Corp

Street Address & City or Town: North Falmouth Rd, North Falmouth Ma.

Signature of applicant: [Signature]

Applicants name printed: Gregg Berkley

For permission to remove and transport one underground storage tank from.

Owner: Town of Brookline Street Address: 652 Hammond St.

Firm transporting waste: Enpro State Lic. # 261

Hazardous waste manifest # MAH 562.155 E.P.A. # Mad 980670004

Approved tank yard: Grant Co # 008

Tank yard Address: R28 Wolcott St. Boston

Type of inert gas: \_\_\_\_\_ UL tank #: \_\_\_\_\_

Tank capacity: 275 Substance last stored: Fuel oil

Date of issue: 6/27/1996 Date of expiration: 6/28/1996

Signature/Title of Officer granting permit: M. Jefferson

KEEP ORIGINAL AS APPLICATION AND ISSUE DUPLICATE AS PERMIT  
F P 730-2270  
F A 730-2260



BROOKLINE FIRE DEPARTMENT

Soule Recreation Center  
Adjacent to 652 Hammond St.

Incident number 3306  
Date July 30, 1992  
Time 1625 hours  
Report by Deputy Spillane

Town-State \_\_\_\_\_  
Building Fire  
caused by brush ignited by fireworks.

6313 was transmitted at 1625 hr for a reported building fire at  
complex at 652 Hammond Street. First arriving  
1 story abandoned building adjacent to  
Spillane and \_\_\_\_\_  
were \_\_\_\_\_

City or Town Brookline

PERMIT TO INSTALL - ALTER  
FUEL OIL BURNING EQUIPMENT

In accordance with provisions of Chapter 148, G.L., and Regulations made under authority thereof.

Name Town of Brookline Name Brookline Ice & Coal Co  
(owner or occupant) (installer)  
Address Soule Recreation Hammond St. Address 46 Pearl Street Brookline

Burner Storage  
Name Wayne Type of Tank existing  
Manufacturer Wayne Home Equipment Capacity \_\_\_\_\_ gals. (or) Size \_\_\_\_\_  
Model No. or Size 5-to 15 gals Location \_\_\_\_\_  
Type Gun Mass. Approval No. 1535 B

\_\_\_\_\_ gals. fuel oil may be temporarily stored and used for testing purposes.

Permit issued \_\_\_\_\_ expires \_\_\_\_\_ By \_\_\_\_\_ (Head of Fire Department)

Fee \_\_\_\_\_ Paid \_\_\_\_\_

... was damage to the roof deck, rafters and  
... rubber cement and the remains of a  
... extinguishers scattered are  
... by the fire it appeared the structure should be secured and  
... either demolished or reinforced. The Building Department was notified and Commr.  
... ickerson responded as well as Mr. Panterra the Director of Parks and Recreation.  
... the open door was secured by Insp. Jefferson using the broken hasp.



FORM F.P. 292

BROOKLINE FIRE DEPARTMENT

Name Soule Recreation Center

Incident number 3306

Address \_\_\_\_\_

Date 7/30

City-Town-State \_\_\_\_\_

Time \_\_\_\_\_

Nature of Incident \_\_\_\_\_

Report by \_\_\_\_\_



Rear Exterior Roof line



→  
Area  
at base  
of wall  
P/O  
~20'x20'



The Commonwealth of Massachusetts  
Department of Public Safety  
Division of Fire Prevention and Regulation

APPLICATION FOR PERMIT, AND PERMIT, FOR REMOVAL AND TRANSPORTATION TO APPROVED TANK YARD

FDID# \_\_\_\_\_ Permit # 96-162 Date 6/27/1996

Brookline  
City, Town or District

C. 82 S. 40 M.G.L.

Fee Paid: \$ \_\_\_\_\_

DIG SAFE NUMBER  
962206136  
start date 6/26/96

In accordance with the provisions of Chapter 148, Sec. 38A, M.G.L.,  
527 CHR 9.00 application is hereby made by: G.M. Berkley Corp

Street Address & City or Town: North Falmouth Rd, North Falmouth Ma

Signature of applicant: Gregg Berkley

Applicants name printed: Gregg Berkley

For permission to remove and transport one underground storage tank from.

Owner: Town of Brookline Street Address: 652 Hammond St.

Firm transporting waste: Enpro State Lic. # 261

Hazardous waste manifest # MAH 562155 E.P.A. # Mod 980670004

Approved tank yard: Grant Co # 008

Tank yard Address: R28 Wolcott St. Boston

Type of inert gas: \_\_\_\_\_ UL tank #: \_\_\_\_\_

Tank capacity: \_\_\_\_\_ Substance last stored: Fuel oil

Date of issue: 6/27/1996 Date of expiration: 6/28/1996

Signature/Title of officer granting permit: m. Jefferson

KEEP ORIGINAL AS APPLICATION AND ISSUE DUPLICATE AS PERMIT

F.P. 730-2270  
F.A. 730-2260



Make application to local Fire Department.  
Fire Department retains original application and issues duplicate as Permit.

Commonwealth of Massachusetts  
Department of Fire Services - Board of Fire Prevention

**APPLICATION and PERMIT**

Fee: N/A

for storage tank removal and transportation to approved tank disposal yard in accordance with the provisions of M.G.L. Chapter 14B, Section 38A, 527 CMR 9.00, application is hereby made by:

**Tank Owner**

Tank Owner Name (please print) Town of Brookline - Recreation Dept  
Address 652 Hammond St Brookline Street City Ma 02467 State Zip  
Signature (if applying for permit) \_\_\_\_\_

**Removal Contractor**

Company Name \_\_\_\_\_ Print  
Address \_\_\_\_\_ Print  
Signature (if applying for permit) \_\_\_\_\_  
 IFCI Certified  Other \_\_\_\_\_

**Contamination Assessment**

Co. or Individual N/A Print  
Address \_\_\_\_\_ Print  
Signature (if applying for permit) \_\_\_\_\_  
 IFCI Certified  LSP # \_\_\_\_\_  Other \_\_\_\_\_

**Tank Information**

Tank Location off 1281 Newton St Street Address City  
Tank Capacity (gallons) approx 1000 gallon Substance Last Stored unknown - probably #2 Fuel  
Tank Dimensions (diameter x length) \_\_\_\_\_  
Remarks: Tank found dumped off parking area at Municipal golf course - never in use at this site

**Disposal Information**

Firm transporting waste \_\_\_\_\_ State Lic. # \_\_\_\_\_  
Hazardous waste manifest# \_\_\_\_\_ E.P.A. # \_\_\_\_\_  
Approved tank disposal yard \_\_\_\_\_ Tank yard # \_\_\_\_\_  
Type of inert gas \_\_\_\_\_ Tank yard address \_\_\_\_\_

**Approvals**

City or Town Brookline FDID# 21046 Permit# 99-101  
Date of issue 4/8/99 Date of expiration \_\_\_\_\_  
Dig safe approval number: N/A Dig Safe Toll Free Tel. Number - 800-322-4844  
Signature / Title of Officer granting permit: [Signature]

After removal(s) send Form FP-290R signed by Local Fire Dept. to UST Regulatory Compliance Unit, One Ashburton Place, Room 1310, Boston, MA 02108-1618.

# 652 Hammond St.

527 CMR: BOARD OF FIRE PREVENTION REGULATIONS

4.03: continued

The Commonwealth of Massachusetts  
Department of Public Safety

527 CMR 4.00 - Form 1

Application for Permit, Permit, and Certificate of completion for the Installation or  
Alteration of Fuel Oil Burning Equipment and the Storage of Fuel Oil

Brookline 10/30/98  
(City or Town) (Date)

Permit #s: FD 98-398 Elec. \_\_\_\_\_ FDID# \_\_\_\_\_ Fee Paid: NC

Owner/Occupant Name: Soule Rec. Ctr. Tel # \_\_\_\_\_

Installation Address: # 652 Hammond St. Serviced Floor or Unit #: \_\_\_\_\_

Heating Unit  Domestic Water Heater  Power Vent  Other  
Burner:  New  Existing Location: Basement

Trade Name: Steam Boiler Mfg: Burnham

Type: Carlin Model # or Size: 702CRD Nozzle Size: 8.50 GPH

Fuel Oil  Kerosene  Waste oil  
Storage Tank:  New  Existing Location: Basement

Type: 2-330 Capacity: 660 gals. No. of Tanks: 2

Special requirements (or additional safety devices) \_\_\_\_\_

OSV Valve  Oil line protected  Sheet Rock  Sprinkler AFUE:  Yes  no EF:  Yes  no  
(Furnace and boilers) (Water heater)

Co. Name: Industrial Burner Systems Tel # 617 479 3900

Address: 97 Rawson Rd. City: Quincy Zip: 02120

Completion Date: 10/30/98

Combustion Test: Gross Stack Temp.: \_\_\_\_\_ Net Stack Temp.: \_\_\_\_\_

CO<sub>2</sub> Test: \_\_\_\_\_ Breech Draft: \_\_\_\_\_

Smoke: \_\_\_\_\_ Overfire Draft: \_\_\_\_\_ Efficiency rating %: \_\_\_\_\_

I, the undersigned certify that the installation of fuel burning equipment has been made in accordance with M.G.L. c. 148 and 527 CMR 4.00 currently in effect. Furthermore, this installation has been tested in accordance with such requirements, is now in proper operating condition and complete instructions as to its use and maintenance have been furnished to the person for whom the installation (or alteration) was made.

Installer: Richard A Leo 020497 Richard A Leo  
Print Name Cert of CO Signature (no Stamp)

Address: 97 Rawson Rd City: Quincy ma

Once signed by the fire department, this is a PERMIT for the storage and use of oil burning equipment.

Approved by: [Signature] Date: 11/2/98  
Keep Original as application. Issue duplicate as permit. This form may be photocopied.



**AFSCME**  
in the public service®

**AFSCME Local 1358  
Brookline Municipal Employees Union  
P.O. Box 470694  
Brookline Village, MA 02447**

**President**

Joseph Geary

**Vice President**

Tom Hantakas

**Treasurer**

Jack Hogan

**Secretary**

Ruth Fischer

**Sgt-at-Arms**

Bill Phillips

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Steve Curry

Betty Friar

Bruce Genest

Tom Hantakas

Maureen Holbrook

Robin Magner

Roger Mello

David Moroney

Mary Murphy

Bill Phillips

Peggy Randall

Ben Steinberg

December 2, 2004

Dr. Alan Balsam, Director  
Brookline Health Department  
Brookline, MA 02445

Dear Dr. Balsam,

The Officers and Board of AFSCME Local 1358 request a copy of Patrick Maloney's report following the environmental inspection of the Highway Department, including but not limited to the report on air quality in the Town Garage.

Thank you for your cooperation.

Sincerely,

Joseph Geary  
President, Local 1358

Cc: John Dunlap, Director of Human Resources  
Stephen Dolan, Staff Representative, Council 93

# BROOKLINE HEALTH DEPARTMENT

## MEMORANDUM

To: Alan Balsam Ph.D., MPH  
Director of Public Health and Human Services

From: Patrick Maloney MPAH  
Chief of Environmental Health

Date: 12/07/04

Re: DPW – Garage  
652 Hammond St.

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In response to concerns raised regarding construction related issues at the above noted facility and a complaint filed by an employee, please be advised of the following:

The primary issues raised relate to air quality in the building from construction work. Specifically the task of repairing the floor of the facility which is being done over night has caused complaints.

I visited the facility on 12/02/04 at 5:00 p.m. At that time construction work was in progress. Jack-hammering of the floor surface, power water blasting and power grinding of metal surfaces were all being performed. These activities are potential sources of complaint conditions.

The following day (12/03/04) the Director of Highway and Sanitation advised that a meeting was held with staff and the following steps will be taken to address the complaints and concerns:

- Water will be used to suppress any dust that is generated from construction.
- A portable HEPA (high efficiency particulate air system) will be used in the work areas during construction.
- The buildings garage ventilation system will be operating at all times.
- All work areas will be cleaned and vacuumed each evening.

These steps will be monitored and altered if needed.

The above noted actions should adequately address the issues raised by the building users. I do not see any additional recommendations to make at this time.

# TOWN OF BROOKLINE



Alan Balsam, Ph.D. MPH  
Director of Public Health  
and Human Services

## DEPARTMENT OF PUBLIC HEALTH

11 Pierce St.

### Asbestos Removal/Encapsulation Permit

PERMIT NO.: HAS010120

DATE ISSUED:

This certifies that: NEW ENGLAND SURFACE MAINTENANCE, LLP

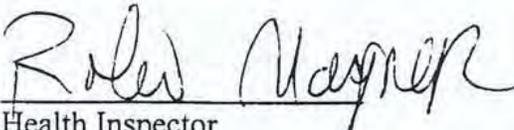
is permitted to REMOVE/ENCAPSULATE ASBESTOS at 652 HAMMOND ST BRKL  
in the Town of Brookline, under the Laws of the Commonwealth of Massachusetts, the By-Laws of the  
Town of Brookline and the Regulations of the Brookline Health Department,  
from 08/16/2001 to 08/20/2001 unless sooner modified, revoked or suspended.

Should date of removal change, you must contact the Health Department 24 hours in advance (Failure to do so  
will require re-submission of application and fee).

Any asbestos material remaining on premises, not included in the work plan that is in friable condition,  
will be subject to a Health Department Order to remove or encapsulate.

Upon completion of all work air sample results & asbestos manifest slip must be submitted to Health  
Department upon receipt (Glove bag removals do not require air samples).

This permit is not transferable.

  
Health Inspector

cc: Property Owner



# Town of Brookline Health Department

11 Pierce Street Massachusetts, 02445  
(617) 730-2300 fax (617) 730-2296

*No  
Change*

HAS010120

Alan Balsam, Ph.D, MPH, Director  
Public Health and Human Services

### ASBESTOS REMOVAL / ENCAPSULATION PLAN

Town of Brookline

1. Name of building owner/agent: Recreation Department

Address: 652 Hammond St. Phone: 617.730.2069

2. Job Location: Tappan St. Pool - 60 Tappan St.

3. Contractor: NESM, LLP

(Name, Address and Phone Number)

850 WASHINGTON ST

Weymouth MA 02189

4. Sub-Contractor: \_\_\_\_\_

(Name, Address and Phone Number)

5. Massachusetts Asbestos Contract License Number: AC 000196

6. On Site Job Supervisor and Massachusetts Certification Number: \_\_\_\_\_

Paul Brown AS 40577

7. Abatement Activity: Removal Encapsulation-Enclosure  
(Circle One)

8. Amount and type of Asbestos Material to be Removed, Encapsulated or Enclosed:

Amount	Type	LF	SF
<u>1200</u>	<u>ROOFING/FUSHING</u>		

9. Start Date: 8-16  
Completion Date: 8-20  
(Application and required fee to arrive at Brookline Health Department (10) days prior to starting date.)

10. (1) DEP Notification Date: 8-2-01  
(2) EPA Notification Date: N/A  
(3) Labor and Workforce Development Date: 8-2-01

11. Description of Removal/Disposal Methods to be Employed to Comply with Labor & Industries Regulations 453 CMR 6.14 (2) (g) & DEP Regulations:

PROJECT INVOLVES THE REMOVAL OF  
NON FRUITABLE ROOF FLASHING ONLY

12. Location of Approved Landfill Disposal Site:

VALLEY LANDFILL

PLEASANT VALLEY RD

IRWIN PA

13. Name, Address & Phone Number of Transporting Company: \_\_\_\_\_

WASTE MANAGEMENT 209 PICKERING ST PONTIAC MI

14. Emergency Abatement Removal Date: \_\_\_\_\_

(To be submitted twenty-four (24) hours prior to removal.) (Emergency abatement as provided by 453 CMR Department of Labor & Industry, 6.02).

Reason for Emergency: \_\_\_\_\_

15. Procedures for Asbestos Removal in Accordance with Department of Labor & Industries 435 CMR 6.00, EPA Regulations, DEQE Regulations 7.00 and NESHAP Regulations.

(1) Persons engaged in asbestos work shall only be assigned to perform those tasks authorized by a valid current certificate.

(2) At least one certified supervisor/foreman shall be assigned to and be present at each asbestos project job site when work is in progress.

(3) All persons engaged in asbestos work should keep their certification identification card at their job site and shall present is upon request.

(4) Warning signs shall be posted at all approaches to the work area. Signs shall be posted a sufficient distance from the work area to permit a person to read the sign(s) and the precautionary measures to avoid exposure to asbestos.

- (5) All movable objects shall be removed from work area.
- (6) All non-movable or fixed objects remaining within the work area shall be wrapped or covered with six (6) mil thick plastic sheeting. The covering shall be completely sealed with duct tape or equivalent.
- (7) The work area shall be isolated by sealing all openings, including but not limited to windows, doors, ventilation openings, drains, grilles and grates.
- (8) Floor and wall surfaces shall be covered with plastic sheeting (polyethylene sheeting).
- (9) A three compartment decontamination system to be installed on all asbestos removal; exception 453 CMR 6.14, sec. 6, sec. 7.
- (10) Air testing to be performed prior to removal and completion of abatement. In no case shall clearance air monitoring samples be collected by the contractor or an employee of the contractor.
- (11) Prior to removal, asbestos material shall be thoroughly wetted to which surfactant has been added.
- (12) Removed asbestos material shall not remain in the work area, asbestos shall be contained in double (2) plastic bags (6 mil) minimum thickness each.
- (13) Protective clothing and equipment: Personnel protective clothing shall mean full body disposable clothing, including head, body and foot coverings consisting of material impenetrable by asbestos fibers.
- (14) Asbestos waste will be transported in closed trucks for disposal at approved landfill location.
- (15) Negative air pressure will be continuously maintained during asbestos removal by use of HEPA filtration units.
- (16) A complete cleanup of the work area will be performed using the wet wipe method along with HEPA vacuums.

\* A \$60.00 fee payable to the Town of Brookline must be submitted with this application (\$60.00 will be charged for each address, listed at job location.) *Fee WAIVED, TOWN BUILDING*

\* Jobs canceled without informing the Health Department at least 24 hours in advance will be required to submit a new application and fee.

\* Jobs starting without prior Health Department approval will be charged TRIPLE the amount indicated.

\* Asbestos shingles must also be removed per Brookline Health Department requirements (stricter than State requirements).



Commonwealth of Massachusetts  
Asbestos Notification Form - ANF-001

**E**

**EXEMPT**

**757108**

**A** Asbestos Abatement Description

1. Facility location:

Tappan Street Fed Co Tappan Street-1  
 Brockton, MA 02445 617-730-2778  
 City/Town Zip code Telephone  
 Ext-trench/Pool  
 What is the worksite location? building name, #, wing, floor, room

2. Is the facility occupied?  Yes  No

3. Asbestos Contractor:

New England Surface Maintenance, LLP 850 Washington Street  
 Weymouth, MA 02189 781-337-2117  
 City/Town Zip code Telephone  
 AC 000196  
 DLI License # Contract Type (written/verbal)

4. On-Site Project Supervisor/Foreman:

Paul Brown AS 40577  
 Name DLI Certification #

5. Project Monitor:

N/A  
 Name DLI Certification #

6. Asbestos Analytical Lab:

N/A  
 Name DLI Certification #

7. Project start date 02/14/11 end date 02/21/11 specific workhours (Mon-Fri) 8p-5a (Sat-Sun) 8p-5a

8. What type of project is this? (circle one): demolition repair renovation other (explain)

9. Describe the asbestos abatement procedures to be used (circle): glove bag enclosure full containment cleanup  
 encapsulation disposal only other (explain) Roofing

10. Is the job being conducted  indoors  outdoors?

11. Total amount of each type of Asbestos Containing Materials (ACM) to be handled on pipes or ducts (linear ft.) \_\_\_\_\_ or other surfaces (square ft.) 1,200 to be removed, enclosed or encapsulated:  
 linear/square feet

boiler, breaching, duct, tank surface coatings	_____	thermal, solid core pipe insulation	_____
corrugated or layered paper pipe insulation	_____	insulating cement	_____
spray-on fireproofing	_____	truss/sprayer coatings	_____
cloths, woven fabrics	_____	transite board, wall board	_____
other (please describe): <u>Roofing</u>	<u>1,200</u>		

12. Describe the decontamination system(s) to be used:  
 -As required-

13. Describe the containerization/disposal methods to comply with 310 CMR 7.15 and 453 CMR 6.14(2)(g):  
 Two layers/labelled bags

14. For Emergency Asbestos Abatement Operations, the DEP and DLI officials who evaluated the emergency:

Name of DEP Official Title  
 Date of Authorization  
 Name of DLI Official Title  
 Date of Authorization

15. Do prevailing wage rates apply as per M.G.L. c. 149, § 26, 27, or 27A - F to this project?  Yes  No

INSTRUCTIONS  
 This form must be completed to comply with the provisions of the Environmental Protection Act of 1970 (310 CMR) and the Department of Labor Industries (DLI) requirements (CMR 6.12) for notification of any asbestos project greater than linear or square feet.

Official Use Only  
 Location #  
 District Office  
 Date  
 File Asbestos Contained  
 Other Use

**B Facility Description**

- Current or prior use of facility: Pool/Recreation Center
- Is the facility owner-occupied residential with 4 units or less? = Yes  No
- Facility Owner:  
Town of Brookline Recreation Dept. 652 Hammond  
Brookline, MA 02445 617-730-2069  
Name Address City/Town Zip code Telephone
- Facility's Owner's On-Site Manager:  
Mark Casey  
Name Address City/Town Zip code Telephone
- General Contractor:  
Casey Brothers Construction 107 Gardner Street  
W Roxbury 02132 617-527-2374  
Name Address City/Town Zip code Telephone  
Contractor's Workers Comp. Insurer Policy # Exp. Date
- What is the size of the facility? 4200 (sq ft) 1 (of floors) work area

**C Asbestos Transportation and Disposal**

- Transporter of asbestos-containing waste material from site to temporary storage site (if necessary) to final disposal site:  
NESM, LLP 850 Washington Street  
Weymouth, MA 02189 781-337-2117  
Name Address City/Town Zip code Telephone
- Transporter of asbestos-containing waste material from removal/temporary storage site to final disposal site:  
Waste Management 209 Pickering Street  
Portland, CT 06480 860-342-0667  
Name Address City/Town Zip code Telephone
- Refuse transfer station and owner (if applicable):  
Name Address City/Town Zip code Telephone
- Final Disposal Site:  
Valley Landfill USA Waste Services  
Pleasant Valley Road  
Irwin, PA 15642 412-744-4000  
Location Name Owner Name Address City/Town Zip code Telephone

Note: Transfer Stations must comply with the Solid Waste Division regulations 310 CMR 18.00

**D Certification**

The undersigned hereby states, under the penalties of perjury, that he/she has read the Commonwealth of Massachusetts Regulations for the Removal, Containment or Encapsulation of Asbestos, 453 CMR 6.00 and 310 CMR 7.15, and that the information contained in this notification is true and correct to the best of his/her knowledge and belief.

J. F. [Signature] [Signature] 82-01  
Print Name Approved Signature Date  
Partner NESM, LLP 781-337-2117  
Position Title Address City/Town Telephone  
850 Washington Street Weymouth, MA 02189  
Address City/Town Telephone

Note: Contractor must sign this form for DLI notification purposes

Fee exempt (City, Town, district, municipal housing authority, owner-occupied residential of four units or less)  Yes  No

Clicker # (from front of form) 745-7108



TOWN OF BROOKLINE  
Massachusetts

640 Hammond St  
Street 640

BOARD OF APPEALS

DIANE R. GORDON, Co-Chair  
HARRY MILLER, Co-Chair  
BAILEY S. SILBERT

333 Washington Street  
Brookline, MA 02445  
617-730-2010  
Fax: 617-730-2298  
PATRICK J. WARD, Secretary

TOWN OF BROOKLINE  
BOARD OF APPEALS  
NO. 3624

Petitioner, Hammond Street 640 Associates Limited Partnership, Hammond Street 648 Associates Limited Partnership (on behalf of developer Ronald Simons), applied to the Building Commissioner for permission to construct a new building containing ten (10) residential dwelling units, to construct three (3) new townhouses and to renovate an existing residence, for a total of fourteen (14) residential dwelling units per plans, at 640 and 648 Hammond Street, Brookline. The application, which has since been revised, was denied and an appeal was taken to this Board.

On September 21, 2000, the Board met and determined that the properties affected were those shown on a schedule in accordance with the certification prepared by the Assessors of the Town of Brookline and approved by the Board of Appeals and fixed October 19, 2000, as the time and place of a hearing on the appeal, which was subsequently rescheduled to November 16, 2000, at 7:30 P.M. in the Selectman's Hearing Room on the sixth floor of Town Hall. Notice of the hearing was mailed to the petitioners, to their attorney (if any of record), to the owners of properties deemed by the Board to be affected as they appeared on the most recent local tax list, to the Planning Board and to all others required by law. Notice of the rescheduled hearing was published October 26 and November 2, 2000, in the Brookline Tab, a newspaper published in Brookline. Copy of said notice is as follows:

**TOWN OF BROOKLINE  
MASSACHUSETTS  
BOARD OF APPEALS  
NOTICE OF HEARING**

PETITIONER: Hammond Street 640 Associates Limited Partnership  
Hammond Street 648 Associates Limited Partnership

DATE AND PLACE OF HEARING: Thursday, November 16, 2000 at 7:30 P.M. in the Selectmen's Hearing Room on the sixth floor of Town Hall, 333 Washington, Street, Brookline. A public hearing will be held for a variance from Section 5.60; Side Yard Requirements; and special permit under Section 4.30; Table of Use Regulations; Use #5 and Use #6; Section 4.40, Affordable Housing Requirements; Section 5.04(a); Residential Building on Rear of a Lot; Section 5.09(b)(2)(4); Community and Environmental Impact and Design Review; Section 5.43; Exceptions to Yard and Setback Regulations; Section 7.2(a)(1); Signs in M Districts; as regulated by Section 7.1 (a)(6); Section 8.1 (b); Alteration or Extension; Section 6.13(d)(3), Design of All Off-Street Parking Facilities; Section 6.13(e)(5), Design of All Off-Street Parking Facilities of the Zoning By-Law to construct a new building containing ten (10) residential dwelling units; to construct three (3) new townhouses and to renovate an existing residence for a total of fourteen (14) residential dwelling units per plans at 640 and 648 Hammond Street said premises located in an M-1.0 (apartment house) Residence District.

Diane R. Gordon  
Harry Miller  
Bailey S. Silbert  
Board of Appeals

At the time and place specified in the notice, a public hearing was held by this Board.

Present at the hearing were Board Members Harry Miller, Lawrence Kaplan and Bailey S.

Silbert. Petitioner was represented at the hearing by Attorney Jeffrey P. Allen of Lane Altman & Owens.

At the hearing, Polly Selkoe, Senior Planner, distributed the Planning Board Report dated November 9, 2000. Mr. Allen then described the factual background of the petition as follows:

The property at 640 Hammond Street was formerly occupied by the Carroll School Bus Depot and presently is being used by a rental car, truck and recreation vehicle company. The existing building is approximately 7,500 square feet, is concrete and concrete block and in poor condition. Underground fuel tanks were removed several years ago.

The property at 648 Hammond Street is the site of the historic Hunter Gatehouse (1908), a turn-of-the-century cottage of the "Medieval Revival" style, which was part of a larger estate. This structure is a contributing property on the Chestnut Hill National Register Historic District. In 1951, an addition to the Gatehouse was added, creating a two-family house.

A stone wall exists along the property lines between 640 Hammond Street and Soule Park, as well as along the property line between 640 and 648 Hammond Street. The wall also extends along Hammond Street and is part of the front wall of the Hunter Gatehouse and continues down Hammond Street as a boundary for Soule Park.

The neighborhood is a block and a half from the Chestnut Hill shopping area and abuts Town park land. Adjacent to the four-story building is the parking lot for Soule Park and a public tennis court. Directly to the north and east of it is property formerly owned by the McNeilly Oldsmobile dealership, and still for the most part occupied by automotive uses, and now proposed for a larger residential development. Residential housing types in the immediate area include triple deckers, apartment houses and single-family homes.

The applicant is proposing to demolish the commercial building and retain and reuse the historic residential Gatehouse, although the garage and 1951 addition will be removed. Initially, the plan for new construction was three new townhouses facing Hammond Street, with two-car garages underneath, and to the rear of the townhouses, a four-story, ten-unit residential

condominium building with a 22-car underground parking garage. The Hunter Gatehouse was to be retained as a free-standing townhouse with a new two-car garage and deck in the rear. The total number of dwelling units was to be 14. The revised plan is for two attached townhouses with four garaged parking spaces, a three-story, six-unit residential condominium building with a 17-car parking garage, and a two-car garage and addition to the Hunter Gatehouse. The total number of dwelling units will be nine. Additionally, the vehicular circulation will be modified with sole ingress from Hammond Street and egress onto the drive leading to the parking lot of Soule Park. The developer will also relocate a portion of the existing stone wall on the property to the front property line facing Hammond Street. A cash payment will be made to the Housing Trust Fund to meet the affordable housing requirement.

The zoning relief required is as follows:

Section 4.30, Table of Use Regulations, Use #5: A special permit is required for attached dwellings occupied by not more than one family in each unit between side walls.

Section 4.30, Table of Use Regulations, Use#6: A special permit to develop ten or more multiple or attached dwelling units was required by the original proposal but is not required for the redesign.

Section 4.40, Affordable Housing Requirements: A special permit is required for residential development of six (6) or more units pursuant to which an affordable housing contribution will be required which, for development of six (6) to fifteen (15) units, may be in the form of a cash payment.

Section 5.04(a), Residential Building on Rear of a Lot: A special permit is required to reduce yard dimensions between principle buildings on a single lot.

Section 5.09(b)(2)(4), Community and Environmental Impact and Design Review: A special permit is required for all new structures, outdoor uses, exterior alterations, additions and changes for attached dwelling in groups of three or more. The original proposal also required such a special permit for multiple dwellings of ten or more units, but the redesigned proposal does not require relief under that category.

Section 5.43, Exceptions to Yard and Setback Requirements or Section 5.60, Side Yard Requirements: Either a special permit is required to substitute alternative dimensional setback requirements which assure the same standard of amenity as by compliance with the standard setback requirements, or a variance is required to reduce the side yard requirement.

Section 6.13(d)(3), Design of All Offstreet Parking Facilities: A special permit is required for an entrance and exit drive greater than 20 feet wide in a residential district.

Section 6.13(e)(5), Design of All Offstreet Parking Facilities: A special permit is required to authorize owners of adjoining properties to share a common driveway.

Section 7.2(a)(1) Signs in M. Districts as regulated by Section 7.1(a)(6): A special permit is required for temporary construction or development signs.

Section 8.1(b), Alteration or Extension: A special permit is required to increase a nonconforming condition specifically provided for in a section of the Bylaw other than Section 8.1(a)(1).

Polly Selkoe, Senior Planner, on behalf of the planning staff, gave the following Planning Board report:

The Planning Board supports this revised proposal to replace an automotive commercial use with a residential one. The project will provide several benefits to the community, including: a cash payment to the Town for future affordable housing in Brookline, an improved streetscape along Hammond Street with an attractive stone wall at the property edge, underground parking and the retention of an historic Gatehouse built at the turn of the century, which is on the National Register. The applicant has also agreed to provide a common driveway with the adjacent property owner, if agreement can be reached.

A Design Advisory Team [Jerome Kampler, Chris Hussey and Robert Stein] appointed by the Planning Board, along with a Preservation Commission representative and neighborhood residents, met six times with the developer and his architect on this project (8/2, 8/30, 9/13, 10/1/4, 10/18 and 11/1). As a result, several improvements were made to the project regarding the massing and siting of the buildings, the entrances to the garage and the condominium building, the design of the internal drive, and facade materials, which have been changed to brick and a slate roof. In sum, this project will provide an important transition from the Chestnut Hill shopping area and multi-family homes closer to Route 9, and the single-family residential neighborhoods to the south.

Therefore, the Planning Board recommends approval of the requested relief, subject to conditions.

Frank Hitchcock, Senior Building Inspector, spoke on behalf of the Building Commissioner. He restated the various sections of the Zoning By-law under which relief is needed. The Building Department has no objections to the petition and will ensure that all Code provisions are satisfied.

The Board, having deliberated on this matter and considered the foregoing testimony, concludes that it is desirable to grant all special permit relief identified below, subject to certain conditions.

The Board considered the visual relationships of the proposed buildings to the terrain and to the use, scale, and architecture of the existing buildings and neighborhood. The proposal of the applicant will allow preservation of an existing historic structure. The use as proposed to be developed will also be of benefit to the neighborhood because the new structures will be in keeping with the character of the neighborhood, and the site design is aesthetically pleasing. The proposed use as designed takes into consideration traffic concerns, and the placement of driveways will not cause a nuisance or serious hazard to vehicles or pedestrians. The structures, garage, driveway and common open space are functional and are proper for the proposed use. The placement of parking spaces below ground is a valuable amenity to the neighborhood. The Board finds that, the proposed use will not remove any existing low- or moderate-income housing in the Town.

The Board further makes the following findings pursuant to Sections 5.09 and 9.5:

1. The location, topography, vicinity and natural features of the site make it particularly suitable for the proposed mixed development as townhouses and multiple-dwelling residences.

2. The design of the proposed development will be in harmony with the prevailing character of the neighborhood.
3. The specific site is an appropriate location for the proposed use and structures.
4. The use as proposed by the Petitioner will not adversely affect the neighborhood.
5. There will be no nuisance or serious hazard to vehicles or pedestrians from the proposed use.
6. Adequate and appropriate facilities will be provided for the proper operation of the proposed use.
7. The development as proposed will not have a significant adverse effect on the supply of housing available for low and moderate-income people.

Accordingly, the Board grants special permits pursuant to Sections 4.30, 4.40, 5.04(a), 5.09(b)(2), 5.43, 6.13(d)(3), 6.13(c)(5), 7.2(a)(1) and 8. 1(b), being all zoning relief necessary for the redesigned proposal, subject to the following conditions:

1. Final design of facades, colors, materials, landscaping and rooftop details shall be completed after consultation with the Planning and Community Development Director.
2. Final site plan, including the exact location and dimensions of the driveway from Hammond Street; the design of the internal drive and security gates, if necessary, to permit egress only onto Soule Park Drive, not ingress; the stone wall repair and design; dumpster location and screening; mechanical equipment location; exterior lighting and parking layout shall be subject to the review and approval of the Planning and Community Development Director.
3. The cash payments agreed to in accordance with Section 4.40 of the Zoning By-law and pursuant to this Special Permit shall be an obligation of the owner of the property and shall be due to the Town upon the sale of each unit as follows:

A sum equal to 3.67% of the adjusted sales price of the property (adjusted sales price is the actual sales price less an exemption deduction of \$ 100,000.00) shall be deducted from the net proceeds due the Seller for each of the eight new units and delivered or forwarded to the Town of Brookline in the form of a bank or certified check, payable to the "Brookline Housing Trust", by first-class mail or hand delivery to:

# TOWN OF BROOKLINE



Alan Balsam, Ph.D., MPH  
Director of Public Health  
and Human Services

## DEPARTMENT OF PUBLIC HEALTH

11 Pierce St.

### Asbestos Removal/Encapsulation Permit

PERMIT NO.: HAS070074

DATE ISSUED: 06/05/2007

This certifies that: NEW ENGLAND SURFACE MAINTENANCE, LLP

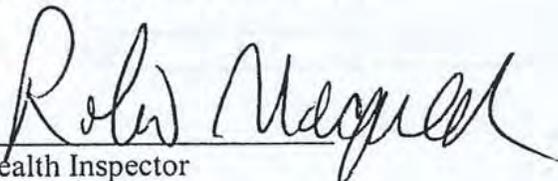
is permitted to REMOVE/ENCAPSULATE ASBESTOS at 484 HEATH ST BRKL  
in the Town of Brookline, under the Laws of the Commonwealth of Massachusetts, the By-Laws of the  
Town of Brookline and the Regulations of the Brookline Health Department,  
from 07/02/2007 to 07/09/2007 unless sooner modified, revoked or suspended.

Should date of removal change, you must contact the Health Department 24 hours in advance (Failure to do so  
will require re-submission of application and fee).

Any asbestos material remaining on premises, not included in the work plan that is in friable condition,  
will be subject to a Health Department Order to remove or encapsulate.

Upon completion of all work air sample results & asbestos manifest slip must be submitted to Health  
Department upon receipt (Glove bag removals do not require air samples).

This permit is not transferable.

  
Health Inspector

cc: Property Owner



# Town of Brookline Health Department

11 Pierce Street Massachusetts, 02445  
(617) 730-2300 fax (617) 730-2296

*RM*  
*[Handwritten signature]*

Alan Balsam, Ph.D, MPH, Director  
Public Health and Human Services

## ASBESTOS REMOVAL / ENCAPSULATION PLAN

1. Name of building owner/agent: TOWN OF BROOKLINE  
Address: 553 WASHINGTON ST Phone: 617-730-2420
2. Job Location: BROADWAY SCHOOL 490 HEATH ST 02189
3. Contractor: USM, INC.  
(Name, Address and Phone Number)  
550 WASHINGTON ST  
W. BROOKFIELD MA 01587
4. Sub-Contractor: \_\_\_\_\_  
(Name, Address and Phone Number)
5. Massachusetts Asbestos Contract License Number: A630196
6. On Site Job Supervisor and Massachusetts Certification Number: John Balsam AS 24657
7. Abatement Activity:  Removal-Encapsulation-Enclosure  
(Circle One)
8. Amount and type of Asbestos Material to be Removed, Encapsulated or Enclosed:  
PIPE WORK TO BE REMOVED 200 LF  
POSSIBLE HAZARDOUS MATERIAL 100 SF
9. Start Date: 7-2-07  
Completion Date: 7-9-07  
(Application and required fee to arrive at Brookline Health Department (10) days prior to starting date.)
10. (1) DEP Notification Date: 6/1  
(2) EPA Notification Date: \_\_\_\_\_  
(3) Labor and Workforce Development Date: 6/1

11. Description of Removal/Disposal Methods to be Employed to Comply with Labor & Industries Regulations 453 CMR 6.14 (2) (g) & DEP Regulations:

IMMEDIATE REMOVAL FOR NEARBY RESIDENTS  
AND TO PREVENT DAMAGE TO  
ADJACENT CO-OPERATIVE AND POND (CONCRETE FLOOR)  
IMMEDIATELY AS NECESSARY

12. Location of Approved Landfill Disposal Site:

MARSHLAND LANDFILLS  
700 MARSHLAND ROAD  
LESTERSBURG CT 06458

13. Name, Address & Phone Number of Transporting Company: \_\_\_\_\_

LED TRANSPORT 173 PINEWOOD ST PORTLAND CT

14. Emergency Abatement Removal Date: \_\_\_\_\_

(To be submitted twenty-four (24) hours prior to removal.) (Emergency abatement as provided by 453 CMR Department of Labor & Industry, 6.02).

Reason for Emergency: \_\_\_\_\_

15. Procedures for Asbestos Removal in Accordance with Department of Labor & Industries 435 CMR 6.00, EPA Regulations, DEQE Regulations 7.00 and NESHAP Regulations.

- (1) Persons engaged in asbestos work shall only be assigned to perform those tasks authorized by a valid current certificate.
- (2) At least one certified supervisor/foreman shall be assigned to and be present at each asbestos project job site when work is in progress.
- (3) All persons engaged in asbestos work should keep their certification identification card at their job site and shall present it upon request.
- (4) Warning signs shall be posted at all approaches to the work area. Signs shall be posted a sufficient distance from the work area to permit a person to read the sign(s) and the precautionary measures to avoid exposure to asbestos.

- (5) All movable objects shall be removed from work area.
- (6) All non-movable or fixed objects remaining within the work area shall be wrapped or covered with six (6) mil thick plastic sheeting. The covering shall be completely sealed with duct tape or equivalent.
- (7) The work area shall be isolated by sealing all openings, including but not limited to windows, doors, ventilation openings, drains, grilles and grates.
- (8) Floor and wall surfaces shall be covered with plastic sheeting (polyethylene sheeting).
- (9) A three compartment decontamination system to be installed on all asbestos removal; exception 453 CMR 6.14, sec. 6, sec. 7.
- (10) Air testing to be performed prior to removal and completion of abatement. In no case shall clearance air monitoring samples be collected by the contractor or an employee of the contractor.
- (11) Prior to removal, asbestos material shall be thoroughly wetted to which surfactant has been added.
- (12) Removed asbestos material shall not remain in the work area, asbestos shall be contained in double (2) plastic bags (6 mil) minimum thickness each.
- (13) Protective clothing and equipment: Personnel protective clothing shall mean full body disposable clothing, including head, body and foot coverings consisting of material impenetrable by asbestos fibers.
- (14) Asbestos waste will be transported in closed trucks for disposal at approved landfill location.
- (15) Negative air pressure will be continuously maintained during asbestos removal by use of HEPA filtration units.
- (16) A complete cleanup of the work area will be performed using the wet wipe method along with HEPA vacuums.

\* A \$60.00 fee payable to the Town of Brookline must be submitted with this application (\$60.00 will be charged for each address, listed at job location.)

\* Jobs canceled without informing the Health Department at least 24 hours in advance will be required to submit a new application and fee.

\* Jobs starting without prior Health Department approval will be charged TRIPLE the amount indicated.

\* Asbestos shingles must also be removed per Brookline Health Department requirements (stricter than State requirements).

## Complaint Detail Report



Complaint #:	CT-2016-000976	Status:	INTAKE	GIS #:	17189	Violator:		
Address:	490 HEATH ST	Map:	432	Address:				
Date Recvd.:	Dec-01-2016	Time Recvd.:	04:13 PM	Block:	20			
Category:	Health - Housing - Certification Inspection	Lot:	24	Type:				
GeoTMS Module:	Board of Health	District:	Fire Station 6	Trade:				
Recorded By:	Wendy Machmuller	Zoning:	T-6	Structure:				
Description:	Winthrop House	Date Resolved:						
Complaint:	request for certificate inspection							
Comments:								
Inspector Assigned to Complaint:	DANIELLA WODNICKI MPH						Parent:	

**Contacts**

*See Chief on how to handle*

Contact Type	Date	Time	Name	Phone	Best Time To Reach	Record
RESIDENT	Dec-01-2016	4:13 PM	Owen Minott	(617) 739-7647 ()		Wendy

**Actions Taken**

GeoTMS Module	Status	Date	Time	Response Type	Action Taken
Board of Health	REFERRAL				

*12/7:  
Mailed  
MSR report to  
Owen Minott*

*@ 10:30 am 12/7/16*

*closed 12/9/16*

**Pat Maloney**

---

**From:** Owen Minott <owen\_minott@psbma.org>  
**Sent:** Thursday, December 01, 2016 12:26 PM  
**To:** Pat Maloney  
**Subject:** Fwd: WH Health Inspection

*Pat login  
" AS Request Get  
Cert Health Inspection*

Hi Pat:

As part of our annual license recertification, we need to submit to DESE a Health Inspection Certificate. Our address is: Winthrop house, 490 Heath St, MA, 02467.  
My direct phone line is 617-879-4720. Thanks so much for your help with this. Please confirm that this e-mail came through.  
Best, Owen

--  
Owen Minott  
Winthrop House Coordinator  
617-879-4732

--  
Owen Minott  
Winthrop House Coordinator  
617-739-7647

Brookline, Massachusetts 02145

HOUSING INSPECTION REPORT

ADDRESS OF PREMISES 490 Heath St.  
Number Street Apartment Number

OCCUPANT \_\_\_\_\_ TELEPHONE: \_\_\_\_\_  
Last Name First Middle I.

OWNER The Winthrop House TELEPHONE: 617-739-7647  
Last Name First Middle I. Owen Minor

OWNER'S ADDRESS \_\_\_\_\_  
Number Street City

INSPECTION REQUESTED BY \_\_\_\_\_ DATE: \_\_\_\_\_

DATE OF INSPECTION: MO 10 DAY 7 YEAR 08 HOUR 11 AM

ROOM(S)/VIOLATIONS \_\_\_\_\_ REG. NO. \_\_\_\_\_

OK New Bathrooms, hot water temp 120°F

Dumpster OK

Classrooms OK

NO visible evidence of Asbestos materials.

(INITIAL)

One or more of the violations cited above is a condition which may materially impair the health, safety or well-being of the occupant(s) as determined by Regulation 29.2 of the the State Sanitary Code or the authorized inspector.

SIGNED UNDER PAINS AND PENALTIES OF PERJURY:  
INSPECTOR \_\_\_\_\_

APPROXIMATE DATE & TIME OF REINSPECTION \_\_\_\_\_



# Town of Brookline Health Department

11 Pierce Street Massachusetts, 02445  
(617) 730-2300 fax (617) 730-2296

Alan Balsam, Ph.D, MPH, Director  
Public Health and Human Services

*RM*  
*[Handwritten signature]*

## ASBESTOS REMOVAL / ENCAPSULATION PLAN

1. Name of building owner/agent: TOWN OF BROOKLINE  
Address: 553 WASHINGTON ST Phone: 617-730-2420
2. Job Location: BROADWAY SCHOOL 490 HEATH ST 02189
3. Contractor: USM, INC.  
(Name, Address and Phone Number)  
550 WASHINGTON ST  
W. BROOKFIELD MA 01587
4. Sub-Contractor: \_\_\_\_\_  
(Name, Address and Phone Number)
5. Massachusetts Asbestos Contract License Number: A630196
6. On Site Job Supervisor and Massachusetts Certification Number: John Balsam AS 24657
7. Abatement Activity:  Removal-Encapsulation-Enclosure  
(Circle One)
8. Amount and type of Asbestos Material to be Removed, Encapsulated or Enclosed:  
PIPE WORK TO BE REMOVED 200 LF  
POSSIBLE HAZARDOUS MATERIAL 100 SF
9. Start Date: 7-2-07  
Completion Date: 7-9-07  
(Application and required fee to arrive at Brookline Health Department (10) days prior to starting date.)
10. (1) DEP Notification Date: 6/1  
(2) EPA Notification Date: \_\_\_\_\_  
(3) Labor and Workforce Development Date: 6/1

- (5) All movable objects shall be removed from work area.
- (6) All non-movable or fixed objects remaining within the work area shall be wrapped or covered with six (6) mil thick plastic sheeting. The covering shall be completely sealed with duct tape or equivalent.
- (7) The work area shall be isolated by sealing all openings, including but not limited to windows, doors, ventilation openings, drains, grilles and grates.
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\* Jobs canceled without informing the Health Department at least 24 hours in advance will be required to submit a new application and fee.

\* Jobs starting without prior Health Department approval will be charged TRIPLE the amount indicated.

\* Asbestos shingles must also be removed per Brookline Health Department requirements (stricter than State requirements).



# Commonwealth Of Massachusetts

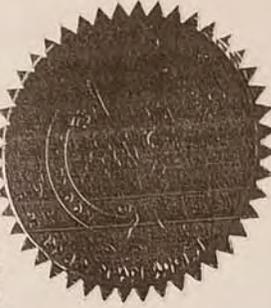
Town of Brookline

Map: Block: Lot:  
432 08 00

In Accordance With The Massachusetts State Building Code, Section 110, This

## CERTIFICATE OF INSPECTION

is issued to CHARLES SIMMONS  
I Certify that I have Inspected the 903 DAY CARE CENTER known as SOULE EARLY CHILDHOOD C  
Located at 652 HAMMOND ST, Fire Station 4 in the Town of Brookline  
The Means Of Egress Are Sufficient For The Following Number Of Persons:



BY STORY  
Story Capacity

Story Capacity  
DAY CARE FACILITY E/J-4

### BY PLACE OF ASSEMBLY OR STRUCTURE

Place of Assembly or Structure	Capacity	Location	Place of Assembly or Structure	Capacity	Location
DAYCARE >2YRS 9MOS	23	2ND FL	DAYCARE >2YRS 9MOS	40	1ST FL
DAYCARE <2YRS 9MOS	11	1ST FL			

*[Signature]*

CI-2015-0262 09/01/2015 08/31/2016  
Certificate Number Date Certificate Issued Date Certificate Expires Daniel F. Bennett

\*\* A COPY OF THIS CERTIFICATE MUST BE POSTED IN CLEAR VIEW NEAR ALL ENTRANCES \*\*

APPLICATION FOR CERTIFICATE OF INSPECTION

DATE: July 1, 2015

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 106.5, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS:

LOCATION 157 625 Hammond Street  
NAME OF PREMISES Soule Recreation Center  
CERTIFICATE TO BE ISSUED TO Charles Simmons, Director of Public Buildings  
ADDRESS 333 Washington Street, Town Hall, Brookline MA 02445  
OWNER OF RECORD OF BUILDING The Town of Brookline TELEPHONE # 617-730-2420  
ADDRESS Town Hall, 333 Washington Street, Brookline, MA 02445  
NAME OF PRESENT HOLDER OF CERTIFICATE Town of Brookline  
NAME OF AGENT, IF ANY \_\_\_\_\_ TELEPHONE # \_\_\_\_\_  
SIGNATURE OF PERSON TO WHOM CERTIFICATE IS ISSUED OR AUTHORIZED AGENT \_\_\_\_\_

Charles A. Simmons  
Director of Public Buildings

LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER GOVERNMENT AGENCIES: \_\_\_\_\_

**INSTRUCTIONS:** MAKE CHECK PAYABLE TO TOWN OF BROOKLINE. RETURN THIS APPLICATION WITH YOUR CHECK TO THE BUILDING DEPARTMENT, TOWN HALL, 333 WASHINGTON STREET, BROOKLINE, MA 02446.

**NOTE:** APPLICATION FORM WITH ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH BUILDING OR STRUCTURE OR PART THEREOF TO BE CERTIFIED. APPLICATION AND FEE MUST BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED. THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

FEE:  RECEIPT:  CERTIFICATE # 2015-0262 ISSUED: 9.1.15

dk  
R.E.  
7/16/15

103



Commonwealth Of Massachusetts  
Town of Brookline

Map: 432 Block: 08 Lot: 00

In Accordance With The Massachusetts State Building Code, Section 110, This

CERTIFICATE OF INSPECTION

is issued to CHARLES SIMMONS  
I Certify that I have Inspected the 27 R-7 GYMNASIUM known as SOULE GYM  
located at 652 HAMMOND ST, Fire Station 4 in the Town of Brookline

The Means Of Egress Are Sufficient For The Following Number Of Persons:



Story Capacity  
BY STORY Story Capacity

BY PLACE OF ASSEMBLY OR STRUCTURE

Place of Assembly or Structure Capacity Location  
GYMNASIUM 200 1ST FLOOR

CI-2014-0171 09/12/2014 08/31/2015

Certificate Number Date Certificate Issued Date Certificate Expires Daniel F. Bennett

\*\* A COPY OF THIS CERTIFICATE MUST BE POSTED IN CLEAR VIEW NEAR ALL ENTRANCES \*\*



**TOWN of BROOKLINE**  
*Massachusetts*  
**BUILDING DEPARTMENT**

Daniel F. Bennett  
 Building Commissioner

**APPLICATION FOR CERTIFICATE OF INSPECTION**  
 (Places of Assembly-Schools-Daycare-Camps-Religious Bldgs.-similar uses)

Date: 3/21/14

Use Group: \_\_\_\_\_

IN ACCORDANCE WITH THE PROVISION OF 780 CMR, TABLE 110 THE MASSACHUSETTS STATE BUILDING CODE, 8TH EDITION, AS AMENDED, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES AT THE FOLLOWING ADDRESS:

NAME OF PREMISES/BUSINESS: Soule Gym

USE OF PREMISES/BUSINESS: \_\_\_\_\_

ADDRESS OF PREMISES/BUSINESS: 650 436 Hammond Street

SEATING CAPACITY / S.F. AREA: \_\_\_\_\_

CERTIFICATE TO BE ISSUED TO: Annual Inspection PHONE: \_\_\_\_\_

SIGNATURE OF APPLICANT: \_\_\_\_\_

PRINT NAME: Charlie Simmons

CERTIFICATE MAILING ADDRESS: \_\_\_\_\_

OWNER OF PREMISES/BUILDING: Town of Brookline PHONE: X2420

OWNER ADDRESS: \_\_\_\_\_

LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER STATE/GOVERNMENT AGENCIES: \_\_\_\_\_

INSTRUCTIONS: 9-13-14 JK

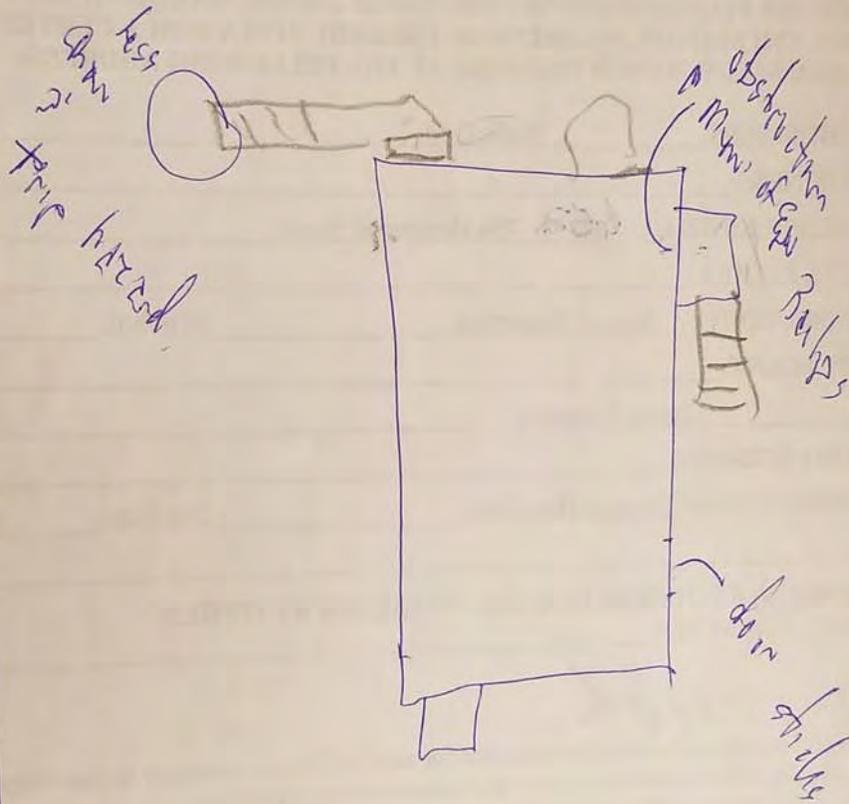
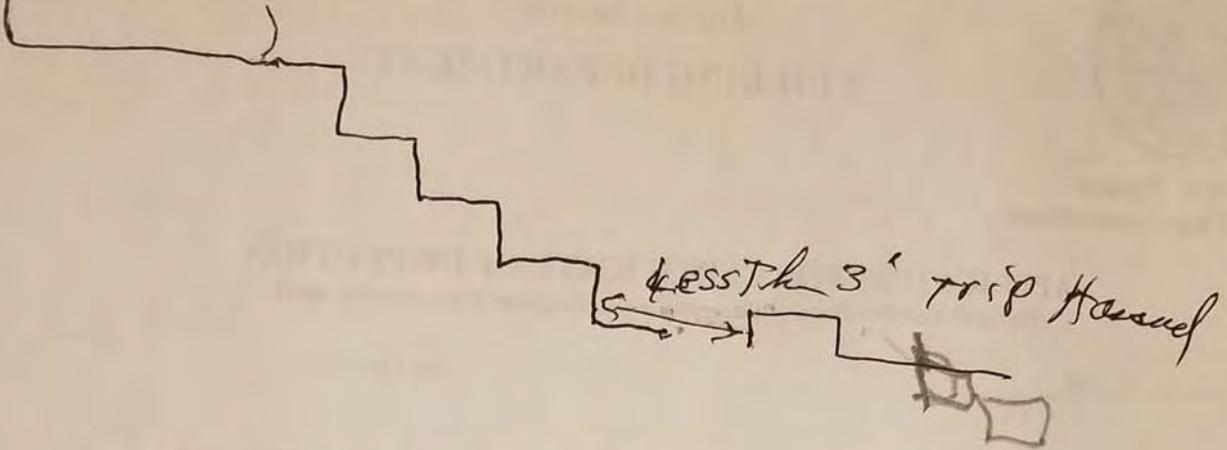
- Application form with accompanying fee must be submitted for each building or structure or part thereof to be certified. Application and fee must be received prior to the issuance of the certificate
- Submit copies of Annual Fire Alarm and Sprinkler Test Reports.
- All exit signs and emergency lights should be tested to verify they are in good working order. Malfunctioning devices must be repaired immediately. Mechanical & Boiler Rooms should be cleaned and free of debris & combustibles.
- Failure to complete application with required documentation, pay fee and return to the Building Department may result in suspension of licenses and/or enforcement action by the Town of Brookline.
- Return completed application with fee to Brookline Building Department, 333 Washington Street, Brookline, MA 02445

\$100 Waived

Fee \_\_\_\_\_ Check No. \_\_\_\_\_ Certificate No. 2014-0171 Issued Date 9.12.14 Expiration Date 9.31.15

Approved By \_\_\_\_\_  
 333 Washington Street, Brookline, Massachusetts 02445  
 Tel: (617) 730-2100 Fax: (617) 739-7542  
*Emergency lights out 3 door stuck hard to open, Clean debris at egress door on 9/10e, Deck needs rails and repair on side*  
*Ceiling leaking*  
*1 exit sign out, bottom of fire escape*

# Trip on Cement





Commonwealth Of Massachusetts  
Town of Brookline

Map: 432  
Block: 02  
Lot: 00

In Accordance With The Massachusetts State Building Code, Section 110, This

**CERTIFICATE OF INSPECTION**

is issued to **LISA PARADIS**  
I Certify that I have inspected the **903 DAY CARE CENTER known as SOULE EARLY CHILDHOOD C**  
located at **652 HAMMOND ST, Fire Station 4** in the **Town of Brookline**

The Means Of Egress Are Sufficient For The Following Number Of Persons:



Story Capacity  
DAY CARE FACILITY E/J-4 Story Capacity

**BY PLACE OF ASSEMBLY OR STRUCTURE**

Place of Assembly or Structure	Capacity	Location	Place of Assembly or Structure	Capacity	Location
DAYCARE >2YRS 9MOS	23	2ND FL	DAYCARE >2YRS 9MOS	40	1ST FL
DAYCARE <2YRS 9MOS	11	1ST FL			

Signature of Daniel F. Bennett

CI-2014-0173      09/12/2014      08/31/2015  
Certificate Number      Date Certificate Issued      Date Certificate Expires

**\*\* A COPY OF THIS CERTIFICATE MUST BE POSTED IN CLEAR VIEW NEAR ALL ENTRANCES \*\***



**TOWN of BROOKLINE**  
 Massachusetts  
**BUILDING DEPARTMENT**

Daniel F. Bennett  
 Building Commissioner

**APPLICATION FOR CERTIFICATE OF INSPECTION**  
 (Places of Assembly-Schools-Daycare-Camps-Religious Bldgs.-similar uses)

Use Group: F/T-4

Date: 3/21/14

IN ACCORDANCE WITH THE PROVISION OF 780 CMR, TABLE 110 THE MASSACHUSETTS STATE BUILDING CODE, 8TH EDITION, AS AMENDED, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES AT THE FOLLOWING ADDRESS:

NAME OF PREMISES/BUSINESS: Soule Recreation

USE OF PREMISES/BUSINESS: 652

ADDRESS OF PREMISES/BUSINESS: 652 Hammond Street

SEATING CAPACITY / S.F. AREA: \_\_\_\_\_ PHONE: \_\_\_\_\_

CERTIFICATE TO BE ISSUED TO: Annual Inspection

SIGNATURE OF APPLICANT: \_\_\_\_\_

PRINT NAME: Charlie Simmons

CERTIFICATE MAILING ADDRESS: \_\_\_\_\_

OWNER OF PREMISES/BUILDING: Town of Brookline PHONE: X2420

OWNER ADDRESS: \_\_\_\_\_

**LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER STATE/GOVERNMENT AGENCIES:** \_\_\_\_\_

INSTRUCTIONS: JK

- Application form with accompanying fee must be submitted for each building or structure or part thereof to be certified. Application and fee must be received prior to the issuance of the certificate
- Submit copies of Annual Fire Alarm and Sprinkler Test Reports.
- All exit signs and emergency lights should be tested to verify they are in good working order. Malfunctioning devices must be repaired immediately. Mechanical & Boiler Rooms should be cleaned and free of debris & combustibles.
- Failure to complete application with required documentation, pay fee and return to the Building Department may result in suspension of licenses and/or enforcement action by the Town of Brookline.
- Return completed application with fee to Brookline Building Department, 333 Washington Street, Brookline, MA 02445

Emergency light out 652 -  
652 Hammond Emergency light out wood rail on  
Hammond Road Need poly fire grill on  
JK

\$100 Waived  
 Fee Check No. 9-12-14  
 Certificate No. 2014-0113  
 Issued Date 3/21/14  
 Expiration Date 3/21/15  
 Approved By JK

333 Washington Street, Brookline, Massachusetts 02445  
 Tel: (617) 730-2100 Fax: (617) 739-7542



MASSACHUSETTS UNIFORM APPLICATION FOR A PERMIT TO PERFORM PLUMBING WORK

PP-2015-0751

P  
TYPE OR  
PRINT  
CLEARLY

CITY BROOKLINE MA DATE 6-23-15 PERMIT # PP-2015-0751  
JOBSITE ADDRESS 637 Hammond St. OWNER'S NAME BROOKLINE  
OWNER ADDRESS 333 WASHINGTON ST. TEL 617-730-2420 FAX 730-2187  
OCCUPANCY TYPE COMMERCIAL  EDUCATIONAL  RESIDENTIAL   
NEW:  RENOVATION:  REPLACEMENT:  PLANS SUBMITTED: YES  NO

FIXTURES ↓	FLOOR →	BSM	1	2	3	4	5	6	7	8	9	10	11	12	13	14
BATHUB																
CROSS CONNECTION DEVICE																
DEDICATED SPECIAL WASTE SYSTEM																
DEDICATED GAS/OIL/SAND SYSTEM																
DEDICATED GREASE SYSTEM																
DEDICATED GRAY WATER SYSTEM																
DEDICATED WATER RECYCLE SYSTEM																
DISHWASHER																
DRINKING FOUNTAIN																
FOOD DISPOSER																
FLOOR / AREA DRAIN																
INTERCEPTOR (INTERIOR)																
KITCHEN SINK																
LAVATORY																
ROOF DRAIN																
SHOWER STALL																
SERVICE / MOP SINK																
TOILET																
URINAL																
WASHING MACHINE CONNECTION																
WATER HEATER ALL TYPES																
WATER PIPING																
OTHER																

INSURANCE COVERAGE:

I have a current liability insurance policy or its substantial equivalent which meets the requirements of MGL Ch. 142. YES  NO

IF YOU CHECKED YES, PLEASE INDICATE THE TYPE OF COVERAGE BY CHECKING THE APPROPRIATE BOX BELOW

LIABILITY INSURANCE POLICY  OTHER TYPE OF INDEMNITY  BOND

OWNER'S INSURANCE WAIVER: I am aware that the licensee does not have the insurance coverage required by Chapter 142 of the Massachusetts General Laws, and that my signature on this permit application waives this requirement.

SIGNATURE OF OWNER OR AGENT

CHECK ONE ONLY: OWNER  AGENT

I hereby certify that all of the details and information I have submitted or entered regarding this application are true and accurate to the best of my knowledge and that all plumbing work and installations performed under the permit issued for this application will be in compliance with all Pertinent provision of the Massachusetts State Plumbing Code and Chapter 142 of the General Laws.

PLUMBER'S NAME William M. Gillespie LICENSE # 10865 William M. Gillespie SIGNATURE

MP  JP  CORPORATION  # 2531 C PARTNERSHIP  #          LLC  #         

COMPANY NAME Robert W. Irvine & Sons Inc. ADDRESS 147 Blossom Street

CITY Lynn STATE MA ZIP 01902 TEL 781-581-0464

FAX 781-581-2860 CELL          EMAIL bgillespie@irvineandsons.com

BT-2015-1004

Town of Brookline Building Department  
333 Washington Street Brookline, Massachusetts 02445  
617.730.2100

RECEIVED  
2015 JUN 24 PM 4:08  
BROOKLINE  
TOWN OF BROOKLINE

Building Permit Application  
\*PLEASE PRINT LEGIBLY\*

Soule Rec. Center

Submittal Date: 6/24/15

Job Address: 652 625 Hammond St

Existing Use: Educational Proposed Use: same

Description of work: Partitions for unisex bathroom 2nd Fl

Total Estimated Value of Work: \$5000  
Structure: Plumb:

Permit Fee: 0  
HVAC:

Property Owner: Town of Brookline  
Address: 333 Hammond St  
Brookline, MA Zip Code:

Are you a Lessee?  
Phone No: 617 730-2420  
Email:

Construction Supervisor: Thomas Cooney  
Address: 621 E. Second St  
South Boston, MA Zip Code: 02127

Cell No: 617 640-0410  
Phone No: 617 269-4027  
Email: 617 269-4746

CSL No: CS 067352 Type: unrestricted  
H.I.C. Reg. No: 109219 Expiration: 9/4/16

Expiration: 12/24/15

Architect/Engineer: NA  
Address: Zip Code:

Cell No:  
Phone No:  
Email:

Debris Disposal Facility as approved by Brookline DPW:  
DIGSAFE Case No: NA

"By signing this application I do hereby certify that I am the owner of record of the above captioned property and I have authorized the work described in this application. I hereby authorize the people named in this application to act as my agents in matters concerning this described work. I hereby certify under the pains and penalties of perjury that all statements made herein are true and accurate."

Property Owner's Signature:  
Property Owner's Name (please print)

Date:

Agent/Const. Super. Signature:  
Agent/Const. Super. Name (please print)

Tom Cooney  
Tom Cooney

Date: 6/24/15

**AFFIDAVIT OF A HOMEOWNER FOR  
CONSTRUCTION SUPERVISOR LICENSE EXEMPTION  
PLEASE READ BEFORE SIGNING**

A 'Homeowner' may obtain a building permit without having a construction supervisor's license if they qualify for the license exemption in the 8<sup>th</sup> Edition of the Massachusetts State Building Code 780 CMR Licensing of Construction Supervisors.

The 'Homeowner' must supervise anyone they hire to perform the work described in the permit. This exemption does not apply to the field erection of manufactured buildings.

A 'Homeowner' is defined as: Person(s) who owns a parcel of land on which he or she resides or intends to reside, on which there is, or is intended to be, a one- or two-family dwelling, attached or detached structures accessory to such use and/or farm structures. A person who constructs more than one home in a two-year period shall not be considered a homeowner.

I hereby certify that I am a 'Homeowner' according to the above definition and I will assume full responsibility for the work described in the attached building permit. I will assure conformance of the applicable sections of the Massachusetts State Building Code, Town of Brookline Zoning By-laws, and any other applicable law, rule, or regulation. **I UNDERSTAND THAT I MAY BE HELD LIABLE FOR ANY VIOLATIONS OF THE LAW, DEFECTS IN WORKMANSHIP, AND ANY ACCIDENTS OR INJURIES THAT MAY OCCUR IN THE COURSE OF THIS PROJECT.**

Signed under the pains and penalties of perjury this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Homeowner \_\_\_\_\_

**EXEMPTION FROM HOME IMPROVEMENT CONTRACTOR REGISTRATION  
FOR PERSONS OBTAINING BUILDING PERMIT AS A HOMEOWNER**

MGL c. 142A requires that the "reconstruction, alteration, renovation, repair, modernization, conversion, improvement, removal, demolition, or construction of an addition to any pre-existing owner-occupied building containing at least one but not more than four dwelling units..." be done by registered contractors, with certain exceptions, along with other requirements.

A 'Homeowner' as defined above, is exempt from registration as a Home Improvement Contractor as described in MGL c. 142A.

**HOMEOWNERS OBTAINING THEIR OWN BUILDING PERMIT OR ENGAGING UNREGISTERED CONTRACTORS TO PERFORM APPLICABLE HOME IMPROVEMENT WORK DO NOT HAVE ACCESS TO THE ARBITRATION PROGRAM OR GUARANTY FUND AS FOR PROVIDED UNDER MGL c. 142 A.**

I have read the above statements and understand that I have waived my right to arbitration and access to the Guaranty Fund as provided for under MGL c. 142A by obtaining the attached permit as a 'Homeowner', as defined above.

Homeowner Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Building Department Use Only:

Permit Fee: \_\_\_\_\_ Town Job: SPX  
 Zoning District: \_\_\_\_\_ F.A.R.: \_\_\_\_\_ Complies? \_\_\_\_\_  
 Construction Type: \_\_\_\_\_ Use Code: \_\_\_\_\_  
 ZBA Case No: \_\_\_\_\_ Historic District: \_\_\_\_\_ Flood Zone: \_\_\_\_\_  
 Existing Setbacks: Front: \_\_\_\_\_ Side L: \_\_\_\_\_ Side R: \_\_\_\_\_ Rear: \_\_\_\_\_  
 Proposed Setbacks: Front: \_\_\_\_\_ Side L: \_\_\_\_\_ Side R: \_\_\_\_\_ Rear: \_\_\_\_\_  
 Required Setbacks: Front: \_\_\_\_\_ Side L: \_\_\_\_\_ Side R: \_\_\_\_\_ Rear: \_\_\_\_\_

Departmental Approvals (if required)

Fire Dept.: \_\_\_\_\_ Date: \_\_\_\_\_  
 Wire Dept.: \_\_\_\_\_ Date: \_\_\_\_\_  
 Plumbing Dept.: \_\_\_\_\_ Date: \_\_\_\_\_  
 DPW/Engineering: \_\_\_\_\_ Date: \_\_\_\_\_  
 Conservation Commission: \_\_\_\_\_ Date: \_\_\_\_\_  
 Water/Sewer: \_\_\_\_\_ Date: \_\_\_\_\_  
 Health: \_\_\_\_\_ Date: \_\_\_\_\_  
 Planning: \_\_\_\_\_ Date: \_\_\_\_\_  
 Historic Preservation: \_\_\_\_\_ Date: \_\_\_\_\_

<b>TYPE OF IMPROVEMENT:</b>	<b>PROPOSED USE:</b>	<b>NON-RESIDENTIAL USE:</b>
New Building	Single Family	Amusement, Recreation
Addition	Multi-Family	Temple, Church, Religious
Alteration	Hotel, Motel, Dorm.	Industrial
Repair, Replacement	Garage	Theater, Assembly
Demolition	Porch, Deck	Service Station, Repair Garage
Swimming Pool	Accessory Building	Hospital, Institutional
Sign	Recreation	Office, Bank, Professional
Kitchen	Other (specify)	Restaurant
Bath		Library, Other Educational
Roofing/Siding		Stores, Mercantile
Other (specify)		Other (specify)

6/30/15 5/10/15 PP-2002-1100A

Approval/Denial by: [Signature] Date: \_\_\_\_\_ Permit No \_\_\_\_\_

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CONSTRUCTION SUPERVISOR LICENSE EXEMPTION  
PLEASE READ BEFORE SIGNING**

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I hereby certify that I am a 'Homeowner' according to the above definition and I will assume full responsibility for the work described in the attached building permit. I will assure conformance to the applicable sections of the Massachusetts State Building Code, Town of Brookline Zoning By-laws, and any other applicable law, rule, or regulation. **I UNDERSTAND THAT I MAY BE HELD LIABLE FOR ANY VIOLATIONS OF THE LAW, DEFECTS IN WORKMANSHIP, AND ANY ACCIDENTS OR INJURIES THAT MAY OCCUR IN THE COURSE OF THIS PROJECT.**

Signed under the pains and penalties of perjury this 20 day of \_\_\_\_\_

Homeowner \_\_\_\_\_

**EXEMPTION FROM HOME IMPROVEMENT CONTRACTOR REGISTRATION  
FOR PERSONS OBTAINING BUILDING PERMIT AS A HOMEOWNER**

MGL c. 142A requires that the "reconstruction, alteration, renovation, repair, modernization, conversion, improvement, removal, demolition, or construction of an addition to any pre-existing owner-occupied building containing at least one but not more than four dwelling units..." be done by registered contractors, with certain exceptions, along with other requirements.

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I have read the above statements and understand that I have waived my right to arbitration and access to the Guaranty Fund as provided for under MGL c. 142A by obtaining the attached permit as a 'Homeowner', as defined above.

Homeowner Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Building Department Use Only:**

Permit Fee: \_\_\_\_\_ Town Job: 93/15 Complies? \_\_\_\_\_  
 Zoning District: \_\_\_\_\_ F.A.R.: \_\_\_\_\_  
 Construction Type: \_\_\_\_\_ Use Code: \_\_\_\_\_

ZBA Case No: \_\_\_\_\_ Historic District: \_\_\_\_\_ Flood Zone: \_\_\_\_\_  
 Existing Setbacks: Front: \_\_\_\_\_ Side L: \_\_\_\_\_ Side R: \_\_\_\_\_ Rear: \_\_\_\_\_  
 Proposed Setbacks: Front: \_\_\_\_\_ Side L: \_\_\_\_\_ Side R: \_\_\_\_\_ Rear: \_\_\_\_\_  
 Required Setbacks: Front: \_\_\_\_\_ Side L: \_\_\_\_\_ Side R: \_\_\_\_\_ Rear: \_\_\_\_\_

**Departmental Approvals (if required)**

Fire Dept.: \_\_\_\_\_ Date: \_\_\_\_\_  
 Wire Dept.: \_\_\_\_\_ Date: \_\_\_\_\_  
 Plumbing Dept.: \_\_\_\_\_ Date: \_\_\_\_\_  
 DPW/Engineering: \_\_\_\_\_ Date: \_\_\_\_\_  
 Conservation Commission: \_\_\_\_\_ Date: \_\_\_\_\_  
 Water/Sewer: \_\_\_\_\_ Date: \_\_\_\_\_  
 Health: \_\_\_\_\_ Date: \_\_\_\_\_  
 Planning: \_\_\_\_\_ Date: \_\_\_\_\_  
 Historic Preservation: \_\_\_\_\_ Date: \_\_\_\_\_

<b>TYPE OF IMPROVEMENT:</b>	<b>PROPOSED USE:</b>	<b>NON-RESIDENTIAL USE:</b>
New Building	Single Family	Amusement, Recreation
Addition	Multi-Family	Temple, Church, Religious
Alteration	No. of Units	Industrial
Repair, Replacement	Hotel, Motel, Dorm.	Theater, Assembly
Demolition	No. of Units:	Service Station, Repair Garage
Swimming Pool	Garage	Hospital, Institutional
Siren	Porch, Deck	Office, Bank, Professional
Kitchen	Accessory Building	Restaurant
Path	Recreation	Library, Other Educational
Roofing/Siding	Other (specify)	Stores, Mercantile
Other (specify)		Other (specify)

93/15 20110101  
PP: 2015-110101

Approval/Denial by: [Signature] Date: \_\_\_\_\_ Permit No: \_\_\_\_\_



Commonwealth of Massachusetts  
Town of Brookline

Map: 432 Block: 08 Lot: 00

In Accordance With The Massachusetts State Building Code, Section 110, This

CERTIFICATE OF INSPECTION

is issued to CHARLES SIMMONS  
I Certify that I have Inspected the 27 R-7 GYMNASIUM known as SOULE GYM  
located at 652 HAMMOND ST, Fire Station 4 in the Town of Brookline

The Means Of Egress Are Sufficient For The Following Number Of Persons:

Story	Capacity	Story	Capacity

BY PLACE OF ASSEMBLY OR STRUCTURE

Place of Assembly or Structure	Capacity	Location	Place of Assembly or Structure	Capacity	Location
GYMNASIUM	200	1ST FLOOR			

CJ-2013-0325 09/24/2013 08/31/2014  
Certificate Number Date Certificate Issued Date Certificate Expires Daniel F. Bennett

\*\* A COPY OF THIS CERTIFICATE MUST BE POSTED IN CLEAR VIEW NEAR ALL ENTRANCES \*\*



TOWN OF BROOKLINE  
Massachusetts  
BUILDING DEPARTMENT

FMD

Daniel F. Bennett  
Building Commissioner

APPLICATION FOR CERTIFICATE OF INSPECTION

Date: 7/24/13

Use Group Description: A-3

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 110.0, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS

LOCATION: 652436 Hammond St.

USE OF PREMISES: Soule Gym

NAME OF PREMISE: \_\_\_\_\_

CERTIFICATE TO BE ISSUED TO Bldg Dept TELEPHONE: \_\_\_\_\_

SIGNATURE OF APPLICANT: \_\_\_\_\_

ADDRESS CERTIFICATE IS TO BE MAILED: \_\_\_\_\_

OWNER OF BUILDING: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_

ADDRESS: Emergency Light + exit sign out

LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER STATE/GOVERNMENT AGENCIES

9-13-13 JK install Balustrade on side deck + stairs

INSTRUCTIONS:

- Application form with accompanying fee must be submitted for each building or structure or part thereof to be certified.
- Application and fee must be received prior to the issuance of the certificate.
- Failure to complete application, pay fee and return to the Building Department may result in suspension of other licenses and/or enforcement action by the Town of Brookline.
- Return completed application with fee to Brookline Building Department, 333 Washington Street, Brookline, MA 02445

\$100 waived 2013-0325 9/24/13 [Signature]  
Fee Amount Check # Certificate # Issued date Approval by



Town of Brookline Building Department  
 333 Washington Street Brookline, Massachusetts 02445  
 617.730.2100

JKD  
 12/23/13  
 BP-20113

Building Permit Application  
 \*PLEASE PRINT LEGIBLY\*

Town JOB

Job Address: Soule Gym 652 Hammond Street Submittal Date: 12/23/13  
 Existing Use: \_\_\_\_\_ Proposed Use: \_\_\_\_\_

Description of work: ADD R-38 KRAFT FACED FIBERGLASS BATTS TO THE TOP OF THE EXISTING DROPPED TILE CEILING.

Total Estimated Value of Work: \$8772 Permit Fee: \$0  
 Structure: \_\_\_\_\_ Plumb: \_\_\_\_\_ Wire: \_\_\_\_\_ HVAC: \_\_\_\_\_  
 \* Subject to Final Cost Affidavit\*

Property Owner: THE TOWN OF BROOKLINE Are you a Lessee? \_\_\_\_\_  
 Address: 333 WASHINGTON ST. BROOKLINE Phone No: \_\_\_\_\_  
 Zip Code: \_\_\_\_\_ Email: \_\_\_\_\_

Construction Supervisor: STEPHEN HINES Cell No: 401-465-5337  
 Address: 222 NARLBANSETT AVE Phone No: 401-784-3700  
JAMESTOWN, RI Zip Code: 02835 Email: SHINES@THELSCH.COM

CSL No: 102935 Type: UNRESTRICTED Expiration: 6-23-15  
 H.I.C. Reg.No: \_\_\_\_\_ Expiration: \_\_\_\_\_

Architect/Engineer: \_\_\_\_\_ Cell No: \_\_\_\_\_  
 Address: \_\_\_\_\_ Phone No: \_\_\_\_\_  
 Zip Code: \_\_\_\_\_ Email: \_\_\_\_\_

Debris Disposal Facility as approved by Brookline DPW: RI RESOURCE RECOVERY CENTER  
62 SHAW PIKE, JOHNSTON, RI  
 DIGSAFE Case No \_\_\_\_\_

"By signing this application I do hereby certify that I am the owner of record of the above captioned property and I have authorized the work described in this application. I hereby authorize the people named in this application to act as my agents in matters concerning this described work. I hereby certify under the pains and penalties of perjury that all statements made herein are true and accurate."

Property Owner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Property Owner's Name (please print) \_\_\_\_\_

Agent/Const. Super. Signature: [Signature] Date: 12/23/13  
 Agent/Const. Super. Name (please print) \_\_\_\_\_

Building Department Use Only:

Permit Fee: 0 Town Job: \_\_\_\_\_  
 Zoning District: \_\_\_\_\_ F.A.R.: \_\_\_\_\_ Complies? \_\_\_\_\_  
 Construction Type: \_\_\_\_\_ Use Code: \_\_\_\_\_  
 ZBA Case No.: \_\_\_\_\_ Historic District: \_\_\_\_\_ Flood Zone: \_\_\_\_\_  
 Existing Setbacks: Front: \_\_\_\_\_ Side L: \_\_\_\_\_ Side R: \_\_\_\_\_ Rear: \_\_\_\_\_  
 Proposed Setbacks: Front: \_\_\_\_\_ Side L: \_\_\_\_\_ Side R: \_\_\_\_\_ Rear: \_\_\_\_\_  
 Required Setbacks: Front: \_\_\_\_\_ Side L: \_\_\_\_\_ Side R: \_\_\_\_\_ Rear: \_\_\_\_\_

Departmental Approvals (if required)

Fire Dept.: \_\_\_\_\_ Date: \_\_\_\_\_  
 Wire Dept.: \_\_\_\_\_ Date: \_\_\_\_\_  
 Plumbing Dept.: \_\_\_\_\_ Date: \_\_\_\_\_  
 DPW/Engineering: \_\_\_\_\_ Date: \_\_\_\_\_  
 Conservation Commission: \_\_\_\_\_ Date: \_\_\_\_\_  
 Water/Sewer: \_\_\_\_\_ Date: \_\_\_\_\_  
 Health: \_\_\_\_\_ Date: \_\_\_\_\_  
 Planning: \_\_\_\_\_ Date: \_\_\_\_\_  
 Historic Preservation: \_\_\_\_\_ Date: \_\_\_\_\_

TYPE OF IMPROVEMENT:  
 New Building \_\_\_\_\_  
 Addition \_\_\_\_\_  
 Alteration \_\_\_\_\_  
 Repair, Replacement \_\_\_\_\_  
 Demolition \_\_\_\_\_  
 Swimming Pool \_\_\_\_\_  
 Sign \_\_\_\_\_  
 Kitchen \_\_\_\_\_  
 Bath \_\_\_\_\_  
 Roofing/Siding \_\_\_\_\_  
 Other (specify) \_\_\_\_\_

PROPOSED USE:  
 Single Family \_\_\_\_\_  
 Multi-Family \_\_\_\_\_  
 No. of Units \_\_\_\_\_  
 Hotel, Motel, Dorm. \_\_\_\_\_  
 No. of Units \_\_\_\_\_  
 Garage \_\_\_\_\_  
 Porch, Deck \_\_\_\_\_  
 Accessory Building \_\_\_\_\_  
 Recreation \_\_\_\_\_  
 Other (specify) \_\_\_\_\_

NON-RESIDENTIAL USE:  
 Amusement, Recreation \_\_\_\_\_  
 Temple, Church, Religious \_\_\_\_\_  
 Industrial \_\_\_\_\_  
 Theater, Assembly \_\_\_\_\_  
 Service Station, Repair, Garage \_\_\_\_\_  
 Hospital, Institutional \_\_\_\_\_  
 Office, Bank, Professional \_\_\_\_\_  
 Restaurant \_\_\_\_\_  
 Library, Other Educational \_\_\_\_\_  
 Stores, Mercantile \_\_\_\_\_  
 Other (specify) \_\_\_\_\_

*insulation*  
**TOW JOB**

Approval/Denial by: JL Date: 10-23-13 Permit No. BP-2073

654 HAMMOND ST  
 GIS #: 17177  
 Map: 432  
 Block: 08  
 Lot: 00  
 Category: insulation  
 Permit #: BP-2013-2073  
 Project #: JS-2013-005279  
 Est. Cost: \$8,772.00  
 Fee Charged: \$0.00  
 Balance Due: \$0.00  
 Const. Class: \_\_\_\_\_  
 Use Group: \_\_\_\_\_  
 Lot Size (sq. ft.): 418625  
 Zoning: S25  
 Units Gained: \_\_\_\_\_  
 Units Lost: \_\_\_\_\_  
 Dig Safe #: \_\_\_\_\_



**BUILDING PERMIT**

PERMISSION IS HEREBY GRANTED TO:  
 License: \_\_\_\_\_  
 Expires: \_\_\_\_\_

Contractor: HINES, STEPHEN M.  
 Owner: TOWN OF BROOKLINE SOULE RECREATION CENTER  
 Applicant: HINES, STEPHEN M.  
 AT: 654 HAMMOND ST

ISSUED ON: 23-Dec-2013 AMENDED ON: \_\_\_\_\_ EXPIRES ON: \_\_\_\_\_

**TO PERFORM THE FOLLOWING WORK:**

ADD INSULATION ON TOP OF CEILING

POST THIS CARD SO IT IS VISIBLE FROM THE STREET

Electric	Gas	Plumbing	Building
Underground: _____	Underground: _____	Underground: _____	Excavation: _____
Service: _____	Meter: _____	Rough: _____	Footings: _____
Rough: _____	Rough: _____	Final: _____	Foundation: _____
Final: _____	Final: _____	Final: _____	Rough Frame: _____
D.P.W.: _____	Fire	Health	Fireplace/Chimney: _____
Meter: _____	Oil: _____	Assessor	Insulation: _____
House # _____	Smoke: _____	Final: _____	Final: _____
Water: _____	Alarm: _____	Final: _____	Treasury: _____
Sewer: _____	Sprinklers: _____	Final: _____	

THIS PERMIT MAY BE REVOKED BY THE TOWN OF BROOKLINE UPON VIOLATION OF ANY OF ITS RULES AND REGULATIONS.

MGL CH 142A HOME IMPROVEMENT CONTRACTOR REGISTRATION. PERSONS CONTRACTING WITH UNREGISTERED CONTRACTORS DO NOT HAVE ACCESS TO THE GUARANTY FUND IN THE EVENT OF A DISPUTE.

Signature: \_\_\_\_\_

**JAMES KIRBY**  
 Local Building Inspector  
 Tel (617) 730-2064  
 Fax (617) 730-7542  
 JKIRBY@BROOKLINE.MA.GOV

Office: Room 400A - 1000 Washington St., Boston - 02118  
 311 Washington Street, Boston - 02118  
 Phone: (617) 730-2100  
 Fax: (617) 730-7542  
 Municipal Building, Boston - 02108

Massachusetts - Department of Public Safety  
Board of Building Regulations and Standards

Construction Supervisor  
License: CS-102835



STEPHEN M HINES  
222 NARRAGANSETT AVENUE  
Jamestown RI 02835



*Stephen M Hines*  
Commissioner

Expiration  
06/23/2015

ACORD™

Client#: 73967 THIELENG2  
**CERTIFICATE OF LIABILITY INSURANCE**

DATE (MM/DD/YYYY)  
 10/22/2013

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER  
 Starkweather & Shepley  
 PO Box 549  
 Providence, RI 02901-0549  
 401 435-3600

CONTACT NAME: Susan Wilson  
 PHONE (A/C, No, Ext): 401-886-1822 FAX (A/C, No): 401-431-9674  
 E-MAIL ADDRESS: swilson@prestonagency.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Zurich American Cos	16535
INSURER B: Twin City Fire - Hartford	19682
INSURER C: North American Capacity Insuran	25038
INSURER D: American Guarantee & Liability	
INSURER E:	
INSURER F:	

INSURED  
 Thielsch Engineering, Inc.  
 Attn: Trent Theroux  
 195 Frances Avenue  
 Cranston, RI 02910

COVERAGES CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC		373096203	01/01/2013	01/01/2014	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$300,000 MED EXP (Any one person) \$5,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 \$
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS		373096303	01/01/2013	01/01/2014	COMBINED SINGLE LIMIT (Ea accident) \$2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
D	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED -- RETENTION \$		AUC485718802	01/01/2013	01/01/2014	EACH OCCURRENCE \$10,000,000 AGGREGATE \$10,000,000 \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input checked="" type="checkbox"/> N <input type="checkbox"/> Y (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	373096103	01/01/2013	01/01/2014	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
B	Leased/Rented		02UUNHE6930	01/01/2013	01/01/2014	Equipment \$200,000
C	Professional Liab		PPL10003848100	01/01/2013	01/01/2014	\$2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

(See Attached Descriptions)

CERTIFICATE HOLDER

SAMPLE

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Donna M. Canario

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DESCRIPTIONS (Continued from Page 1)

Supplemental Named Insureds\*

Thielsch Group, Inc.

Hi Tech Realty, Inc.

RISE Engineering, a division of Thielsch Engineering, Inc.

Gaskell Associates, a division of Thielsch Engineering, Inc.

BAL Laboratory, a division of Thielsch Engineering, Inc.

ESS Laboratory, a division of Thielsch Engineering, Inc.

ALCO Engineering, a division of Thielsch Engineering, Inc.

Water Management Services, a division of Thielsch Engineering, Inc.

COPY

14206332

TOWN BROOKLINE BLDG. DEPT.

SERVICE ORDER FY2014

VENDOR	NUMB	25002510 TOWN	25003430 SCHOOL
ARA Fire Protec	26181	age Senior Center	93 Winchester S SR
Aze Plate Glass	40761	blldg Health Center	11 Pierce St. HL
Arnold Corp	40760	blldg Larz-Crptr Shp	15 Newton St. LT
Assoc Elev	40726	blldg Larz-Elec Shp	13 Newton St. LE
C&G Suspend	40103	blldg Pub Safte Bldg	350 Washington PO
Cleanco	7545	blldg Town Hall	333 Washington TH
Comp Flr Solut	40275	dpw Incinerator Hse	815 Newton St. IH
DuGiovanni	39461	dpw Metering Stn	0 Single Tree Rv MS
Door Systems	6363	dpw New Mun Grng	370 Hammond S GR
Heatrol A/C	27461	dpw Trans-fir Stn	813 Newton St. TR
Indust Burner	1531	dpw Water Garage	44 Netherlands WT
Kraft	1669	dpw Wood Heg	817 Newton St. HG
Labbe Welding	39479	dpwp Amory Field Hse	15 Amory St. AM
Lan-Tel	45020	dpwp Harry Downs Fld	24 Highland St. DW
Lemur HVAC	27190	dpwp L.A. Refrizer	27 Newton St. PF
McKenna Roof	35819	dpwp LA Pool/Rink	353 Godard Ave. LH
NESM	2276	dpwp LA Toilets	350 Godard Ave. LS
NESS	2274	dpwp Park Forestry	19 Newton St. P3
Pasek	5536	dpwp Park Forestry	25 Newton St. P5
TBA	42145	dpwp Reservoir Pump	0 Lee St. RP
Yiking Controls	23007	dpwp Waldstein Field	26 Clinton Path. WF
Yee Consult	35919	fire Fire Train Bld 1	962B Hammond T1
YES	21314	fire Fire Train Bld 2	962C Hammond T2
		fire Fire Train Strctr	962D Hammond TS
		fire Fire Train Tower	962A Hammond TT
		fire Fire Stat No. 1	140 Washington F1
		fire Fire Stat No. 4	627 Boylston St. F4
		fire Fire Stat No. 5	45 Babcock St. F5
		fire Fire Stat No. 6	962C Hammond S F6
		fire Fire Stat No. 7	665 Washington F7
		hist Arts Center	86 Monmouth St. BA
		hist Gate House	15 Warren St. GH
		hist Pump House	17 Warren St. PM
		libr Cool Corn Lib	31 Pleasant St. LC
		libr Main Library	361 Washington LM
		libr Putter Library	959 W. Roxbury LP
		reer Ebot Rec Ctr	133 Ebot St. EL
		reer Ordur's Shed	425 Hammond S SS
		reer Putter Golf Club	1281 W. Roxbur GP
		reer Putter pro shop	1279 W Roxbury GP
		reer Saule Gym	436 Hammond S SG
		reer Soule Rec Ctr	625 Hammond S SO
		reer Swimming Pool	60 Tappan St. SP
		reer Warm Pk Cabin	135 Ebot St. WC

ATTIC

INSULATE ceiling

2500SP25 RENTAL

dpwp Cemetery Offc	96A Grove St.	C9
dpwp Cemetery Hse	96 Grove St.	CH
dpwp Cemetery Main	99 Grove St.	CM
dpwp Cemetery Vault	92 Grove St.	CV
hist Devotion House	347 Harvard St.	DH
hist Widow Harris	21 Newton St.	WH
thot Museum Transj	15 Newton St.	AC
thot Musc School	19 Leonard Rd.	MT
thot Tawa House	27 Ackers Ave.	27
thot Town House	29 Avon St.	29
thot Town House	55 Newton St.	55
thot Town House	9 Newton St.	09
thot Town House	154 University 1	UN
thot Putterch Schol	17 Newton	PU
hist Sportmen's Clb	1 Warren	SB

VENDOR NAME

Rise Energy

VENDOR NUMBER:

ORG: \_\_\_\_\_

OBJ: \_\_\_\_\_

AUTHOR and DATE

Author: *[Signature]*

Date: 12-19-13

\$8772

Town contract # \_\_\_\_\_  
 State contract # \_\_\_\_\_  
 No state, no town,  
 >\$9,999: provide  
 Chapman with three  
 hard copy quotes.

14206332

**AFFIDAVIT OF A HOMEOWNER FOR  
CONSTRUCTION SUPERVISOR LICENSE EXEMPTION  
PLEASE READ BEFORE SIGNING**

A 'Homeowner' may obtain a building permit without having a construction supervisor's license if they qualify for the license exemption in the 7<sup>th</sup> Edition of the Massachusetts State Building Code 780 CMR 5108.3.5 Licensing of Construction Supervisors.

The 'Homeowner' must supervise anyone they hire to perform the work described in the permit. This exemption does not apply to the field erection of manufactured buildings.

A 'Homeowner' is defined as: Person(s) who owns a parcel of land on which he or she resides or intends to reside, on which there is, or is intended to be, a one- or two-family dwelling, attached or detached structures accessory to such use and/or farm structures. A person who constructs more than one home in a two-year period shall not be considered a homeowner.

I hereby certify that I am a 'Homeowner' according to the above definition and I will assume full responsibility for the work described in the attached building permit. I will assure conformance of the applicable sections of the Massachusetts State Building Code, Town of Brookline Zoning By-laws, and any other applicable law, rule, or regulation. **I UNDERSTAND THAT I MAY BE HELD LIABLE FOR ANY VIOLATIONS OF THE LAW, DEFECTS IN WORKMANSHIP, AND ANY ACCIDENTS OR INJURIES THAT MAY OCCUR IN THE COURSE OF THIS PROJECT.**

Signed under the pains and penalties of perjury this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

\_\_\_\_\_  
Homeowner

**EXEMPTION FROM HOME IMPROVEMENT CONTRACTOR REGISTRATION  
FOR PERSONS OBTAINING BUILDING PERMIT AS A HOMEOWNER**

MGL c. 142A requires that the "reconstruction, alteration, renovation, repair, modernization, conversion, improvement, removal, demolition, or construction of an addition to any pre-existing owner-occupied building containing at least one but not more than four dwelling units..." be done by registered contractors, with certain exceptions, along with other requirements.

A 'Homeowner' as defined above, is exempt from registration as a Home Improvement Contractor as described in MGL c. 142A.

**HOMEOWNERS OBTAINING THEIR OWN BUILDING PERMIT OR ENGAGING UNREGISTERED CONTRACTORS TO PERFORM APPLICABLE HOME IMPROVEMENT WORK DO NOT HAVE ACCESS TO THE ARBITRATION PROGRAM OR GUARANTY FUND AS FOR PROVIDED UNDER MGL c. 142 A.**

I have read the above statements and understand that I have waived my right to arbitration and access to the Guaranty Fund as provided for under MGL c. 142A by obtaining the attached permit as a 'Homeowner', as defined above.

Homeowner Signature: \_\_\_\_\_

Date: \_\_\_\_\_



The Commonwealth of Massachusetts  
 Department of Industrial Accidents  
 Office of Investigations  
 600 Washington Street  
 Boston, MA 02111  
 www.mass.gov/dia

Workers' Compensation Insurance Affidavit: Builders/Contractors/Electricians/Plumbers  
 Please Print Legibly

**Applicant Information**

Name (Business/Organization/Individual): RISE ENGINEERING, A DIVISION OF THIELSCH ENG., INC

Address: 195 FRANCES AVENUE

City/State/Zip: CRANSTON RI 02910 Phone #: 401-784-3700 EXT. 6117

Are you an employer? Check the appropriate box:

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> I am an employer with <u>515</u> employees (full and/or part-time).*   | 4. <input type="checkbox"/> I am a general contractor and I have hired the sub-contractors listed on the attached sheet. These sub-contractors have employees and have workers' comp. insurance.†  |
| 2. <input type="checkbox"/> I am a sole proprietor or partnership and have no employees working for me in any capacity. [No workers' comp. insurance required.] | 5. <input type="checkbox"/> We are a corporation and its officers have exercised their right of exemption per MGL c. 152, §1(4), and we have no employees. [No workers' comp. insurance required.] |
| 3. <input type="checkbox"/> I am a homeowner doing all work myself. [No workers' comp. insurance required.] †   |  |

Type of project (required):

- |  |
|--|
| 6. <input type="checkbox"/> New construction.                |
| 7. <input checked="" type="checkbox"/> Remodeling            |
| 8. <input type="checkbox"/> Demolition                       |
| 9. <input type="checkbox"/> Building addition.               |
| 10. <input type="checkbox"/> Electrical repairs or additions |
| 11. <input type="checkbox"/> Plumbing repairs or additions   |
| 12. <input type="checkbox"/> Roof repairs                    |
| 13. <input type="checkbox"/> Other _____                     |

\*Any applicant that checks box #1 must also fill out the section below showing their workers' compensation policy information.

† Homeowners who submit this affidavit indicating they are doing all work and then hire outside contractors must submit a new affidavit indicating such.

‡ Contractors that check this box must attached an additional sheet showing the name of the sub-contractors and state whether or not those entities have employees. If the sub-contractors have employees, they must provide their workers' comp. policy number.

I am an employer that is providing workers' compensation insurance for my employees. Below is the policy and job site information.

Insurance Company Name: ZURICH AMERICAN CO.'S

Policy # or Self-ins. Lic. #: 373096103

Expiration Date: 1/1/2014

Job Site Address: SOULE GYM 652 HAMMOND STREET

City/State/Zip: BROOKLINE, MA

Attach a copy of the workers' compensation policy declaration page (showing the policy number and expiration date). Failure to secure coverage as required under Section 25A of MGL c. 152 can lead to the imposition of criminal penalties of a fine up to \$1,500.00 and/or one-year imprisonment, as well as civil penalties in the form of a STOP WORK ORDER and a fine of up to \$250.00 a day against the violator. Be advised that a copy of this statement may be forwarded to the Office of Investigations of the DIA for insurance coverage verification.

I do hereby certify under the pains and penalties of perjury that the information provided above is true and correct.

Signature: [Signature]

Date: 6/23/13

Phone #: 401-465-5337

Official use only. Do not write in this area, to be completed by city or town official.

City or Town: \_\_\_\_\_ Permit/License # \_\_\_\_\_

Issuing Authority (circle one):

1. Board of Health 2. Building Department 3. City/Town Clerk 4. Electrical Inspector 5. Plumbing Inspector  
 6. Other \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone #: \_\_\_\_\_



Commonwealth Of Massachusetts  
Town of Brookline

Map: 432 Block: 08 Lot: 00

In Accordance With The Massachusetts State Building Code, Section 110, This

CERTIFICATE OF INSPECTION

is issued to CHARLES SIMMONS  
I Certify that I have Inspected the 27 R-7 GYMNASIUM known as SOULE GYM  
located at 652 HAMMOND ST, Fire Station 4 in the Town of Brookline

The Means Of Egress Are Sufficient For The Following Number Of Persons:

Story	Capacity	Story	Capacity

BY PLACE OF ASSEMBLY OR STRUCTURE

Place of Assembly or Structure	Capacity	Location	Place of Assembly or Structure	Capacity	Location
GYMNASIUM	200	1ST FLOOR			

*[Signature]*

CI-2013-0325      09/24/2013      08/31/2014  
Certificate Number      Date Certificate Issued      Date Certificate Expires      Daniel F. Bennett

\*\* A COPY OF THIS CERTIFICATE MUST BE POSTED IN CLEAR VIEW NEAR ALL ENTRANCES \*\*

652 HAMMOND ST

BP-2013-1026

GIS #:	17177
Map:	432
Block:	08
Lot:	00
Category:	STRUCTURAL REP
Permit #	BP-2013-1026
Project #	JS-2013-002624
Est. Cost:	
Fee Charged:	\$0.00
Balance Due:	\$0.00
Const. Class:	
Use Group:	
Lot Size(sq. ft.):	418625
Zoning:	S25
Units Gained:	
Units Lost:	
Dig Safe #:	

COMMONWEALTH OF MASSACHUSETTS  
TOWN OF BROOKLINE



**BUILDING PERMIT**

**PERMISSION IS HEREBY GRANTED TO:**

**Contractor:** Bilt-Rite Construction **License:** **Expires:**

**Owner:** TOWN OF BROOKLINE

**Applicant:** Bilt-Rite Construction

**AT:** 652 HAMMOND ST

**ISSUED ON:** **AMENDED ON:** **EXPIRES ON:**

**TO PERFORM THE FOLLOWING WORK:**

STRUCTURAL REPAIRS TO ROOF/TRUSSES PER PLANS BY BOSTON BLDG CONSULTANTS DTD 7/2/13 (SKS-1-SKS-3) BY J. BALMER (ENG#29743)

**POST THIS CARD SO IT IS VISIBLE FROM THE STREET**

<b>Electric</b> Underground: Service: Rough: Final:	<b>Gas</b> Underground: Meter: Rough: Final:	<b>Plumbing</b> Underground: Rough: Final:	<b>Building</b> Excavation: Footings: Foundation: Rough Frame: <i>J.R.</i> Fireplace/Chimney: Insulation: <i>8-13-13</i> Final: <i>J.R.</i> Treasury:
<b>D.P.W.</b> Meter: House # Water: Sewer:	<b>Fire</b> Oil: Smoke: Alarm: Sprinklers:	<b>Health</b>   <b>Assessor</b> Final:	

**THIS PERMIT MAY BE REVOKED BY THE TOWN OF BROOKLINE UPON VIOLATION OF ANY OF ITS RULES AND REGULATIONS.**

MGL CH 142A HOME IMPROVEMENT CONTRACTOR REGISTRATION. PERSONS CONTRACTING WITH UNREGISTERED CONTRACTORS DO NOT HAVE ACCESS TO THE GUARANTY FUND IN THE EVENT OF A DISPUTE.

Signature: *[Handwritten Signature]*

Fee Type:	<b>JAMES KIRBY</b>	Receipt No:	REC-2013-009666	Date Paid:	16-Jul-13	Check No:	waived	Amount:	\$0.00
Town Job	<b>Local Building Inspector</b>								

**(617) 730-2894**  
**Fax (617) 730-7542**  
**KIRBY@BROOKLINEMA.GOV**

**Office Hours**

Monday - Friday  
8:00am - 10:00am  
4:00pm - 5:00pm  
8:00am - 9:30am

355 Washington Street  
Brookline, MA 02445  
www.brookline.gov

WASHINGTON ST, Phone:(617) 730-2100





BP-2013-1024  
 Town of Brookline Building Department  
 333 Washington Street Brookline, Massachusetts 02445  
 617.730.2100

RECEIVED

2013 JUL 23 PM 12:03

Building Permit Application  
 \*PLEASE PRINT LEGIBLY\*

Job Address: 652 Hammond Street Submittal Date: 7-23-13  
 Existing Use: Gym Proposed Use: Gym

Description of work: Repair of 3 Trusses  
Per plans (Engineer)

Total Estimated Value of Work: \$47,000 Permit Fee: \_\_\_\_\_  
 Structure: \$47,000 Plumb: 0 Wire: 0 HVAC: 0  
 \* Subject to Final Cost Affidavit\*

Property Owner: Town of Brookline Are you a Lessee? No  
 Address: 333 Washington Street Phone No: 617-737-2420  
Brookline, MA Zip Code: 02445 Email: \_\_\_\_\_

Construction Supervisor: Christopher Sullivan Cell No: 617-592-6148  
 Address: 7 Heritage Lane Phone No: 617-541-9777  
Canton, MA Zip Code: 02021 Email: csullivan@biltite  
 CSL No: CS-030507 Type: Unrestricted Expiration: 1-10-14 CONSTRUCTION.COM  
 H.I.C. Reg. No: 101787 Expiration: 6-29-14

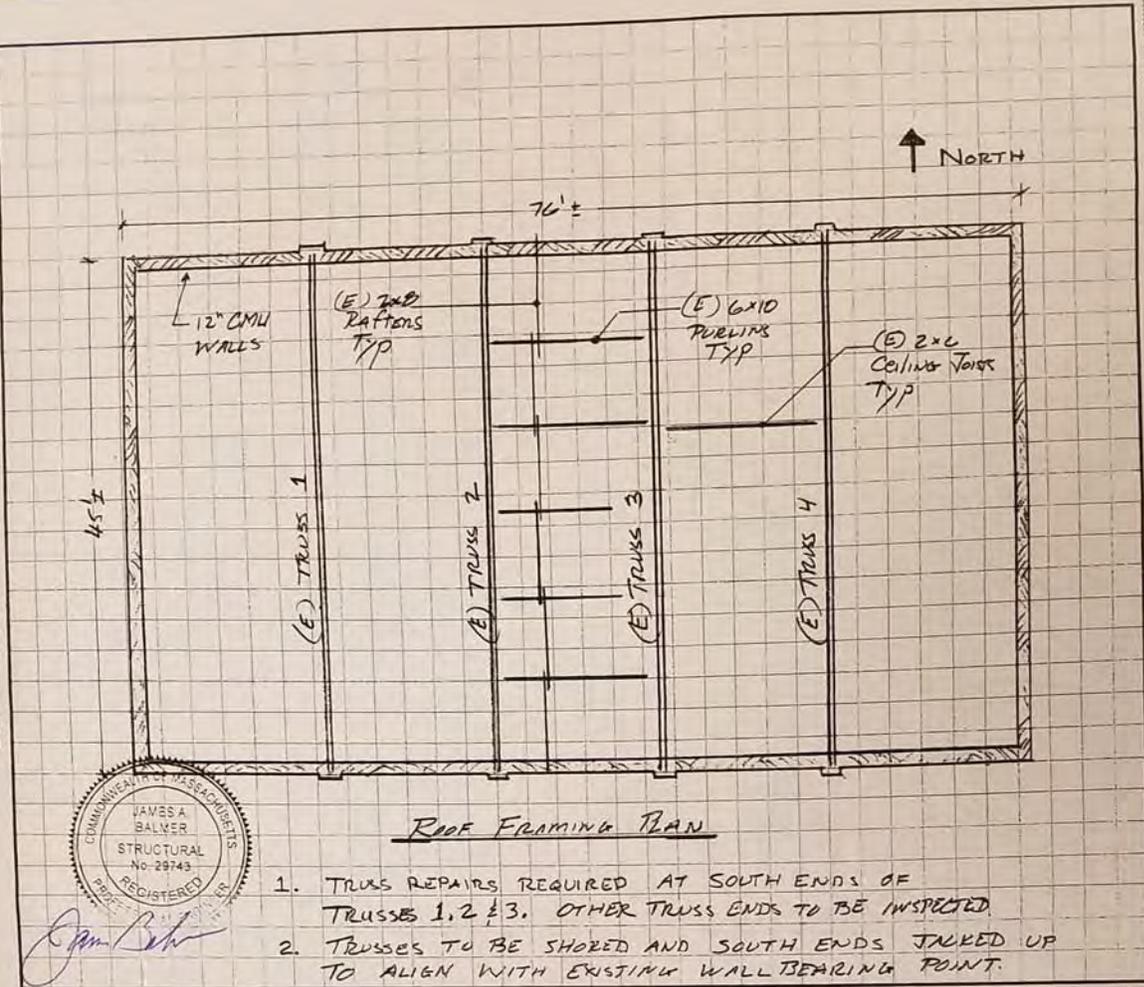
Architect/Engineer: Jim Balmer Cell No: 617-462-2303  
Boston Building Consultants Phone No: 617-542-3933  
 Address: 241 A Street Suite 220 Zip Code: 02210 Email: JABalmer@BBC  
Boston, MA Boston.com

Debris Disposal Facility as approved by Brookline DPW: United Waste Management  
 DIGSAFE Case No N/A

"By signing this application I do hereby certify that I am the owner of record of the above captioned property and I have authorized the work described in this application. I hereby authorize the people named in this application to act as my agents in matters concerning this described work. I hereby certify under the pains and penalties of perjury that all statements made herein are true and accurate."

Property Owner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Property Owner's Name (please print) \_\_\_\_\_

Agent/Const. Super. Signature: Christopher Sullivan Date: 7-23-13  
 Agent/Const. Super. Name (please print) Christopher Sullivan



*James A. Balmer*

ROOF FRAMING PLAN

1. TRUSS REPAIRS REQUIRED AT SOUTH ENDS OF TRUSSES 1, 2 & 3. OTHER TRUSS ENDS TO BE INSPECTED.
2. TRUSSES TO BE SHORED AND SOUTH ENDS JACKED UP TO ALIGN WITH EXISTING WALL BEARING POINT.

Building Department Use Only:

Permit Fee: \_\_\_\_\_ Town Job: *JTB*

Zoning District: \_\_\_\_\_ F.A.R.: \_\_\_\_\_ Complies? \_\_\_\_\_

Construction Type: \_\_\_\_\_ Use Code: \_\_\_\_\_

ZBA Case No.: \_\_\_\_\_ Historic District: \_\_\_\_\_ Flood Zone: \_\_\_\_\_

Existing Setbacks: Front: \_\_\_\_\_ Side L: \_\_\_\_\_ Side R: \_\_\_\_\_ Rear: \_\_\_\_\_

Proposed Setbacks: Front: \_\_\_\_\_ Side L: \_\_\_\_\_ Side R: \_\_\_\_\_ Rear: \_\_\_\_\_

Required Setbacks: Front: \_\_\_\_\_ Side L: \_\_\_\_\_ Side R: \_\_\_\_\_ Rear: \_\_\_\_\_

Departmental Approvals (if required)

Fire Dept.: \_\_\_\_\_ Date: \_\_\_\_\_

Wire Dept.: \_\_\_\_\_ Date: \_\_\_\_\_

Plumbing Dept.: \_\_\_\_\_ Date: \_\_\_\_\_

DPW/Engineering: \_\_\_\_\_ Date: \_\_\_\_\_

Conservation Commission: \_\_\_\_\_ Date: \_\_\_\_\_

Water/Sewer: \_\_\_\_\_ Date: \_\_\_\_\_

Health: \_\_\_\_\_ Date: \_\_\_\_\_

Planning: \_\_\_\_\_ Date: \_\_\_\_\_

Historic Preservation: \_\_\_\_\_ Date: \_\_\_\_\_

PROPOSED USE:

Single Family \_\_\_\_\_

Multi-Family \_\_\_\_\_

Ms of Units \_\_\_\_\_

Hotel, Motel, Dorm \_\_\_\_\_

Garage \_\_\_\_\_

Porch, Deck \_\_\_\_\_

Accessory Building \_\_\_\_\_

Recreation \_\_\_\_\_

Other (specify) \_\_\_\_\_

NON-RESIDENTIAL USE:

Amusement, Recreation \_\_\_\_\_

Temple, Church, Religious \_\_\_\_\_

Industrial \_\_\_\_\_

Theater, Assembly \_\_\_\_\_

Service Station, Repair Garage \_\_\_\_\_

Hospital, Institutional \_\_\_\_\_

Office, Bank, Professional \_\_\_\_\_

Restaurant \_\_\_\_\_

Library, Other Educational \_\_\_\_\_

Stores, Mercantile \_\_\_\_\_

Other (specify) \_\_\_\_\_

Date: *7/23/13* Permit No. *BP-2013-1028*

Approval/Denial by: *[Signature]*



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
7/17/2013

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

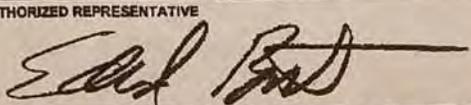
PRODUCER Charles River Ins. Brokerage, Inc. 5 Whittier Street 4th Floor Framingham MA 01701	CONTACT NAME: Jeff Dee	
	PHONE (Att. No. Ext.): (508) 656-1400 FAX (Att. No.): (508) 656-2499	
	E-MAIL ADDRESS: Jdee@charlesriverinsurance.com	
INSURED Bilt-Rite Construction Inc. 150 Shirley Street Boston MA 02119	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A Arbella Mutual	17000
	INSURER B Arbella Protection	
	INSURER C Merchants Mutual Ins Co	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES CERTIFICATE NUMBER: 13-basic REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDITIONAL INSURER	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY		9500 0501 38	2/17/2013	2/17/2014	EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY					DAMAGE TO RENTED PREMISES (Ea. occur/retire) \$ 100,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR					MED EXP (Any one person) \$ 5,000
						PERSONAL & ADV INJURY \$ 1,000,000
						GENERAL AGGREGATE \$ 2,000,000
						PRODUCTS - COM/PROP AGG \$ 2,000,000
	GENTL AGGREGATE LIMIT APPLIES PER:					
	<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC					
B	AUTOMOBILE LIABILITY		1020 0142 53 01	2/17/2013	2/17/2014	COMBINED SINGLE LIMIT (Ea. accident) \$ 1,000,000
	<input type="checkbox"/> ANY AUTO					BODILY INJURY (Per person) \$ 20,000
	<input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS					BODILY INJURY (Per accident) \$ 40,000
	<input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS					PROPERTY DAMAGE (Per accident) \$
						Uninsured motorist BI split limit \$ 100,000
C	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR		COP 0000 478	2/17/2013	2/17/2014	EACH OCCURRENCE \$ 5,000,000
	<input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE					AGGREGATE \$ 5,000,000
	<input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$					
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY		9117 7902 13	2/17/2013	2/17/2014	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	Y/N <input checked="" type="checkbox"/> N				
	If yes, describe under DESCRIPTION OF OPERATIONS below	N/A				E.L. DISEASE - EA EMPLOYEE \$ 1,000,000
						E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)  
Project - Soule Gym Trusses/ Roof Repairs - 652 Hammond Street, Brookline, MA

CERTIFICATE HOLDER  Town of Brookline Building Department 333 Washington Street Brookline, MA 02445	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 



The Commonwealth of Massachusetts  
 Office of Consumer Affairs and Business Regulation  
 10 Park Plaza - Suite 5170  
 Boston, Massachusetts 02116  
 Home Improvement Contractor Registration

BILT-RITE CONSTRUCTION INC  
 John Sullivan  
 150 Shirley St  
 Boston, MA 02119



Registration: 101787  
 Type: Private Corporation  
 Expiration: 6/29/2014 Tr# 224643

Update Address and return card. Mark reason for change.  
 Address  Renewal  Employment  Lost Card

SCA 1 20M-05/11



The Commonwealth of Massachusetts  
 Office of Consumer Affairs & Business Regulation

HOME IMPROVEMENT CONTRACTOR  
 Registration: 101787  
 Expiration: 6/29/2014  
 Type: Private Corporation

BILT-RITE CONSTRUCTION INC

John Sullivan  
 150 Shirley St  
 Boston, MA 02119



*Barbara O'Neil*  
 Undersecretary

License or registration valid for individual use only  
 before the expiration date. If found return to:  
 Office of Consumer Affairs and Business Regulation  
 10 Park Plaza - Suite 5170  
 Boston, MA 02116

*John B. Sullivan*  
 Not valid without signature



Massachusetts - Department of Public Safety  
 Board of Building Regulations and Standards

Construction Supervisor  
 License: CS-030507

CHRISTOPHER SULLIVAN  
 7 HERITAGE LN  
 Canton MA 02021



*Thomas D. Bligh*  
 Commissioner

Expiration  
 01/10/2014

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Signed under the pains and penalties of perjury this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

\_\_\_\_\_  
Homeowner

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FOR PERSONS OBTAINING BUILDING PERMIT AS A HOMEOWNER**

MGL c. 142A requires that the "reconstruction, alteration, renovation, repair, modernization, conversion, improvement, removal, demolition, or construction of an addition to any pre-existing owner-occupied building containing at least one but not more than four dwelling units..." be done by registered contractors, with certain exceptions, along with other requirements.

A 'Homeowner' as defined above, is exempt from registration as a Home Improvement Contractor as described in MGL c. 142A.

**HOMEOWNERS OBTAINING THEIR OWN BUILDING PERMIT OR ENGAGING UNREGISTERED CONTRACTORS TO PERFORM APPLICABLE HOME IMPROVEMENT WORK DO NOT HAVE ACCESS TO THE ARBITRATION PROGRAM OR GUARANTY FUND AS FOR PROVIDED UNDER MGL c. 142 A.**

I have read the above statements and understand that I have waived my right to arbitration and access to the Guaranty Fund as provided for under MGL c. 142A by obtaining the attached permit as a 'Homeowner', as defined above.

Homeowner Signature: \_\_\_\_\_

Date: \_\_\_\_\_



The Commonwealth of Massachusetts  
 Department of Industrial Accidents  
 Office of Investigations  
 600 Washington Street  
 Boston, MA 02111  
 www.mass.gov/dia

**Workers' Compensation Insurance Affidavit: Builders/Contractors/Electricians/Plumbers**  
**Applicant Information** Please Print Legibly

Name (Business/Organization/Individual): B:IT R:ITe CONSTRUCTION

Address: 150 Shirley Street

City/State/Zip: Boston, MA 02119 Phone #: 617-541-9777

Are you an employer? Check the appropriate box:

- |   |   |  |
|---|---|--|
| <p>1. <input checked="" type="checkbox"/> I am an employer with _____ employees (full and/or part-time).*</p> <p>2. <input type="checkbox"/> I am a sole proprietor or partnership and have no employees working for me in any capacity. [No workers' comp. insurance required.]</p> <p>3. <input type="checkbox"/> I am a homeowner doing all work myself. [No workers' comp. insurance required.] †</p> | <p>4. <input type="checkbox"/> I am a general contractor and I have hired the sub-contractors listed on the attached sheet. These sub-contractors have employees and have workers' comp. insurance. ‡</p> <p>5. <input type="checkbox"/> We are a corporation and its officers have exercised their right of exemption per MGL c. 152, §1(4), and we have no employees. [No workers' comp. insurance required.]</p> | <p>Type of project (required):</p> <p>6. <input type="checkbox"/> New construction.</p> <p>7. <input type="checkbox"/> Remodeling</p> <p>8. <input type="checkbox"/> Demolition</p> <p>9. <input type="checkbox"/> Building addition.</p> <p>10. <input type="checkbox"/> Electrical repairs or additions</p> <p>11. <input type="checkbox"/> Plumbing repairs or additions</p> <p>12. <input type="checkbox"/> Roof repairs</p> <p>13. <input type="checkbox"/> Other _____</p> |
|---|---|--|

\*Any applicant that checks box #1 must also fill out the section below showing their workers' compensation policy information.  
 † Homeowners who submit this affidavit indicating they are doing all work and then hire outside contractors must submit a new affidavit indicating such.  
 ‡ Contractors that check this box must attached an additional sheet showing the name of the sub-contractors and state whether or not those entities have employees. If the sub-contractors have employees, they must provide their workers' comp. policy number.

*I am an employer that is providing workers' compensation insurance for my employees. Below is the policy and job site information.*

Insurance Company Name: Arbella  
 Policy # or Self-ins. Lic. #: 9117 7902 13 Expiration Date: 2-17-14  
 Job Site Address: 852 Hammond Street City/State/Zip: Brookline, MA 02445

Attach a copy of the workers' compensation policy declaration page (showing the policy number and expiration date). Failure to secure coverage as required under Section 25A of MGL c. 152 can lead to the imposition of criminal penalties of a fine up to \$1,500.00 and/or one-year imprisonment, as well as civil penalties in the form of a STOP WORK ORDER and a fine of up to \$250.00 a day against the violator. Be advised that a copy of this statement may be forwarded to the Office of Investigations of the DIA for insurance coverage verification.

*I do hereby certify under the pains and penalties of perjury that the information provided above is true and correct.*

Signature: Chang Kook Date: 7-23-13

Phone #: 617-541-9777 x 104

*Official use only. Do not write in this area, to be completed by city or town official.*

City or Town: \_\_\_\_\_ Permit/License # \_\_\_\_\_

Issuing Authority (circle one):  
 1. Board of Health 2. Building Department 3. City/Town Clerk 4. Electrical Inspector 5. Plumbing Inspector  
 6. Other \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone #: \_\_\_\_\_



TOWN of BROOKLINE  
Massachusetts

FIRE ESCAPE AND FIRE BALCONY  
AFFIDAVIT

BUILDING DEPARTMENT  
730-2100

DATE: October 16, 2012

TO THE BUILDING COMMISSIONER OF THE TOWN OF BROOKLINE

I certify that I have inspected the Fire Escape/Fire Balcony located in the building at:

Souls Recreation Center 652 Hammond St.

To the best of my knowledge, information and belief the Fire Escape/Fire Balcony is in conformity with the provisions of the Massachusetts State Building Code and all other pertinent laws.

The egress path from each occupancy which requires the Fire Escape/Fire Balcony for its means of egress is clear, unobstructed and adequately lighted.

James Balmer  
Engineer

29743  
(Mass./Reg. No.)

Boston Building Consultants  
(Address)  
241 A St. Boston MA 02210

617 542 3933  
(Telephone - Area Code)



COMMONWEALTH OF MASSACHUSETTS SUFFOLK ss:

Then personally appeared the above named: James Balmer  
and made oath that the above statement by him is true.

Before me: [Signature] DATE 10-16-12

My Commission expires 6-25-15





Commonwealth Of Massachusetts

Town of Brookline

Map: 432 Block: 08 Lot: 00

In Accordance With The Massachusetts State Building Code, Section 110, This

CERTIFICATE OF INSPECTION

is issued to CHARLES SIMMONS
I Certify that I have Inspected the 27 R-7 GYMNASIUM known as SOULE GYM
Located at 652 HAMMOND ST, Fire Station 4 in the Town of Brookline

The Means Of Egress Are Sufficient For The Following Number Of Persons:

Table with 3 columns: Story, Capacity, Location. Row 1: BY STORY, Story, Capacity.

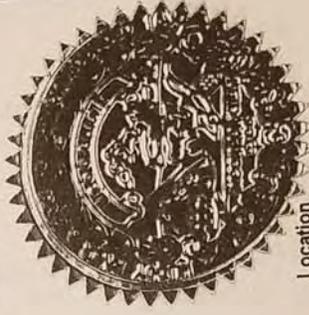


Table with 3 columns: Place of Assembly or Structure, Location, Capacity. Row 1: GYMNASIUM, 1ST FLOOR, 200.

Handwritten signature of the Building Official

Table with 3 columns: Certificate Number, Date Certificate Issued, Date Certificate Expires. Row 1: CI-2012-0300, 08/30/2012, 08/31/2013.

\*\* A COPY OF THIS CERTIFICATE MUST BE POSTED IN CLEAR VIEW NEAR ALL ENTRANCES \*\*

TOWN of BROOKLINE

Massachusetts

A-3

BUILDING DEPARTMENT

APPLICATION FOR CERTIFICATE OF INSPECTION

WAVE \$100

Date 4/19/12

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 106.5, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS

LOCATION 652 436 Hammond St

USE OF PREMISES Solely Gym - 200 persons

NAME OF PREMISE Solely Gym

CERTIFICATE TO BE ISSUED TO (persons name) Telephone

ADDRESS Charlie Simmons

OWNER OF RECORD OF BUILDING Telephone

ADDRESS

NAME OF PRESENT HOLDER OF CERTIFICATE

NAME OF AGENT, IF ANY Telephone

SIGNATURE OF PERSON TO WHOM CERTIFICATE IS ISSUED OR HIS AUTHORIZED AGENT

LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER GOVERNMENT

AGENCIES:

INSTRUCTIONS:

APPLICATION FORM WITH ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH

BUILDING OR STRUCTURE OR PART THEREOF TO BE CERTIFIED. APPLICATION AND FEE MUST BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED. THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

FEE \$ 100 RECEIPT#

CERTIFICATE #

ISSUED

8.30.12

CE-2012-0300

W/A

333 Washington Street, Brookline, Massachusetts 02146  
Tel: (617) 730-2100 Fax: (617) 739-7542

4/19/12  
MKS



Michael Shepard  
Building Commissioner  
730-2100



# TOWN of BROOKLINE

Massachusetts

FH

Michael Shepard  
Building Commissioner  
730-2100

BUILDING PERMIT

APPLICATION  
Date

Please issue the permit!

IN ACCORDANCE WITH THE PROVISIONS OF THE BUILDING CODE, SECTION 106.5, I HEREBY APPLY FOR A BUILDING PERMIT FOR THE BELOW NAMED PREMISES LOCATED AT THE

BUILDING FOR THE

LOCATION 652 Hammond

USE OF PREMISES Recreation

NAME OF PREMISE Soule Recreation

CERTIFICATE TO BE ISSUED TO Recreation

Telephone 2069

ADDRESS 133 Eliot Street, Chestnut Hill, MA 02167  
OWNER OF RECORD OF BUILDING Town of Brookline Telephone 2069

ADDRESS 133 Eliot Street

NAME OF PRESENT HOLDER OF CERTIFICATE Town of Brookline

NAME OF AGENT, IF ANY Lisa Parachis Telephone 2069

SIGNATURE OF PERSON TO WHOM CERTIFICATE IS ISSUED OR HIS AUTHORIZED AGENT  
Gerald W. Kelly

LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER GOVERNMENT AGENCIES:

### INSTRUCTIONS:

APPLICATION FORM WITH ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH BUILDING OR STRUCTURE OR PART THEREOF TO BE CERTIFIED. APPLICATION AND FEE MUST BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED. THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

FEE ~~\$100~~ RECEIPT# \_\_\_\_\_ CERTIFICATE # \_\_\_\_\_ ISSUED \_\_\_\_\_

OK # 6/12/09



TOWN of BROOKLINE  
Massachusetts

FH

Michael Shepard  
Building Commissioner  
730-2100

BUILDING DEPARTMENT

APPLICATION FOR CERTIFICATE OF INSPECTION

Date 6/25/09

~~\$100~~

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 106.5, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS

LOCATION 652 Hammond Street

USE OF PREMISES Recreation Center

NAME OF PREMISE Soule Recreation Center

CERTIFICATE TO BE ISSUED TO Recreation (persons name) Lisa Paradis Telephone 2069

ADDRESS 133 Eliot Street, Chestnut Hill, MA 02467

OWNER OF RECORD OF BUILDING Town of Brookline Telephone 2069

ADDRESS 133 Eliot Street

NAME OF PRESENT HOLDER OF CERTIFICATE Town of Brookline

NAME OF AGENT, IF ANY Lisa Paradis Telephone 2069

SIGNATURE OF PERSON TO WHOM CERTIFICATE IS ISSUED OR HIS AUTHORIZED AGENT Gerald W. Kelly

LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER GOVERNMENT AGENCIES:

INSTRUCTIONS:

APPLICATION FORM WITH ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH BUILDING OR STRUCTURE OR PART THEREOF TO BE CERTIFIED. APPLICATION AND FEE MUST BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED. THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

FEE ~~\$100~~ RECEIPT# \_\_\_\_\_ CERTIFICATE # \_\_\_\_\_ ISSUED \_\_\_\_\_

OK 6/12/09

nez  
ns : Brookline E-Mail System

Wednesday, April 27, 2011 9:19:08 AM



 **Gina Tzizik**

Soule Inspections

 **Donna Martinez**

Hi Donna-  
Just checking in on the Soule Inspection for our re-licensing. Are they ready?  
Thanks- so much!

Gina Tzizik  
Early Childhood Director  
Brookline Recreation  
Soule Early Childhood Center  
652 Hammond Street  
Brookline, MA 02467  
Phone: (617) 739-7598  
Fax: (617) 739-7594

[www.brooklinerec.com](http://www.brooklinerec.com)  
[gtzizik@brooklinema.gov](mailto:gtzizik@brooklinema.gov)

■ Melissa Battite

Wednesday, April 27, 2011 2:55:06 PM 

Re: Age group

■ Grace Cheng

10  
Grace Cheng writes:

Forgot another question, Frank Hitchcock wants to know how many kids under and over the age of 2.9. He need to update the info on the certificate. Thanks

Grace Cheng  
Town of Brookline  
Building Department  
3rd Floor Town Hall  
333 Washington Street  
Brookline, MA 02445  
(617)730-2100  
<http://www.townofbrooklinemass.com/Building/>

Melissa Battite, CPRP  
Asst. Director of Recreation  
Brookline Recreation  
Phone:617.730.2069  
[www.brooklinerec.com](http://www.brooklinerec.com)  
<http://www.facebook.com/brooklinerec>

The Commonwealth of Massachusetts

TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 106.5 this

CERTIFICATE OF INSPECTION



is issued to CHARLES SIMMONS

I Certify that I have inspected the

Town Owned Building

known as SOULE GYM

located at 652 HAMMOND ST

State Building Code Use Group: 27 R-7 TOWN BLDGS, NOT SCHOOLS  
in the Town of Brookline, County of Norfolk, Commonwealth of Massachusetts. The means of egress are sufficient for the following number of persons:

OCCUPANTS

STORY

OCCUPANTS

ROOM

200

GYMNASIUM

ROOM

Comments: SOULE GYMNASIUM

Issue Date: 08/20/2009

Date Certificate Expires: 08/20/2010

Michael W. Shepard  
Building Commissioner

Certificate No: BC1090254

The building commissioner shall be notified within (10) days of any changes in the above information.  
Thursday, August 20, 2009

741

APPLICATION FOR CERTIFICATE OF INSPECTION

DATE: June 11, 2009

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 106.5, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS:

LOCATION 652  
436 HAMMOND STREET

NAME OF PREMISES SOULE GYM

CERTIFICATE TO BE ISSUED TO Charles Simmons, Director of Public Buildings

ADDRESS 333 Washington Street, Town Hall, Brookline MA 02445

OWNER OF RECORD OF BUILDING The Town of Brookline TELEPHONE # 617-730-2420

ADDRESS Town Hall, 333 Washington Street, Brookline, MA 02445

NAME OF PRESENT HOLDER OF CERTIFICATE Town of Brookline

NAME OF AGENT, IF ANY \_\_\_\_\_ TELEPHONE # \_\_\_\_\_

SIGNATURE OF PERSON TO WHOM CERTIFICATE IS ISSUED OR AUTHORIZED AGENT \_\_\_\_\_

OK 6/12/09

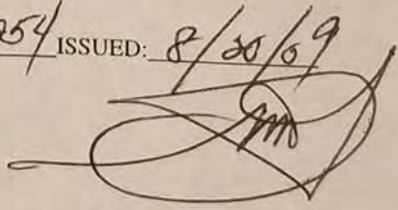
Charles A. Simmons  
Director of Public Buildings

LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER GOVERNMENT AGENCIES:

**INSTRUCTIONS:** MAKE CHECK PAYABLE TO TOWN OF BROOKLINE. RETURN THIS APPLICATION WITH YOUR CHECK TO THE BUILDING DEPARTMENT, TOWN HALL, 333 WASHINGTON STREET, BROOKLINE, MA 02446.

**NOTE:** APPLICATION FORM WITH ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH BUILDING OR STRUCTURE OR PART THEREOF TO BE CERTIFIED. APPLICATION AND FEE MUST BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED. THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

FEE: \_\_\_\_\_ RECEIPT: \_\_\_\_\_ CERTIFICATE # BC 096254 ISSUED: 8/20/09



1st Cym 200

Gym



TOWN of BROOKLINE  
Massachusetts

BUILDING DEPARTMENT

Michael Shepard  
Building Commissioner  
730-2100

APPLICATION FOR CERTIFICATE OF INSPECTION

Date 6/25/09

\$100

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 106.5, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS

LOCATION 654 Hammond Street

USE OF PREMISES Nature Programs and Camps

NAME OF PREMISE Brookline Environmental Education Ctr.

CERTIFICATE TO BE ISSUED TO Recreation (persons name) Paradis Telephone 2069

ADDRESS 133 Eliot Street, Chestnut Hill, MA 02467

OWNER OF RECORD OF BUILDING Town of Brookline Telephone 2069

ADDRESS 133 Eliot Street

NAME OF PRESENT HOLDER OF CERTIFICATE Town of Brookline

NAME OF AGENT, IF ANY Lisa Paradis Telephone 2069

SIGNATURE OF PERSON TO WHOM CERTIFICATE IS ISSUED OR HIS AUTHORIZED AGENT

*Gerald W. Kelly*  
LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER GOVERNMENT AGENCIES:

INSTRUCTIONS:

APPLICATION FORM WITH ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH BUILDING OR STRUCTURE OR PART THEREOF TO BE CERTIFIED. APPLICATION AND FEE MUST BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED. THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

FEE \$100 RECEIPT# CERTIFICATE # ISSUED

OK # 6/12/09

FH

The Commonwealth of Massachusetts

TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 106.5 this

CERTIFICATE OF INSPECTION



is issued to CHARLES SIMMONS

I Certify that I have inspected the

Town Owned Building

known as SOULE GYM

located at 652 HAMMOND ST

State Building Code Use Group: 27 R-7 TOWN BLDGS, NOT SCHOOLS  
in the Town of Brookline, County of Norfolk, Commonwealth of Massachusetts. The means of egress are sufficient for the following number of persons:

<u>STORY</u>	<u>ROOM</u>	<u>OCCUPANTS</u>	<u>STORY</u>	<u>ROOM</u>	<u>OCCUPANTS</u>
1ST FLR	GYMNASIUM	200			

Comments: SOULE GYMNASIUM

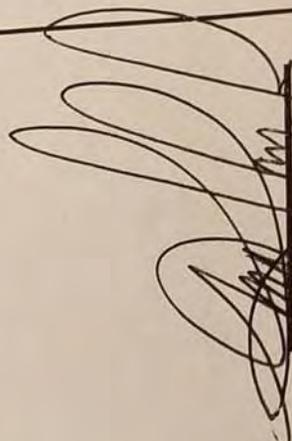
Issue Date: 08/20/2009

Date Certificate Expires: 08/20/2010

Certificate No: BC1090254

The building commissioner shall be notified within (10) days of any changes in the above information.

Thursday, August 20, 2009

  
Michael W. Shepard  
Building Commissioner

The Commonwealth of Massachusetts

TOWN OF BROOKLINE  
CERTIFICATE OF INSPECTION

In accordance with the Massachusetts State Building Code, Section 106.5 th



is issued to SOULE RECREATION known as SOULE RECREATION  
I Certify that I have inspected the Recreation Center  
located at 652 HAMMOND ST

State Building Code Use Group: A-3 ASSEMBLY-LECTURE HALL/REC  
in the Town of Brookline, County of Norfolk, Commonwealth of Massachusetts The means of egress are sufficient for the following number of persons:

<u>STORY</u>	<u>ROOM</u>	<u>OCCUPANTS</u>	<u>STORY</u>	<u>ROOM</u>	<u>OCCUPANTS</u>
FIRST FLOOR	GYMNASIUM	200 PERSONS			

GYM

Comments:

Certificate No: BC1070079 Issue Date: 08/23/2006 Date Certificate Expires: 08/23/2007

The building commissioner shall be notified within (10) days of any changes in the above information.

Wednesday, August 23, 2006

  
James J. Nickerson  
Building Commissioner

gaur F.H. app'l's 6/25/07

The Commonwealth of Massachusetts

TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 106.5 th

CERTIFICATE OF INSPECTION



is issued to SOULE TEEN CENTER

I Certify that I have inspected the Recreation Center known as SOULE TEEN CENTER located at 652 HAMMOND ST

State Building Code Use Group: A-3 ASSEMBLY-LECTURE HALL/REC in the Town of Brookline, County of Norfolk, Commonwealth of Massachusetts The means of egress are sufficient for the following number of persons:

<u>STORY</u>	<u>ROOM</u>	<u>OCCUPANTS</u>	<u>STORY</u>	<u>ROOM</u>	<u>OCCUPANTS</u>
FIRST FLOOR	DANCE ROOM	34 PERSONS	SECOND FLOOR	BILLIARD ROOM	38 PERSONS
	CERAMICS ROOM	12 PERSONS		GENERAL ROOM	40 PERSONS
	AIR HOCKEY ROOM	17 PERSONS		T.V. ROOM	12 PERSONS
	COMMUNITY ROOM	32 PERSONS			
NOT TO EXCEED 95 PERSONS TEEN CENTER					NOT TO EXCEED 90 PERSONS

Comments:

Certificate No: BCI070078

Issue Date: 08/23/2006

Date Certificate Expires: 08/23/2007

The building commissioner shall be notified within (10) days of any changes in the above information. Wednesday, August 23, 2006

James J. Nickerson  
Building Commissioner

The Commonwealth of Massachusetts

TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 106.5 thi

CERTIFICATE OF INSPECTION



is issued to CHARLES SIMMONS

I Certify that I have inspected the Recreation Center

known as SOULE GYMNASIUM

located at 652 HAMMOND ST

State Building Code Use Group: A-3 ASSEMBLY-LECTURE HALL/REC

in the Town of Brookline, County of Norfolk, Commonwealth of Massachusetts The means of egress are sufficient for the following number of persons:

<u>STORY</u>	<u>ROOM</u>	<u>OCCUPANTS</u>	<u>STORY</u>	<u>ROOM</u>	<u>OCCUPANTS</u>
FIRST FLOOR	GYMNASIUM	200 PERSONS			

Comments:

Certificate No: BC1050189 Issue Date: 09/01/2005 Date Certificate Expires: 07/28/2006

The building commissioner shall be notified within (10) days of any changes in the above information. Thursday, September 01, 2005

*[Handwritten Signature]*

James J. Nickerson  
Building Commissioner

POA







TOWN of BROOKLINE  
Massachusetts

APPLICATION FOR MECHANICAL PERMIT

James J. Nickerson  
Building Commissioner

Date: 9/24/67

Address of Installation: Soule Rec. Ctr. 652 Hammond St.

Name of Installer: Richard A Lee License Number: 029046

Name of Installing Company: Industrial Burner Systems

Address: 97 Rawson Rd. Quincy Zip Code: 02170

Telephone Number: 617-947-8665

Type of Installation (check any or all that apply)

- Hot Water Boiler       Gas Fired       Oil Fired       Other \_\_\_\_\_
- Hot Air Furnace       Gas Fired       Other \_\_\_\_\_
- Air Conditioning       Split A.C.       Packaged Unit
- Commercial Rooftop Unit       Dimensions \_\_\_\_\_  Weight \_\_\_\_\_
- Emergency Generator       Gas Fired       Diesel Fired       Manufacturer \_\_\_\_\_
- KW \_\_\_\_\_
- Commercial Kitchen Exhaust Hood
- Suppressed       Exhaust Only \_\_\_\_\_       Source of Supply Air \_\_\_\_\_
- Manufacturer & Type of Suppression System \_\_\_\_\_
- Commercial Refrigeration System
  - Walk-In Cooler       Walk-In Freezer       Other (Specify \_\_\_\_\_)

Location in Building

- Attic       Basement       Outdoors
- Rooftop       Other (Specify \_\_\_\_\_)

Capacity Tons A.C. \_\_\_\_\_

BTU Input (Fuel Fired) 855 mbh

Interior Chimney       Exterior Chimney       Direct Vent       Height of Chimney \_\_\_\_\_

Size of Flue \_\_\_\_\_  Lined

Manufacturer & Type of Liner To Be Installed \_\_\_\_\_

Please specify manufacturer, model number and written description of all mechanical equipment installed under this permit.

3- Lochinvar ~~#KAB~~ #KBN285 High Eff. direct vent Boilers w/ 2 Taco circ. pumps.

Estimated Cost of Complete Installation 45,000

Signature of Applicant Ronald A. Lee

Permit Number MC0700132 Receipt Number \_\_\_\_\_

Permit Fee N/A

Hammond St  
to Rec 2/27/04

# TOWN of BROOKLINE Massachusetts

## BUILDING DEPARTMENT

APPLICATION FOR CERTIFICATE OF INSPECTION  
Date January 28, 2004

PROVISIONS OF THE MASSACHUSETTS STATE BUILDING  
CODE APPLY FOR A CERTIFICATE OF INSPECTION FOR THE  
BUILDING AT THE FOLLOWING ADDRESS:

Soule Gym  
Day Care - here  
play group  
Teen Drop In  
Center Moved  
Which one has  
office to  
100 E...

**LOCATION** 652 Hammond Street

**USE OF PREMISES** \_\_\_\_\_

**NAME OF PREMISES** Soule Recreation

**CERTIFICATE TO BE ISSUED TO** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_

**OWNER OF RECORD OF BUILDING** \_\_\_\_\_ **TELEPHONE** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_

**NAME OF PRESENT HOLDER OF CERTIFICATE** \_\_\_\_\_

**NAME OF AGENT, IF ANY** \_\_\_\_\_

**SIGNATURE OF PERSON TO WHOM CERTIFICATE** \_\_\_\_\_ **TITLE** \_\_\_\_\_

**IS ISSUED OR HIS AUTHORIZED AGENT** \_\_\_\_\_ **Date** \_\_\_\_\_

**LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER GOVERNMENT AGENCIES:** \_\_\_\_\_

**INSTRUCTIONS:** MAKE CHECK PA  
APPLICATION WITH YOUR CHECK TO  
WASHINGTON STREET, BROOKLINE,  
**NOTE:** APPLICATION FORM WITH  
EACH BUILDING OR STRUCTURE OF  
AND FEE MUST BE RECEIVED BEFORE  
BUILDING OFFICIAL SHALL BE NOTIFIED  
TION.

When was  
Gym  
renovated

CLERK OF TOWN OF BROOKLINE. RETURN THIS  
APPLICATION TO TOWN HALL, 333

YOUR APPLICATION WILL NOT BE SUBMITTED FOR  
INSPECTION UNTIL IT IS NOTIFIED. APPLICATION  
FEE WILL BE ISSUED. THE  
BUILDING DEPARTMENT SHALL BE NOTIFIED OF ANY CHANGE IN

F.H & BR  
will measure  
Soule Gym  
Is there a  
cert for gym

**CERTIFICATE #** \_\_\_\_\_ **ISSUED** \_\_\_\_\_



**TOWN of BROOKLINE**  
Massachusetts

**BUILDING DEPARTMENT**

James J. Nickerson  
Building Commissioner

APPLICATION FOR CERTIFICATE OF INSPECTION

DATE: March 27, 2002

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 106.5, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS:

LOCATION 652 HAMMOND STREET

NAME OF PREMISES SOULE RECREATION CENTER

CERTIFICATE TO BE ISSUED TO Charles Simmons, Director of Public B

ADDRESS 333 Washington Street, Town Hall, Br

OWNER OF RECORD OF BUILDING The Town of Brookline T

ADDRESS Town Hall, 333 Washington Street, B

NAME OF PRESENT HOLDER OF CERTIFICATE Town of Brookline

NAME OF AGENT, IF ANY \_\_\_\_\_ T

SIGNATURE OF PERSON TO WHOM CERTIFICATE IS ISSUED OR AUTHC \_\_\_\_\_

*Charles A. Simmons*  
Charles A. Simmons  
Director of Public Buildings

*Under  
Construction  
start June  
may take  
full Sept*

LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER GOVERNMENT AGENECIES: \_\_\_\_\_

**INSTRUCTIONS:** MAKE CHECK PAYABLE TO TOWN OF BROOKLINE. RETURN THIS APPLICATION WITH YOUR CHECK TO THE BUILDING DEPARTMENT, TOWN HALL, 333 WASHINGTON STREET, BROOKLINE, MA 02446.

**NOTE:** APPLICATION FORM WITH ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH BUILDING OR STRUCTURE OR PART THEREOF TO BE CERTIFIED. APPLICATION AND FEE MUST BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED. THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

FEE: \_\_\_\_\_ RECEIPT: \_\_\_\_\_ CERTIFICATE # \_\_\_\_\_ ISSUED: \_\_\_\_\_

*Case # K-11  
original  
6/6/02*



TOWN of BROOKLINE  
Massachusetts

BUILDING DEPARTMENT

James J. Nickerson  
Building Commissioner  
730-2100

APPLICATION FOR CERTIFICATE OF INSPECTION

Date 6/21/07

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 106.5, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS:

LOCATION 652 Hammond Street

USE OF PREMISES Recreation Center

NAME OF PREMISES Soule Recreation Center

CERTIFICATE TO BE ISSUED TO Brookline Recreation Department Telephone (617) 730-2009

ADDRESS 133 Eliot Street, Brookline, MA 02467

OWNER OF RECORD OF BUILDING Town of Brookline Telephone (617) 730-2009

ADDRESS 133 Eliot Street, Brookline, MA 02467

CERTIFICATE Brookline Recreation Dept  
Gallentine Telephone (617) 730-2009

CERTIFICATE  
Jim Gallentine Title \_\_\_\_\_

FOR THE PREMISES BY OTHER GOVERNMENT AGENCIES:

PAYABLE TO TOWN OF BROOKLINE. RETURN THIS TO THE BUILDING DEPARTMENT, TOWN HALL, 333 MA. 02446.

ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH HEREOF TO BE CERTIFIED. APPLICATION AND FEE MUST

BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED. THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

FEE \$ \_\_\_\_\_ RECEIPT # \_\_\_\_\_ CERTIFICATE # \_\_\_\_\_ ISSUED \_\_\_\_\_

333 Washington Street, Brookline, Massachusetts 02146  
Tel: (617) 730-2100 Fax: (617) 730-7547

Jerry from  
Recreation  
6/26/07

Variety 08



TOWN of BROOKLINE  
Massachusetts

BUILDING DEPARTMENT

James J. Nickerson  
Building Commissioner  
730-2100

APPLICATION FOR CERTIFICATE OF INSPECTION

Date 6/21/07

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 106.5, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS:

LOCATION 652 Hammond Street

USE OF PREMISES Recreation Center

NAME OF PREMISES Soule Recreation Center

CERTIFICATE TO BE ISSUED TO Brookline Recreation Department Telephone (617) 730-2009

ADDRESS 133 Eliot Street, Brookline, MA 02467

OWNER OF RECORD OF BUILDING Town of Brookline Telephone (617) 730-2009

ADDRESS 133 Eliot Street, Brookline, MA 02467

NAME OF PRESENT HOLDER OF CERTIFICATE Brookline Recreation Dept

NAME OF AGENT, IF ANY Erin Gallentine Telephone (617) 730-2009

SIGNATURE OF PERSON TO WHOM CERTIFICATE

IS ISSUED OR HIS AUTHORIZED AGENT Erin Gallentine Title

LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER GOVERNMENT AGENCIES:

**INSTRUCTIONS:** MAKE CHECK PAYABLE TO TOWN OF BROOKLINE. RETURN THIS APPLICATION WITH YOUR CHECK TO THE BUILDING DEPARTMENT, TOWN HALL, 333 WASHINGTON STREET, BROOKLINE, MA. 02446.

**NOTE:** APPLICATION FORM WITH ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH BUILDING OR STRUCTURE OR PART THEREOF TO BE CERTIFIED. APPLICATION AND FEE MUST BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED. THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

FEE \$ \_\_\_\_\_ RECEIPT # \_\_\_\_\_ CERTIFICATE # \_\_\_\_\_ ISSUED \_\_\_\_\_





TOWN of BROOKLINE  
Massachusetts

BUILDING DEPARTMENT

James J. Nickerson  
Building Commissioner  
730-2100

APPLICATION FOR CERTIFICATE OF INSPECTION

Date August , 2006

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 106.5, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS:

Location 652 Hammond St

Use of premises Gymnasium

Name of premises Soule Recreation

Certificate to be issued to Chales Simmons Director of Public Buildings

Address 333 Washington Street

Owner of record of building Town of Brookline

Address 333 Washington St

Name of present holder of certificate Town of Brookline

Name of agent, if any \_\_\_\_\_

Signature of person to whom certificate is issued or his authorized agent \_\_\_\_\_

License (s) or permit (s) required for the premises by other government agencies: \_\_\_\_\_

INSTRUCTIONS: MAKE CHECK PAYABLE TO TOWN OF BROOKLINE. RETURN THIS APPLICATION WITH YOUR CHECK TO THE BUILDING DEPARTMENT, TOWN HALL, 333 WASHINGTON STREET , BROOKLINE, MA 02446.

NOTE: APPLICATION FORM WITH ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH BUILDING OR STRUCTURE OR PART THEREOF TO BE CERTIFIED. APPLICATION AND FEE MUST BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED. THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

Fee \$. Town Bldg

RECEIPT# \_\_\_\_\_

CERTIFICATE#

BC1070079

ISSUED

8/23/06

333 Washington Street, Brookline, Massachusetts 02146

Tel: (617) 730-2100 Fax: (617) 730-7512

Pl. OK 8-23-06



# The Commonwealth of Massachusetts

## TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 106.5 this

### CERTIFICATE OF INSPECTION

is issued to **SOULE RECREATION**

I Certify that I have inspected the

Recreation Center

known as **SOULE RECREATION**

located at **652 HAMMOND ST**

State Building Code Use Group: **A-3 ASSEMBLY-LECTURE HALL/REC**

in the Town of Brookline, County of Norfolk, Commonwealth of Massachusetts The means of egress are sufficient for the following number of persons:

<u>STORY</u>	<u>ROOM</u>	<u>OCCUPANTS</u>	<u>STORY</u>	<u>ROOM</u>	<u>OCCUPANTS</u>
<b>FIRST FLOOR</b>	<b>GYMNASIUM</b>	<b>200 PERSONS</b>			

**GYM**

Comments:

Certificate No: **BCI070079**

Issue Date: **08/23/2006**

Date Certificate Expires: **08/23/2007**

The building commissioner shall be notified within (10) days of any changes in the above information.

Wednesday, August 23, 2006

James J. Nickerson  
Building Commissioner



# The Commonwealth of Massachusetts

## TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 106.5 this

### CERTIFICATE OF INSPECTION

is issued to **ROBERT LYNCH**

I Certify that I have inspected the

Recreation Center

known as **SOULE GYMNASIUM**

located at **652 HAMMOND ST**

State Building Code Use Group: **A-3 ASSEMBLY-LECTURE HALL/REC**

in the Town of Brookline, County of Norfolk, Commonwealth of Massachusetts The means of egress are sufficient for the following number of persons:

<u>STORY</u>	<u>ROOM</u>	<u>OCCUPANTS</u>	<u>STORY</u>	<u>ROOM</u>	<u>OCCUPANTS</u>
FIRST	GYMNASIUM	200 PERSONS			

Comments:

Certificate No: **BCI040126**

Issue Date: **08/16/2004**

Date Certificate Expires: **06/29/2005**

The building commissioner shall be notified within (10) days of any changes in the above information.

Monday, August 16, 2004

**James J. Nickerson**  
Building Commissioner





**TOWN of BROOKLINE**  
*Massachusetts*

**BUILDING DEPARTMENT**

James J. Nickerson  
Building Commissioner

APPLICATION FOR CERTIFICATE OF INSPECTION

DATE: 6/10/04

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 106.5, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS:

LOCATION 652 HAMMOND STREET

NAME OF PREMISES SOULE GYMNASIUM

CERTIFICATE TO BE ISSUED TO Charles Simmons, Director of Public Buildings

ADDRESS 333 Washington Street, Town Hall, Brookline MA 02445

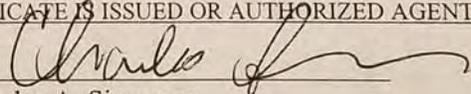
OWNER OF RECORD OF BUILDING The Town of Brookline TELEPHONE # 617-730-2420

ADDRESS Town Hall, 333 Washington Street, Brookline, MA 02445

NAME OF PRESENT HOLDER OF CERTIFICATE Town of Brookline

NAME OF AGENT, IF ANY \_\_\_\_\_ TELEPHONE # \_\_\_\_\_

SIGNATURE OF PERSON TO WHOM CERTIFICATE IS ISSUED OR AUTHORIZED AGENT

  
Charles A. Simmons  
Director of Public Buildings

LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER GOVERNMENT AGENECIES:

**INSTRUCTIONS:** MAKE CHECK PAYABLE TO TOWN OF BROOKLINE. RETURN THIS APPLICATION WITH YOUR CHECK TO THE BUILDING DEPARTMENT, TOWN HALL, 333 WASHINGTON STREET, BROOKLINE, MA 02446.

**NOTE:** APPLICATION FORM WITH ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH BUILDING OR STRUCTURE OR PART THEREOF TO BE CERTIFIED. APPLICATION AND FEE MUST BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED. THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

FEE: \_\_\_\_\_ RECEIPT: \_\_\_\_\_ CERTIFICATE # BC1040126 ISSUED: 6/29/04

OK  
6/17/04





# TOWN of BROOKLINE

Massachusetts

## BUILDING DEPARTMENT

James J. Nickerson  
Building Commissioner  
730-2100

### APPLICATION FOR CERTIFICATE OF INSPECTION

Date May 11, 2000

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 106.5, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS:

LOCATTION 652 Hammond Street

USE OF PREMISES Recreation Activities

NAME OF PREMISES Soule Gymnasium

CERTIFICATE TO BE ISSUED TO Town of Brookline - Recreation

ADDRESS 652 Hammond St. 02467

OWNER OF RECORD OF BUILDING Robert T. Lynch Telephone 730-2069

ADDRESS 652 Hammmd St. 02467

NAME OF PRESENT HOLDER OF CERTIFICATE Robert T. Lynch

NAME OF AGENT, IF ANY \_\_\_\_\_

\* SIGNATURE OF PERSON TO WHOM CERTIFICATE Robert T. Lynch TITLE Director of Rec.

IS ISSUED OR HIS AUTHORIZED AGENT \_\_\_\_\_ Date 5/15/00

LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER GOVERNMENT AGENCIES: \_\_\_\_\_

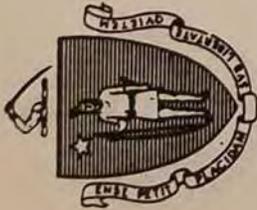
**INSTRUCTIONS:** MAKE CHECK PAYABLE TO TOWN OF BROOKLINE. RETURN THIS APPLICATION WITH YOUR CHECK TO THE BUILDING DEPARTMENT, TOWN HALL, 333 WASHINGTON STREET, BROOKLINE, MA. 02146.

**NOTE:** APPLICATION FORM WITH ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH BUILDING OR STRUCTURE OR PART THEREOF TO BE CERTIFIED. APPLICATION AND FEE MUST BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED. THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

FEE N/A. RECEIPT # \_\_\_\_\_ CERTIFICATE # \_\_\_\_\_ ISSUED \_\_\_\_\_

333 Washington Street, Brookline, Massachusetts 02146  
Tel: (617) 730-2100 Fax: (617) 739-7542

OK 6/6/00 *HL*



# The Commonwealth of Massachusetts

TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 108.5.1, this

## CERTIFICATE OF INSPECTION

is issued to ..... Robert Lynch, Director .....

I Certify that I have inspected the premises ..... Soule Gymnasium  
located at.... 652 Hammond Street.....known as.....  
County of... NORFOLK.....in the...TOWN.....of.....BROOKLINE  
number of persons: ..... The means of egress are sufficient for the following

BY STORY			
Story	Capacity	Story	Capacity
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

BY PLACE OF ASSEMBLY OR STRUCTURE			
Place of Assembly or Structure	Capacity	Place of Assembly or Structure	Capacity
Gymnasium	200 Persons	Gymnasium	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

POA-3  
 Certificate Number  
 February 25, 1998  
 Date Certificate Issued  
 February 25, 1999  
 Date Certificate Expires  
 Building Official

The building official shall be notified within (10) days of any changes in the above information.





# TOWN of BROOKLINE

Massachusetts

LODGING HOMES

BUILDING DEPARTMENT  
 JAMES J. NICKERSON  
 BUILDING COMMISSIONER  
 730-2100

APPLICATION FOR CERTIFICATE OF INSPECTION

DATE July 15, 1999

FEE: \$ 0

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 108.5.1, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS:

LOCATION 652 Hammond Street

USE OF PREMISES Gymnasium

NAME OF PREMISES Soule Gymnasium

CERTIFICATE TO BE ISSUED TO Brookline Recreation Department

ADDRESS 652 Hammond Street, Chestnut Hill, Ma. 02467

OWNER OF RECORD OF BUILDING Town of Brookline Telephone 730-2100

ADDRESS 333 Washington St

NAME OF PRESENT HOLDER OF CERTIFICATE Brookline Recreation Dept Telephone

NAME OF AGENT, IF ANY \_\_\_\_\_ Telephone

Robert T. Lynch  
 SIGNATURE OF PERSON TO WHOM CERTIFICATE  
 IS ISSUED OR HIS AUTHORIZED AGENT

Director of Recreation  
 TITLE  
July 15, 1999  
 DATE

LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER GOVERNMENT AGENCIES:  
Licensed by Office for Children

Licensed by Public Health Department

INSTRUCTIONS: MAKE CHECK PAYABLE TO TOWN OF BROOKLINE  
 RETURN THIS APPLICATION WITH YOUR CHECK TO THE BUILDING DEPARTMENT, TOWN HALL,  
 333 WASHINGTON STREET, BROOKLINE, MASSACHUSETTS 02445.

NOTE: APPLICATION FORM WITH ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH BUILDING OR STRUCTURE OR PART THEREOF TO BE CERTIFIED.  
 APPLICATION AND FEE MUST BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED.  
 THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

FEE 0 RECEIPT 0 CERTIFICATE # POA-33 ISSUED 7/16/99

OK 7-16-99 H



# The Commonwealth of Massachusetts

TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 108.5.1.1, this

## CERTIFICATE OF INSPECTION

is issued to ..... BROOKLINE RECREATION DEPT, ROBERT T. LYNCH .....

I Certify that I have inspected the ..... PREMISES ..... SOULE GYMNASIUM .....

Located at... 652 HAMMOND STREET ..... in the... TOWN... of... BROOKLINE .....

County of... NORFOLK ..... Commonwealth of Massachusetts. The means of egress are sufficient for the following number of persons:

Story	Capacity	Story	Capacity	BY STORY		Story	Capacity
				Capacity	Story		
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....

### BY PLACE OF ASSEMBLY OR STRUCTURE

Place of Assembly or Structure	Capacity	200 Persons	Location	First Floor	BY PLACE OF ASSEMBLY OR STRUCTURE		Place of Assembly or Structure	Capacity	Location
					Date Certificate Issued	Date Certificate Expires			
GYMNASIUM	.....	.....	.....	.....	.....	.....	.....	.....	.....
POA-33	.....	.....	.....	.....	.....	.....	.....	.....	.....
Certificate Number	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....

*[Signature]*  
Building Official

The building official shall be notified within (10) days of any changes in the above information.



TOWN of BROOKLINE  
Massachusetts

BUILDING DEPARTMENT

James J. Nickerson  
Building Commissioner

APPLICATION FOR CERTIFICATE OF INSPECTION

DATE: June 29, 2005

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 106.5, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS:

LOCATION 652 HAMMOND STREET

NAME OF PREMISES SOULE GYM

CERTIFICATE TO BE ISSUED TO Charles Simmons, Director of Public Buildings

ADDRESS 333 Washington Street, Town Hall, Brookline MA 02445

OWNER OF RECORD OF BUILDING The Town of Brookline TELEPHONE # 617-730-2420

ADDRESS Town Hall, 333 Washington Street, Brookline, MA 02445

NAME OF PRESENT HOLDER OF CERTIFICATE Town of Brookline

NAME OF AGENT, IF ANY \_\_\_\_\_ TELEPHONE # \_\_\_\_\_

SIGNATURE OF PERSON TO WHOM CERTIFICATE IS ISSUED OR AUTHORIZED AGENT

Charles A. Simmons  
Charles A. Simmons  
Director of Public Buildings

LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER GOVERNMENT AGENECIES:

**INSTRUCTIONS:** MAKE CHECK PAYABLE TO TOWN OF BROOKLINE. RETURN THIS APPLICATION WITH YOUR CHECK TO THE BUILDING DEPARTMENT, TOWN HALL, 333 WASHINGTON STREET, BROOKLINE, MA 02446.

**NOTE:** APPLICATION FORM WITH ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH BUILDING OR STRUCTURE OR PART THEREOF TO BE CERTIFIED. APPLICATION AND FEE MUST BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED. THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

FEE: \_\_\_\_\_ RECEIPT: \_\_\_\_\_ CERTIFICATE # BC1050189 ISSUED: 9/1/05

02467

OK 8/31/05



# The Commonwealth of Massachusetts

## TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 106.5 this

### CERTIFICATE OF INSPECTION

is issued to **CHARLES SIMMONS**

I Certify that I have inspected the **Recreation Center** known as **SOULE GYMNASIUM**

located at **652 HAMMOND ST**

State Building Code Use Group: **A-3 ASSEMBLY-LECTURE HALL/REC**

in the Town of Brookline, County of Norfolk, Commonwealth of Massachusetts. The means of egress are sufficient for the following number of persons:

<u>STORY</u>	<u>ROOM</u>	<u>OCCUPANTS</u>	<u>STORY</u>	<u>ROOM</u>	<u>OCCUPANTS</u>
<b>FIRST FLOOR</b>	<b>GYMNASIUM</b>	<b>200 PERSONS</b>			

Comments:

Issue Date: 09/01/2005

Date Certificate Expires: 07/28/2006

Certificate No: **BCI050189**

The building commissioner shall be notified within (10) days of any changes in the above information.

Thursday, September 01, 2005

*[Signature]*

James J. Nickerson  
Building Commissioner

MASSACHUSETTS UNIFORM APPLICATION FOR PERMIT TO DO GASFITTING  
(Print or Type)



BROOKLINE, Mass.  
City, Town

Date 3-28-2002

Building  
AT: Location 652 Hammond St.

Permit # B60200293  
Owner's Name TOWN OF BROOKLINE

**G**

Type of Occupancy: RECREATION CENTER

New  Renovation  Replacement   
Plans Submitted Yes  No

Our Contract Amt \$45,800-

	RANGES	HEATER RANGES	OVENS	GRILLES	HEATING BOILERS	FURNACES	UNIT HEATERS	WATER HEATERS	DRYERS	GAS GENERATORS	LABORATORY COCKS	CONVERSION BURNERS	ROOF TOP UNITS	VENTED ROOM HTRS.	DIRECT VENT HTRS.	POOL HEATERS	TESTS	OTHER
SUB-BSMT.																		
BASEMENT																		RELOCATING PIPING
1ST FLOOR																		
2ND FLOOR																		
3RD FLOOR																		
4TH FLOOR																		
5TH FLOOR																		
6TH FLOOR																		
7TH FLOOR																		
8TH FLOOR																		

(Print or Type) Check One: Certificate

Installing Company Name ROBERT W IRVINE AND SONS INC.  Corp. 2046C

Address 82 ALLEY ST.  Partnership

LYNN MA. 01902  Firm/Company

Business Telephone (617) - 581-0464

Name of Licensed Plumber or Gasfitter

TERRANCE M DESMOND

I hereby certify that all of the details and information I have submitted (or entered) in above application are true and accurate to the best of my knowledge and that all plumbing work and installations performed under Permit issued for this application will be in compliance with all pertinent provisions of the Massachusetts State Gas Code and Chapter 142 of the General Laws.

I have informed the owner or his agent that I do not have liability insurance including completed operations coverage.

Signature of Owner/Agent

I have a current liability insurance policy to include completed operations coverage.

By \_\_\_\_\_  
Title \_\_\_\_\_  
City/Town \_\_\_\_\_  
**APPROVED (OFFICE USE ONLY)**

TYPE LICENSE:

- Plumber
- Gasfitter
- Master
- Journeyman

Terrance M Desmond  
Signature of Licensed  
Plumber or Gasfitter

10692  
License Number

FINAL INSPECTION

SKETCHES

BELOW FOR OFFICE USE ONLY

PROGRESS INSPECTION

RECEIVED  
02 APR -3 AM 8: 01  
BUILDING DEPT.  
TOWN OF BROOKLINE

FEE \_\_\_\_\_

NO. \_\_\_\_\_

APPLICATION FOR PERMIT TO DO GASFITTING

NAME & TYPE OF BUILDING

LOCATION OF BUILDING

PLUMBER OR GASFITTER

LIC. NO.

PERMIT GRANTED

DATE \_\_\_\_\_ 19 \_\_\_\_

GAS INSPECTOR



*file*

TOWN of BROOKLINE  
*Massachusetts*

aNO. 199

BUILDING DEPARTMENT

JAMES J. NICKERSON  
BUILDING COMMISSIONER  
730-2100

May 2, 1990

Pat Gleason  
Children's Theatre  
652 Hammond Street  
Brookline, Massachusetts 02167

Re: 652 Hammond Street

Inspections of the subject premises revealed that motor vehicles are illegally parking in violation of the Town's Zoning By-Laws: Section 6.13 (c) (1) illegal parking of cars.

Accordingly, as record owner, you are hereby directed to cease illegally parking motor vehicles on the premises within twenty (20) days of this notice.

Failure to comply will result in the issuance of a non-criminal ticket, issued on a daily basis (each day a violation continues shall constitute a separate violation). The penalty for each violation is \$50.00.

Yours very truly,

James J. Nickerson  
Building Commissioner

JJN:h

*file*

BROOKLINE

Massachusetts

aNO. 199

2, 1990



652 Hammond Street  
Brookline, Massachusetts 02167

Re: 652 Hammond Street

Inspections of the subject premises revealed that motor vehicles are illegally parking in violation of the Town's Zoning By-Laws: Section 6.13 (c) (1) illegal parking of cars.

Accordingly, as record owner, you are hereby directed to cease illegally parking motor vehicles on the premises within twenty (20) days of this notice.

Failure to comply will result in the issuance of a non-criminal ticket, issued on a daily basis (each day a violation continues shall constitute a separate violation). The penalty for each violation is \$50.00.

Yours very truly,

James J. Nickerson  
Building Commissioner

JJN:h







# TOWN of BROOKLINE

Massachusetts

COMMON VICTUALLER

BUILDING DEPARTMENT

APPLICATION FOR CERTIFICATE OF INSPECTION

JAMES J. NICKERSON  
BUILDING COMMISSIONER  
730-2100

DATE 5/7/90

FEE: \$100

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 108.5.1, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS:

LOCATION 652 Hammond St, Brookline (Soule Rec Bldg)

USE OF PREMISES Preschool

NAME OF PREMISES Brookline Childrens Cooperative School, Inc.

CERTIFICATE TO BE ISSUED TO Gail Eddy - Director

ADDRESS as above 731-6812  
Telephone

OWNER OF RECORD OF BUILDING Town of Brookline

ADDRESS \_\_\_\_\_

NAME OF PRESENT HOLDER OF CERTIFICATE Gail Eddy, Brookline Childrens Coop School Inc Telephone \_\_\_\_\_

NAME OF AGENT, IF ANY \_\_\_\_\_ Telephone \_\_\_\_\_

Gail M. Eddy Director  
SIGNATURE OF PERSON TO WHOM CERTIFICATE IS ISSUED OR HIS AUTHORIZED AGENT TITLE  
5/7/90  
DATE

OK  
JB

LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER GOVERNMENT AGENCIES:  
# 192 - issued by Brookline Health Dept  
Valid through 6/27/91

INSTRUCTIONS: MAKE CHECK PAYABLE TO TOWN OF BROOKLINE  
RETURN THIS APPLICATION WITH YOUR CHECK TO THE BUILDING DEPARTMENT, TOWN HALL,  
333 WASHINGTON STREET, BROOKLINE, MASSACHUSETTS 02146.

NOTE: APPLICATION FORM WITH ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH BUILDING OR STRUCTURE OR PART THEREOF TO BE CERTIFIED.  
APPLICATION AND FEE MUST BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED.  
THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

FEE \$ 100 RECEIPT 87607 CERTIFICATE # 007 ISSUED 7-13-90



# The Commonwealth of Massachusetts

TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 108.5.1, this

## CERTIFICATE OF INSPECTION

is issued to Gail Eddy, Director.....  
Brookline Childrens'  
Cooperative School

I Certify that I have inspected the premises..... known as.....  
Located at 652 Hammond Street in the TOWN..... of BROOKLINE.....

County of NORFOLK..... Commonwealth of Massachusetts. The means of egress are sufficient for the following number of persons:

BY STORY			
Story	Capacity	Story	Capacity
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

BY PLACE OF ASSEMBLY OR STRUCTURE			
Place of Assembly or Structure	Capacity	Location	Place of Assembly or Structure
3 Rooms	60 Persons	1st. Floor	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

DC 5  
Certificate Number April 21, 1988 Date Certificate Issued  
April 21, 1989 Date Certificate Expires  
Building Official

The building official shall be notified within (10) days of any changes in the above information.

COMMONWEALTH OF MASSACHUSETTS  
TOWN OF BROOKLINE

APPLICATION FOR CERTIFICATE OF INSPECTION

DATE: 5/25/88

( ) Fee Required (amount) \$40.00  
( ) No Fee Required \_\_\_\_\_

In accordance with the provisions of the Massachusetts State Building Code, Section 108.15, I hereby apply for a Certificate of Inspection for the below-named premises located at the following address:

Street and Number 652 Hammond St  
Name of Premises Senile Recreation Center  
Purpose for Which Premises is Used preschool program  
License(s) or Permit(s) Required for the Premises by Other Governmental Agencies:

License or Permit Agency  
Preschool License Health Dept

Certificate to be Issued to BROOKLINE CHILDREN'S COOPERATIVE SCHOOL -  
Address 1052 Hammond St Brookline MA Telephone No. 731-6812  
Owner of Record of Building Town of Brookline Telephone No. \_\_\_\_\_  
Address \_\_\_\_\_  
Name of Present Holder of Certificate Brookline Children's Cooperative School Telephone No. \_\_\_\_\_  
Name of Agent, if any \_\_\_\_\_

Gail M Eddy (GAIL EDDY) DIRECTOR  
SIGNATURE OF PERSON TO WHOM TITLE  
CERTIFICATE IS ISSUED OR HIS  
AUTHORIZED AGENT 5/25/88  
DATE

INSTRUCTIONS:

Make check payable to: Town of Brookline  
Return this application with your check to: Building Department, Town Hall,  
333 Washington Street, Brookline, Massachusetts 02146

AGE NOTE:

Application form with accompanying fee must be submitted for each building or structure or part thereof to be certified.  
Application and fee must be received before the certificate will be issued.  
The building official shall be notified within ten (10) days of any change in the above information.

CERTIFICATE # 111-5 EXPIRATION DATE: April 21, 1989

FORM BECC-3-74

JB OK  
6/2/88

80847



# The Commonwealth of Massachusetts

TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 108.5.1, this

## CERTIFICATE OF INSPECTION

is issued to Pat Vonnegut, Director  
 Brookline Children's  
 Cooperative School

I Certify that I have inspected the premises known as

Located at SOULE RECREATION, 652 Hammond Street in the TOWN of BROOKLINE

County of NORFOLK, Commonwealth of Massachusetts. The means of egress are sufficient for the following number of persons:

BY STORY			
Story	Capacity	Story	Capacity
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

BY PLACE OF ASSEMBLY OR STRUCTURE			
Place of Assembly or Structure	Capacity	Location	Place of Assembly or Structure
3 Rooms	60 Persons	1st. Floor	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

DC 5 April 21, 1988 April 21, 1989  
 Certificate Number Date Certificate Issued Date Certificate Expires Building Official

The building official shall be notified within (10) days of any changes in the above information.



# The Commonwealth of Massachusetts

TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 108.5.1, this

## CERTIFICATE OF INSPECTION

is issued to ..... Gail Eddy - Director  
..... Brookline Children's Coop. School

**I Certify** that I have inspected the ..... premises  
located at ..... 652 Hammond Street ..... known as .....  
..... in the ..... TOWN ..... of ..... BROOKLINE .....

County of... NORFOLK ..... Commonwealth of Massachusetts. The means of egress are sufficient for the following  
number of persons:

### BY STORY

Story	Capacity	Story	Capacity	Story	Capacity
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

### BY PLACE OF ASSEMBLY OR STRUCTURE

Place of Assembly or Structure	Capacity	Location	Place of Assembly or Structure	Capacity	Location
Three Rooms	60 Persons	First Floor	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

March 24, 1992

March 24, 1993

DC 8

Certificate Number

Date Certificate Issued

Date Certificate Expires

Building Official

The building official shall be notified within (10) days of any changes in the above information.



TOWN of BROOKLINE  
Massachusetts

RECEIVED  
MAR 11 AM 11:06

BUILDING DEPARTMENT  
JAMES J. NICKERSON  
BUILDING COMMISSIONER  
730-2100

APPLICATION FOR CERTIFICATE OF INSPECTION

DATE 3/6/92

FEE: \$100

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 108.5.1, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS:

LOCATION Soule Roc Bldg.

USE OF PREMISES Preschool

NAME OF PREMISES Brookline Childrens Coop School

CERTIFICATE TO BE ISSUED TO Above

ADDRESS 652 Hammond St

Telephone 7316812, 9692593

OWNER OF RECORD OF BUILDING Town of Brookline

ADDRESS Washington St Brookline

NAME OF PRESENT HOLDER OF CERTIFICATE Brookline Childrens Coop School

NAME OF AGENT, IF ANY GAIL EDDY - Dir of School Telephone 7316812

SIGNATURE OF PERSON TO WHOM CERTIFICATE IS ISSUED OR HIS AUTHORIZED AGENT [Signature]

TITLE Director  
DATE 3/6/92

LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER GOVERNMENT AGENCIES:  
Health Dept #218

INSTRUCTIONS: MAKE CHECK PAYABLE TO TOWN OF BROOKLINE  
RETURN THIS APPLICATION WITH YOUR CHECK TO THE BUILDING DEPARTMENT, TOWN HALL,  
333 WASHINGTON STREET, BROOKLINE, MASSACHUSETTS 02146.

NOTE: APPLICATION FORM WITH ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH BUILDING OR STRUCTURE OR PART THEREOF TO BE CERTIFIED.  
APPLICATION AND FEE MUST BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED.  
THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

RECEIPT 24487 CERTIFICATE # 8 ISSUED 3-24-92



# The Commonwealth of Massachusetts

TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 108.5.1, this

## CERTIFICATE OF INSPECTION

is issued to Ms. Gial Eddy, Director  
Brookline Childrens' Cooperative School

**I Certify** that I have inspected the premises known as Brookline Childrens' Cooperative School  
located at Soule Rec.; 652 Hammond Street in the TOWN of BROOKLINE  
County of NORFOLK Commonwealth of Massachusetts. The means of egress are sufficient for the following

number of persons:

BY STORY			
Story	Capacity	Story	Capacity
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

BY PLACE OF ASSEMBLY OR STRUCTURE			
Place of Assembly or Structure	Capacity	Location	Place of Assembly or Structure
3 Rooms	60 Persons	1st Floor	Capacity
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

DC 003 June 12, 1989 June 12, 1990  
 Certificate Number Date Certificate Issued Date Certificate Expires

Sam S. Hol  
 Building Official

The building official shall be notified within (10) days of any changes in the above information.

COMMONWEALTH OF MASSACHUSETTS  
TOWN OF BROOKLINE

APPLICATION FOR CERTIFICATE OF INSPECTION

DATE: 5/23/89

( ) Fee Required (amount) \$45.00  
( ) No Fee Required

In accordance with the provisions of the Massachusetts State Building Code, Section 103.15, I hereby apply for a Certificate of Inspection for the below-named premises located at the following address:

Street and Number Soule Rec Bldg - BCCS 1052 Hammond St Brookline  
Name of Premises \_\_\_\_\_  
Purpose for Which Premises is Used nursery school  
License(s) or Permit(s) Required for the Premises by Other Governmental Agencies:

<u>License or Permit</u>	<u>Agency</u>
_____	_____
_____	_____

Certificate to be Issued to Brookline Childrens Cooperative School  
Address 1052 Hammond St Telephone No. 731-6812  
Owner of Record of Building Town of Brookline Telephone No. \_\_\_\_\_  
Address \_\_\_\_\_  
Name of Present Holder of Certificate Brookline Childrens Coop School Inc  
Name of Agent if any \_\_\_\_\_ Telephone No. \_\_\_\_\_

Shirley Eddy  
SIGNATURE OF PERSON TO WHOM  
CERTIFICATE IS ISSUED OR HIS  
AUTHORIZED AGENT

Director  
TITLE  
5/22/89  
DATE

INSTRUCTIONS:

- 1) Make check payable to: TOWN OF BROOKLINE
- 2) Return this application with your check to: Building Department, Town Hall,  
333 Washington Street, Brookline, MA 02146

PLEASE NOTE:

- 1) Application form with accompanying fee must be submitted for each building or structure or part thereof to be certified.
- 2) Application and fee must be received before the certificate will be issued.
- 3) The building official shall be notified within ten (10) days of any change in the above information.

CERTIFICATE NUMBER: \_\_\_\_\_

EXPERATION DATE: \_\_\_\_\_

Current # DC5

Current 6/11/89

JS June 1, 1989  
act. (? cert 1 or 2 yrs)  
Road

84332



# The Commonwealth of Massachusetts

TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 108.5.1, this

## CERTIFICATE OF INSPECTION

is issued to .....  
Barbara M. Senecal, President  
The Boston Children's Theatre, Inc.  
The Boston Children's Theatre, Inc  
Rehearsal Hall & Office

**I Certify** that I have inspected the ..... Premises ..... known as .....  
located at ..... 652 Hammond Street ..... of ..... TOWN ..... BROOKLINE .....  
County of... NORFOLK ..... Commonwealth of Massachusetts. The means of egress are sufficient for the following

number of persons:

### BY STORY

Story	Capacity	Story	Capacity	Story	Capacity
Second	100 Persons				

### BY PLACE OF ASSEMBLY OR STRUCTURE

Place of Assembly or Structure	Capacity	Location	Place of Assembly or Structure	Capacity	Location

*[Signature]*  
Building Official

THE10  
Certificate Number

March 5, 1985  
Date Certificate Issued

March 5, 1986  
Date Certificate Expires

The building official shall be notified within (10) days of any changes in the above information.



COMMONWEALTH OF MASSACHUSETTS

CITY/TOWN OF Brookline

SECOND NOTICE

APPLICATION FOR CERTIFICATE OF INSPECTION

Date 9/13/84

(x) Fee Required (Amount) \$40.00

( ) No Fee Required

In accordance with the provisions of the Massachusetts State Building Code, Section 108,15, I hereby apply for a Certificate of Inspection for the below-named premises located at the following address:

Street and Number 124 Holland Road 652 Hammond Street  
Name of Premises The Boston Children's Theatre, Inc.  
Purpose for Which Premises is Used classes, rehearsal, office  
License(s) or Permit(s) Required for the Premises by Other Governmental Agencies:

<u>License or Permit</u>	<u>Agency</u>
<u>NONE</u>	<u>NONE</u>

Certificate to be Issued to The Boston Children's Theatre, Inc.  
Address 652 Hammond Street Chestnut Hill, Mass. 02167 Telephone No. 277-3277  
Owner of Record of Building Town of Brookline  
Address 652 Hammond Street Chestnut Hill, Mass. 02167 Telephone No. 232-9000 x225  
Name of Present Holder of Certificate BCT Telephone No. 277-3277  
Name of Agent, if any NONE

Lisa Federico for Barbara M. Senecal President  
SIGNATURE OF PERSON TO WHOM CERTIFICATE IS ISSUED OR HIS AUTHORIZED AGENT Jackie TITLE  
10/5/84 DATE

INSTRUCTIONS:

- 1) Make check payable to: Town of Brookline
- 2) Return this application with your check to: Building Department, Town Hall, 333 Washington Street, Brookline, Massachusetts 02146

PLEASE NOTE:

- 1) Application form with accompanying fee must be submitted for each building or structure or part thereof to be certified.
- 2) Application and fee must be received before the certificate will be issued.
- 3) The building official shall be notified within ten (10) days of any change in the above information.

CERTIFICATE # \_\_\_\_\_

EXPIRATION DATE: \_\_\_\_\_

FORM SBCC-3-74

*Handwritten notes:*  
3-5-85 J. S. Ranner  
at low cost

*Handwritten number:* 70620



# The Commonwealth of Massachusetts

TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 108.5.1.1, this

## CERTIFICATE OF INSPECTION

is issued to ..... Brookline Children's Cooperative School, Inc. ....

I Certify that I have inspected the ..... Premises ..... known as Soule Recreation .....  
located at ..... 654 Hammond Street ..... in the TOWN of ..... BROOKLINE .....

County of ..... NORFOLK ..... Commonwealth of Massachusetts. The means of egress are sufficient for the following  
number of persons:

### BY STORY

Story	Capacity	Story	Capacity	Story	Capacity
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

### BY PLACE OF ASSEMBLY OR STRUCTURE

Place of Assembly or Structure	Capacity	Location	Place of Assembly or Structure	Capacity	Location
3 Rooms	60 Persons & teachers	First Floor	.....	.....	.....

DC-12

Certificate Number

April 1, 1982

Date Certificate Issued

April 1, 1983

Date Certificate Expires

*[Signature]*  
Building Official

The building official shall be notified within (10) days of any changes in the above information.



COMMONWEALTH OF MASSACHUSETTS

CITY/TOWN OF Brookline

RECEIVED  
MAR 11 2 51 AM '82

APPLICATION FOR CERTIFICATE OF INSPECTION

Date February 17, 1982

(X) Fee Required (Amount) \$40.00

( ) No Fee Required

In accordance with the provisions of the Massachusetts State Building Code, Section 108,15, I hereby apply for a Certificate of Inspection for the below-named premises located at the following address:

Street and Number 652 Hammond Street  
Name of Premises Brookline Childrens Cooperative School, Inc.  
Purpose for Which Premises is Used Day Care  
License(s) or Permit(s) Required for the Premises by Other Governmental Agencies:

<u>License or Permit</u>	<u>Agency</u>
_____	_____
_____	_____

Certificate to be Issued to Brookline Children's Coop School  
Address 652 Hammond Street Chestnut Hill 02167 Telephone No. 731-6912  
Owner of Record of Building Town of Brookline  
Address Dept of Recreation Telephone No. \_\_\_\_\_  
Name of Present Holder of Certificate \_\_\_\_\_  
Name of Agent, if any \_\_\_\_\_ Telephone No. \_\_\_\_\_

Teacher Director  
SIGNATURE OF PERSON TO WHOM CERTIFICATE IS ISSUED OR HIS AUTHORIZED AGENT  
Cathy R. ...  
TITLE  
March 9 1982  
DATE

INSTRUCTIONS:

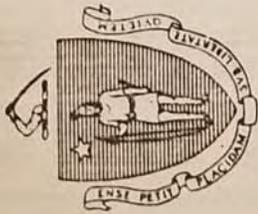
- 1) Make check payable to: Town of Brookline
- 2) Return this application with your check to: Building Department, Town Hall, 333 Washington Street, Brookline, Massachusetts 02146

PLEASE NOTE:

- 1) Application form with accompanying fee must be submitted for each building or structure or part thereof to be certified.
- 2) Application and fee must be received before the certificate will be issued.
- 3) The building official shall be notified within ten (10) days of any change in the above information.

CERTIFICATE # \_\_\_\_\_ EXPIRATION DATE: \_\_\_\_\_

63218  
ok for cert 3-31-82  
FORM SBCC-3-74  
NSB



# The Commonwealth of Massachusetts

TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 108.5.1, this

## CERTIFICATE OF INSPECTION

is issued to ..... Brookline Children's Cooperative School, Inc. ....

I Certify that I have inspected the ..... premises ..... known as Soule Recreation .....

located at ..... 652 Hammond Street ..... in the ..... TOWN ..... of ..... BROOKLINE .....

County of ..... NORFOLK ..... Commonwealth of Massachusetts. The means of egress are sufficient for the following number of persons:

### BY STORY

Story	Capacity	Story	Capacity	Story	Capacity	Story	Capacity
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....

### BY PLACE OF ASSEMBLY OR STRUCTURE

Place of Assembly or Structure	Capacity	Location	Place of Assembly or Structure	Capacity	Location
3 Rooms	60 Persons & Teachers	First Floor	.....	.....	.....

DC-8  
Certificate Number

April 1, 1984  
Date Certificate Issued

April 1, 1985  
Date Certificate Expires

*[Signature]*  
Building Official

The building official shall be notified within (10) days of any changes in the above information.



COMMONWEALTH OF MASSACHUSETTS

CITY/TOWN OF Brookline

APPLICATION FOR CERTIFICATE OF INSPECTION

Date 2-29-84

() Fee Required (Amount) \$140.00

( ) No Fee Required

In accordance with the provisions of the Massachusetts State Building Code, Section 108,15, I hereby apply for a Certificate of Inspection for the below-named premises located at the following address:

Street and Number 652 Hammond Street  
Name of Premises Brookline Childrens Co-op  
Purpose for Which Premises is Used Nursery School  
License(s) or Permit(s) Required for the Premises by Other Governmental Agencies:

License or Permit	Agency

Certificate to be Issued to Brookline Childrens Coop School  
Address 652 Hammond St. Brookline Telephone No. 781-6812  
Owner of Record of Building \_\_\_\_\_ Telephone No. \_\_\_\_\_  
Address \_\_\_\_\_  
Name of Present Holder of Certificate Brookline Childrens Cooperative School, Inc. Telephone No. \_\_\_\_\_  
Name of Agent, if any \_\_\_\_\_

Pat Vonnegut  
SIGNATURE OF PERSON TO WHOM  
CERTIFICATE IS ISSUED OR HIS  
AUTHORIZED AGENT

Director  
TITLE  
March 26, 1984  
DATE

INSTRUCTIONS:

- 1) Make check payable to: Town of Brookline
- 2) Return this application with your check to: Building Department, Town Hall, 333 Washington Street, Brookline, Massachusetts 02146

PLEASE NOTE:

- 1) Application form with accompanying fee must be submitted for each building or structure or part thereof to be certified.
- 2) Application and fee must be received before the certificate will be issued.
- 3) The building official shall be notified within ten (10) days of any change in the above information.

CERTIFICATE # DC-9

EXPIRATION DATE: April 1, 1984

FORM SBCC-3-74

ok for cert 4-27-84 J. Branner

69068

# The Commonwealth of Massachusetts

## ANNUAL CERTIFICATE

OF

### STEAM BOILER INSPECTION

As required by Chapter 146, General Laws

THE EMPLOYERS' GROUP OF INSURANCE COMPANIES  
BOSTON, MASSACHUSETTS

Owners No. #1 State Tag No. \_\_\_\_\_

Mass. STD. No. \_\_\_\_\_ Mass. Heat No. \_\_\_\_\_ Date of Inspection January 9, 1968

N. B. No. \_\_\_\_\_ ASME No. \_\_\_\_\_

This is to Certify that the herein-described steam boiler inspected by

The Employers' Liability Assurance Corp., Ltd.  
(NAME OF INSURANCE COMPANY)

may be operated at a Pressure not to exceed 15 Pounds per square inch.

Name of user Town of Brookline Type of boiler C.I.S. BOILER

Location of boiler Soule Recreation Center, 652 Hammond Street, Brookline, Mass.

Year built 1966 Built by BURNHAM

Length of shell or drum \_\_\_\_\_ ft. 60 in. ~~Width~~ Diameter of shell or drum 40 in.

THE EMPLOYERS' LIABILITY ASSURANCE CORPORATION, LIMITED

*Frank J. Carey*  
United States General Manager and Attorney

AMERICAN EMPLOYERS' INSURANCE COMPANY  
THE EMPLOYERS' FIRE INSURANCE COMPANY  
THE NORTHERN ASSURANCE COMPANY OF AMERICA

*J. Marshall Joyden*  
Secretary

*Frank J. Carey*  
President

Signature *David H. Swift*  
Boiler Inspector.

In accordance with Section 29, Chapter 146, General Laws, notify this Company at once if any defect is discovered.

POST UNDER GLASS IN CONSPICUOUS PLACE IN ENGINE OR BOILER ROOM



Day

TO: Brookline Board of Appeals  
FROM: Brookline Planning Board  
DATE: June 4, 1981  
SUBJECT: Establishment of Day Care Center  
LOCATION: 652 Hammond St. (Soule Recreation Center)

Atlas Sheet: 125                      Case #  
Block: 432                              Zoning: T-6, S-25  
Lot(s): 27-30

HEARING: June 24, 1981 at 7:00 p.m.

---

Site and Neighborhood

The Soule Recreation Center is a town operated facility which provides recreational programs such as nursery school and sports activities for Town youth. The property comprises a U-shaped recreation building, a gymnasium and a parking area on a large 9.6 acre lot. The lot abuts the Baldwin School and single-family residences. Two zoning districts T-6 and S-25 divides the property.

Applicant's Proposal

Applicant, Brookline Children's Cooperative School, is petitioning to use three rooms on the first floor and a gym on the second floor as a pre-school. The school would provide schooling for a maximum of 24 children which includes 17 children within 3 & 4 year old class and 7 children within the 2 year old class. The professional staff would include a teacher-director, a teacher, two parent helpers, and student assistants. The school is a non-profit, non sectarian, community based pre-school run by a parent cooperative.

Section 4.30, Use 15 requires a variance to locate a day nursery, nursery schools, kindergarten or other agency giving day care to children within an S-district, provided outdoor play area is such a distance and so screened from any lot line and from any residential structure on an adjoining lot as to avoid a noise nuisance.

Planning Board Comments

The Planning Board supports this proposal. The facility at present is engaged in similar children programs. The location of the recreation building on a 9.6 acre lot is ideally suited to provide an attractive play area which is well removed from any residential properties. There are no houses which are close to this facility to be adversely impacted.

TOWN OF BROOKLINE  
Board of Appeals

APPLICATION FOR A VARIANCE FROM THE ZONING BY-LAW  
(File in Triplicate)

Date May 28, 1981

1. Name of record owner(s) Town of Brookline  
Address \_\_\_\_\_ Telephone No. \_\_\_\_\_
2. Deed recorded in the Registry of Deeds, Book \_\_\_\_\_ Page \_\_\_\_\_  
or registered in the Land Registration Office under Cert. No. \_\_\_\_\_
3. Location of property HOWARD STREET 9-9 27-30-437  
(Street No., Lot and Block No. from current Town Atlas)
4. Present use of property (give no. of dwelling units, if any) TOWN  
RECREATION FACILITY
5. Provision(s) of the Zoning By-Law from which a variance is requested (give Article & Section) SEC. 4.20 USE #15
6. Nature of variance requested (describe how the proposed use or building does not meet the requirements of the Zoning By-Law. Provide plans drawn to scale\* where necessary for full explanation.) use of building  
zoned for single-family dwelling for cooperative  
preschool
7. What are the special conditions affecting the land or building for which the variance is requested which do not affect generally the Zoning District in which the land or building is located? BUILDING LOCATED  
IN RESIDENTIAL AREA BUT ALREADY BUILT TO A NON-RESIDENTIAL  
USE (another nursery school run by town)
8. What is the substantial hardship which would result from a literal enforcement of the provisions of the Zoning By-Law? If enforced we would  
not be able to expand program and thus serve more and lower  
town families. After a long and intensive search this is our  
best option.

TOWN OF BROOKLINE  
Board of Appeals

APPLICATION FOR A VARIANCE FROM THE ZONING BY-LAW  
(File in Triplicate)

- Date May 26, 1981
- Name of record owner(s) Town of Brookline  
Address \_\_\_\_\_ Telephone No. \_\_\_\_\_
  - Deed recorded in the Registry of Deeds, Book \_\_\_\_\_ Page \_\_\_\_\_  
or registered in the Land Registration Office under Cert. No. \_\_\_\_\_
  - Location of property HARVARD STREET 9-9 27-30-437  
(Street No., Lot and Block No. from current Town Atlas)
  - Present use of property (give no. of dwelling units, if any) Town  
RECREATION FACILITY
  - Provision(s) of the Zoning By-Law from which a variance is requested (give Article & Section) SEC. 4.20 USE #15
  - Nature of variance requested (describe how the proposed use or building does not meet the requirements of the Zoning By-Law. Provide plans drawn to scale\* where necessary for full explanation.) Use of building zoned for single-family dwelling for cooperative recreation
  - What are the special conditions affecting the land or building for which the variance is requested which do not affect generally the Zoning District in which the land or building is located? BUILDING LOCATED IN RESIDENTIAL AREA BUT ALREADY BUT TO A NON-RESIDENTIAL USE (another primary school can be traced)
  - What is the substantial hardship which would result from a literal enforcement of the provisions of the Zoning By-Law? If enforced we would not be able to expand program and thus serve more and better town families. After a long and intensive search this is our best option.
  - Why does the appellant believe that the variance requested may be granted without substantial detriment to the public good and without nullifying or substantially derogating from the intent of the Zoning By-Law? We are a non-profit school serving Brookline families, and would be using the facility in a way in which it is presently being used by the town.

Robin Koverbleiss  
(Signature of record owner or appellant acting for record owner)

210 HARVARD ST. BROOKLINE  
(Address)

721-1012 254-8257  
(Telephone No.)

\*Suggested scale is 1" = 20'



TOWN of BROOKLINE  
*Massachusetts*

SELECTMEN'S OFFICE  
RICHARD T. LEARY  
EXECUTIVE SECRETARY

May 5, 1981

IN BOARD OF SELECTMEN

The Board considered the question of granting permission to the Brookline Children Co-Op Day Care Center to occupy space at the Soule Recreation Center Monday through Friday - 8:30 a.m. - 2:00 p.m. for the purpose of operating a day care center for pre-school children, subject to conditions recommended by the Park and Recreation Commission and preparation of an appropriate lease agreement by Town Counsel.

Gerry Mistretta and Kathy Rosenbloom were present on behalf of the Brookline Children Co-Op Day Care Center.

Building Commissioner Royce E. Beatty has reviewed the proposal to relocate the center to a Town owned facility, and advised that the proposed use is not permitted in a single family residential district under the Zoning Bylaw, Section 4.30, use 15. Accordingly, a variance will be required from the Board of Appeals.

In response to questions, Mr. Beatty stated that the morning play program currently in operation at the center is operated by a Town agency, and is thus a permitted accessory use under another category of the Zoning Bylaw. In a similar case a variance had been issued by the Board of Appeals. It was suggested that representatives of the Brookline Children Co-Op Day Care Center confer with Mr. Beatty in regard to filing for an appeal, in the hope that a variance can be issued in time for the fall program.

In response to questions, the Board was informed that the Brookline Children Co-Op Day Care Center is a non-profit organization with a board of directors, comprised of parents and staff; that the organization receives no public funds; and that the program is intended to serve 30-35 families, with no more than 17 3-4 year olds and 6 two year olds in attendance at any one time.

Attest:

*Richard T. Leary*  
Executive Secretary

Park and Recreation Commission  
✓ Royce E. Beatty  
Town Counsel

*file w/ B.A. case*

MEMORANDUM

Date May 5, 1981

To · Richard T. Leary

From Royce E. Beatty

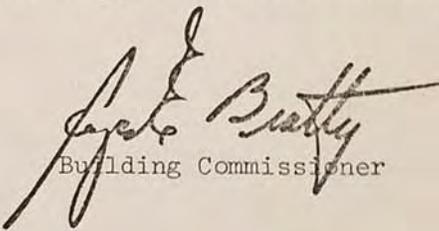
Re · 652 Hammond Street  
Children's Cooperative Day Care Center  
(Your memo dated May 4, 1981)

We have reviewed the proposal of the Children's Cooperative Day Care Center to relocate to the Soule Recreation Center, 652 Hammond Street, a Town owned facility.

The Zoning By-Law Section 4.30, Use 15, does not permit the proposed use in a single family Residence District.

Accordingly, a variance from this section by the Board of Appeals would be required.

An inspection of the building disclosed that the space being considered by the Center would comply with the applicable requirements of the Building Code.



Building Commissioner

REB:h



Brookline Children's  
Cooperative School

A non-profit, non-sectarian nursery school

RECEIVED  
MAY 19 7 20 PM '81

May 5, 1981

Dear Mr. Beatty:

The Brookline Children's Cooperative School requests permission to use and occupy space in the Soule Recreation Center for the purpose of conducting our pre-school program. As per our discussions with Dr. Kirrane and the Park and Recreation Commissioners, we plan to use three rooms on the first floor as classrooms and one room on the second floor as a gym.

The Brookline Children's Cooperative School is a non-profit, non-sectarian, community based pre-school. We are run by a parent cooperative board with a paid professional teaching-director and a paid professional teacher. At present, we have a membership of 27 families.

If we were to relocate to the Soule Recreation Center, our membership would expand to 35 families, and our staff would be increased by one paid professional teacher. On any given day, we would have a maximum of 24 children: 17 children in the 3 & 4-year-old class and 7 in the 2-year-old class. Each class would be assisted by one parent helper. At times we also have the assistance of a student from one of the near-by colleges or universities.

Enclosed you will find copies of plans for the property, the building and the parking lot in triplicate. If there is any additional information you need for this matter, please contact me at 738-8734.

Thank you for your consideration of this matter.

Sincerely,

*Geri L. Mistretta*  
Geri Mistretta  
Co-President

210 Harvard Street / Brookline, Mass. 02146 / (617) 731-6812

**TOWN OF BROOKLINE  
BUILDING DEPARTMENT**

RECEIVED  
MAY 19 7 20 PM '81

**APPLICATION FOR  
BUILDING PERMIT**

**IMPORTANT - Applicant to complete all items in sections: I, II, III, IV, and V.**

<b>I. LOCATION OF BUILDING</b>	AT (LOCATION) <u>Lot 8-9</u> <u>HAMMOND STREET</u> <u>(SOULE REC.)</u>	ZONING DISTRICT <u>T6/S25</u>
	BETWEEN <u>HEATH STREET</u> AND <u>PINE ROAD</u>	
	SUBDIVISION <u>PAGE 125</u> LOT <u>8-9</u> BLOCK <u>432</u> LOT SIZE <u>418,625</u>	

**II. TYPE AND COST OF BUILDING - All applicants complete Parts A - D**

<p><b>A. TYPE OF IMPROVEMENT</b></p> <p>1 <input type="checkbox"/> New building</p> <p>2 <input type="checkbox"/> Addition (If residential, enter number of new housing units added, if any, in Part D, 13)</p> <p>3 <input checked="" type="checkbox"/> Alteration (See 2 above)</p> <p>4 <input type="checkbox"/> Repair, replacement</p> <p>5 <input type="checkbox"/> Wrecking (If multifamily residential, enter number of units in building in Part D, 13)</p> <p>6 <input type="checkbox"/> Moving (relocation)</p> <p>7 <input type="checkbox"/> Foundation only</p>	<p><b>D. PROPOSED USE - For "Wrecking" most recent use</b></p> <table style="width:100%;"> <tr> <td style="width:50%; vertical-align: top;"> <p><b>Residential</b></p> <p>12 <input type="checkbox"/> One family</p> <p>13 <input type="checkbox"/> Two or more family - Enter number of units -----&gt;</p> <p>14 <input type="checkbox"/> Transient hotel, motel, or dormitory - Enter number of units -----&gt;</p> <p>15 <input type="checkbox"/> Garage</p> <p>16 <input type="checkbox"/> Carport</p> <p>17 <input type="checkbox"/> Other - Specify _____</p> </td> <td style="width:50%; vertical-align: top;"> <p><b>Nonresidential</b></p> <p>18 <input type="checkbox"/> Amusement, recreational</p> <p>19 <input type="checkbox"/> Church, other religious</p> <p>20 <input type="checkbox"/> Industrial</p> <p>21 <input type="checkbox"/> Parking garage</p> <p>22 <input type="checkbox"/> Service station, repair garage</p> <p>23 <input type="checkbox"/> Hospital, institutional</p> <p>24 <input type="checkbox"/> Office, bank, professional</p> <p>25 <input type="checkbox"/> Public utility</p> <p>26 <input checked="" type="checkbox"/> School, library, other educational</p> <p>27 <input type="checkbox"/> Stores, mercantile</p> <p>28 <input type="checkbox"/> Tanks, towers</p> <p>29 <input type="checkbox"/> Other - Specify _____</p> </td> </tr> </table>	<p><b>Residential</b></p> <p>12 <input type="checkbox"/> One family</p> <p>13 <input type="checkbox"/> Two or more family - Enter number of units -----&gt;</p> <p>14 <input type="checkbox"/> Transient hotel, motel, or dormitory - Enter number of units -----&gt;</p> <p>15 <input type="checkbox"/> Garage</p> <p>16 <input type="checkbox"/> Carport</p> <p>17 <input type="checkbox"/> Other - Specify _____</p>	<p><b>Nonresidential</b></p> <p>18 <input type="checkbox"/> Amusement, recreational</p> <p>19 <input type="checkbox"/> Church, other religious</p> <p>20 <input type="checkbox"/> Industrial</p> <p>21 <input type="checkbox"/> Parking garage</p> <p>22 <input type="checkbox"/> Service station, repair garage</p> <p>23 <input type="checkbox"/> Hospital, institutional</p> <p>24 <input type="checkbox"/> Office, bank, professional</p> <p>25 <input type="checkbox"/> Public utility</p> <p>26 <input checked="" type="checkbox"/> School, library, other educational</p> <p>27 <input type="checkbox"/> Stores, mercantile</p> <p>28 <input type="checkbox"/> Tanks, towers</p> <p>29 <input type="checkbox"/> Other - Specify _____</p>
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<p><b>B. OWNERSHIP</b></p> <p>8 <input type="checkbox"/> Private (individual, corporation, nonprofit institution, etc.)</p> <p>9 <input type="checkbox"/> Public (Federal, State, or local government)</p>	<p align="center" style="color: red; font-size: 2em;"><b>Board of Appeals</b></p>		

<p><b>C. COST</b></p> <p>10. Cost of improvement..... \$</p> <p><i>To be installed but not included in the above cost</i></p> <p>a. Electrical.....</p> <p>b. Plumbing.....</p> <p>c. Heating, air conditioning.....</p> <p>d. Other (elevator, etc.).....</p> <p>11. TOTAL COST OF IMPROVEMENT \$</p>	<p><b>DESCRIPTION</b> - Describe in detail proposed use of buildings, e.g., food processing plant, machine shop, laundry building at hospital, elementary school, secondary school, college, parochial school, parking garage for, department store, rental office building, office building at industrial plant. If use of existing building is being changed, enter proposed use.</p> <p align="center" style="font-size: 1.5em;"><i>Use portion of existing recreation facility for Brookline Children's Cooperative School</i></p>
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**III. SELECTED CHARACTERISTICS OF BUILDING - For new buildings and additions, complete Parts E - L; for wrecking, complete only Part J, for all others skip to IV.**

<p><b>E. PRINCIPAL TYPE OF FRAME</b></p> <p>30 <input type="checkbox"/> Masonry (wall bearing)</p> <p>31 <input type="checkbox"/> Wood frame</p> <p>32 <input type="checkbox"/> Structural steel</p> <p>33 <input type="checkbox"/> Reinforced concrete</p> <p>34 <input type="checkbox"/> Other - Specify _____</p>	<p><b>G. TYPE OF SEWAGE DISPOSAL</b></p> <p>40 <input type="checkbox"/> Public or private company</p> <p>41 <input type="checkbox"/> Private (septic tank, etc.)</p>	<p><b>J. DIMENSIONS</b></p> <p>48. Number of stories.....</p> <p>49. Total square feet of floor area, all floors, based on exterior dimensions.....</p> <p>50. Total land area, sq. ft. ....</p>	
<p><b>F. PRINCIPAL TYPE OF HEATING FUEL</b></p> <p>35 <input type="checkbox"/> Gas</p> <p>36 <input type="checkbox"/> Oil</p> <p>37 <input type="checkbox"/> Electricity</p> <p>38 <input type="checkbox"/> Coal</p> <p>39 <input type="checkbox"/> Other - Specify _____</p>	<p><b>H. TYPE OF WATER SUPPLY</b></p> <p>42 <input type="checkbox"/> Public or private company</p> <p>43 <input type="checkbox"/> Private (well, cistern)</p>	<p><b>K. NUMBER OF OFF-STREET PARKING SPACES</b></p> <p>51. Enclosed.....</p> <p>52. Outdoors.....</p>	<p><b>L. RESIDENTIAL BUILDINGS ONLY</b></p> <p>53. Number of bedrooms.....</p> <p>54. Number of bathrooms</p> <p style="margin-left: 20px;">} Full.....</p> <p style="margin-left: 20px;">} Partial.....</p>
<p><b>I. TYPE OF MECHANICAL</b></p> <p>Will there be central air conditioning?</p> <p>44 <input type="checkbox"/> Yes      45 <input type="checkbox"/> No</p> <p>Will there be an elevator?</p> <p>46 <input type="checkbox"/> Yes      47 <input type="checkbox"/> No</p>			

**IV. IDENTIFICATION - To be completed by all applicants**

Name		Mailing address - Number, street, city, and State	ZIP code	Tel. No.
1. Owner or	Town of Brookline	Soule Playground		
	PARK + REC. DEPT	HAMMOND ST. BROOKLINE MA		
2. Lessee	BROOKLINE CHILDRENS	210 HARVARD ST		731-6812
	COOPERATIVE SCHOOL	BROOKLINE MASS		
3. Architect or Engineer				

I hereby certify that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and we agree to conform to all applicable laws of this jurisdiction.

Signature of applicant	<i>director</i> Cathy K. Lovelblom	Address	210 HARVARD ST BROOKLINE 02146	Application date	MAY 18, 1981
------------------------	---------------------------------------	---------	--------------------------------	------------------	--------------

**V. SITE OR PLOT PLAN - For Applicant Use**

DO NOT WRITE BELOW THIS LINE

**VI. VALIDATION**

Building Permit number _____ Building Permit issued _____ 19____ Building Permit Fee \$ _____ Certificate of Occupancy \$ _____ Drain Tile \$ _____ Plan Review Fee \$ _____	<b>FOR DEPARTMENT USE ONLY</b> Use Group _____ Fire Grading _____ Live Loading _____ Occupancy Load _____
Approved by: _____ _____ TITLE	

*Board of Appeals*  
*Plan Review - \$50.00 60946*

# Boston Children's Theatre, Inc.

652 HAMMOND STREET • CHESTNUT HILL, MA 02167  
617-277-3277

Selectman's Office  
6th Floor  
333 Washington Street  
Brookline, MA 02146  
Attention: Patty

May 10, 1984

To The Board of Selectmen of Brookline:

On Saturday, May 19, The Boston Children's Theatre will hold a Flea Market Fair selling household items, toys, garden equipment, etcetera. The Fair will be held at the Brookline Recreation Center at 652 Hammond Street from 10:00am-2:00pm.

We are also selling cold drinks, ice cream and snacks.

If we need a license would you please issue one to The Boston Children's Theatre at 652 Hammond Street in Chestnut Hill, MA 02167.

Thank-you.

Sincerely,

*Lisa Federico*

Lisa Federico  
Boston Children's Theatre

## TRUSTEES

DAVID ADELSON	PRESIDENT
BARBARA SENEAL	EXECUTIVE VICE-PRESIDENT
GEORGE M. VROTSOS	VICE-PRESIDENT
GRACE H. BARNETT	VICE-PRESIDENT
CALVIN A. HILL	TREASURER
ELLEN LERMAN	CLERK

PHYLLIS ADELSON  
DWAYNE ANTHONY  
JEANNE N. ARMIN  
DEBORAH G. BROOKS  
RUSTY BROWDER  
MRS. THOMAS DALY  
HERBERT LERMAN  
FRANCIS MANZELLI  
MARY McISAAC  
INABETH MILLER  
SHAARI S. MITTEL  
SUZAN NYHAN  
MIKE ODOM  
MR. AND MRS. JOEL PITLOR  
PAUL SENEAL  
VIVIAN M. SHOOLMAN  
SUSAN P. VROTSOS  
MRS. SUMNER WALDMAN  
DAVID L. WELTMAN  
LOIS H. WELTMAN

PRISCILLA W. RAND  
GEORGE ROLAND  
ADELE THANE

EXECUTIVE DIRECTOR  
ASSOCIATE DIRECTOR  
ASSOCIATE DIRECTOR

Town of Brookline  
Office of the Selectmen

## MEMORANDUM

To Royce E. Beatty  
Building Commissioner

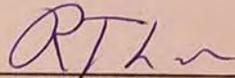
Date 5/11/84 19

SUBJECT Flea Market

May I have a report regarding the attached letter from the Boston Children's Theatre to have a Flea Market on Saturday, May 19, 1984 from 10:00 a.m. - 2 p.m. at the Brookline Recreation Center at 652 Hammond Street

This matter will be before the Board on Tuesday, May 15, 1984.

We would appreciate your report as soon as possible.



RICHARD T. LEARY, *Executive Secretary*

Sincerely,

*Lisa Federico*

Lisa Federico  
Boston Children's Theatre

May 25, 1981

Gerri L. Mistretta, Co-President  
Brookline Children's Cooperative School  
210 Harvard Street  
Brookline, Massachusetts 02146

Re: Soule Recreation Center, Hammond Street

Dear Ms. Mistretta:

Your request to use a portion of the existing structure at Soule Recreation Center for Brookline Children's Cooperative School as per plans is denied.

The premises are located in a S-25 (single family) and T-6 (two-family and attached single family) Residence District.

The plans titled "Soule Recreation Center" and dated May 18, 1981 and submitted by you do not conform to the following requirement of Town of Brookline Zoning By-Law:

- 1) Section 4.30, Use #15, Table of Use Regulations - variance required.

In accordance with the provisions of the Zoning By-Law, you may apply to the Board of Appeals for the above noted variance.

Yours very truly,

Royce E. Beatty, P.E.  
Building Commissioner

cc: Board of Appeals  
Planning

Enc:  
REB:h

To: Geril L. Mistretta, Co. President  
Brookline Children's Cooperative School  
210 Harvard Street  
Brookline, Ma. 02146

Date: May 28 1981

Re: Soule Recreation Center, Hammond Street  
Dear Ms. Mistretta

Your request to use a portion of the existing structure  
at Soule Recreation Center for Brookline Children's  
Cooperative School as per plans

The premises are located in a S-25 (single family) & T-6 (attached district) <sup>is denied.</sup> district  
The plans titled Soule Recreation Center <sup>Single family</sup> and dated

May 18, 1981 and ~~submitted~~ submitted by you do not conform to the following requirements of Town of Brookline Zoning By-Law ~~minimum~~ minimum

- 1) Section 4.30 use # 15 - Table of Use Regulations, Variance Required
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_

In accordance with the provisions of the Zoning By-Law, you may apply to the Board of Appeals for the above noted ~~special permit~~ (variance).

Yours very truly,

REB  
BC

J. R. Coates  
Inspector

Duplicate



# TOWN OF BROOKLINE BUILDING DEPARTMENT

RECEIPT-NO:

32633

NO: 991472

DATE: 04/14/99

## PERMIT

THIS CERTIFIES THAT MARK MOROSO has permission to Erect, Enlarge, Alter, Substantially Repair, Move, Demolish, or Change Occupancy of the Building or Structure located at:

652 HAMMOND ST Block 432 Lot 27 Parcel

All work performed under this permit shall, in every respect, conform to the terms of the application on file in this office and to the provisions of the State Building Code, Town of Brookline Zoning By-Laws, and all other Statute, By-Law, or Regulation relating to the Construction, Alteration, Maintenance, Use and Occupancy of Buildings in the Town of Brookline. This permit shall be deemed abandoned and invalid unless work authorized by it shall have been commenced within six (6) months after issuance. (111.7)

The granting of this permit does not authorize any work which would result in the violation of any Statute, By-Law or Regulation. This permit is not valid unless all fees under Section 114.0 of the State Building Code have been paid and you have been issued a Permit by the Building Commissioner. Only the work stated under the description below is authorized under this Permit. Any additional work will require another Permit.

### WORK DESCRIPTION

INTERIOR PARTITIONING, PAINTING, GYPSUM DRYWALL, CARPETING

HIP-NO: \_\_\_\_\_ HIP-COMPANY: \_\_\_\_\_ CONTRACTOR LICENSE: 043939

THIS CARD MUST BE DISPLAYED IN A CONSPICUOUS LOCATION ON THE PREMISES UNTIL THE FINAL INSPECTION. (111.14) AT THAT TIME THIS CARD MUST BE RETURNED TO THE BUILDING DEPARTMENT.

James J. Nickerson  
Building Commissioner  
Town of Brookline





TOWN of BROOKLINE  
*Massachusetts*

BUILDING COMMISSION

(617) 730-2100

CHARLES HOWARD  
Chairman

ELLEN GOLDMAN  
GORDON HURWITZ  
JOHN LOJEK  
LOUIS WILGOREN  
JOHN C. BULYGO  
Coordinator

JAMES J. NICKERSON  
Secretary

February 11, 1997

FEASIBILITY STUDY FOR SOULE RECREATION CENTER

REQUEST FOR QUALIFICATIONS

The Town of Brookline is seeking Architectural Services to perform a Feasibility Study at the Soule Recreation Center. This study will evaluate departmental program space needs, ADA requirements and the building envelope.

Program Available                      February 12, 1997

Proposal Deadline                      February 27, 1997

Ten (10) copies of proposal must be submitted to the Brookline Building Commission, Town Hall - Third Floor, 333 Washington Street, Brookline, MA 02146, Mr. John Bulygo, Coordinator, Telephone, (617) 730-2104.

Yours very truly,

Charles Howard  
Chairman

CH:b

REQUEST FOR ARCHITECTURAL SERVICES  
FEASIBILITY STUDY SOULE RECREATION CENTER

PART I Request for Qualifications

1. Advertisement
2. Services Required

PART II Information Required from the Bidder

PART III Criteria for Selection

PART IV Attachments

1. References
2. Fair Employment Practices

PROTOTYPING AVAILABLE

ESTIMATED CONSTRUCTION COST

ESTIMATED SCHEDULE

SCOPE OF WORK

- DESIGN SERVICES
- \_\_\_ Architect
  - \_\_\_ Engineer
  - \_\_\_ Planner
  - \_\_\_ Survey/Planner
  - \_\_\_ Landscape Architect
  - \_\_\_ Civil Engineer
  - \_\_\_ Program Manager
  - \_\_\_ Project Manager

- PROPOSAL FEE
- \_\_\_ \$10,000
  - \_\_\_ \$20,000
  - \_\_\_ \$30,000
  - \_\_\_ \$40,000
  - \_\_\_ \$50,000
  - \_\_\_ \$60,000
  - \_\_\_ \$70,000
  - \_\_\_ \$80,000
  - \_\_\_ \$90,000
  - \_\_\_ \$100,000
  - \_\_\_ Other

ADDITIONAL INFORMATION

DATE OF THE RFP

CR1

CENTRAL REGISTER - DESIGNER SERVICES

Public projects when the construction cost is estimated to exceed \$10,000. Published two weeks prior to application deadline.

AUTHORITY

agency, municipality or district;  
contact person, address and telephone  
Building Commission  
Town of Brookline  
333 Washington Street  
Brookline, MA 02146  
John Bulygo (617) 730-2104

PROJECT

Feasibility Study  
Soule Recreation Center

PROJECT PROGRAM AVAILABLE

where and when  
February 12, 1997  
Above Address

ESTIMATED CONSTRUCTION COST

TIME PERIOD FOR COMPLETED PROJECT

BRIEFING SESSION *where and when*

February 19, 1997 @ 10:00 A.M.  
Soule Recreation Center  
652 Hammond Street

SCOPE OF WORK

SPECIFIC DESIGNER SERVICES

Architect       Landscape Architect  
 Engineer       Land Surveyor  
 Planner       Programmer  
 Space Planner     Project Manager

DESIGNER'S FEE

Set specify amount  
 Negotiated

ADDITIONAL INFORMATION

Ten (10) copies of  
submittal required

DEADLINE FOR APPLICATION FORM

*date and time*  
February 27, 1997 @ 2:00 P.M.

CR1

CENTRAL REGISTER - DESIGNER SERVICES

Public projects when the construction cost is estimated to exceed \$10,000. Published two weeks prior to application deadline.

AUTHORITY

agency, municipality or district;  
contact person, address and telephone

PROJECT

PROJECT PROGRAM AVAILABLE

*where and when*

ESTIMATED CONSTRUCTION COST

TIME PERIOD FOR COMPLETED PROJECT

BRIEFING SESSION *where and when*

SCOPE OF WORK

SPECIFIC DESIGNER SERVICES

Architect       Landscape Architect  
 Engineer       Land Surveyor  
 Planner       Programmer  
 Space Planner     Project Manager

DESIGNER'S FEE

Set specify amount  
 Negotiated

ADDITIONAL INFORMATION

DEADLINE FOR APPLICATION FORM

*date and time*

## SOULE RECREATION CENTER

The Soule Recreation Center is housed in the John G. Wright Estate Carriage House. We have attached pertinent information as part of this Request for Qualifications.

This building houses the Recreation Department offices and various Recreation Department programs.

The Department wishes to perform a Feasibility Study to survey the space allocated for various programs in the department with possible office relocation.

The programs housed at this site are Dance Instruction, Ceramics, Recreation Activity For Teens (RAFT), Morning Play or Pre-School, After School Enrichment (Grades 1-5) and Day Camp during the Summer (Ages 4,5 and 6).

Other components of the study will be ADA (Handicap) accessibility - location of an elevator to meet these needs, Building Code Compliance, various mechanical, electrical and plumbing issues and code compliance and building envelope renovations.

The architect will meet with the Town Agencies involved for their input.

The Feasibility Study to include drawings and estimated costs of the building interior modifications and envelope repairs, ADA, mechanical, electrical and plumbing, code compliance and or repairs.

SOULE RECREATION CENTER  
Documentation and Assessment Form  
Level I - June 30, 1993

TOWN of BROOKLINE - BROOKLINE PRESERVATION COMMISSION  
HISTORIC BUILDINGS PRESERVATION AND MAINTENANCE STUDY

Project Consultants:  
Claude Emanuel Menders, Architects Inc.  
59 Commercial Wharf, Boston, MA 02110

PART 1 - GENERAL INFORMATION

=====

1. PROPERTY NAME

Historic: John G. Wright Estate Carriage House  
Current: Soule Recreation Center

2. ADDRESS

Street Address: 652 Hammond Street, Brookline, MA, 02167  
Location Description: Chestnut Hill, at Soule Recreation Center

3. BUILDING USE

Historic: John G. Wright Estate carriage house and stable.  
Current: Department of Recreation, formerly leased by Brookline Children's Cooperative School (day care center).  
Town Department: Parks and Recreation Commission

4. GEOGRAPHICAL DATA

Map Lot: 432/27-30  
Lot Size: 418,625 s.f.  
Approximate Building Area: 4075 s.f.  
Assessed Value: \$725,000 as of 06-01-93

5. SURVEY DATA

Surveyor: David Torrey, CEM and Claude Menders, CEM  
Dates Recorded: October 27, 1992, June 4, 1993

Representation in Existing Surveys and Other Source Material:

- \* Massachusetts Historical Commission Form #125/432-27-30 dated October 1979
- \* Built by Brookline, Brookline Preservation Commission, 1990.
- \* "Report on Town-Owned Buildings," Brookline Preservation Commission Subcommittee, March 1991.
- \* Chestnut Hill Historic District, National Register District, dated October 17, 1985.
- \* Chestnut Hill Historic District, National Register Multiple Resource Area, dated October 17, 1985.

Listings:

=====

PART 2 - HISTORICAL DATA

1. ORIGINAL CONSTRUCTION

Date: 1897, along with main estate house and gatehouse.

Style: Tudor (English Medieval Revival) with Shingle Style and Queen Anne Style characteristics.

Architect: Chapman, Frazier & Bliss

2. IMPORTANT DATES

1861: John G. Wright, Boston wool merchant of Walnut Street in Brookline, purchased land from Thomas Quimby, a farmer.

1897: House and carriage house built.

1942: Main house and carriage house purchased by the Rivers School and converted to classrooms and administrative offices.

1961: Property purchased by Town of Brookline for recreational use.

1963: Main house destroyed by fire.

1991: Brookline Preservation Commission Report on Town-Owned Buildings recommends emergency roof repairs, gutter repairs and repainting to halt accelerating deterioration.

### 3. HISTORICAL ASSESSMENT

#### Social History:

After a fire destroyed the John G. Wright house, only the carriage house and gatehouse (privately owned residence) remain as major evidence of the grand architectural style of this turn-of-the-century estate.

The Soule Recreation site is a large tract of land which was purchased from the farmer Thomas Quimby in 1861. Since it had not then and still has not today been subdivided into house lots, the site itself bears the memory of Brookline's agrarian past. When John G. Wright, a Walnut Street resident and prosperous Boston wool merchant hired the architects Chapman, Frazier and Bliss to design a walled estate in the vocabulary of an English Medieval manor he was following the late 19th Century fashion for eclectic European historical styles intended to evoke a simpler age.

#### Architectural Significance:

The carriage house and stable for the Wright Estate is a classic example of the eclectic movement of its time whose trend-setting models were landmark structures such as the Wright Estate; correctly-detailed historical reinterpretations of mostly European precedents. The 19th Century carriage house building type is also exemplified by this building's site plan configuration (courtyard with wings), massing (connected barns), and stylistic detailing (matching the main house yet more farm-like with cupolas and arched carriageways).

### 4. CHARACTER-DEFINING ARCHITECTURAL FEATURES

#### Original Fabric:

Converted to school use after 1942 by the Rivers School, the building's character essentially remained intact. Although threatened today by lack of maintenance, most of the original architectural details remain in repairable condition.

#### Shape:

The building's U-shaped plan is relatively simple, with its major end-gabled body and a pair of smaller intersecting wings forming an open courtyard. However, a complex asymmetrical image is created through the use of varied fenestration, dormers, bays, and roof forms. The imposing two-story west facade (now the most-used access route) is reduced in height visually by the use of a rustic boulder foundation for the full-height basement walls. Rectangular, octagonal and shed dormers interrupt the expanse of that roof and a large square cupola carries the eye toward the major south-facing gable end whose attic story is a symmetrical composition with a central window cluster and diagonal half-timbering. A wrapped eave roof projection bisects this facade and is continuous with the long carriage shed wing. The opposite wing adjoining the densely wooded hillside intersects the main barn shape for half its width giving the north-west corner a

casual feel. The east face is more formal, flanked by the symmetrical ends of the carriage sheds with their massive overhanging barge boards and boldly half-timbered gables. On the courtyard face, the casual medieval effect of additions over time is created, breaking the symmetry of the courtyard with a two-storied octagon bay squeezed against an oriel bay and a pair of large cantilevered gabled dormers. Varied dormers, chimneys and roof ventilators fill in what would have been the large barn roof of the main structure.

Fenestration:

Original fenestration is generally clusters of diamond paned wooden double hung windows placed below gable centerlines or small squares individually spaced under eaves. New 6 over 6 windows and infill stucco have been inserted into shallow wood arched openings which were apparently either open or enclosed with doors similar to the arched paneled door which remains at the basement. It is unclear exactly which windows were added for school use; perhaps all the rectangular paned double hung windows were additions and the massive barn-like character was even more pronounced originally.

Wood Detailing:

Equally important to the building's complex massing in defining its character is the exterior wood trim at gables, dormers and roof edges. The details and patterns of the dark stained wood composed of flat, carved and molded pieces, are highlighted against the uniform backdrop of the whitewashed roughcast stucco siding. Each of the varied types of gable ends receives a distinct treatment: the main barn ends are flat with no overhang in the manner of the Shingle Style. The paired overhung dormers at the courtyard and carriage shed wings have wide, projected barge-boards with raking moldings and turned pendants; one small dormer has scalloped barge-boards. Roof eaves are overhung, with molded wood gutters supported by exposed rafter tails with rounded ends. The asphalt roof was undoubtedly wood shingled originally.

Interiors:

Interior rooms are generally panelled with painted beaded board characteristic of the period, and a trophy room off the courtyard retains its varnished dark oak paneling and boxed beams.

Part II

General Information

PURPOSE

This request for qualification (RFQ) provided interested submitters with information to enable them to prepare and submit proposals for consideration by the Town of Brookline, Massachusetts to prepare a Feasibility Study for the Soule Recreation Center.

ISSUING OFFICE

The RFQ is issued for the Town of Brookline, Massachusetts, by its Building Commission. The point of contact in the Town for this RFQ if further information is required is Mr. John Bulygo, Building Commission Coordinator at 617-730-2104.

SCOPE

This RFQ contains instructions governing the proposal to be submitted and the materials to be included therein: requirements which must be met to be eligible for consideration; general evaluation criteria; and other requirements to be met by Designer.

STATEMENT OF QUALIFICATIONS AND EXPERIENCE

Provide a statement of qualifications and experience.

PROVIDE REQUIRED REFERENCES

Submit required reference on enclosed form. (Attachment #1)

FINANCIAL DISCLOSURE

The final participants will be asked to submit a Modified Financial Statement at the time of their interview.

COMPARABLE WORK

The Town requires, as part of the resume/reference process, a copy or synopsis of a recent successful plan of like/comparable of similar scope; that the Designer has completed.

ADDENDA TO THE RFQ

If it becomes necessary to revise any part of this RFQ, addenda will be provided to all prospective bidders who receive the RFQ.

#### NON-DISCRIMINATION CLAUSE

The successful bidder will be required to adhere to the non-discrimination clause attached hereto as an exhibit within the proposed Agreement. See Attachment #2.

#### FORMAT FOR REQUIRED INFORMATION

Prospective designers must submit ten (10) copies of proposal. To be considered the proposal must respond to all requirements of this part of the RFQ. Any other information thought to be relevant, should be provided as an appendix to the proposal. Supporting documentation is required as proof of minimum qualifications. Failure to submit one or more required items may result in disqualification of proposal.

#### PRE-PROPOSAL/PREBID ON SITE WALK-THROUGH

The pre-proposal conference is for information only. Answers furnished during the conference is for information only. Answers furnished during the conference will not be official until verified in writing by the Town of Brookline. A walk through will be held on February 19, 1997 at 10:00 A.M. at the Soule Recreation Center, 652 Hammond Street.

#### RESPONSE DATE

To be considered proposals must arrive at the Building Department, Town of Brookline on or before 2:00 P.M. EST, February 27, 1997. Any proposal received after that time and date will not be considered. Prospective bidders mailing proposals should allow sufficient mail delivery time to insure timely receipt of their proposals.

ATTACHMENT NUMBER ONE

ARCHITECT AND ENGINEERING SERVICES

The architect will be required to show recent relevant experience on performing Feasibility Studies.. Of particular importance will be evidence of the proven ability to bring such project in on time and on budget. Firms shall provide the following information:

- (1) Names and address of officers, directors and owners of the firm.
- (2) The names of the individuals who will have a direct contact with the Building Commission throughout the project.
- (3) A list of all public or institutional projects undertaken in Massachusetts within the past five years. This list shall include original budget amounts and actual final construction cost of the projects. Provide a list of references relating to those projects.
- (4) A list of all current projects.
- (5) If the proposal will involve a joint venture, a list of all participating firms or individuals.
- (6) A description of the firm's current staffing and ability to undertake a project of this size in a timely fashion.
- (7) The proposal shall also specify the names and backgrounds of all Consultants who will be involved in this study.

I certify that all information submitted in this proposal is correct under the penalties of perjury. (G.L. c.7.38E)

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Part III

CRITERIA FOR SELECTION

- A. Review and Evaluation of Submittals. all Submittals received in conformance with the Submittal Requirements will be reviewed and evaluated by a "Committee of Seven" formed by the Town in accordance with Article 15A of the Town By-Laws.

The Committee will select a short list of those submitters which are believed best qualified to perform the required services from among the submittals received. The Committee will interview all submitters on the short list and will recommend to the Town's Board of Selectmen for approval one from that group that is believed will give the greatest benefit to the Town.

- B. Each submittal will be evaluated based upon the submitter's capability to provide superior services to the Town, including:
1. Capability of the design team to handle the size and scope of the work.
    - o Current and projected workload
    - o Size of overall staff
  2. Experience of the design team with similar and scope of projects.
  3. Cost and Scheduling histories.
  4. Reference Checks.

ANTI-DISCRIMINATION REQUIREMENTS. FAIR EMPLOYMENT PRACTICES RELATIVE TO TOWN CONTRACTS (ARTICLE XXIX OF THE TOWN BY-LAWS)

SECTION ONE - Subject to the exceptions hereinafter stated all contracts awarded by the Town and all agencies and departments thereof, shall include the following provisions:

During the performance of this Contract, the Contractor for himself, his assignees and successors in interest (hereinafter referred to as the "Contractor"), agrees as follows:

- (A) The Contractor will comply with the provisions of Chapter 151B, and amended, of the General Laws of Massachusetts relative to non-discrimination which are incorporated herein by reference and made part of this Contract.
- (B) In the performance of work under this Contract, the Contractor shall not discriminate in employment practices or in the selection or retention of subcontractors or in the procurement of materials or rental of equipment on the grounds of age or sex except when age or sex is a bona fide occupational qualification.

The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of such notice in conspicuous places available to employees and applicants for employment.

- (C) In all solicitations either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract and for the procurement of materials or equipment potential subcontract or supplier shall be notified in writing by the Contractor of the Contractor's obligations under this Contract relative to non-discrimination on grounds of race, color, religion, national origin, age or sex and his obligations to pursue an affirmative course of action as required by paragraph (D).
- (D) The Contractor will pursue an affirmative course of action as required by affirmative guidelines adopted by the Human Relations Commission in effect on the effective date of the contract, or when call for proposals are made, whichever is sooner, which are herein incorporated by reference, attained hereto, and made part of this contract, reasonably pertaining to the work of the contract, and to the nature and size of his work force, to insure that the applicants are sought and employed, without regard to their race,

color, national origin or ancestry, or religion. No changes in affirmative action guidelines hereinafter adopted by the Commission shall be effective with respect to contract already in effect, without the express written consent of the Contractor.

(E) In the event the Contractor fails to comply with the foregoing non-discrimination provisions of this Contract, the contracting agency of the Town, upon advice and counsel of the Human Relations Commission, shall impose such contract sanctions as it may determine to be appropriate, including but not limited to:

- (1) withholding of payment due the Contractor under this contract until the Contractor complies, and/or
- (2) cancellation, termination or suspension of this Contract, in whole or in part.

For the purposes of this section the contracting agency of the Town shall accept as proof of non-compliance with the provision of Section 1(A), only final orders or decisions of the Massachusetts Commission Against Discrimination.

(F) The provisions of this section shall be deemed supplementary to, and not in lieu of, or in substitution for, the provisions of Massachusetts law relating to non-discrimination and other applicable Federal, State or Town. In the event of a conflict between the provisions of this contract, an applicable state or federal law, rule, regulation or directive, that conflicting provisions of the latter shall control.

SECTION TWO - The requirements of Section One shall not apply to the following Contracts:

- (a) whenever work is to be or has been performed outside the state and no recruitment of workers within the state is involved;
- (b) those involving standard commercial supplies or raw materials;
- (c) when the Contractor is a club exclusively social, or a fraternal association or corporation, if such club, association or corporation is not organized for private profit;
- (d) when the Contractor employs fewer than six persons;
- (e) when the total value of the contract is less than \$10,000.00;
- (f) contracts involving joint purchases with the state under Article IV, Section V of the Town By-Laws;
- (g) contracts with the Commonwealth for construction of public works;
- (h) contracts for financial assistance with a government or governmental agency;
- (i) notes and bonds of the Town;
- (j) employment by the Town officers and employees of the Town;
- (k) whenever it is deemed necessary or appropriate the Board of Selectmen, upon the advice and counsel of the Human Relations Commission, may exempt any contract not covered by the foregoing exemptions from the operation of this by-law in whole or in part.

TOWN OF BROOKLINE, MASSACHUSETTS  
NOTICE TO BIDDERS AND CONTRACTORS

TOWN POLICY ON ARAB LEAGUE STATES BOYCOTT AGAINST THE STATE OF ISRAEL

The following Resolution was unanimously voted by the Board of Selectmen on July 12, 1976:

WHEREAS, the Town of Brookline has established an Affirmative Action Program in accordance with the provisions of Article XXIX of the Town By-Laws; and

WHEREAS, the Arab League States are enforcing a boycott against the sovereign state of Israel, an ally of the United States; and

WHEREAS, it is the stated policy of the United States of America to oppose economic sanctions used against our allies; and

WHEREAS, the Arab League States are enforcing a secondary boycott against American companies which are trading with or in Israel; and

WHEREAS, the Arab League States are enforcing a tertiary boycott which requires American companies to discriminate against other American companies; and

WHEREAS, certain Arab States require American companies to discriminate in employment against Jews, blacks and women; and

WHEREAS, these practices are contrary and violative of American democratic tradition, morality and law and the policies of the Town of Brookline, and represent an imposition of foreign discriminatory practices on Americans;

NOW THEREFORE, it is hereby resolved as a matter of public policy that the Town of Brookline declares that it will not trade with any company or corporation which practices discrimination against persons of their friendly relations with our ally, the State of Israel, and it further hereby,

RESOLVED, that the Purchasing Agent for the Town of Brookline be and the same hereby is requested to inform contractors with the Town of this non-discriminatory policy and directed to enforce the above policy with respect to all goods, services and commodities purchased by the Town.



APPLICATION FOR LICENSE

WEEKDAY

COIN-OPERATED AMUSEMENT DEVICE

December 8, 1993  
DATE

TO THE BOARD OF SELECTMEN

The undersigned respectfully requests that he be granted license (renewal) for coin-operated amusement device or devices, and remits herewith \$\_\_\_\_\_ therefore.

Petitioner Town of Brookline

Business Trade Name Recreation Department

Address 652 Hammond St. Brookline, Ma 02167

Proposed Location of machine/machines Soule Recreation Center - 652 Hammond St.

Type of Business conducted where machine is to be located Teen Center for Brookline students (grades 6-12)

Type of machine or machines (specific name of each game) Operation Wolf, Pac-Man, NBA Jam, Dig-Dug, Big Event Golf, Gorgar, Juke Box.

To be placed on premises as follows All American Vending Will deliver and set up the video games.

Approved by the Bureau of Standards Yes

Number of Machines 7

Owner of machine (Name and address of Manufacturer) \_\_\_\_\_

New England Coin, 232 Vanderbilt Avenue, Norwood, Ma.

Agent's name from whom machine rented All American Vending

Agent's legal address in 1993 69 Norman St. Everett, Ma 02149

APPLICATION FOR LICENSE  
COIN-OPERATED AMUSEMENT DEVICE

Agreement between applicant and owner for compensation or any other consideration to applicant for use of premises for machine (please state) The machines will be leased from All American Vending, with

the entire proceeds to be split 50%-50% between the Recreation Department  
and All American Vending.

The person or persons who conduct the business under license petitioned for above must sign here:

NAME

Thomas J. Ryan

HOME ADDRESS 652 Hammond St. Brookline, Ma 02167

NAME \_\_\_\_\_

HOME ADDRESS \_\_\_\_\_

PLEASE MAKE CHECK PAYABLE TO THE TOWN OF BROOKLINE

652 Hammond Street



TOWN of BROOKLINE  
*Massachusetts*

BOARD OF SELECTMEN

RICHARD T. LEARY  
Town Administrator

January 25, 1994

IN BOARD OF SELECTMEN

Chairman Merrill stated that it was his understanding that there would be no vote on this item until the public meeting which is scheduled for Thursday, January 27.

Selectwoman Kalikow agreed with the neighborhood's concerns and agreed there needed to be public discussion over the other types of recreation games that were proposed last week. However, a juke box is a mode of music for the kids. When she spoke to the young people about the Teen Center, 90% of them said they wanted food and music. She did not feel that a juke box would be detrimental to the neighborhood. She wanted this to be put on the agenda today so that they would have music at the Teen Center.

Selectman Hennessey stated he received some calls from some neighbors and when he indicated that the application today was for a juke box, he had no objections.

Dorothy Edinburg expressed concern on behalf of the neighbors over the type of records which would be installed in the juke box. The neighbors are concerned over the lyrics in some of the music today.

Melissa Termine stated that the recreation staff will monitor the music. It will be top 40, but if the lyrics are objectionable, then they would not allow it.

Mrs. Edinburg felt that everything should be heard at the public hearing. Bill Hurley, recreation department employee, stated that they wanted to open the club house this weekend and that is why they would like approval of this application for a juke box.

Chairman Merrill suggested that the vote be made contingent on the neighbors' input on Thursday night. If the outcome of that meeting is that the juke box is okay, then it can be installed.

In Board of Selectmen  
January 25, 1994  
Page 2

Mrs. Edinburg made the point that from she has read in the papers, it appears that this is an elitist activity, the coin operated devices. Some of the neighbors feel that the kids should not be encouraged to spend money on these activities.

Chairman Merrill agreed with Mrs. Edinburg's thoughts and stated he would want to dispel any of those thoughts.

On motion, it was unanimously

VOTED: To grant a weekday coin-operated amusement device license, to the Brookline Recreation Department for the installation of a Juke Box at the Teen Center, Soule Recreation Center, 652 Hammond Street, contingent upon the approval of the neighbors who attend the meeting on Thursday, January 27, 1994.

A t t e s t

*Richard L. Lary*  
Town Administrator

Park and Recreation Commission  
Human Relations  
✓ Building  
Police



TOWN of BROOKLINE  
*Massachusetts*

Brookline Preservation Commission

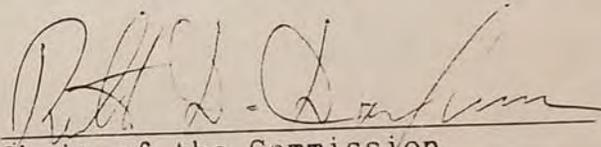
CERTIFICATE OF SIGNIFICANCE

TO: Town of Brookline Building Department  
ADDRESS: 333 Washington Street 02146  
RE: 652C Hammond Street

The Brookline Preservation Commission hereby certifies, pursuant to the Brookline Demolition By-law (Article XXIII-B), that the building known as the "gardener's workshop," located at 652C Hammond Street, was declared significant at the Public Hearing on September 22, 1992, and may not be demolished for one year from September 22, 1992, without written permission from the Preservation Commission.

10/5/92

Date

  
Chair of the Commission

copy to: Building Department  
Town Clerk  
Planning Department

*Hammond St.*

M E M O R A N D U M

To: George Driscoll, Town Counsel  
From: James J. Nickerson  
Date: July 6, 1992  
Re: Soule Recreation Center

Attached is a letter received Monday, July 6, 1992 from Brookline Children's Cooperative School, they are a tenant at Soule Recreation Center.

Please take care of this matter.

Building Commissioner

JJN:s



**Brookline Children's  
Cooperative School**

A non-profit, non-sectarian nursery school

July 2, 1992

Ray Mareno  
Building Department  
Town of Brookline  
333 Washington Street  
Brookline, MA 02146

Re: Soule Building Maintenance

Dear Ray:

I have been advised by our attorney that he and George Driscoll have previously agreed that the Town may have access to the building for health, safety and maintenance and repair issues. Therefore, I am writing to you to request that the following items be taken care of as soon as possible.

Repair leak in roof to left of front door;  
Repair electric fixture on second floor in antechamber to  
bathroom (damaged by leak);  
Repair leaking upstairs single toilet;  
Repair dripping upstairs sink;  
Repair leaking hot water pipe in downstairs boys bath (we had  
to shut water off);  
Repair broken floor tiles (about four) in front of girls  
bathroom and hallway which leads to it;  
Clean out storm drain in courtyard (dig and filter) to avoid  
ponding during rain storms; and  
Repair court yard wall, which is badly crumbling at front  
entry, and is a hazard.

If you have any questions with respect to anything on this list, please do not hesitate to call. Thank you.

Very truly yours,

BROOKLINE CHILDREN'S  
COOPERATIVE SCHOOL,  
INC.

*Gail E Eddy*  
Gail Eddy, Director

cc: Jon Levin

652 Hammond Street, Brookline, MA. 02146 / (617) 731-6812

Judy Haupin  
Comptroller

January 26, 1995

James J. Nickerson

**Contracts**

We have attached two contracts as noted below for your files.

Main Library - Window Repair and Replacement  
Freeman/Brigham/Hussey, Ltd.

✓ Soule Recreation Center - Shingle Reroofing  
Bay State Painting Company

*6 SA Newwood*

**Secretary**

June 10, 1993

SOULE RECREATION CENTER

FY-91

Replace three broken windows	\$41.72
Rewire hot water heater	88.55
Install new thermomstat on hot water heater	97.87
Replace hot water heater	712.51
Replace one broken window	46.54
Replace low water cut off on boiler	438.02
	<u>\$1,425.21</u>

FY-92

Removal of security boarding	105.00
Repair PVC line for sprinkler	341.45
Repair service drop to building	1,829.45
Replace broken hall window	29.58
Replace one F40 T12 ballast	65.25
Service all fire extinguishers	108.80
Clear main drain	378.74
Replace all defective steam traps	602.73
Repair leak in sprinkler line	164.55
	<u>\$3,624.55</u>

FY-93

Replace four broken windows	81.20
Replace stop and waste valve	28.56
Replace one broken window, bathroom	28.66
Treat entire building for pest control	220.00
Tighten up all mud drain nipples	271.81
Repair stone wall at entrance	335.00
Clean boiler	250.00
Replace twenty broken windows	318.00
	<u>\$1,533.23</u>



Brookline Children's  
Cooperative School

A non-profit, non-sectarian nursery school

Dear Sir,

We have recently been inspected by the Health Dept. to renew our license. We need a copy of the classroom plans, lead paint inspection and a diagram of the outdoor space on file at our school.

Would you please mail a copy to me or bring it when you do the inspection.

Sincerely,

Pat Vonnegut



COMMONWEALTH OF MASSACHUSETTS

CITY/TOWN OF Brookline

APPLICATION FOR CERTIFICATE OF INSPECTION

Date 3/25/86

(<sup>XX</sup>) Fee Required (Amount) \$40.00

( ) No Fee Required

In accordance with the provisions of the Massachusetts State Building Code, Section 108,15, I hereby apply for a Certificate of Inspection for the below-named premises located at the following address:

Street and Number 652 HAMMOND STREET  
Name of Premises SOULE RECREATION BROOKLINE CHILDREN'S COOPERATIVE SCHOOL  
Purpose for Which Premises is Used DAY CARE CENTER  
License(s) or Permit(s) Required for the Premises by Other Governmental Agencies:

License or Permit Agency  
License no. 142 Health Dept.

Certificate to be Issued to Brookline Children's Co-operative School  
Address 652 Hammond Telephone No. 731-6812  
Owner of Record of Building Town of Brookline - Soule Recreation  
Address \_\_\_\_\_ Telephone No. \_\_\_\_\_  
Name of Present Holder of Certificate Brookline Children's Co-operative School  
Name of Agent, if any \_\_\_\_\_ Telephone No. \_\_\_\_\_

Pat Vonnegut \_\_\_\_\_ Director \_\_\_\_\_  
SIGNATURE OF PERSON TO WHOM TITLE  
CERTIFICATE IS ISSUED OR HIS  
AUTHORIZED AGENT \_\_\_\_\_ April 7, 1986 \_\_\_\_\_  
DATE

INSTRUCTIONS:

- 1) Make check payable to: Town of Brookline
- 2) Return this application with your check to: Building Department, Town Hall, 333 Washington Street, Brookline, Massachusetts 02146

PLEASE NOTE:

- 1) Application form with accompanying fee must be submitted for each building or structure or part thereof to be certified.
- 2) Application and fee must be received before the certificate will be issued
- 3) The building official shall be notified within ten (10) days of any change in the above information.

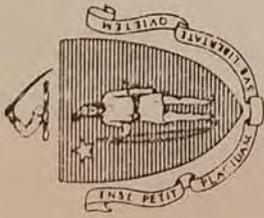
CERTIFICATE # DC07

EXPIRATION DATE: 6/11/88

FORM SBCC-3-74

O.K. for Cert.  
8-78 F.M.D.

64000 - 74664  
DC07



# The Commonwealth of Massachusetts

TOWN OF BROOKLINE

In accordance with the Massachusetts State Building Code, Section 108.5.1, this

## CERTIFICATE OF INSPECTION

is issued to ..... Brookline Childrens Co-op School, Inc. ....  
 Brookline Childrens  
 Co-op School, Inc. ....  
 I Certify that I have inspected the ..... premises ..... known as .....  
 Located at ..... 652 Hammond Street ..... in the ..... TOWN ..... of ..... BROOKLINE .....

County of... NORFOLK ..... Commonwealth of Massachusetts. The means of egress are sufficient for the following  
 number of persons:

Story	Capacity	Story	Capacity	Story	Capacity	Story	Capacity	BY STORY	
								Story	Capacity
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

### BY PLACE OF ASSEMBLY OR STRUCTURE

Place of Assembly or Structure	Capacity	Location	Place of Assembly or Structure	Capacity	Location
Two Right Wing Classrooms	10 Persons	First Floor	One Left Wing Classroom	22 Persons	First Floor
.....	10 Persons	.....	.....	.....	.....

DC-15  
 Certificate Number  
 September 15, 1981  
 Date Certificate Issued

September 15, 1982  
 Date Certificate Expires

*[Signature]*  
 Building Official

The building official shall be notified within (70) days of any changes in the above information.



COMMONWEALTH OF MASSACHUSETTS

CITY/TOWN OF Brookline

APPLICATION FOR CERTIFICATE OF INSPECTION

Date August 27

() Fee Required (Amount) \$40.00

( ) No Fee Required

In accordance with the provisions of the Massachusetts State Building Code, Section 108,15, I hereby apply for a Certificate of Inspection for the below-named premises located at the following address:

Street and Number (Soule Recreation Building) 652 Hammond St Brookline  
Name of Premises (2 rooms on right wing + room adjacent to office) MASS  
Purpose for Which Premises is Used Child care - preschool  
License(s) or Permit(s) Required for the Premises by Other Governmental Agencies:

<u>License or Permit</u>	<u>Agency</u>

Certificate to be Issued to Brookline Childrens Cooperative School, Inc.  
Address Formerly 210 Harvard St. Brookline MASS 02146  
Owner of Record of Building new building (Soule Rec) owned by town of Brookline  
Address    
Name of Present Holder of Certificate    
Name of Agent, if any  

Cathy R Rosenbloom  
SIGNATURE OF PERSON TO WHOM CERTIFICATE IS ISSUED OR HIS AUTHORIZED AGENT  
TELEPHONE # 965-4316

Director  
TITLE  
August 27, 1981  
DATE

INSTRUCTIONS:

- 1) Make check payable to: Town of Brookline
- 2) Return this application with your check to: Building Department, Town Hall, 333 Washington Street, Brookline, Massachusetts 02146

PLEASE NOTE:

- 1) Application form with accompanying fee must be submitted for each building or structure or part thereof to be certified.
- 2) Application and fee must be received before the certificate will be issued.
- 3) The building official shall be notified within ten (10) days of any change in the above information.

CERTIFICATE #  

EXPIRATION DATE:  

#61842

ok for cert. (SSB) FORM SBCC-3-74  
8-28-81





COMMONWEALTH OF MASSACHUSETTS

CITY/TOWN OF Brookline

APPLICATION FOR CERTIFICATE OF INSPECTION

Date March 27, 1985

() Fee Required (Amount) \$40.00

( ) No Fee Required

In accordance with the provisions of the Massachusetts State Building Code, Section 108,15, I hereby apply for a Certificate of Inspection for the below-named premises located at the following address:

Street and Number 652 Hammond Street  
Name of Premises Soule Recreation - Brookline Children's Co-op. School, Inc.  
Purpose for Which Premises is Used Pre-school  
License(s) or Permit(s) Required for the Premises by Other Governmental Agencies:

License or Permit	Agency

Certificate to be Issued to Brookline Children's Cooperative School, Inc.  
Address 652 Hammond St. Brookline Telephone No. 731-6812  
Owner of Record of Building Soule Recreation Building Telephone No.    
Address 652 Hammond St.  
Name of Present Holder of Certificate Brookline Children's Co-op School Telephone No. 731-6812  
Name of Agent, if any  

Pat Vornegut  
SIGNATURE OF PERSON TO WHOM  
CERTIFICATE IS ISSUED OR HIS  
AUTHORIZED AGENT

Director  
TITLE  
April 1, 1985  
DATE

INSTRUCTIONS:

- 1) Make check payable to: Town of Brookline
- 2) Return this application with your check to: Building Department, Town Hall, 333 Washington Street, Brookline, Massachusetts 02146

PLEASE NOTE:

- 1) Application form with accompanying fee must be submitted for each building or structure or part thereof to be certified.
- 2) Application and fee must be received before the certificate will be issued.
- 3) The building official shall be notified within ten (10) days of any change in the above information.

CERTIFICATE # DC-8

EXPIRATION DATE: April 1, 1985

FORM SBCC-3-74

*ak ber ant 4-17-85*

*(253)*

*71902*

January 9, 1960

Mr. Frank J. O'Hearn

John Hennessey

Soule Recreation Building

MEMORIAL OFFICE - Mr. Lynch requests this room be put in condition. He is buying new furniture and is hanging a portrait of Mr. Soule on one wall.

He requests the following:

Wash and paint ceiling.

Wash and stain all interior woodwork

Apply one coat of varnish.

Sand the floor, apply a coat of filler and one coat of shellac.

Provide a lock set for the door to this room.

Remove existing ceiling lights, provide spot light for portrait and install two convenience outlets.

The painting will cost  
Electric work will cost  
Lock set will cost

\$185.  
60.  
25.

April 21, 1960

Mr. James J. Lynch  
Superintendent of Recreation  
70 Tappan Street  
Brookline, Massachusetts

Dear Mr. Lynch:

In reply to your letter of April 20th, please be advised that upon the acquisition of the property of the Rivers School by the Town, certain alterations will have to be taken into consideration and the heating system will be considered when the over-all plan is arranged.

Very truly yours,

Frank J. O'Hearn  
Building Commissioner

FJO/h



TOWN of BROOKLINE  
*Massachusetts*

April 20, 1960

RECREATION COMMISSION  
70 TAPPAN STREET, BROOKLINE, MASS.

AUGUSTUS W. SOULE, CHAIRMAN  
F. GREGG BEMIS  
THOMAS P. KENDRICK, M.D.  
FRANK T. LALLY  
MILTON LINDEN

JAMES J. LYNCH,  
SUPERINTENDENT OF RECREATION  
REGENT 4-1160

Mr. Frank J. O'Hearn  
Building Commissioner  
Town Hall  
Brookline, Massachusetts

Dear Mr. O'Hearn:

On Saturday, March 19th, members of the Board of Selectmen, School Committee, Park and Recreation Commissions inspected the Rivers School property, recently acquired by the Town. At that time the Headmaster, Mr. George Blackwell, notified the group that at present the lower school and the gymnasium are heated jointly which was both costly and inconvenient.

In order to heat the gymnasium, it is necessary to raise the heat to an excessive degree in the lower school. He recommended the installation of equipment which would make it possible to heat one facility independently of the other thus effecting a saving to the Town with respect to fuel and also making it more comfortable for those using the buildings.

To this end, the Recreation Commission would appreciate it if you would look into this matter as soon as possible and determine the cost of correcting this situation?

With many thanks for your consideration of this matter,

Sincerely yours,

James J. Lynch  
Superintendent of Recreation

JJL:c



TOWN of BROOKLINE  
*Massachusetts*

RECREATION COMMISSION  
70 TAPPAN STREET, BROOKLINE, MASS.

AUGUSTUS W. SOULE, CHAIRMAN  
F. GREGG BEMIS  
THOMAS P. KENDRICK, M.D.  
MILTON LINDEN

JAMES J. LYNCH,  
SUPERINTENDENT OF RECREATION  
REGENT 4-1160

July 5, 1960

Mr. Frank J. O'Hearn  
Building Commissioner  
Town Hall  
329 Washington Street  
Brookline, Massachusetts

Dear Frank:

There will be a special meeting of the Recreation Commission on Thursday, July 14, at 5:30 p.m. at the Rivers School, to discuss the proposed alterations to the lower school. I would appreciate it if you would let me know prior to that time, as to whether or not the walls which we discussed are bearing walls. Would you also submit an estimate of the cost of the alterations to this building as discussed by us, including the installation of a girls' and women's toilet facility, the installation of a door to the second floor, laying of the linoleum and painting?

Sincerely,

James J. Lynch  
Superintendent of Recreation

JJL:cm

ROBERT F. TROHON

COMPANY

Established 1925

SERVICE DEPARTMENT  
501 HEATH STREET  
CHESTNUT HILL 67, MASS.

*Plumbing and Heating Contractors*

Telephone LOnghwood 6-4414

RESIDENCE  
83 DUNSTER ROAD  
CHESTNUT HILL 67, MASS.

July 11, 1960

Mr. John Hennessy,  
Deputy Building Commissioner  
Town Hall  
Brookline 46, Mass.

Dear Mr. Hennessy:

Our estimate for installing 3-Cadet Closet  
Combinations with White Seats and 1-18"x20" Iron  
Enamel Washbowl with hot and cold water C.P.  
Faucets and with necessary waste and vent pipes  
and supplies for same, shall be the net sum of \$975.00.

No doors or partitions have been included in this  
estimate.

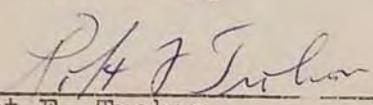
No carpentry, masonry, painting or electrical work  
has been included in this estimate.

Plumbing shall be installed in accordance with the  
laws of the Town of Brookline.

Thanking you for the opportunity of quoting you and  
trusting we may receive your valued order, I am

Yours very truly,

RFT/MCB

  
Robert F. Trohon

July 14, 1960

Mr. Augustus W. Soule, Chairman  
Recreation Commission  
70 Tappan Street  
Brookline, Massachusetts

Dear Mr. Lynch:

In reply to Mr. Soule's letter of June 8, 1960 and your letter of July 5, 1960 in regard to making changes at the Rivers School property to accommodate the Recreation program, kindly be advised as follows:

To provide zone controls so the lower school building and the gymnasium may be heated independent of each other.....	\$ 950.00
To provide a woman's toilet room, three cubicles and one lavatory (plumbing only.....	975.00
To create kitchen facilities in the building using existing sink, range, refrigerator and hot water unit from present Chestnut Hill Recreation Center.....	450.00
To remove partitions, enclose stairway, build toilet partitions, repair ceilings and other miscellaneous carpentry work.....	\$ 1,900.00
To make changes in the existing heating and ventilating duct work.....	300.00
<b>Painting and Floors.</b>	
Large room right side of entrance - wash and paint one coat, ceiling, walls and all woodwork complete.....	240.00
Prepare floor and install linoleum in this room.....	864.00
Electric switches, etc.....	100.00
Large room left side of entrance, painting as above.....	240.00
Prepare and cover this area with linoleum.....	864.00
Electric changes.....	100.00
Two center rooms - paint one coat as above.....	250.00
Cover these rooms with linoleum.....	480.00
All other areas on the first floor, passageways, two toilets, kitchen, office etc., wash and paint one coat.....	480.00
To provide linoleum in these areas, except toilets.....	477.00

If I may be of any further assistance do not hesitate to call on me.

Replace wood gutters on  
Lower building gymnasium = 1200  
300 at 4  
FJO-a Paint ext wood Trim Lower School 1400

Very truly yours,  
Frank J. O'Hearn  
Building Commissioner



TOWN of BROOKLINE  
Massachusetts

August 15, 1960

RECREATION COMMISSION  
70 TAPPAN STREET, BROOKLINE, MASS.

AUGUSTUS W. SOULE, CHAIRMAN  
F. GREGG BEMIS  
THOMAS P. KENDRICK, M.D.  
FRANK T. LALLY  
MILTON LINDEN

JAMES J. LYNCH,  
SUPERINTENDENT OF RECREATION  
REGENT 4-1160

Mr. Frank J. O'Hearn  
Building Commissioner  
329 Washington Street  
Brookline, Massachusetts

Dear Mr. O'Hearn:

I wish to thank you for your estimate of alterations to be made at the Rivers lower school and gymnasium. A request will be made to have the amounts indicated inserted in your 1961 budget. However, in order for us to operate our Morning Play groups efficiently, it will be necessary to have two things done at this time:

- (1) to provide zone controls so that the lower school building and gymnasium may be heated independently of each other--\$950.00;
- (2) to erect fifty wooden cubicles with three hooks in each to allow the Morning Play youngsters to hang up their clothing--?

*Sent order Trohan 8/30*

*Sent order Brown 8/30/60*

I realize that neither one of these items was earmarked for your 1960 budget, but if there is any possible way that they can be taken care of before October 3, 1960 it will be very much appreciated. We would be willing to forego other repairs and/or alterations earmarked for 1960 if the above work could be done now.

With many thanks for your co-operation,

*8/30/60*

*- 580 account  
OK for order  
JH*

Sincerely yours,

*James J. Lynch*

James J. Lynch  
Superintendent of Recreation

October 7, 1960

Mr. Frank J. O'Hearn

John J. Hennessey

500 Heath Street

The Recreation Department as of this date is finished with any use of this building for their program.

The water has been turned off, boiler drawn down and the building winterized.

Is there any further disposition to be made of the building?

October 21, 1960

Chief William A. Charlton

Frank J. O'Hearn

436 Heath Street

The Town of Brookline has taken possession of the property at 436 Heath Street (formerly Rivers School). We are presently boarding up the main house. Would you kindly arrange for the police to check on these buildings to avoid vandalism.

Very truly yours,

Frank J. O'Hearn  
Building Commissioner

MEMORANDUM

Date September 20, 1960

To - Mr. O'Hearn

From John Hennessey

Re -

I understand that the Rivers School property has been turned over to the Town of Brookline. We have been informed that the Recreation Department is about to start their program in what is called the lower school building and the gymnasium. Should we do anything about the main building? Is it going to be used or should we draw the water down and prepare the building for winter?

Miss Kirrane informed me that the Recreation Department has no further use for the Chestnut Hill Recreation Center. However Mr. Lynch previously told me that he would like to have the range, refrigerator and stove removed to the new Rivers School buildings. When this is done should we draw down the water and prepare the building for winter?

20-10-60

October 7, 1960

Mr. Frank J. O'Hearn

John J. Hennessey

Rivers School, 436 Heath Street

As of this date Miss Decker, Secretary at the Rivers School, has advised me that they have no further use for the main residence on this property. They have turned over the keys to the Recreation Department.

Should we draw down the water and prepare the building for the winter season?



TOWN of BROOKLINE  
*Massachusetts*

June 8, 1960

RECREATION COMMISSION  
70 TAPPAN STREET, BROOKLINE, MASS.

AUGUSTUS W. SOULE, CHAIRMAN  
F. GREGG BEMIS  
THOMAS P. KENDRICK, M.D.  
FRANK T. LALLY  
MILTON LINDEN

JAMES J. LYNCH,  
SUPERINTENDENT OF RECREATION  
REGENT 4-1160

*See Over Fansland  
Mr Hunter*

Mr. Frank J. O'Hearn  
Building Commissioner  
329 Washington Street  
Brookline, Massachusetts

Dear Mr. O'Hearn:

I believe that your department has made an estimate of the cost of changing the heating system at the so-called lower school on the Rivers School property so that the gymnasium can be heated independently.

At the meeting of the Recreation Commission held last night, I was authorized to ask your department to proceed with this work any time after June 30, 1960 and prior to September 1, 1960 so that the work will be completed before we undertake our program on the Rivers School property. *winter*

We have a letter from Mr. George Blackwell, Headmaster of the Rivers School, saying that he has no objection to having the heating work done after June 30th.

Sincerely yours,

*Augustus W. Soule*

Augustus W. Soule, Chairman  
Recreation Commission

cc: Board of Selectmen

November 7, 1960

Mr. Arthur A. O'Shea

Frank J. O'Hearn

436 Heath Street

The following information has been obtained from the Rivers Country Day School with reference to heating of the buildings at 436 Heath Street, now owned by the Town of Brookline.

Heating of the main building from September 1959 to June 1960 was \$1,299.31.

The cost for heating the small building used as a shower room for the same period was \$ 317.59.

For the lower school now in use by the Recreation Department, the fuel cost was \$1,599.45 for the above mentioned period. This included heat for the gymnasium from the one boiler.

A zone system has recently been installed as a fuel saving device. Excessive heat occurred in the lower school building in order to provide sufficient heat in gymnasium.

Frank J. O'Hearn,  
BUILDING COMMISSIONER

FJO-a

THE RIVERS COUNTRY DAY SCHOOL

436 HEATH STREET  
CHESTNUT HILL 67, MASSACHUSETTS

GEORGE H. BLACKWELL, HEADMASTER

THE COUNTRY DAY SCHOOL  
FOUNDED 1907

UPPER SCHOOL  
NOV 1960

November 3, 1960

Mr. Frank J. O'Hearn  
Town of Brookline  
Massachusetts

Dear Mr. O'Hearn:

I think the figures given below will answer your question about the cost of heat at our former buildings in Chestnut Hill. Perhaps you can get a better price on oil than we did but these figures will guide you in any case.

	<u>Upper School</u>	<u>Shower Building</u>	<u>Lower School</u>
Sept.	\$ 24.73	\$ 5.09	\$ 31.25
Oct.	15.55	5.47	24.04
Nov.	165.46	42.52	224.38
Dec.	178.19	43.23	227.82
Jan.	273.63	72.04	329.85
Feb.	245.21	60.02	306.16
Mar.	248.07	59.00	248.48
Apr.	109.86	22.85	136.69
May	38.61	7.37	70.78
June	- -	- -	- - -
	<u>\$1299.31</u>	<u>\$317.59</u>	<u>\$1599.45</u>

Jim Lynch has already asked the Town for a credit to the school on account of the fuel oil remaining in the tanks of the Lower School building. He suggested that you could probably obtain a similar settlement for the oil in the tanks of the Upper School building and the "greenhouse locker room."

Very truly yours,

*George H. Blackwell*  
Headmaster

GHB:a

November 1, 1960

Mr. George Blackwell, Headmaster  
Rivers Country Day School  
Weston, Massachusetts

Dear Mr. Blackwell:

I have been requested to obtain the cost of heating the recently vacated buildings on the old Rivers School property.

It occurred to me that perhaps in your records you would have the cost of fuel, used in each of the buildings. We are particularly interested in the main building.

Any information that you could forward would be much appreciated.

Very truly yours,

Frank J. O'Hearn  
Building Commissioner

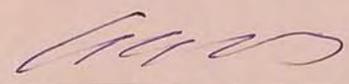
FJO/h

# MEMORANDUM

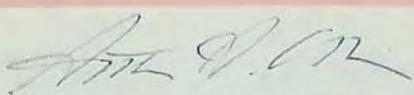
Frank J. O'Hearn, Building Commissioner      Date November 1, 19 60

SUBJECT \_\_\_\_\_

Would you be good enough to get for me, from the Rivers School Authorities, the figures for heating the plant, by building if possible; if not we are particularly interested in the big house that we went through recently.



ARTHUR A. O'SHEA, *Executive Secretary*



Executive Secretary

Frank J. O'Hearn  
Arthur H. MacKinnon

LONG ISLAND BROOKLINE  
NOV 13 4 15 PM '60  
BUILDING DEPARTMENT  
RECEIVED



TOWN of BROOKLINE  
*Massachusetts*

SELECTMEN'S OFFICE

ARTHUR A. O'SHEA  
EXECUTIVE SECRETARY

October 17, 1960

IN BOARD OF SELECTMEN

The Board having taken a view of the Rivers School property, it was on motion unanimously

VOTED: To instruct the Building Commissioner that appropriate steps be taken to drain the water and heating systems of the former Residence Building used as a school at 436 Heath Street, and to take the necessary ~~measures to protect~~ the building from vandalism at an estimated cost of from \$700 to \$800.

A t t e s t :

Executive Secretary

✓ Frank J. O'Hearn  
Arthur H. MacKinnon

TOWN OF BROOKLINE

OCT 17 4 34 PM 1960

RECEIVED

October 7, 1960

Board of Selectmen  
55 Prospect Street  
Brookline, Massachusetts

Gentlemen:

Miss Decker, Secretary of the Rivers School, has advised that they have no further use for the former residence building used as a school at 436 Heath Street.

If building is not to be occupied for the winter, preparations should be made to drain water and heating systems, shut off existing sources and properly protect the building from vandalism if possible.

Would suggest immediate action be taken before cold weather sets in.

Respectfully submitted,

Frank J. O'Hearn,  
BUILDING COMMISSIONER

FJO-a

BROOKLINE, MASSACHUSETTS

MEMORANDUM

Date October 7, 1960

Mr. Frank J. O'Hearn

From John J. Hennessey

Re - Rivers School, 436 Heath Street

As of this date Miss Decker, Secretary at the Rivers School, has advised me that they have no further use for the main residence on this property. They have turned over the keys to the Recreation Department.

Should we draw down the water and prepare the building for the winter season?

September 20, 1960

Mr. O'Hearn

John Hennessey

I understand that the Rivers School property has been turned over to the Town of Brookline. We have been informed that the Recreation Department is about to start their program in what is called the lower school building and the gymnasium. Should we do anything about the main building? Is it going to be used or should we draw the water down and prepare the building for winter?

Miss Kirrane informed me that the Recreation Department has no further use for the Chestnut Hill Recreation Center. However Mr. Lynch previously told me that he would like to have the range, refrigerator and stove removed to the new Rivers School buildings. When this is done should we draw down the water and prepare the building for winter?

MEMORANDUM

Date January 9, 1960

To - Mr. Frank J. O'Hearn

From John Hennessey

Re - Soule Recreation Building

MEMORIAL OFFICE - Mr. Lynch requests this room be put in condition. He is buying new furniture and is hanging a portrait of Mr. Soule on one wall.

He requests the following:

- Wash and paint ceiling.
- Wash and stain all interior woodwork
- Apply one coat of varnish.
- Sand the floor, apply a coat of filler and one coat of shellac.
- Provide a lock set for the door to this room.
- Remove existing ceiling lights, provide spot light for portrait and install two convenience outlets.

The painting will cost  
 Electric work will cost  
 Lock set will cost

\$185.  
 60.  
 25.

2 sws 1 for spot  
 1 for BP  
 \$ 230

*Reluctantly approved upon appeal of Mr. Lynch*

*Jan. 13, 1961.*

*JGH*

*1/18/61 J. Brown tel'd price for the work \$230 He will con firm - ok to go ahead per JGH*

file  
BROOKLINE POLICE DEPARTMENT  
BROOKLINE, MASS.

TIME:

DATE: August 24, 1962

CASE OF: Old Rivers School Building

ADDRESS: 460 Heath St.

NATURE OF CASE: Malicious Damage

OFFICER ASSIGNED:

J.  
Ptl. Thomas F. FAY

On August 20, 1962, on memo from Capt. Carroll, requesting this officer examine the Old Rivers School Building, relative to malicious damage of the building there.

Examination by this officer - I found about fifty windows broken, many windows boarded up by paper have been smashed thru with stones, the cement balustrade railing around the building had been damaged and tipped over. The inside was examined this spring by this officer and at that time the ceilings had fallen due to no heat in the building. The above damage has been previously reported & has happened over a long period of time.

Respectfully submitted,

Ptl. Thomas J. FAY

*Pat. Thomas J. Fay*

✓  
Copy to Building and Recreation Depts.

BROOKLINE ENGINEERING DEPARTMENT

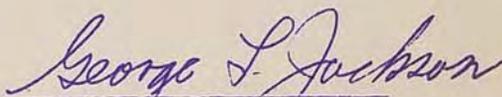
January 9, 1963

To All Departments:

The following street number has been assigned  
as of to-day:

Soule Recreation Center  
652 Hammond Street  
Brookline, Mass.

(Postal Zone)  
Chestnut Hill 67, Mass.

---

George L. Jackson  
Asst. Town Engineer

Board of Selectmen  
Assessors  
Building  
Comptroller  
Engineering  
Fire  
Health  
Highway  
Library  
Park and Forestry  
Police  
Purchasing  
Recreation  
School  
Town Clerk  
Treasury  
Veterans' Services  
Water  
Welfare  
Planning Board

Post Office

RECOMMENDED - James J. Brown & Son

Stock Room in Basement

1. Installation of shelves and counters; stain, shellac and varnish the same.
2. Install bars on 4 windows and door as security measure.
3. Install locks and bolts on 3 doors.
4. Install wall to prevent access from Park Department store room.

Estimated cost ..... \$1,600.00

Pazolt Sign Company

1. Resurface and relocate sign on front door of gym to Soule.
2. Construct and install:
  - a. 2 double face signs "Brookline Recreation Department Office" plus arrow.
  - b. 1 sign "Office" plus arrow.

Cost ..... \$ 195.00

January 7, 1963

1963

EXPENSES INCURRED AND RECOMMENDED FOR ALTERATIONS TO THE SOULE  
RECREATION CENTER RELATIVE TO THE RELOCATION OF THE  
RECREATION DEPARTMENT OFFICES AND STOCK ROOM

*file  
done  
This was  
in connection with Gym Fire  
not charged to Bldg Dept*

INCURRED

1. New England Telephone & Telegraph Company  
A. Installation of telephone poles ..... \$ 300.00

2. James J. Brown & Son  
A. Alterations to recreation room for main office:  
1. Installation of wall and door to break one room into two; painting of same.  
2. Installation of shelves.  
3. Installation of counter and gate.  
4. Staining and varnishing of counter.  
5. Alterations to Morning Play room to provide office for Assistant Superintendent which includes installation of wall, door and transom and painting of same.  
Estimated cost ..... \$1,000.00

3. Ben Steverman  
A. Installation of electric outlets, switches, light and buzzer:  
1. 4 double plugs and one switch in main office.  
2. Wall plug, relocation of switches in Assistant Superintendent's office.  
3. Buzzer and overhead fluorescent light in Superintendent's office.

Cost ..... \$ 300.00

4. Installation of emergency lights in gym stock room in order to relocate supplies from gym to Soule ..... \$ 25.00

January 15, 1963

Mr. Arthur A. O'Shea  
Soule Recreation Centre

Robert J. Stewart

In reference to the comments made by the contractor regarding the installation of urinals at the Soule Recreation Centre, it is advised the work was done at one-third the cost he submitted.

This contractor refused to install the urinals and flush valves which were taken from the old mansion at the Rivers School. There are probably a dozen of these fixtures in the building with their flush valves in usable condition, two of which were used on this job.

This work was ordered because it was practical and is permitted under the Plumbing Code, Article 21, Section 2101a.

Very truly yours,

Robert J. Stewart  
Building Commissioner

RJS:n

PLUMBING and HEATING  
MATERIALS

ANTIQUE OLD PINE  
BOARDS, DOORS  
and MANTELS

MANTELS, MARBLE  
and WOOD

GARDEN CENTER

# John J. Duane Co., Inc.

## BUILDING WRECKING

All Kinds New SALVAGE BUILDING MATERIALS For Sale

Estimates Furnished Anywhere : References, Licensed, Bonded

600 SOUTHERN ARTERY  
QUINCY, MASSACHUSETTS

Phone PResident 3-6030

IRON RODS - I BEAMS  
GIRDERS - IRON PIPE  
FITTINGS - STEPS  
WINDOWS - LUMBER  
FIREWOOD - DOORS  
RADIATORS - VALVES  
PANELLING - BRICK  
STAIRS - SLATE

February 8, 1963

*file*

Town of Brookline  
329 Washington Street  
Brookline, Massachusetts

Attention: Mr. Stewart, Building Dept.

Gentlemen:

Following herewith our proposal relative the demolition work to be done at the River School, Hammond and Heath Streets, Brookline, Massachusetts.

We will demolish the large main building to ground level for the sum of four thousand two hundred fifty (\$4,250.00) dollars.

We will demolish the greenhouse, adjacent to the large building, to ground level for the sum of six hundred seventy-five (\$675.00) dollars.

Both basements will be filled to surrounding ground level. All tools, machinery, labor, and trucking necessary to properly execute the work will be supplied by our firm.

All salvaged materials obtained from the demolition work will become our property and will be removed from the site.

We are fully insured with the American Mutual Liability Insurance Company of Boston, Massachusetts: ie: workmens' compensation, public liability and property damage. Certificates of said insurance will be furnished upon request.

Very truly yours,  
JOHN J. DUANE COMPANY, INC.

*Herbert T. Duane*  
Herbert T. Duane  
President

HTD:jmd

March 27, 1963

Mr. James Lynch

Fire extinguishers - Eliot and Soule Recreation Buildings

Eliot Recreation Building - Provide one C. O. 2 foam type fire extinguisher in the kitchen and two - two and one half gallons soda and acid fire extinguishers, one on each side of the room.

Soule Recreation Building - Provide three additional two and one half gallon soda and acid fire extinguishers - one to be located in each room.

The extinguishers are to be purchased by the Recreation Department and installed by the Building Department.

Very truly yours,

Robert J. Stewart  
Building Commissioner

RJS/GFC/h

MEMORANDUM

Date March 19, 1963

To: Robert J. Stewart

From George F. Carlisle

Re Soule Recreation Building

652 Hammond Street

Provide second means of egress between corridor and Soule Room #2 to outside. This would provide a second means of egress from this classroom and a connecting rear stairway from the second floor leading directly to the outside.

The above room is located one story above grade level.

Other classrooms are at grade level.

Provide three additional two and one half gallon soda and acid fire extinguishers.

Alternative: Sprinkler system.

*GFC.*

---

George F. Carlisle

*file*

*Michael Collins*  
Carpenter and House Builder  
30 DAVIS AVENUE  
BROOKLINE 46, MASSACHUSETTS

March 28, 1963

Mr. R.J. Stewart,  
Building Commissioner,  
Town Hall,  
Brookline, Mass.

Dear Sir,

I am pleased to quote price for work at Soule Recreation Building

Build two new dry wells and dig trench by side of foundation  
80 ft. long, 3 ft. deep, 2 ft. wide. Fill in with 18" gravel  
remainder with reinforced concrete pitching away from building.  
All excessive fill to be removed.

This work will cost \$700.00

Very truly yours

*Michael Collins*

Michael Collins

#  
1 Has out final plans Under  
2 Park Com satisfied on approval  
3 Submission plans to BC  
with all present  
for final approval

October 14, 1963

Mr. James J. Lynch  
Soule Recreation Building  
652 Hammond Street

Robert J. Stewart

Provide second means of egress between corridor and Soule Room #2 to outside. This would provide a second means of egress from this classroom and a connecting rear stairway from the second floor leading directly to the outside.

The above room is located one story above grade level.

Other classrooms are at grade level.

Provide three additional two and one half gallon soda and acid fire extinguishers.

Alternative: Sprinkler system.

Very truly yours,

Robert J. Stewart  
Building Commissioner

RJS/h

*Revised  
Oct 23 63*

October 23, 1963

Mr. James J. Lynch, Superintendent  
Recreation Division  
Brookline Park and Recreation Commission  
652 Hammond Street  
Chestnut Hill 67, Massachusetts

Dear Mr. Lynch:

After further inspection of the buildings at Soule Recreation Building, 652 Hammond Street; Recreation Building, 133 Eliot Street; Brookline Avenue Recreation Building, 599 Brookline Avenue; it is concluded that these buildings have sufficient and accessible egress for use as Day Care Centers and do not require sprinkler equipment.

The three memoranda to Mr. James Lynch dated October 14, 1963, are, therefore, rescinded.

Very truly yours,

Robert J. Stewart  
Building Commissioner

RJS/h

Copy to:

Dr. Leon J. Taubenhau

Mr. Arthur A. O'Shea

December 3, 1963

Augustus W. Soule, Chairman  
Park and Recreation Commission  
329 Washington Street  
Brookline, Massachusetts

Dear Sir:

The letter of November 22, 1963 concerning low water pressure at the Soule Recreation Center has been received and noted.

It is factual that the water service at the above is inadequate both from a standpoint of fire protection and use of the building plumbing.

An item for providing a six-inch water main with a hydrant located near the building is included in the Repairs to Public Buildings budget for 1964.

Since Town Meeting approves the budget, it can not be expected that this work will proceed before May, 1964.

Yours very truly,

Robert J. Stewart  
Building Commissioner

RJS/w

cc: Board of Selectmen



TOWN of BROOKLINE  
*Massachusetts*

PARK and RECREATION COMMISSION

Augustus W. Soule, Chairman  
William B. Hickey, Vice-Chairman  
F. Gregg Bemis  
Thomas P. Kendrick, M.D.  
Frank T. Lally  
Milton Linden  
Henry W. Minot

Daniel W. Warren, Jr.  
Superintendent of Parks  
BE 2-9000

James J. Lynch  
Superintendent of Recreation  
RE 4-1160

November 22, 1963

Mr. Robert J. Stewart  
Building Commissioner  
329 Washington Street  
Brookline, Massachusetts

Dear Mr. Stewart:

At a meeting of the Park and Recreation Commission held on November 19th, it was called to our attention that the water pressure at the Soule Recreation Center, both in the main building and in the gymnasium, is very low.

As you probably know, there are seven or eight shower heads at the gymnasium and if more than one is turned on there is only a trickle of water out of any of them which makes it necessary for us to limit the use of the gymnasium for any activities which require showers, both for men and women.

Because of the low pressure in the main building, although the toilets can be flushed once, it takes a very long time to fill the tank which is a great annoyance and probably a health factor.

Finally, because of the low pressure, we feel that the fire protection in both buildings is a serious situation and for this reason we would strongly urge the Building Department to take whatever steps as soon as possible which may be necessary to correct the situation.

Sincerely yours,

Augustus W. Soule, Chairman  
Park and Recreation Commission

AWS:c

cc: Board of Selectmen

## PARK DEPARTMENT

Date June 21, 1963

## INTER-DEPARTMENTAL MEMORANDUM

From Daniel W. Warren, Jr., Supt.

To Robert Stewart  
Building Commissioner

*fill*

I have understood from my discussion with you concerning the demolition of the buildings at Soule Recreation Center that nothing but solid material would be used in filling the areas in after the demolition of the building.

On June 19, 1963, I observed exceptionally poor quality material such as timbers and all kinds of wood and building materials which in my opinion are exceptionally poor to be used in any fill operation.

If this is allowed to beman, it is going to cause considerable trouble for the use of the area for any purpose. All this material has been camouflaged by using existing loam on the playground for covering up the poor quality fill.

I do hope that something can be done about this before this demolition work will be accepted.

I also call to your attention as was reported by phone to your office, damage done to our chain link fence by the contractor. An estimate of repair will follow.

D. W. Warren, Jr.

February 4, 1964

Mr. Robert J. Stewart

Walter Carroll

Nursery Schools

Eliot School - 137 Eliot Street - Inspection reveals two 30 amp fuses in 15 amp circuits. Recommend a new panel and fuses of type S on all circuits.

Soule Center - 652 Hammond Street - Receptacle plate needed in small office. Fluorescent light in hall and mail office should be wired with approved wiring and proper fitting be used entering fixtures.

WC:n

April 12, 1972

The Health Department

Frederick E. Wegner

Soule Recreation Center  
652 Hammond Street

The building at 652 Hammond Street, Brookline, in which day care services for children are provided, complies with Section 49, Chapter 143 of the General Laws as having safe means of egress, adequate means of preventing the spread of fire and necessary equipment for extinguishing fire.

Frederick E. Wegner  
Building Commissioner

FEW:WCB:m

April 12, 1972

Shephard N. Cohen, Acting  
Director of Public Health  
Brookline, Massachusetts

Dear Mr. Cohen:

Inspection has been made of the Soule Recreation Center, 652  
Hammond Street, Brookline in regard to the application for a renewal  
of license to maintain a day care service for children.

The electrical installations were found to be safe and in  
operable condition.

Very truly yours,

Frederick E. Wegner  
Building Commission

FEW:WFC:m

October 26, 1970

Henry M. Greenleaf, M. D.  
Director of Public Health  
11 Pierce Street  
Brookline, Mass.

Dear Dr. Greenleaf:

Inspection has been made of the Soule Recreation Center, 652  
Hammond Street, Brookline in regard to the application for a license  
to maintain a day care service for children.

The electrical installations were found to be safe and in  
operable condition.

Very truly yours,

Robert J. Stewart  
Building Commissioner

RJS:WFC:m

October 26, 1970

Health Department

Robert J. Stewart

Soule Recreation Center

652 Hammond Street

The building at 652 Hammond Street, Brookline in which day care services for children are provided, complies with Section 49, Chapter 143 of the General Laws as having safe means of egress, adequate means of preventing the spread of fire and necessary equipment for extinguishing fire.

Robert J. Stewart  
Building Commissioner

RJS:WCB:m

# PARK DEPARTMENT

Date March 14, 1967

## INTER-DEPARTMENTAL MEMORANDUM

To Mr. Robert Stewart  
Building Commissioner

From Daniel W. Warren, Jr., Supt.

I am enclosing herewith copy of our Park Police report noting how vandals gained entrance to Soule Recreation Center.

May I request that this mail slot be removed and that the door be boarded properly to make it more difficult to gain entrance.

I hereby request that all locks be changed in all outside doors at the Eliot Recreation Center.

*D. W. Warren Jr.*

Superintendent of Parks and Forestry

March 17, 1967

Daniel W. Warren, Jr.

Robert J. Stewart

Eliot and Soule Recreation Buildings

In reply to memorandum of March 14, 1967 it is advised arrangements have been made to remove mail slot on Soule Recreation Center office door, and to install metal shields on door slots to prevent "picking" of locks at the Eliot Recreation Center.

Not mentioned in the report is the fact that the rear gym railing at Soule Recreation was knocked down and used as a battering ram to cave in the windows and window frames in the rear of the gym. Entry was gained once before by using the rail of the ranch type fence to force the screening and windows of the Center.

Locks are not the final answer in securing these Recreation Centers.

RJS:JEM:C  
C:JM

Robert J. Stewart  
Building Commissioner

RECEIVED  
PARK DEPARTMENT BROOKLINE PARK POLICE  
BROOKLINE, MASSACHUSETTS

MAR 13 2 34 PM '67

TO: DANIEL W. WARREN, JR.  
SUPERINTENDENT OF BROOKLINE  
PARKS & FORESTRY

*See to and  
copy to Mr. Warren*

COPY TO: Park  
DATE: March 12, 1967  
CASE OF: Spule Recreation Center  
ADDRESS:  
NATURE OF CASE: Vandalism

TIME: 12:00 noon on Mar 11  
to 2:00 P M Mar. 12  
OFFICER ASSIGNED:  
MacRae and T. Curtin

DETAILS:

Area was checked on both days and windows were noticed as to have been broken. Building was locked at 2:00 P M and checked at 9:30 P M by Officer Clancy. A call from Miss Kirrane on the Morning of the 13th proved that entry was gained by removing letter slot on the door and a hand reached in to unlock same. No damage in the building except muddy foot prints on top of Pool Tables. Windows that were broken were on the basement side. We have requested the building department to cover these windows with some type of screening some time ago. We have also requested that mail slot on door be covered or filled and locks to be changed on this building and Eliot Recreation Center.

Respectfully submitted:

*Edward D. MacRae*  
Edward D. MacRae PP

March 16, 1976

Commercial Union Assurance Companies  
One Beacon Street  
Boston, Massachusetts 02108

Att: Mr. Morgan D. MacLeod

Gentlemen:

Thank you for your letter of March 10, 1976 concerning work  
recommendations in the boiler room at the Scule Recreation Center,  
652 Hammond Street, Brookline.

This is to inform you that the leaks in the return line and some  
valve have been repaired.

Yours very truly,

Royce E. Beatty  
Building Commissioner

REB:JMN

TRANSMITTAL SLIP

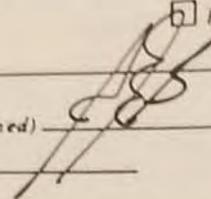
Date 3.10.76

To Jim

Companies

BETTS 02108

- For your information
- For your comments
- Please handle
- For signature
- Please follow-up
- Please check
- Please take up with me
- Please call me
- For your approval
- For your file
- Please return to file
- Please rush
- Please return
- Please Phrase Response

(Signed) 

DATE RETURNED \_\_\_\_\_

Brookline, Mass. 02146

March 10, 1976

Dear Mr. Wegner:

Location: Soule Recreation Ctr.  
 652 Hammond St.  
 Brookline, Mass.  
 #S8148 C.I.S. BOILER  
 Policy #: BMCB-J-5079-37

We, in the Commercial Union Assurance Companies, are presently affording you protection under the above numbered policy.

In our efforts to assist you in your responsibility toward accident prevention, we submit the following recommendations:

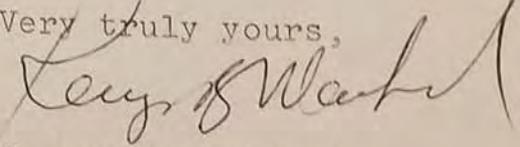
#76-1. The leaking overhead steam zone valve should be repaired or replaced.

#76-2. The leaking nipple on the 2" return line should be repaired or replaced.

Your compliance with the above and reply will be appreciated.

If we can be of further service in this matter, please feel free to call upon us.

*Jim 3/19/76*  
*Follows of 60228CF.*

Very truly yours,  
  
 Kenyon B. MacLeod  
 Assistant Manager  
 Boston Metropolitan  
 Loss Prevention Department

KBM:kd  
 cc: Deland, Gibson, Meade & Gale, Inc.

May 5, 1981

Royce E. Beatty

Richard T. Leary

652 Hammond Street  
Children's Cooperative Day Care Center  
(Your memo dated May 4, 1981)

We have reviewed the proposal of the Children's Cooperative Day Care Center to relocate to the Soule Recreation Center, 652 Hammond Street, a Town owned facility.

The Zoning By-Law Section 4.30, Use 15, does not permit the proposed use in a single family Residence District.

Accordingly, a variance from this section by the Board of Appeals would be required.

An inspection of the building disclosed that the space being considered by the Center would comply with the applicable requirements of the Building Code.

Building Commissioner

REB:h



**Commercial Union Assurance Companies**

BOSTON METROPOLITAN BRANCH  
ONE BEACON STREET, BOSTON, MASSACHUSETTS 02108

Mr. Frederick Wegner, Bldg. Commissioner  
Town of Brookline  
329 Washington Street  
Brookline, Mass. 02146

April 12, 1976

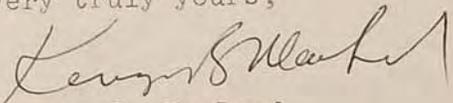
Dear Mr. Wegner:

Location: Soule Recreation Ctr.  
652 Hammond Street  
Brookline, Mass.  
#S8148 C.I.S. BOILER  
Policy #: BMCB-J-5079-37

Please refer to our letter of March 10, 1976.

We would appreciate your advising this office as to what action has been taken relative to complying with our recommendations.

Very truly yours,

  
Kenyon B. MacLeod  
Assistant Manager  
Boston Metropolitan  
Loss Prevention Department

KBM:kd  
cc: Deland, Gibson, Meade & Gale, Inc.

File

Location, Ownership and detail must be complete and legible.  
Seperate application required for every building.

No. 147

# Application for a Permit for Alterations, etc.

Brookline, May 21, 19 93

To the BUILDING COMMISSIONER:

The undersigned applies for a permit to Tear down the following described building—  
 Location, 652 Hammond Street (Soule Recreation Buildings)  
 Name of owner, Town of Brookline Address, 329 Washington Street, Brookline  
 Name of mechanic, ROBERT LAZARO Address, 145 Prospect Street, Waltham  
 Name of architect, \_\_\_\_\_ Address, \_\_\_\_\_  
 Estimated cost of alterations, etc., \$ 2,660.00 Material, \_\_\_\_\_  
 Size of building, No. feet front, \_\_\_\_\_; feet rear, \_\_\_\_\_; feet deep, \_\_\_\_\_; No. of stories, \_\_\_\_\_  
 Size of lot, \_\_\_\_\_feet long; \_\_\_\_\_feet wide; \_\_\_\_\_feet high; No. of stories, \_\_\_\_\_; roof, \_\_\_\_\_  
 No. of feet in height from sidewalk to highest point of roof, \_\_\_\_\_  
 Style of roof, \_\_\_\_\_ Material of roofing, \_\_\_\_\_  
 Material of foundation, \_\_\_\_\_ Distance from line of street, \_\_\_\_\_ inches.  
 Thickness of external walls, \_\_\_\_\_ inches; Thickness of party walls, \_\_\_\_\_ inches.  
 How is the building occupied? "The Mansion" & "The Skate House" For what purpose built? same  
 If a dwelling, by how many families? \_\_\_\_\_ No. of stores in lower story? \_\_\_\_\_  
 Hoistways and elevators? \_\_\_\_\_ How protected? \_\_\_\_\_

## DETAIL OF PROPOSED ALTERATIONS, ETC.

Tear down "Mansion" and "Skate House"

### IF EXTENDED ON ANY SIDE

Size of extension, No. of feet long \_\_\_\_\_; No. of feet wide \_\_\_\_\_; No. of feet above sidewalk \_\_\_\_\_  
 No. of stories high \_\_\_\_\_; Style of roof \_\_\_\_\_; Material of roofing \_\_\_\_\_  
 Of what material will the extension be built? \_\_\_\_\_ Foundation, \_\_\_\_\_  
 If of brick, what will be the thickness of external walls? \_\_\_\_\_ inches; and party walls \_\_\_\_\_ inches.  
 Will the extension be placed within ten feet of the present, or proposed street line? \_\_\_\_\_  
 How will the extension be occupied? \_\_\_\_\_ Connection with main building? \_\_\_\_\_  
 Distance from surrounding buildings:—  
 Front, \_\_\_\_\_ feet; side \_\_\_\_\_ feet; rear, \_\_\_\_\_ feet.  
 What distance from the lines of adjoining lots will it be placed? \_\_\_\_\_  
 Cubic contents of addition \_\_\_\_\_ feet.

### IF MOVED, RAISED, OR BUILT UPON

No. of stories high of \_\_\_\_\_ when moved, raised, or built upon \_\_\_\_\_ Proposed foundation \_\_\_\_\_  
 No. of feet high from level of ground to highest part of roof? \_\_\_\_\_  
 Distance from surrounding buildings:—  
 Front, \_\_\_\_\_ feet; side \_\_\_\_\_ feet; rear, \_\_\_\_\_ feet.  
 Distance back from line of street, \_\_\_\_\_ Distance from nearest line of lot, \_\_\_\_\_  
 Will the roof be flat, pitch, hip, or mansard? \_\_\_\_\_ What will be material of roofing? \_\_\_\_\_  
 How many feet will the external wall be increased in height? \_\_\_\_\_  
 How many feet will the party walls be increased in height? \_\_\_\_\_  
 How will the building be occupied after alteration? \_\_\_\_\_

### IF ANY OF THE EXTERNAL OR PARTY WALLS ARE REMOVED

Will an opening be made in the party or external walls? \_\_\_\_\_ on \_\_\_\_\_ story  
 What will be the size of the opening? \_\_\_\_\_ feet wide; \_\_\_\_\_ feet high.  
 How will the remaining portion of the wall be supported? \_\_\_\_\_  
 If by iron or stone lintels, give size, \_\_\_\_\_ inches.  
 If iron columns are used, give diameter, \_\_\_\_\_ inches; and thickness of shell, \_\_\_\_\_ inches.  
 If brick piers are used, give size, \_\_\_\_\_ inches.

Fee NO FEE

Receipt No.

License No. H-Kenn. Tol. # 598 (Over)

IF THE BUILDING IS TO BE OCCUPIED FOR A TENEMENT OR LODGING HOUSE

How many families will occupy each floor? ..... Whole number? .....  
What is the distance from surrounding buildings? ..... feet front; ..... feet side; ..... feet rear  
Number of water-closets provided? ..... Where located? .....  
Will all sleeping rooms open to the external air? ..... Is the street 20 feet wide? .....  
What will be the means of egress in case of fire? ..... If by escape, where located? .....  
Is the lower story to be used for business purposes? ..... Will the hall partition be built of brick? .....  
Heights of each story in the clear:— 1st, .....; 2nd, .....; 3rd, .....; 4th, .....; 5th, .....; 6th, .....

4 257

WILL THE BUILDING CONFORM TO THE REQUIREMENTS OF LAW?

Name Robert Lazaro  
Address 145 Pleasant St Wal  
Tel. No. TW-3-1930

MEMORANDA

5/27/63 W.C.B.  
Substantiated - 6-19-63

NOTICE OF APPLICATION

SENT TO:

- Assessors
- Engineering
- Fire
- Health
- Highway
- Police
- Town Clerk
- Water
- Planning Board
- Date May 22, 1963

No. 147

APPLICATION FOR PERMIT FOR REPAIRS, ALTERATIONS, ETC.

LOCATION

No. 652 Hammond Street  
Town of Brookline  
Robert Lazaro

PERMIT GRANTED

May 22, 1963  
3,660.

Unless building operations are started within six months, four (4) walls are to be removed to grade and excavation filled.

LC n/w/m/m/24 29  
FH

APPLICATION FOR CERTIFICATE OF INSPECTION

DATE: July 1, 2010

IN ACCORDANCE WITH THE PROVISIONS OF THE MASSACHUSETTS STATE BUILDING CODE, SECTION 106.5, I HEREBY APPLY FOR A CERTIFICATE OF INSPECTION FOR THE BELOW NAMED PREMISES LOCATED AT THE FOLLOWING ADDRESS:

LOCATION 652 Hammond Street

NAME OF PREMISES Soule Rec Center

CERTIFICATE TO BE ISSUED TO Charles Simmons, Director of Public Buildings

ADDRESS 333 Washington Street, Town Hall, Brookline MA 02445

OWNER OF RECORD OF BUILDING The Town of Brookline TELEPHONE # 617-730-2420

ADDRESS Town Hall, 333 Washington Street, Brookline, MA 02445

NAME OF PRESENT HOLDER OF CERTIFICATE Town of Brookline

NAME OF AGENT, IF ANY \_\_\_\_\_ TELEPHONE # \_\_\_\_\_

SIGNATURE OF PERSON TO WHOM CERTIFICATE IS ISSUED OR AUTHORIZED AGENT \_\_\_\_\_

Charles A. Simmons  
Director of Public Buildings

LICENSE(S) OR PERMIT(S) REQUIRED FOR THE PREMISES BY OTHER GOVERNMENT AGENCIES: \_\_\_\_\_

**INSTRUCTIONS:** MAKE CHECK PAYABLE TO TOWN OF BROOKLINE. RETURN THIS APPLICATION WITH YOUR CHECK TO THE BUILDING DEPARTMENT, TOWN HALL, 333 WASHINGTON STREET, BROOKLINE, MA 02446.

**NOTE:** APPLICATION FORM WITH ACCOMPANYING FEE MUST BE SUBMITTED FOR EACH BUILDING OR STRUCTURE OR PART THEREOF TO BE CERTIFIED. APPLICATION AND FEE MUST BE RECEIVED BEFORE THE CERTIFICATE WILL BE ISSUED. THE BUILDING OFFICIAL SHALL BE NOTIFIED WITHIN TEN (10) DAYS OF ANY CHANGE IN THE ABOVE INFORMATION.

FEE: \_\_\_\_\_ RECEIPT: \_\_\_\_\_ CERTIFICATE # \_\_\_\_\_ ISSUED: \_\_\_\_\_

OK 6/8/10



All work hereafter performed must be tested by water pressure, and the Commissioner must be notified when soil, drain pipe, and all connections therewith are placed in position.

No. 175

#652 Application for Permit to do Plumbing

Brookline, May 10, 1968

PLUMBING INSPECTOR:  
To the BUILDING COMMISSIONER

- The undersigned hereby applies for a permit to perform Plumbing work according to the following specifications:
1. Location, 675 Hammond St - South Recreation Centre
  2. Nearest cross street, Boylston
  3. Name of Owner? Beline Bldg. Co. of Lowell St N BK
  4. Name of Plumber? James J. O'Boyle " 2 White Place BK Plumber's registered NO. 7055
  5. Material of Building? Brick New or Old?
  6. What was building last used for? Same Number of stores?
  7. How many families? Recreation Center

NATURE OF PROPOSED PLUMBING IN DETAIL

	Waterclosets	Lavatories	Bath Tubs	Shower Baths	Sinks	Wash Trays	Pressure Boilers	Other Fixtures
Sub-Basement . . . . .								
Basement . . . . .								
First Story . . . . .								Install service sink in boys room
Second Story . . . . .								
Third Story . . . . .								
Fourth Story . . . . .								
Fifth Story . . . . .								
Sixth Story . . . . .								
Seventh Story . . . . .								
Eighth Story . . . . .								
Totals . . . . .								

All pipes must be located at least three inches from electric wires

Location, ownership and detail must be complete and legible. Separate application required for every building.

Note: . . . . .

Note. — Mark here by X whether  
 New Plumbing . . . . .  
 Alteration in Plumbing . . . . .  
 Estimated Cost, \$ 200.00

[Signature of Master Plumber.]  
 James J. O'Boyle  
 [ADDRESS] 2 White Place Brookline  
 Plumber's Telephone No. 566-4465

PLUMBER MUST RECEIVE A PERMIT BEFORE COMMENCING WORK  
 Change of address must be recorded in this Department

Fee none Receipt No. . . . .

652 Hammond St.

# TOWN OF BROOKLINE

## Building Department

### Application for Electric Permit

No. 120  
19 71

To the Inspector of Wires  
 The undersigned hereby applies for a permit to install electric wiring according to the following specifications:

Brookline, Mass. March 15, 19 71

1. Street and No.? 652 HAMMOND STREET, BROOKLINE, MASS.
2. Old or New Building? Old Purpose of Building? Soule Res
3. Owner? City of Brookline Address?
4. Electrical Contractor: ATLAS ALARM CORPORATION Address: 1239 Washington St., E. Weymouth, Mass.
5. How many families or other occupants? None
6. Are fixtures which are to be installed ADDITIONAL or REPLACEMENT

#### PROPOSED FIXTURES IN DETAIL

Location of Room	Light Outlets	Sw.	Plugs	Fixt.	Location of Room	Light Outlets	Sw.	Plugs	Fixt.

No. of Outlets	Air Cond. (Rating - Amperes)
No. of Fixtures	Range Name plate rate
No. of Motors	Water Heater Name plate rate
No. of signs	Clothes Dryer Name plate rate
Hot Air - Motor and Size	Total Load
Gas Motors and Size	Size of main Entrance Sw. <u>New?</u> <u>Existing?</u>
Electric - KW Connected Load	Size of S. E. conductors
Hot Water - Motor & Size	Misc. <u>BURGLAR &amp; FIRE ALARM SYSTEMS</u>
Steam Motors & Size	

**ALL WORK HEREAFTER PERFORMED MUST BE TESTED AND THE INSPECTOR MUST BE NOTIFIED IN WRITING WHEN ALL CONNECTIONS ARE PLACED IN POSITION FOR ROUGH INSPECTION, AND THE INSPECTOR ALSO MUST BE NOTIFIED IN WRITING WHEN THE JOB IS COMPLETED.**

Application must be signed by an Electrician only.

Permit must be conspicuously posted on premises before work is commenced.

The above is subscribed to and executed by me under the penalties of perjury in accordance with G. L. 268, Section 1A, as most recently amended.

Signature: Paul M Rich  
 Address: 239 Washington St., E. Weymouth, Mass.  
 Telephone Number: 337-1440

No. 120

**APPLICATION FOR PERMIT FOR  
ELECTRIC WORK**

**LOCATION**

SOUTH RECREATION CENTER &  
GYMNASIUM  
552 Hammond Street  
Brookline, Mass.  
Atlas Alarm Corp.

**PERMIT GRANTED**

March 17 1971

3,000

RECEIVED  
BUILDING DEPARTMENT  
TOWN OF BROOKLINE

MAR 17 10 20 AM '71

MEMORANDA

OK  
JHE  
3/17/71

*OK W*

No. .... 28 .....  
**APPLICATION FOR PERMIT  
TO DO PLUMBING**

**LOCATION, ETC.**

No. .... 652, Hammond Street .....  
Owner .... Town of Brookline .....  
Plumber .... W. MacQuoid .....

**PERMIT GRANTED**

..... Jan. 27 ..... 19.. 66

Brookline, ..... 19.....  
Approved,

*Commissioner*

Completed ..... 19.....  
Cost \$ .....

**MEMORANDA**

*2/23*  
*[Signature]*

RECEIVED  
BUILDING DEPARTMENT  
JAN 26 9 39 AM 1966  
BROOKLINE

All work hereafter performed must be tested by water pressure, and the Commissioner must be notified when soil, drain pipe, and all connections therewith are placed in position.

No. 28

# Application for Permit to do Plumbing

Brookline, JAN. 21 1966

To the BUILDING COMMISSIONER:

The undersigned hereby applies for a permit to perform Plumbing work according to the following specifications:

1. Location, 652 HAMMOND ST
- Nearest cross street, BOYLSTON
- Name of Owner? SOULS REC. TOWN Address, TRENTON HALL
- Name of Plumber? W. J. MACQUEID " 28 ST. MARYS CT
- Material of Building? STUCCO New or Old? old Plumber's registered No. 4613
- What was building last used for? SCHOOL
- How many families? NONE Number of stores? NONE
- What is building to be occupied for? TELEPHONE FACILITY

## NATURE OF PROPOSED PLUMBING IN DETAIL

	Waterclosets	Lavatories	Bath Tubs	Shower Baths	Sinks	Wash Trays	Pressure Boilers	Other Fixtures
Sub-Basement								
Basement								
First Story								
Second Story								
Third Story								
Fourth Story								
Fifth Story								
Sixth Story								
Seventh Story								
Eighth Story								
Totals								

Location, ownership and detail must be complete and legible. Separate application required for every building.

All pipes must be located at least three inches from electric wires

REPLACING LEAKY ELECTRIC WATER STORAGE HEATER WITH NEW 120 GALLON STONE LINED

Note: .....

Note. — Mark here by X whether  
 New Plumbing .....  
 Alteration in Plumbing X .....  
 Estimated Cost, \$.....

[Signature of Master Plumber.]  
W. J. MacQuaid  
 [ADDRESS] 28 St. Marys Ct.  
 Plumber's Telephone No. AS 7-2730

PLUMBER MUST RECEIVE A PERMIT BEFORE COMMENCING WORK  
 Change of address must be recorded in this Department

Fee NO FEE Receipt No. ....

MASSACHUSETTS UNIFORM APPLICATION FOR PERMIT TO DO PLUMBING  
(Print or Type)

no fee

R 20435



Brookline  
Needham, Mass.

Date APRIL 14 19 97

City, Town

Permit # 971994  
Owner's

Building  
AT: Location 652 HAMMOND ST

Name TOWN OF BROOKLINE

Type of Occupancy: REC. CENTER

**P**

New  Renovation  Replacement

Plans Submitted: Yes  No

**FIXTURES**

	WATER CLOSETS	KITCHEN SINKS	LAVATORIES	BATH TUBS	SHOWER STALLS	DISH WASHERS	DISPOSERS	LAUNDRY TRAYS	WASH. MACH. CONN.	HOT WATER TANKS	TANKLESS	SLOP SINKS	FLOOR DRAINS	GAS TRAPS	URINALS	DRINKING FOUNTAIN	AREA DRAIN	WATER PIPING	ROOF DRAINS	BACKFLOW PREV.	OTHER FIXTURES:	
SUB-BSMT.																						
BASEMENT																						
1ST FLOOR																						
2ND FLOOR																						
3RD FLOOR																						
4TH FLOOR																						
5TH FLOOR																						
6TH FLOOR																						
7TH FLOOR																						
8TH FLOOR																						

(Print or type)

Installing Company Name MCDONNELL P.L.H.

Check One: Certificate

Address 9 PROSPECT ST

Corp.

NEEDHAM MASS 0219

Partnership

Firm/Company

I have informed the owner or his agent that I do not have liability insurance, including completed operations coverage.

Signature of Owner/Agent \_\_\_\_\_

I have a current liability insurance policy to include completed operations coverage.

I hereby certify that all of the details and information I have submitted (or entered) in above application are true and accurate to the best of my knowledge and that all plumbing work and installations performed under Permit issued for this application will be in compliance with all pertinent provisions of the Massachusetts State Plumbing Code and Chapter 142 of the General Laws.

Name of Licensed Plumber

FRANCIS MCDONNELL

Francis McDonnell  
Signature of Licensed Plumber

Type of Plumbing License

7916  
License Number

Master  Journeyman

Business Telephone 444-7043

MASSACHUSETTS UNIFORM APPLICATION FOR PERMIT TO DO GASFITTING  
(Print or Type)

NO fee  
R 20436



BROOKLINE, Mass.  
City, Town

Date APRIL 14 19 97

Permit # 971995

AT: Location 652 HAMMOND ST

Owner's Name TOWN OF BROOK

Type of Occupancy: REC CENTER

**G**

New  Renovation  Replacement   
Plans Submitted Yes  No

	RANGES	HEATER RANGES	OVENS	GRILLES	HEATING BOILERS	FURNACES	UNIT HEATERS	WATER HEATERS	DRYERS	GAS GENERATORS	LABORATORY COCKS	CONVERSION BURNERS	ROOF TOP UNITS	VENTED ROOM HTRS.	DIRECT VENT HTRS.	POOL HEATERS	TESTS	OTHER
SUB-BSMT.																		
BASEMENT																		
1ST FLOOR																		
2ND FLOOR																		
3RD FLOOR																		
4TH FLOOR																		
5TH FLOOR																		
6TH FLOOR																		
7TH FLOOR																		
8TH FLOOR																		

(Print or type)

Installing Company Name MCDONNELL P&L

Check One: Certificate

Address 9 PROSPECT ST.

Corp.

Partnership

NEEDHAM MASS 02192

Firm/Company

I have informed the owner or his agent that I do not have liability insurance, including completed operations coverage.

Signature of Owner/Agent \_\_\_\_\_  
I have a current liability insurance policy to include completed operations coverage.

I hereby certify that all of the details and information I have submitted (or entered) in above application are true and accurate to the best of my knowledge and that all plumbing work and installations performed under Permit issued for this application will be in compliance with all pertinent provisions of the Massachusetts State Plumbing Code and Chapter 142 of the General Laws.

Name of Licensed Plumber \_\_\_\_\_

Francis P. McDonnell  
Signature of Licensed Plumber

Type of Plumbing License

7966  
License Number

Master  Journeyman

Business Telephone 444-7045



# The Commonwealth of Massachusetts

Department of Public Safety

BOARD OF FIRE PREVENTION REGULATIONS 527 CMR 12:00 3/90

Office Use Only

Permit No. 980327

Occupancy & Fee Checked

(leave blank)

## APPLICATION FOR PERMIT TO PERFORM ELECTRICAL WORK

All work to be performed in accordance with the Massachusetts Electrical Code, 527 CMR 12:00

(A FIRE ALARM PERMIT MUST BE OBTAINED FROM THE FIRE DEPT) Date 1/28/98  
City or Town of Brookline To the Inspector of Wires:

The undersigned applies for a permit to perform the electrical work described below.

Location (Street & Number) 652 Hammond St

Owner or Tenant Town of Brookline soule gym

Owner's Address \_\_\_\_\_

Is this permit in conjunction with a building permit: Yes  No  (Check appropriate box)

Purpose of Building \_\_\_\_\_ Utility Authorization NO. \_\_\_\_\_

Existing Service \_\_\_\_\_ Amps \_\_\_\_\_ Volts Overhead  Undgrd  No. of Meters \_\_\_\_\_

New Service \_\_\_\_\_ Amps \_\_\_\_\_ Volts Overhead  Undgrd  No. of Meters \_\_\_\_\_

Number of Feeders and Ampacity \_\_\_\_\_

Nature of Proposed Electrical Work wire control units + H.V.A.C

No. of Lighting Outlets	No. of Hot Tubs	No. of Transformers	Total KVA
No. of Lighting Fixtures	Above ground <input type="checkbox"/> In-ground <input type="checkbox"/>	Generators	KVA
No. of Receptacle Outlets	No. of Gas Burners	FIRE ALARMS PERMIT REQUIRED	
No. of Switch Outlets	No. of Gas Burners	FIRE ALARMS No. of Zones	
No. of Ranges	No. of Air Cond. _____ Total tons	No. of Detection and Initiating Devices	
No. of Disposals	No. of Heat Pumps _____ Total KW	No. of Sounding Devices	
No. of Dishwashers	Space/Area Heating _____ KW	No. of self contained Detection/Sounding Devices:	
No. of Dryers	Heating Devices _____ KW	Local <input type="checkbox"/> Municipal <input type="checkbox"/> Other <input type="checkbox"/>	
No. of Water Heaters _____ KW	No. of Signs _____ No. of Ballasts _____	Low Voltage Wiring	
No. Hydro Massage Tubs	No. of Motors _____ Total HP _____	NO. OF EMERG. LIGHTING BATTERY UNITS	
OTHER: _____			

INSURANCE COVERAGE: Pursuant to the requirements of Massachusetts General Laws I have a current Liability Insurance Policy including Completed Operations Coverage or its substantial equivalent. YES  NO  I have submitted valid proof of same to this office. YES  NO  If you have checked YES, please indicate the type of coverage by checking the appropriate box.

INSURANCE  BOND  OTHER  (Please Specify) \_\_\_\_\_

Estimated Value of Electrical Work \$ 1000 No fee (Expiration Date)

Work to Start 1/28/98 INSPECTION NOTICES: MUST CALL

Signed under the penalties of perjury:

FIRM NAME J.P. Electric LIC. NO. E 29165

Licensee John Poirier Jr Signature \_\_\_\_\_ LIC. NO. \_\_\_\_\_

Address 132 Foster St apt 1 Bus. Tel. No. \_\_\_\_\_ Alt. Tel. No. \_\_\_\_\_

OWNER'S INSURANCE WAIVER: I am aware that the Licensee does not have the insurance coverage or its substantial equivalent as required by Massachusetts General Laws, and that my signature on this permit application waives this requirement. Owner \_\_\_\_\_ Agent \_\_\_\_\_ (Please check one)

Telephone No. \_\_\_\_\_ PERMIT FEE \$ \_\_\_\_\_

(Signature of Owner or Agent) \_\_\_\_\_

MASSACHUSETTS UNIFORM APPLICATION FOR PERMIT TO DO PLUMBING



(Print or Type)

TOWN OF BROOKLINE, Mass. Date 2-11 19 91

Permit # 94

Building Location 652 HAMMOND ST

Owner's Name TOWN OF BROOKLINE

SOULB REC

New

Renovation

Replacement  FIXTURES

Plans Submitted: Yes  No

P

	WATER CLOSETS	KITCHEN SINKS	LAVATORIES	BATH TUBS	SHOWER STALLS	DISHWASHERS	DISPOSERS	LAUNDRY TRAYS	WASH. MACH. CONN.	HOT WATER TANKS	TANKLESS	SLOP SINKS	FLOOR DRAINS	GAS TRAPS	URINALS	DRINKING FOUNTAIN	ABEA DRAIN	WATER PIPING	ROOF DRAINS	BACKFLOW PREV.	OTHER FIXTURES:	
SUB-BSMT.																						
BASEMENT																						
1ST FLOOR																						
2ND FLOOR																						
3RD FLOOR																						
4TH FLOOR																						
5TH FLOOR																						
6TH FLOOR																						
7TH FLOOR																						
8TH FLOOR																						

Installing Company Name MCDONNELL PLUMBING & H.

Check one: Certificate

Address 9 PROSPECT ST

Corp.

WREED HAM MASS 02192

Partnership

Business Telephone 444-7045

Firm/Co.

Name of Licensed Plumber FRANCIS M MCDONNELL

INSURANCE COVERAGE:

I have a current liability insurance policy or its substantial equivalent. If you have checked yes, please indicate the type coverage by checking the appropriate box.

Check one: Yes  No

A liability insurance policy  Other type of indemnity  Bond

OWNER'S INSURANCE WAIVER: I am aware that the licensee does not have the insurance coverage required by Chapter 142 of the Mass. General Laws, and that my signature on this permit application waives this requirement.

Check one: Owner  Agent

Signature of Owner or Owner's Agent

I hereby certify that all of the details and information I have submitted (or entered) in above application are true and accurate to the best of my knowledge and that all plumbing work and installations performed under the permit issued for this application will be in compliance with all pertinent provisions of the Massachusetts State Plumbing Code and Chapter 142 of the General Laws.

By \_\_\_\_\_  
 Title \_\_\_\_\_  
 City/Town \_\_\_\_\_  
 APPROVED (OFFICE USE ONLY)

Francis M McDonnell  
 Signature of Licensed Plumber

License Number 7966

Type of Plumbing License: Master  Journeyman

1,000

see waiver

011  
N2  
12

BELOW FOR OFFICE USE ONLY

ES.

FEE \_\_\_\_\_

NO. 94

APPLICATION FOR PERMIT TO DO PLUMBING

652 Hammond St

NAME & TYPE OF BUILDING

LOCATION OF BUILDING

PLUMBER

McCormell Pls.

PERMIT GRANTED

DATE 2/15/19 81

PLUMBING INSPECTOR

33010



# The Commonwealth of Massachusetts

## Department of Public Safety

### BOARD OF FIRE PREVENTION REGULATIONS 527 CMR 1200

Permit No. 491802  
 Occupancy & Fee Checked \_\_\_\_\_  
 3/90 (leave blank)

# APPLICATION FOR PERMIT TO PERFORM ELECTRICAL WORK

All work to be performed in accordance with the Massachusetts Electrical Code, 527 CMR 12:00

(PLEASE PRINT IN INK OR TYPE ALL INFORMATION)

Date 4-28-99

City or Town of Brookline

To the Inspector of Wires:

The undersigned applies for a permit to perform the electrical work described below.

Location (Street & Number) Soup Recreation Center Oak St. - ~~Brookline School~~

Owner or Tenant Town of Brookline 62 Devonmore St ~~at Lincoln - Brookline High School~~

Owner's Address \_\_\_\_\_

Is this permit in conjunction with a building permit: Yes  No  (Check Appropriate Box)

Purpose of Building Offices - Classroom - Rec Center Utility Authorization NO. \_\_\_\_\_

Existing Service \_\_\_\_\_ Amps 1 Volts Overhead  Undgrd  No. of Meters \_\_\_\_\_

New Service \_\_\_\_\_ Amps 1 Volts Overhead  Undgrd  No. of Meters \_\_\_\_\_

Number of Feeders and Ampacity \_\_\_\_\_ 500

Location and Nature of Proposed Electrical Work 2nd Floor Rec Center Only - Very Minimal work @ 3 other schools

No. of Lighting Outlets <u>5</u>	No. of Hot Tubs <u>-</u>	No. of Transformers - Total KVA <u>-</u>
No. of Lighting Fixtures <u>40</u>	Swimming Pool Above grnd. <input type="checkbox"/> In-grnd. <input type="checkbox"/>	Generators - KVA <u>-</u>
No. of Receptacle Outlets <u>40</u>	No. of Oil Burners <u>-</u>	No. of Emergency Lighting Battery Units <u>2</u>
No. of Switch Outlets <u>15</u>	No. of Gas Burners <u>-</u>	FIRE ALARMS No. of Zones <u>1</u>
No. of Ranges <u>1</u>	No. of Air Cond. - Total tons <u>-</u>	No. of Detection and Initiating Devices <u>10</u>
No. of Disposals <u>0</u>	No. of Heat Pumps - Total Tons <u>-</u> - Total KW <u>20</u>	No. of Sounding Devices <u>2</u>
No. of Dishwashers <u>0</u>	Space/Area Heating <u>1</u> KW <u>10</u>	No. of Self Contained Detection/Sounding Devices <u>2</u>
No. of Dryers <u>0</u>	Heating Devices - KW <u>-</u>	Local <input type="checkbox"/> Municipal <input type="checkbox"/> Other <input type="checkbox"/>
No. of Water Heaters - KW <u>-</u>	No. of Signs <u>-</u> No. of Ballasts <u>-</u>	Low Voltage Wiring <u>1 - telephone</u>
No. Hydro Massage Tubs <u>0</u>	No. of Motors - Total HP <u>-</u>	<u>1 - cable T.V.</u>

OTHER: \_\_\_\_\_

INSURANCE COVERAGE: Pursuant to the requirements of Massachusetts General Laws I have a current Liability Insurance Policy including Completed Operations Coverage or its substantial equivalent. YES  NO  I have submitted valid proof of same to this office. YES  NO  If you have checked YES, please indicate the type of coverage by checking the appropriate box.

INSURANCE  BOND  OTHER  (Please Specify) \_\_\_\_\_ (Expiration Date)

Estimated Value of Electrical Work \$ 29,555

Work to Start 4-28-99 Inspection Date Requested: Rough \_\_\_\_\_ Final \_\_\_\_\_

Signed under the penalties of perjury: FIRM NAME Richard T. Losordo Services LIC. NO. E38423

Licensee Richard T. Losordo Signature \_\_\_\_\_ LIC. NO. same

Address 153 Stinson St. West Roxbury MA Bus. Tel. No. 617 513-6448 Alt. Tel. No. 617 486-6862

OWNER'S INSURANCE WAIVER: I am aware that the Licensee does not have the insurance coverage or its substantial equivalent as required by Massachusetts General Laws, and that my signature on this permit application waives this requirement. Owner Agent (Please check one)

(Signature of Owner or Agent) \_\_\_\_\_ Telephone No. \_\_\_\_\_ PERMIT FEE \$ 0

No. 991802

Location  
652 Hammond St

Contractor:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Permit Granted:

5/4/99

No. 99/840

Location

652 Hammond St

Contractor:

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Permit Granted:

5/6/99



# The Commonwealth of Massachusetts

Department of Public Safety

BOARD OF FIRE PREVENTION REGULATIONS 527 CMR 1200

R 33057

Office Use Only  
 Permit No. 991840  
 Occupancy & Fee Checked \_\_\_\_\_  
 3/90 (leave blank)

## APPLICATION FOR PERMIT TO PERFORM ELECTRICAL WORK

All work to be performed in accordance with the Massachusetts Electrical Code, 527 CMR 12:00

(PLEASE PRINT IN INK OR TYPE ALL INFORMATION)

City or Town of BROOKLINE, MA

Date 5/5/99

To the Inspector of Wires:

The undersigned applies for a permit to perform the electrical work described below.

Location (Street & Number) 652 Hammond STREET

Owner or Tenant Town of Brookline

Owner's Address Town of Brookline

Is this permit in conjunction with a building permit: Yes  No  (Check Appropriate Box)

Purpose of Building OFFICES + NURSERY Utility Authorization NO. \_\_\_\_\_

Existing Service \_\_\_\_\_ Amps 1 Volts Overhead  Undgrd  No. of Meters \_\_\_\_\_

New Service \_\_\_\_\_ Amps 1 Volts Overhead  Undgrd  No. of Meters \_\_\_\_\_

Number of Feeders and Ampacity \_\_\_\_\_

Location and Nature of Proposed Electrical Work ADD TWELVE (12) LOW VOLTAGE VOICE + DATA LOCATIONS

No. of Lighting Outlets	No. of Hot Tubs	No. of Transformers	Total KVA
No. of Lighting Fixtures	Swimming Pool Above grnd. <input type="checkbox"/> In-grnd. <input type="checkbox"/>	Generators	KVA
No. of Receptacle Outlets	No. of Oil Burners	No. of Emergency Lighting Battery Units	
No. of Switch Outlets	No. of Gas Burners	FIRE ALARMS No. of Zones	
No. of Ranges	No. of Air Cond. Total tons	No. of Detection and Initiating Devices	
No. of Disposals	No. of Heat Pumps Total Tons	No. of Sounding Devices	
No. of Dishwashers	Space/Area Heating KW	No. of Self Contained Detection/Sounding Devices	
No. of Dryers	Heating Devices KW	Local <input type="checkbox"/> Municipal <input type="checkbox"/> Other <input type="checkbox"/>	
No. of Water Heaters KW	No. of Signs No. of Ballasts	Low Voltage Wiring <u>12 LOW VOLTAGE</u>	
No. Hydro Massage Tubs	No. of Motors Total HP	<u>VOICE + DATA EQUIPMENT</u>	

OTHER: \_\_\_\_\_

INSURANCE COVERAGE: Pursuant to the requirements of Massachusetts General Laws I have a current Liability Insurance Policy including Completed Operations Coverage or its substantial equivalent. YES  NO  I have submitted valid proof of same to this office. YES  NO  If you have checked YES, please indicate the type of coverage by checking the appropriate box.

INSURANCE  BOND  OTHER  (Please Specify) \_\_\_\_\_ (Expiration Date) \_\_\_\_\_

Estimated Value of Electrical Work \$ 0  
Work to Start 5/5/99 Inspection Date Requested: Rough 5/7/99 Final 5/30/99

Signed under the penalties of perjury:

FIRM NAME JCI Communications

Licensee Edward Slachelski Signature \_\_\_\_\_ LIC. NO. \_\_\_\_\_  
Address 45 MILK STREET, BOSTON MA 02109 Bus. Tel. No. 617-747-7400  
Alt. Tel. No. 477-747-7466

OWNER'S INSURANCE WAIVER: I am aware that the Licensee does not have the insurance coverage or its substantial equivalent as required by Massachusetts General Laws, and that my signature on this permit application waives this requirement. Owner \_\_\_\_\_ Agent \_\_\_\_\_ (Please check one)

(Signature of Owner or Agent)

Telephone No. \_\_\_\_\_

PERMIT FEE-\$ \_\_\_\_\_

BELOW FOR OFFICE USE ONLY

FEE 0

NO. 991822

APPLICATION FOR PERMIT TO DO PLUMBING

652 Hammond St

\_\_\_\_\_

NAME & TYPE OF BUILDING

\_\_\_\_\_

\_\_\_\_\_

LOCATION OF BUILDING

\_\_\_\_\_

\_\_\_\_\_

PLUMBER

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PERMIT GRANTED

DATE 5/5 19 91

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PLUMBING INSPECTOR

\_\_\_\_\_

MASSACHUSETTS UNIFORM APPLICATION FOR PERMIT TO DO PLUMBING  
(Print or Type)



TOWN OF BROOKLINE

Mass. Date 4-27 19 99

R 33037

Building Location Soule Rec Center  
652 - Hammond St

Permit # 991822  
 Owner's Name Town of Brookline

New  Renovation  Replacement  Plans Submitted: Yes  No

P

FIXTURES

	WATER CLOSETS	KITCHEN SINKS	LAVATORIES	BATHTUBS	SHOWER STALLS	DISHWASHERS	DISPOSERS	LAUNDRY TRAYS	WASH. MACH. COMM.	HOT WATER TANKS	TANKLESS	BLOP SINKS	FLOOR DRAINS	GAS TRAPS	URINALS	DRINKING FOUNTAIN	AREA DRAIN	WATER PIPING	ROOF DRAINS	BACKFLOW PREV.	OTHER FIXTURES:	
SUB-BSMT.																						
BASEMENT																						
1ST FLOOR																						
2ND FLOOR																						
3RD FLOOR																						
4TH FLOOR																						
5TH FLOOR																						
6TH FLOOR																						
7TH FLOOR																						
8TH FLOOR																						

Installing Company Name NAPMS  
 Address 67 Center St  
Lawrence Ms 01843  
 Business Telephone 978 687 3083  
 Name of Licensed Plumber Edward J Phelan

Check one: Certificate  
 Corp. \_\_\_\_\_  
 Partnership \_\_\_\_\_  
 Firm/Co. \_\_\_\_\_

**INSURANCE COVERAGE:**  
 I have a current liability insurance policy or its substantial equivalent. Check one: Yes  No   
 If you have checked yes, please indicate the type coverage by checking the appropriate box.  
 A liability insurance policy  Other type of indemnity  Bond   
**OWNER'S INSURANCE WAIVER:** I am aware that the licensee does not have the insurance coverage required by Chapter 142 of the Mass. General Laws, and that my signature on this permit application waives this requirement.  
 Check one: Owner  Agent   
 Signature of Owner or Owner's Agent \_\_\_\_\_

I hereby certify that all of the details and information I have submitted for entered in above application are true and accurate to the best of my knowledge and that all plumbing work and installation performed under the permit issued for this application will be in compliance with all pertinent provisions of the Massachusetts State Plumbing Code and Chapter 142 of the General Laws.

By \_\_\_\_\_  
 Title \_\_\_\_\_  
 City/Town \_\_\_\_\_  
 APPROVED (OFFICE USE ONLY)

Approx cost  
9300.00

Signature of Licensed Plumber [Signature]  
 License Number 10073  
 Type of Plumbing License: Master  Journeyman

# 652 Harvard St

No. 102-97-98

APPLICATION FOR PERMIT TO BUILD.

WOOD AND FRAME.

LOCATION.

No. Off Heath St

Architect, John G. Wrenn

Builder, L. Martin & Co

PERMIT GRANTED

March 27 18 97

BROOKLINE, 18

Approved,

Inspector.

STREET PERMIT APPLIED FOR.

Sidewalk. } Approved.
Feet of Street.

15000

Plans must be submitted and approved by this Department before a permit for erection will be granted

No. ....

# Application for Permit to Build.

(WOOD AND FRAME.)

Brookline, March 27 1897

To THE INSPECTOR OF BUILDINGS:

The undersigned hereby applies for a permit to build, according to the following specifications:—

1. Is the building in a block or separate? Separate Block of .....
2. Material, Wood
3. What is the name of Owner? John G. Wright
4. " " " Architect? Chapman & Huzzie
5. " " " Builder? L. Martin & Co
6. " " " Location? Off South St
7. " " " nearest street? Woodland Road
8. " " " purpose of building? Store
9. If a dwelling, for how many families? .....
10. Is there to be a store in the lower story? .....
11. Size of lot, No. of feet front, .....; No. of feet rear, .....; No. of feet deep, .....
12. The height the level of building lot above the grade of street is ..... feet.
13. Size of building, No. of feet front, 86; No. of feet rear 86; No. of feet deep, 86
14. No. of stories, One 1/2
15. No. of feet in height from level of ground to highest part of roof, 32 ft
16. Does the proposed structure stand within 18 inches of the lines of adjoining premises? no distance .....
- If so, what is the thickness of the wall to be built? .....
17. Distance from surrounding buildings, front, ..... feet; side, ..... feet; side, ..... feet; rear, ..... feet.
18. Distance back from line of street, .....
19. What is the height of the nearest building? .....
20. Will the building be erected on solid or filled land? Solid
21. Will the foundation be laid on earth, rock, timber or piles? earth
22. What is the material of foundation? Stone & Pitch
23. Will the roof be flat, pitch or mansard? .....
24. Will the building be heated by steam, furnaces, stoves or grates? Stoves Thickness of flue 4 in & lined
25. Will the building conform to the requirements of the law? yes
26. Number of brick walls, ..... and where placed? yes

Location, ownership and detail must be complete and legible. Separate application required for every building.

Plans submitted? yes

Show by diagram the location of proposed building, with relation to distances from adjoining lots.

Name, L. Martin & Co  
Address, Atlantic Av 420 Boston

..... of sidewalk ..... cartway wanted.

Now 652 Hammond

No. 215

# Application For Permit To Build.

WOOD AND FRAME.

## LOCATION

No. off Heath Street 400

Owner, Andrew Adie

Builder, Edward G. Malone

## PERMIT GRANTED

November 24, 19 15

BROOKLINE. 19

Approved,

Inspector

4000

Plans must be submitted and approved by this Department before a permit for erection will be granted.

No. \_\_\_\_\_

# Application for Permit to Build.

(WOOD AND FRAME)

Brookline,

November 26, 1915

To the BUILDING COMMISSIONER:

The undersigned hereby applies for a permit to build according to the following Specifications:—

Location, ownership and detail must be complete and legible. Separate application required for every building.

1. Is the building in a block or separate? Separate Block of \_\_\_\_\_
  2. Material concrete lower frame
  3. What is the name of Owner? Andrew Adle Address Brookline
  4. What is the name of Architect? \_\_\_\_\_
  5. What is the name of Builder? B. Malone Address Brookline
  6. What is the location? off Leach St.
  7. What is the nearest street? Woodland Road
  8. What is the purpose of building? cow barn
  9. If a dwelling, for how many families? —
  10. Is there to be a store in the lower story? —
  11. Size of Lot—No. of feet front, —; No. of feet rear, —; No. of feet deep, \_\_\_\_\_ feet
  12. The height the level of building lot above the grade of street is level
  13. Size of building,—No. of feet front, 37; No. of feet rear, 37; No. of feet deep, 22
  14. No. of stories, 1
  15. No. of feet in height from level of ground to highest part of roof, 17
  16. How near lines of adjoining premises does proposed structure stand? 50
  17. Distance from surrounding buildings,—front, \_\_\_\_\_ feet; side \_\_\_\_\_ feet; side \_\_\_\_\_ feet; rear, \_\_\_\_\_ feet
  18. Distance back from line of street, \_\_\_\_\_
  19. What is the height of the nearest building? \_\_\_\_\_
  20. Will the building be erected on solid or filled land? solid
  21. Will the foundation be laid on earth, rock, timber or piles? earth
  22. What is the material of foundation? concrete
  23. Will the roof be flat, pitch or mansard? pitch Material of Roofing, asphaloid roofing
  24. Will the building be heated by steam, furnaces, stoves or grates? steam Thickness of flue \_\_\_\_\_
  25. Will the building conform to the requirements of the law? Yes and where placed? \_\_\_\_\_
  26. No. of brick walls, \_\_\_\_\_
- Plans submitted? Yes

Show by diagram the location of proposed building, with relation to distances from adjoining lots.

4000

Name, Edward G. Malone  
Address, Buttlet Crescent

(C O P Y)

October 26, 1944

William H. Porter Co., Inc.,  
84 Arsenal Street,  
Watertown, Mass.

Gentlemen;-

In connection with the work being done by your  
company for Rivers Country Day School at 436 Heath Street  
it is requested that you file a plot plan showing the location  
of the building in relation to street and lot boundaries.

If any plumbing is to be installed in said  
building it is requested that you submit plan showing method of  
disposal from same.

Very truly yours,

Building Commissioner.

8  
8-231

March 25, 1943

Mr. George Storer Baldwin  
3 Spooner Road  
Brookline, Mass.

Dear Sir:

I am advised that you are the responsible person to contact in relation to the property on Eliot Street, Brookline, formerly occupied by the Rivers School.

An inspection of the several buildings indicates a condition which is rapidly becoming dangerous due to apparent vandalism and promiscuous use of the property by trespassers with the invitation to set fires there evident.

Either the several buildings should be secured against entrance of unauthorized persons or they should be torn down if they have no further utility.

I would appreciate your early attention to these matters if they are your direct concern or advised from you as to the person who should be contacted.

Very truly yours,

TJM/H

BUILDING COMMISSIONER.

Copy to Fire Department

67-91

May 16, 1944

Mr. Marcien Jenckes  
30 State Street  
Boston, Mass.

Dear Mr. Jenckes:

As suggested by you I visited the former Rivers School property accompanied by Superintendent Sheehan of the Park Department.

We made an examination of the old barn, later apparently used as a gymnasium and the following obvious structural defects were noted:-

The entire frame of the building is warped and structurally distorted. There are definite sags in the roof. The understructure, which, with the exception of the old manure pit, is supported only on brick piers has deteriorated to a degree which would require complete renewal of members.

It is my considered opinion that the condition of the building would not warrant moving it to another location on the lot and that its value for salvage is negligible.

I would be pleased to give you any further information in relation to this structure you may wish.

Very truly yours,

BUILDING COMMISSIONER.

TJM/H

June 26, 1944 - 8:15 A.M.

NOTES ON INSPECTION OF LOG SIDING CABIN, FORMER RIVERS  
SCHOOL PROPERTY 290 DEAN ROAD, BROOKLINE.

Permit for its erection granted December 4, 1935.

Building is located approximately 500' from Eliot Street  
and 250' from Ackers Avenue.

Purpose of building - recreation room - size 18' x 24'  
one story high, asphalt shingle roof.

Flooring is close-layed flooring, approximately 2" stock.

Foundation is concrete block piers layed up on solid

concrete footings. A beaver board ceiling is in place.

Fireplace and chimney are on concrete foundation.

Has interior electric wiring with ceiling and wall outlets.

End of B.X. electric cable from building now lying on ground  
adjoining.

Doors and windows are boarded up with exception of one window  
on south side.

The permit granted to City Building Wrecking Company on  
April 8, 1943 was to take down all temporary buildings.

June 19, 1944

Simon P. Townsend, Esq.,  
Town Counsel,  
30 State Street,  
Boston, Mass.

Dear Sir:

Attached herewith is copy of application for permit for erection of a frame building to be occupied as a recreation room on the former Rivers School property at 290 Dean Road, Brookline. The subsequent permit was issued December 4, 1935.

I am also attaching a sketch showing the construction of the building prepared by Building Inspector A. John Halfenstine of this department, which shows the dimensions of the building and the location and sizes of the supporting piers.

Very truly yours,

BUILDING COMMISSIONER.

TJM/H

June 26, 1944 - 8:15 A.M.

NOTES ON INSPECTION OF LOG SIDING CABIN, FORMER RIVERS  
SCHOOL PROPERTY 290 DEAN ROAD, BROOKLINE.

Permit for its erection granted December 4, 1935.

Building is located approximately 500' from Eliot Street  
and 250' from Ackers Avenue.

Purpose of building - recreation room - size 18' x 24'  
one story high, asphalt shingle roof.

Flooring is close-layed flooring, approximately 2" stock.

Foundation is concrete block piers layed up on solid  
concrete footings. A beaver board ceiling is in place.

Fireplace and chimney are on concrete foundation.

Has interior electric wiring with ceiling and wall outlets.

End of B.X. electric cable from building now lying on ground  
adjoining. Pipes coming from ground to building on north side  
may be supply line to radiator from central heating plant.  
Doors and windows are boarded up with exception of one window  
on south side.

The permit granted to City Building Wrecking Company on  
April 8, 1943 was to take down all temporary buildings.

*7 of radiator coming from  
center heating plant*



THOMAS J. MORAN  
BUILDING COMMISSIONER

# Building Department

Town Hall  
Brookline, Mass.

June 27, 1944

Memo re- Rivers School

8.10 A.M.

Flooring is oak  
B.X. electrical conduit can be seen  
in place above ceiling  
Electrical switch boxes removed

### HEATING

Cabin was heated from central heating  
plant which is still standing on  
Eliot St., frontage. Radiator supply  
pipe with valve attached, but with radia-  
tor removed, still in place.

### Water

Cabin had water supply terminating in a "T"  
which is still in place. There were no  
plumbing fixtures.

Rivers School  
Installation  
Plumbing

reet. On Apr  
these buildin  
n needing cor

t. Rivers Co  
for Massach  
ated several  
unlicensed me  
ce. Plumbing

- Gymnasium

Rivers Cou  
of connect

reet, River  
bing at gym  
l by letter  
y 18, 1944

Rivers  
tive plum

April 11/45 436 Heath Street. Rivers School.  
Nothing has been done to correct illegal installation of  
plumbing as reported during the past year. Plumbing

Rivers School - Heath Street. On April 11/45  
I made an inspection of these buildings. Found  
conditions in locker room needing correction. Wiring

April 24/45 436 Heath Street. Rivers Country Day School.  
Accompanied John O'Hara, Investigator for Massachusetts State  
Board of Plumbing Examiners, and pointed several instances of  
illegal installation of plumbing by unlicensed mechanics. He  
will send written report to this office. Plumbing

5/2/45 Rivers Country Day School - Gymnasium. Insp. with ~~V. Beaudr~~

May 25/45 436 Heath Street. Rivers Country Day  
School. Inspection shows no progress of connecting sanitary  
drain to sewer as ordered. Plumbing

September 25/45 436 Heath Street, Rivers School.  
A licensed plumber is completing plumbing at gymnasium  
and Principal Allen was again notified by letter to  
correct other conditions as ordered May 18, 1944. See  
copy of letter. Plumbing.

October 4/45 436 Heath Street. Rivers School.  
Supt. Charles Holsworth is having defective plumbing corrected  
as ordered. Plumbing.

May 3, 1944

Mr. C. E. Allen, Principal  
Rivers School  
436 Heath Street  
Brookline, Mass.

Dear Sir:

Your attention is called to the illegal installation of a shower-stall bath, recently installed in one of the out buildings of your school property at 648 Hammond Street, Brookline.

Your attention is also called again to the illegal installation of a dish washing machine installed in your school building at 436 Heath Street, Brookline.

Both the above conditions will have to be corrected and work to be done in accordance with Chapter 142 of the General Laws relating to the installation of plumbing.

Please notify this department when these conditions are corrected.

Very truly yours,

JPM/H

INSPECTOR OF PLUMBING.

May 12, 1942

Mr. William N. McKenna  
79 Chestnut Street  
Boston, Mass.

Dear Sir:

Your attention is called to the unsafe condition of hot water tank, located in basement of building at 436 Heath Street, Brookline, to be occupied by the Rivers Country Day School.

Although your men did not work on this tank or are in no way accountable for its condition, it is required that it be made safe before I could approve of it for further use.

I would advise removing the 2-2" valves from circulating pipes between heater and tank and equip tank with suitable temperature relief valve and vacuum valve as required by the Massachusetts State Laws.

Very truly yours,

INSPECTOR OF PLUMBING.

May 12, 1942

Mr. William N. McKenna  
79 Chestnut Street  
Boston, Mass.

Dear Sir:

Your attention is called to the unsafe condition of hot water tank, located in basement of building at 436 Heath Street, Brookline, to be occupied by the Rivers Country Day School.

Although your men did not work on this tank or are in no way accountable for its condition, it is required that it be made safe before I could approve of it for further use.

I would advise removing the 2-2" valves from circulating pipes between heater and tank and equip tank with suitable temperature relief valve and vacuum valve as required by the Massachusetts State Laws.

Very truly yours,

INSPECTOR OF PLUMBING.

September 27, 1945

Mr. C. E. Allen, Principal  
Rivers Country Day School  
436 Heath Street  
Brookline, Mass.

Dear Sir:

On May 3, 1944 a letter was sent to you regarding certain illegal installations of plumbing and it was understood that your superintendent would have proper corrections made.

Now that the plumbing at new gymnasium building is being completed I thought it would be an opportune time to have this work done to conform to our Plumbing Laws.

This work includes the proper installation of dish washing machine in main building and connecting of shower bath stall in locker building to sanitary sewer.

Trusting that this matter will be taken care of without further delay, I am

Very truly yours,

James P. Mahon  
INSPECTOR OF PLUMBING.

Copy to:

Walter A. Devine

6th..... 7th..... 8th..... 9th..... Total.....

ents, basement **none**... 1st..... 2nd..... 3rd..... 4th.....

..... 7th..... 8th..... Total

**2nd--2.**.....

..... **yes**..... Lighted

..... **yes**..... approved hardware... **No**.....

..... **yes**..... inflammable substances near

..... How is b.....

**-central**..... electric-adequate...

..... team or hot air pipes **yes**.....

..... Boiler or other heating.....

..... Location... **1st** an.....

..... **none**..... Condition.....

..... Is stan.....

..... Means for.....

..... 194..... C.....

..... **none**..... 19..... B.....

..... 5th..... 6th.....

..... **Fire door from**.....

..... **found open and not**.....

..... **losing.**.....

..... **Morgan and Murray**.....

11 - Woodland Road - Rivers School, Principal Allen has given orders to his plumber to properly connect dish washing machine which was illegally installed. He also agreed to correct other violations which were reported to him.

9/11/44

2 buildings

January 30 19 47

Name of building: **RIVERS COUNTRY DAY SCHOOL** Date: **January 30 19 47**

Street and Number: **436 Heath Street** Material: **brick**

Purpose used: **School (lower)**

Name of owner: **same** Address: **same**

Party to notify: **same** Address: **same**

Number of rooms per story: basement **0** 1st **6** 2nd **6** 3rd **--**

4th **---** 5th **---** 6th **---** 7th **---** 8th **---** 9th **---** Total **12**

Apartments or tenements: basement **none** 1st **---** 2nd **---** 3rd **---** 4th **---**

5th **---** 6th **---** 7th **---** 8th **---** 9th **---** Total **---**

Egresses **1st--5. 2nd--2.**

Lawfully designated: **yes** Lighted where necessary: **yes** Unobstructed: **yes**

Doors open out where necessary: **yes** with approved hardware: **No**

Stairs properly railed: **yes** Are inflammable substances near egresses?: **no**

How heated?: **steam-central** How is building lighted?: **electric-adequate**

Protection against steam or hot air pipes: **yes**

Boiler or other heating apparatus: **yes**

Sanitariums: **2** Location: **1st and 2nd** Condition: **good**

Number of elevators: **none** Condition: **---** Hall in which story: **none**

Purpose used: **---** Is standard booth installed?: **---**

Location: **---** Means for extinguishing fire: **extinguishers**

Condition: **good**

Orders issued: **---** 194 **---** Complied: **---**

Certificates issued: **none** 19 **---** Basement **---** 1st **---** 2nd **---**

3rd **---** 4th **---** 5th **---** 6th **---** 7th **---** 8th **---** 9th **---**

Expires 194 **---** Remarks: **Fire door from boiler room found open and not self-closing.**

Inspector: **Morgan and Murray**

January 30, 1947

Name of building... **RIVERS COUNTRY DAY SCHOOL** Date... **January 30, 1947**

Street and Number... **436 Heath Street** Material... **brick**

Purpose used... **School (upper)**

Name of owner... **same** Address... **same**

Party to notify... **same** Address... **same**

Number of rooms per story, basement... **none** 1st... **7** 2nd... **9** 3rd... **5**

4th... 5th... 6th... 7th... 8th... 9th... Total... **21**

Apartments or tenements, basement... **none** 1st... 2nd... 3rd... 4th...

5th... 6th... 7th... 8th... 9th... Total

Egresses... **1st--4. 2nd--5. 3rd--2.**

Lawfully designated... **yes** Lighted where necessary... **yes** Unobstructed... **yes**

Doors open out where necessary... **yes** with approved hardware... **no**

Stairs properly railed... **yes** are inflammable substances near

egresses?... **no** How is building lighted?... **electric--adequate**

How heated?... **central-steam** Protection against steam or hot air pipes... **yes**

Sanitarious... **5** Location on... **1st, 2nd, 3rd** Condition... **good**

Number of elevators... **none** Condition... Hall in which story...

Purpose used... Is standard booth installed?...

Location... Means for extinguishing fire... **extinguishers**

Condition... **good**

Orders issued... **154** Complied...

Certificates issued... **none** 1st... 2nd... 3rd... 4th... 5th... 6th... 7th... 8th... 9th...

Expires 194... Remarks... **Two fire doors found open and not self-closing.**

... **3 holes approx. 9sq.ft. exposing wood laths in ceiling of coal bin.**

Inspector... **Morgan and Murray**

January 29, 1959

SCHOOLS

LOCATION: 436 Heath Street - Rivers School (upper school)

DATE BUILT: no record PURPOSE: residence

TYPE OF CONSTRUCTION: Type IV - brick

PRESENT OCCUPANCY: school

STATE CERTIFICATE OF INSPECTION POSTED: yes YEAR ISSUED: \_\_\_\_\_

NUMBER OF STUDENTS: 150

NUMBER EGRESSES FROM CLASSROOMS: 2

A. DOORS OPEN OUT: yes B. TYPE OF HARDWARE: approved

BASEMENT CEILINGS - HOW PROTECTED: yes

BOILER ROOM ENCLOSED: no

BASEMENT STAIRWAY: approved

A. TYPE: approved B. ENCLOSED: yes C. FIRE DOOR HEAD OF STAIRWAY yes

CORRIDORS PROTECTED: yes

EMERGENCY LIGHTING: no WORKING ORDER: \_\_\_\_\_

FIRE ALARM SYSTEM: yes ADEQUATE: yes

SPRINKLER SYSTEM: no FIRE DRILLS RECORDED: yes - monthly

WIRING: subject to approval wire inspector APPROVED: \_\_\_\_\_

MEANS OF EGRESS: interior & exterior

A. LOCATION: -----

B. WIDTH: 3'6"

C. TYPE: approved

D. HARDWARE: approved

TYPE OF DOOR: approved EXIT SIGNS POSTED: partial

DOOR LEADING TO FIRE ESCAPES: (plain glass) yes

OBSTRUCTIONS TO EXTERIOR WINDOWS: no

WORK ROOMS AND BASEMENT FREE FROM ACCUMULATED RUBBISH: no

HEATING UNITS AND SMOKE PIPES IN SATISFACTORY CONDITION: yes

PLASTER CEILING UNBROKEN: no

NEAREST FIRE ALARM BOX: see following page FIRE EXTINGUISHERS: yes

COMMENTS:

Screen door in dining room shall be made to open out

Approved hardware shall be installed in dining room leading to the outside

Ceiling in basement exposing wood laths shall be covered with incombustible material

Approved exit signs shall be installed on all egress doors

Boiler room shall be enclosed with masonry wall along the passageway

Boiler room shall be kept free from accumulated rubbish and storage of furniture -

door in basement leading to the exterior shall be made to open out

It is recommended that a fire hydrant be installed in a central location within the grounds.

Sprinkler system shall be installed in accordance with Lodging House Regulations.

January 29, 1959

SCHOOLS

LOCATION: 436 Heath Street - Rivers School (lower school)  
DATE BUILT: no record PURPOSE: stable  
TYPE OF CONSTRUCTION: VI - stucco over wood  
PRESENT OCCUPANCY: grammar school  
STATE CERTIFICATE OF INSPECTION POSTED: yes YEAR ISSUED: \_\_\_\_\_  
NUMBER OF STUDENTS: 50  
NUMBER EGRESSES FROM CLASSROOMS: 2  
A. DOORS OPEN OUT: no B. TYPE OF HARDWARE: locking type  
BASEMENT CEILINGS - HOW PROTECTED: brick  
BOILER ROOM ENCLOSED: no  
BASEMENT STAIRWAY: interior  
A. TYPE: wood B. ENCLOSED: no C. FIRE DOOR HEAD OF STAIRWAY no  
CORRIDORS PROTECTED: no WORKING ORDER: \_\_\_\_\_  
EMERGENCY LIGHTING: no ADEQUATE: \_\_\_\_\_  
FIRE ALARM SYSTEM: no FIRE DRILLS RECORDED: yes  
SPRINKLER SYSTEM: no APPROVED: \_\_\_\_\_  
WIRING: appears hazardous  
MEANS OF EGRESS: 2  
A. LOCATION: interior & exterior  
B. WIDTH: 3'6"  
C. TYPE: metal and wood  
D. HARDWARE: approved  
TYPE OF DOOR: approved EXIT SIGNS POSTED: no  
DOOR LEADING TO FIRE ESCAPES: yes  
OBSTRUCTIONS TO EXTERIOR WINDOWS: no  
WORK ROOMS AND BASEMENT FREE FROM ACCUMULATED RUBBISH: no  
HEATING UNITS AND SMOKE PIPES IN SATISFACTORY CONDITION: yes  
PLASTER CEILING UNBROKEN: yes  
NEAREST FIRE ALARM BOX: see comment on upper school FIRE EXTINGUISHERS: partial

To the Board of Health  
Mr. William J. Hickey Chairman  
Gentlemen

The following is a report on the sanitary  
conditions at the River School 436  
Heath Street Brookline

This building was formally the  
residence of the late Andrew Aides  
which was recently converted to  
the use for <sup>private</sup> school purposes.

It has an attendance of about  
one hundred and fifty boys of  
from ten to sixteen years of age.

In February 1942 when building was  
in process of alteration, four urinals  
and four water water closets were  
added to the plumbing already in  
use in the building.

I informed Mr. Bowditch architect  
and Mr. McKenna plumber that the  
building was not connected to the  
public sewer and it was understood  
at that time that provisions would  
be made to make such connections.

(2)

As there was some doubt at the time, I conferred with Mr. Geo. Tapley of our Health Dept and Town Eng Levine and others who were concerned and all concurred with my contention, that no sewer connection prevailed.

After many examinations and inquiries from former employees as well as the plumber Mr. O'Neill, who originally installed the work, we learned that all the sewage from this building drains into a disposal system near the line of an old covered brook which runs through this property. We have reason to believe that the overflow from this sewage disposal system leaches into this brook, which is used for a drain from a small pond in Mr. Lane's estate and other surface water drainages.

This brook empties into our Saw Mill Brook which finds its outlet to Charles River.

No progress was made on this connection up this time on account of labor shortage and other conditions.



Carpenters  
Painters  
Plasterers  
Masons  
Roofers

# JAMES J. BROWN & SON CO.

Licensed and Fully Insured  
**BUILDING CONTRACTORS**  
Complete Construction Service

Fire Loss Adjusters

63 HARVARD AVENUE ★ BROOKLINE 46, MASS.  
Telephone LOnwood 6-4082

June 23, 1960

Mr. Frank J. O'Hearn, Building Commissioner  
329 Washington Street  
Brookline 46, Massachusetts

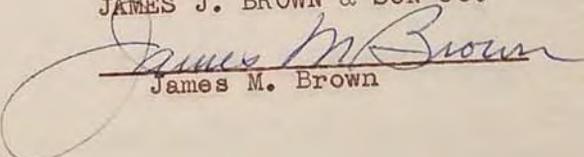
Dear Sir:

We propose to furnish all labor, tools and material necessary for the completion of renovations at the Rivers School Building, all as indicated on plans submitted to us, for a total price of ONE THOUSAND NINE HUNDRED DOLLARS (\$1,900.00).

Thanking you for the opportunity to quote, we remain.

Respectfully yours,

JAMES J. BROWN & SON CO.

  
James M. Brown

COPY

RECORDS AND COMMUNICATIONS SECTION  
JUN 28 11 12 AM '60  
COMMUNICATIONS SECTION  
RECORDED



TOWN of BROOKLINE  
*Massachusetts*

August 15, 1960

RECREATION COMMISSION  
70 TAPPAN STREET, BROOKLINE, MASS.

AUGUSTUS W. SOULE, CHAIRMAN  
F. GREGG BEMIS  
THOMAS P. KENDRICK, M.D.  
FRANK T. LALLY  
MILTON LINDEN

JAMES J. LYNCH,  
SUPERINTENDENT OF RECREATION  
REGENT 4-1160

Mr. Frank J. O'Hearn  
Building Commissioner  
329 Washington Street  
Brookline, Massachusetts

Dear Mr. O'Hearn:

I wish to thank you for your estimate of alterations to be made at the Rivers lower school and gymnasium. A request will be made to have the amounts indicated inserted in your 1961 budget. However, in order for us to operate our Morning Play groups efficiently, it will be necessary to have two things done at this time:

- (1) to provide zone controls so that the lower school building and gymnasium may be heated independently of each other--\$950.00;
- (2) to erect fifty wooden cubicles with three hooks in each to allow the Morning Play youngsters to hang up their clothing--?

*Sent order  
Trohan  
8/30*

*Sent order  
Brown  
8/30/60*

I realize that neither one of these items was earmarked for your 1960 budget, but if there is any possible way that they can be taken care of before October 3, 1960 it will be very much appreciated. We would be willing to forego other repairs and/or alterations earmarked for 1960 if the above work could be done now.

With many thanks for your co-operation,

*8/30/60  
- 580 account  
OK for order  
JHL*

Sincerely yours,

*James J. Lynch*

James J. Lynch  
Superintendent of Recreation

Sewer and Drain Connection

No. HEATH ST (School & Library) (490) Street

Owner TOWN Date MAY 20, 1928

Contractor L. Vassalotti Permit No. 2328

Inspector RAD

Connection with sewer made 5/23 RAD

" " drain " 5/20

" " building " 5/27

Plotted by RAD

REMARKS  
Repair Sewer - Broken pipe - 4/10/89 J. McNulty repaired w/6'-6" PVC w/collars J.J.

SEE OVER FOR SKETCH

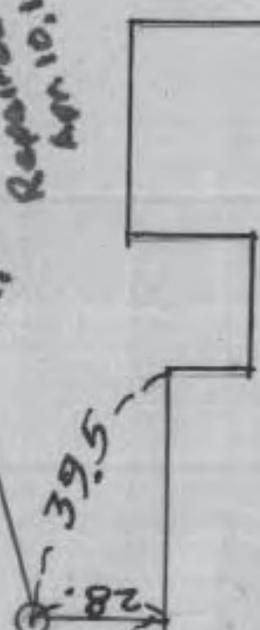
PROPERTY OF THE BROOKLINE ENG. DEPT

Fire Sta.  
SKETCH

HEATH ST.



6" sewer  
102' x 6" pipe  
Repaired w/ 6" pipe  
Apr 10, 1989



SCHOOL & LIBRARY

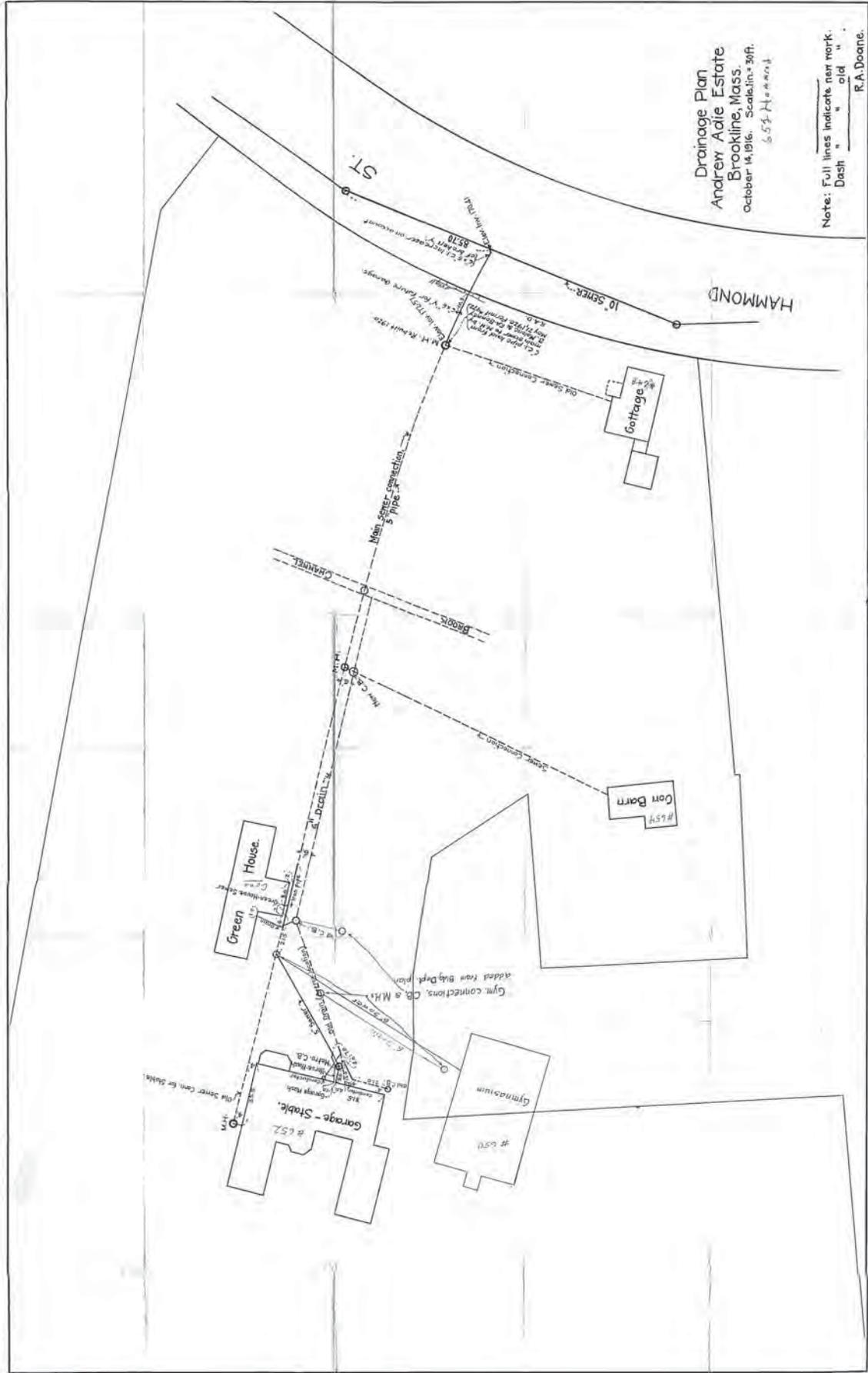


6" DRAIN

120.0

Drainage Plan  
 Andrew Adie Estate  
 Brookline, Mass.  
 October 14, 1916. Scale: 1" = 30 ft.  
 653 Hammond

Note: Full lines indicate new work.  
 Dash " " " " old " " "  
 R. A. Doane.



EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



## APPENDIX F

### Search Report of Standard Environmental Record Sources

**2475-001 Levi Brookline Baldwin School**

484 Heath Street

CHESTNUT HILL, MA 02467

Inquiry Number: 4795721.2s

December 02, 2016

## EDR Summary Radius Map Report



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

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*Thank you for your business.*  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

### TARGET PROPERTY INFORMATION

#### ADDRESS

484 HEATH STREET  
CHESTNUT HILL, MA 02467

#### COORDINATES

Latitude (North):	42.3228940 - 42° 19' 22.41"
Longitude (West):	71.1614030 - 71° 9' 41.05"
Universal Transverse Mercator:	Zone 19
UTM X (Meters):	321896.6
UTM Y (Meters):	4687676.0
Elevation:	194 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	TP
Source:	U.S. Geological Survey

### AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140712
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:  
484 HEATH STREET  
CHESTNUT HILL, MA 02467

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	NO LOCATION AID	640 HAMMOND ST	SHWS, RELEASE, SPILLS	Lower	30, 0.006, SW
A2	CARRIE F CARROLL	640 HAMMOND ST	UST	Lower	83, 0.016, SW
A3	MCNEILLY GARAGE	639 HAMMOND ST	SHWS, LUST, LAST, RELEASE, SPILLS, ENF	Lower	179, 0.034, WSW
A4	S J MCNEILLY OLDS	639 HAMMOND ST	UST	Lower	179, 0.034, WSW
A5		639 HAMMOND ST	EDR Hist Auto	Lower	179, 0.034, WSW
A6	MCNEILLY S J OLDSMOB	639 HAMMOND ST	RCRA NonGen / NLR, FINDS, ECHO	Lower	179, 0.034, WSW
A7		629 HAMMOND ST	EDR Hist Auto	Lower	185, 0.035, WSW
B8	CHESTNUT HILL INVEST	1180 BOYLSTON ST	UST	Lower	318, 0.060, WNW
B9	EXXON STATION #3-325	1180 BOYLSTON ST	SHWS, LUST, RELEASE, ENF	Lower	322, 0.061, WNW
B10		1180 BOYLSTON ST	EDR Hist Auto	Lower	322, 0.061, WNW
B11	EXXON DIV OF CFI 700	1180 BOYLSTON ST	RCRA-SQG	Lower	322, 0.061, WNW
B12	CUMBERLAND FARMS #70	1180 BOYLSTON ST	Financial Assurance, HW GEN	Lower	322, 0.061, WNW
B13	CENTRAL CLEANERS OF	621 HAMMOND ST	DRYCLEANERS, HW GEN	Lower	350, 0.066, West
B14	CENTRAL CLEANERS	621 HAMMOND STREET	RCRA-CESQG, ICIS, US AIRS, FINDS, ECHO	Lower	350, 0.066, West
B15		621 HAMMOND ST	EDR Hist Cleaner	Lower	350, 0.066, West
C16	S J MCNEILLY OLDS	14 SHEAFE ST	UST	Lower	425, 0.080, West
C17	S J MCNEILLY OLDS	14 SHEAFE ST	Financial Assurance, HW GEN	Lower	454, 0.086, West
C18		14 SHEAFE ST	EDR Hist Auto	Lower	459, 0.087, West
19	ROUTE 9	1075 BOYLSTON ST	SHWS, RELEASE	Higher	559, 0.106, NE
D20	CUMBERLAND FARMS 245	1195 BOYLSTON ST	RCRA-CESQG	Lower	689, 0.130, WNW
D21	CUMBERLAND FARMS 245	1195 BOYLSTON ST	Financial Assurance, HW GEN	Lower	689, 0.130, WNW
D22	CVS PHARMACY 1862	1195 BOYLSTON STREET	RCRA-LQG	Lower	689, 0.130, WNW
D23	CVS PHARMACY 1862	1195 BOYLSTON ST	HW GEN	Lower	689, 0.130, WNW
D24	CUMBERLAND FARMS #24	1195 BOYLSTON ST	UST	Lower	689, 0.130, WNW
25	PINE MANOR COLLEGE	400 HEATH ST	HW GEN	Higher	795, 0.151, East
26	RESIDENCE	17 GLENOE RD	SHWS, LAST, RELEASE	Lower	807, 0.153, South
27	BRIMMER & MAY SCHOOL	69 MIDDLESEX RD	HW GEN	Lower	942, 0.178, North
28	WIESCHHOFF RESIDENCE	30 NORFOLK RD	LUST, RELEASE	Higher	958, 0.181, NNE
E29	CHESTNUT HILL SHOPPI	9 BOYLSTON ST	SHWS, INST CONTROL, RELEASE	Lower	1092, 0.207, West
E30	COMMERCIAL PROPERTY	1244-1262 BOYLSTON S	SHWS, RELEASE	Lower	1094, 0.207, West
F31	NEW ENGLAND PODIATRY	1244 BOYLSTON ST	HW GEN	Lower	1129, 0.214, West
E32	CHESTNUT HILL SHOPPI	11 BOYLSTON ST	SHWS, RELEASE	Lower	1141, 0.216, West
E33	CHESTNUT HILL SHOPPI	13 BOYLSTON ST	LUST, INST CONTROL, RELEASE	Lower	1150, 0.218, West
34	RANDOLPH	375 HEATH ST	LUST, RELEASE	Higher	1239, 0.235, East
F35	1268 BOYLSTON ST NEA	BOYLSTON ST	SHWS, RELEASE	Lower	1272, 0.241, West
G36	GENERAL CINEMAS FMR	27 BOYLSTON ST	SHWS, LUST, RELEASE	Lower	1392, 0.264, West
G37	NO LOCATION AID	25 BOYLSTON ST	SHWS, LUST, RELEASE, HW GEN	Lower	1407, 0.266, West
G38	CHESTNUT HILL MEDICA	25 BOYLSTON ST	LUST, RELEASE, ENF	Lower	1407, 0.266, West
39	NO LOCATION AID	1280 AND 1290 BOYLST	SHWS, RELEASE	Lower	1580, 0.299, West

MAPPED SITES SUMMARY

Target Property Address:  
 484 HEATH STREET  
 CHESTNUT HILL, MA 02467

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
40	NO LOCATION AID	132 YARMOUTH RD	LUST, RELEASE	Lower	1643, 0.311, SE
41	CHESTNUT HILL BENEVO	910 BOYLSTON ST	SHWS, LUST, RELEASE, HW GEN	Higher	1713, 0.324, ENE
42	SHAWS SUPERMARKET	1 BOYLSTON ST	LUST, RELEASE	Lower	1842, 0.349, West
43	NO LOCATION AID	59 VALLEY RD	LUST, RELEASE	Lower	1985, 0.376, NE
44	SILBERT RESIDENCE	106 SPOONER RD	LUST, RELEASE	Lower	2172, 0.411, NNE
45	NO LOCATION AID	413 HAMMOND STREET	SHWS, LUST, RELEASE	Higher	2379, 0.451, NNW
46	OLD BROOKLINE ASH LA	870 HAMMOND ST	SWF/LF, HW GEN	Lower	2385, 0.452, South
47	CHESTNUT HILL	88 ESSEX RD	LUST, RELEASE, LEAD	Higher	2618, 0.496, NNW
48	PARK INN HOTEL	160 BOYLSTON ST	SHWS, RELEASE	Lower	2997, 0.568, WSW
49	VEHICLE ACCIDENT	BEACON STREET AND RE	SHWS, RELEASE	Lower	3056, 0.579, NNE
50	ASH LANDFILL FMR	HAMMOND ST	SHWS, INST CONTROL, RELEASE	Lower	3149, 0.596, South
51	RESERVOIR RD	830 BOYLSTON ST	SHWS, RELEASE	Higher	3195, 0.605, ENE
52	MILTONS	176 BOYLSTON ST	SHWS, RELEASE, ENF	Higher	3280, 0.621, WSW
53	CAROL POST	33 CHESTNUT HILL RD	SHWS, RELEASE	Lower	3303, 0.626, North
54	DERJAMI TEXACO	800 BOYLSTON ST	SHWS, RELEASE	Higher	3708, 0.702, ENE
55	MERKERT CHEMISTRY CE	2635 BEACON ST	SHWS, RELEASE, ENF	Lower	3784, 0.717, North
56	BOSTON COLLEGE - SIL	2601 BEACON ST	SHWS, RELEASE	Lower	3806, 0.721, NNW
57	NO LOCATION AID	10 HAMMOND POND PKWY	SHWS, LUST, SPILLS, RELEASE, LEAD	Lower	3855, 0.730, South
58	OMNI FOODS GROCERY S	200 BOYLSTON ST	SHWS, LUST, RELEASE	Higher	3935, 0.745, WSW
59	WARREN STREET PARCEL	80 HEATH ST	SHWS, RELEASE	Higher	3970, 0.752, East
60	THE COUNTRY CLUB STA	191 CLYDE STREET	SHWS, LUST, RELEASE, LEAD	Higher	4148, 0.786, SE
61	CHESTNUT HILL	12 LAGRANGE ST	SHWS, RELEASE	Higher	4235, 0.802, South
62	BOSTON COLLEGE	200 ST THOMAS MOORE	SHWS, LAST, RELEASE	Lower	4260, 0.807, North
63	NO LOCATION AID	HEATH HILL RD	SHWS, RELEASE	Lower	4332, 0.820, ENE
64	CUMBERLAND FARMS GUL	1195 BOYLSTON ST	SHWS, LUST, RELEASE	Lower	4439, 0.841, ENE
H65	BROOKLINE/NEWTON LIN	39 KENSINGTON CIR	SHWS, RELEASE	Lower	4509, 0.854, SSW
66	HAMPTON PLACE CONDOM	77 FLORENCE ST	SHWS, RELEASE	Lower	4549, 0.862, WSW
H67	BROOKLINE/NEWTON LIN	31 KENSINGTON CIR	SHWS, RELEASE	Lower	4596, 0.870, SSW
68	NO LOCATION AID	375 CHESTNUT HILL AV	SHWS, LUST, RELEASE	Lower	4660, 0.883, NNE
I69	BROOKLINE/NEWTON LIN	45 MARTHAS LN	SHWS, RELEASE	Lower	4742, 0.898, SSW
I70	BROOKLINE/NEWTON (CH	33 MARTHAS LN	SHWS, RELEASE, ENF	Lower	4868, 0.922, SSW
71	SUNOCO SERVICE STATI	325 BOYLSTON ST	SHWS, LUST, UST, AST, RELEASE, RCRA NonGen / NLR,...	Higher	5026, 0.952, WSW
J72	BOSTON COLLEGE/SERVI	140 COMMONWEALTH AVE	SHWS, INST CONTROL, RELEASE, Financial Assurance,...	Lower	5032, 0.953, NNW
J73	BOSTON COLLEGE MAIN	140 COMMONWEALTH AVE	SHWS, LUST, RELEASE, AIRS, HW GEN, LEAD, TIER 2	Lower	5032, 0.953, NNW
74	RESIDENTIAL PROPERTY	42 FISHER AVE	SHWS, RELEASE, LEAD	Lower	5112, 0.968, ENE
75	TRACKMANS LOBBY	400 CHESTNUT HILL AV	SHWS, LAST, INST CONTROL, RELEASE, ENF	Lower	5145, 0.974, NE

# EXECUTIVE SUMMARY

## TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

## SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

## STANDARD ENVIRONMENTAL RECORDS

### ***Federal RCRA generators list***

RCRA-LQG: A review of the RCRA-LQG list, as provided by EDR, and dated 06/21/2016 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CVS PHARMACY 1862	1195 BOYLSTON STREET	WNW 1/8 - 1/4 (0.130 mi.)	D22	14

RCRA-SQG: A review of the RCRA-SQG list, as provided by EDR, and dated 06/21/2016 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
EXXON DIV OF CFI 700	1180 BOYLSTON ST	WNW 0 - 1/8 (0.061 mi.)	B11	11

RCRA-CESQG: A review of the RCRA-CESQG list, as provided by EDR, and dated 06/21/2016 has revealed that there are 2 RCRA-CESQG sites within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b><i>CENTRAL CLEANERS</i></b>	<b><i>621 HAMMOND STREET</i></b>	<b><i>W 0 - 1/8 (0.066 mi.)</i></b>	<b><i>B14</i></b>	<b><i>12</i></b>
CUMBERLAND FARMS 245	1195 BOYLSTON ST	WNW 1/8 - 1/4 (0.130 mi.)	D20	13

## EXECUTIVE SUMMARY

### State- and tribal - equivalent CERCLIS

SHWS: A review of the SHWS list, as provided by EDR, and dated 06/28/2016 has revealed that there are 42 SHWS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>ROUTE 9</b> Release Tracking Number / Current Status: 3-0023648 / RAO	<b>1075 BOYLSTON ST</b>	<b>NE 0 - 1/8 (0.106 mi.)</b>	<b>19</b>	<b>13</b>
<b>CHESTNUT HILL BENEVO</b> Release Tracking Number / Current Status: 3-0024837 / RAO	<b>910 BOYLSTON ST</b>	<b>ENE 1/4 - 1/2 (0.324 mi.)</b>	<b>41</b>	<b>20</b>
<b>NO LOCATION AID</b> Release Tracking Number / Current Status: 3-0032719 / PSNC	<b>413 HAMMOND STREET</b>	<b>NNW 1/4 - 1/2 (0.451 mi.)</b>	<b>45</b>	<b>21</b>
<b>RESERVOIR RD</b> Release Tracking Number / Current Status: 3-0022088 / RAO	<b>830 BOYLSTON ST</b>	<b>ENE 1/2 - 1 (0.605 mi.)</b>	<b>51</b>	<b>24</b>
<b>MILTONS</b> Release Tracking Number / Current Status: 3-0028976 / DPS	<b>176 BOYLSTON ST</b>	<b>WSW 1/2 - 1 (0.621 mi.)</b>	<b>52</b>	<b>24</b>
<b>DERJAMI TEXACO</b> Release Tracking Number / Current Status: 3-0002245 / PENNFA	<b>800 BOYLSTON ST</b>	<b>ENE 1/2 - 1 (0.702 mi.)</b>	<b>54</b>	<b>25</b>
<b>OMNI FOODS GROCERY S</b> Release Tracking Number / Current Status: 3-0025099 / RAO	<b>200 BOYLSTON ST</b>	<b>WSW 1/2 - 1 (0.745 mi.)</b>	<b>58</b>	<b>26</b>
<b>WARREN STREET PARCEL</b> Release Tracking Number / Current Status: 3-0029516 / RAO	<b>80 HEATH ST</b>	<b>E 1/2 - 1 (0.752 mi.)</b>	<b>59</b>	<b>27</b>
<b>THE COUNTRY CLUB STA</b> Release Tracking Number / Current Status: 3-0033554 / UNCLSS Release Tracking Number / Current Status: 3-0033455 / UNCLSS	<b>191 CLYDE STREET</b>	<b>SE 1/2 - 1 (0.786 mi.)</b>	<b>60</b>	<b>27</b>
<b>CHESTNUT HILL</b> Release Tracking Number / Current Status: 3-0019536 / RAO	<b>12 LAGRANGE ST</b>	<b>S 1/2 - 1 (0.802 mi.)</b>	<b>61</b>	<b>27</b>
<b>SUNOCO SERVICE STATI</b> Release Tracking Number / Current Status: 3-0019998 / RAONR Release Tracking Number / Current Status: 3-0016895 / RAO	<b>325 BOYLSTON ST</b>	<b>WSW 1/2 - 1 (0.952 mi.)</b>	<b>71</b>	<b>31</b>
<b>Lower Elevation</b>	<b>Address</b>	<b>Direction / Distance</b>	<b>Map ID</b>	<b>Page</b>
<b>NO LOCATION AID</b> Release Tracking Number / Current Status: 3-0020733 / RAO Release Tracking Number / Current Status: 3-0003009 / DEPND5	<b>640 HAMMOND ST</b>	<b>SW 0 - 1/8 (0.006 mi.)</b>	<b>A1</b>	<b>8</b>
<b>MCNEILLY GARAGE</b> Release Tracking Number / Current Status: 3-0019556 / RAONR Release Tracking Number / Current Status: 3-0017343 / RAONR Release Tracking Number / Current Status: 3-0002320 / RAO Release Tracking Number / Current Status: 3-0026526 / RAONR Release Tracking Number / Current Status: 3-0026468 / RAONR <i>*Additional key fields are available in the Map Findings section</i>	<b>639 HAMMOND ST</b>	<b>WSW 0 - 1/8 (0.034 mi.)</b>	<b>A3</b>	<b>8</b>
<b>EXXON STATION #3-325</b> Release Tracking Number / Current Status: 3-0020511 / RAONR Release Tracking Number / Current Status: 3-0013540 / RAO Release Tracking Number / Current Status: 3-0032314 / PSNC Release Tracking Number / Current Status: 3-0032394 / RAONR Release Tracking Number / Current Status: 3-0019813 / REMOPS	<b>1180 BOYLSTON ST</b>	<b>WNW 0 - 1/8 (0.061 mi.)</b>	<b>B9</b>	<b>10</b>
<b>RESIDENCE</b>	<b>17 GLENOE RD</b>	<b>S 1/8 - 1/4 (0.153 mi.)</b>	<b>26</b>	<b>15</b>

## EXECUTIVE SUMMARY

Release Tracking Number / Current Status: 3-0028316 / RAO					
<b>CHESTNUT HILL SHOPPI</b>	<b>9 BOYLSTON ST</b>	<b>W 1/8 - 1/4 (0.207 mi.)</b>	<b>E29</b>	<b>16</b>	
Release Tracking Number / Current Status: 3-0013293 / RAO					
<b>COMMERCIAL PROPERTY</b>	<b>1244-1262 BOYLSTON S</b>	<b>W 1/8 - 1/4 (0.207 mi.)</b>	<b>E30</b>	<b>16</b>	
Release Tracking Number / Current Status: 3-0002125 / DEPNTA					
<b>CHESTNUT HILL SHOPPI</b>	<b>11 BOYLSTON ST</b>	<b>W 1/8 - 1/4 (0.216 mi.)</b>	<b>E32</b>	<b>17</b>	
Release Tracking Number / Current Status: 3-0021391 / RAO					
<b>1268 BOYLSTON ST NEA</b>	<b>BOYLSTON ST</b>	<b>W 1/8 - 1/4 (0.241 mi.)</b>	<b>F35</b>	<b>18</b>	
Release Tracking Number / Current Status: 3-0011162 / RAO					
<b>GENERAL CINEMAS FMR</b>	<b>27 BOYLSTON ST</b>	<b>W 1/4 - 1/2 (0.264 mi.)</b>	<b>G36</b>	<b>18</b>	
Release Tracking Number / Current Status: 3-0001261 / REMOPS					
<b>NO LOCATION AID</b>	<b>25 BOYLSTON ST</b>	<b>W 1/4 - 1/2 (0.266 mi.)</b>	<b>G37</b>	<b>18</b>	
Release Tracking Number / Current Status: 3-0028099 / URAM					
<b>NO LOCATION AID</b>	<b>1280 AND 1290 BOYLST</b>	<b>W 1/4 - 1/2 (0.299 mi.)</b>	<b>39</b>	<b>19</b>	
Release Tracking Number / Current Status: 3-0015680 / RAO					
<b>PARK INN HOTEL</b>	<b>160 BOYLSTON ST</b>	<b>WSW 1/2 - 1 (0.568 mi.)</b>	<b>48</b>	<b>23</b>	
Release Tracking Number / Current Status: 3-0023265 / RAO					
<b>VEHICLE ACCIDENT</b>	<b>BEACON STREET AND RE</b>	<b>NNE 1/2 - 1 (0.579 mi.)</b>	<b>49</b>	<b>23</b>	
Release Tracking Number / Current Status: 3-0023873 / RAO					
<b>ASH LANDFILL FMR</b>	<b>HAMMOND ST</b>	<b>S 1/2 - 1 (0.596 mi.)</b>	<b>50</b>	<b>23</b>	
Release Tracking Number / Current Status: 3-0000939 / RAO					
<b>CAROL POST</b>	<b>33 CHESTNUT HILL RD</b>	<b>N 1/2 - 1 (0.626 mi.)</b>	<b>53</b>	<b>24</b>	
Release Tracking Number / Current Status: 3-0023917 / RAO					
<b>MERKERT CHEMISTRY CE</b>	<b>2635 BEACON ST</b>	<b>N 1/2 - 1 (0.717 mi.)</b>	<b>55</b>	<b>25</b>	
Release Tracking Number / Current Status: 3-0029276 / RAO					
<b>BOSTON COLLEGE - SIL</b>	<b>2601 BEACON ST</b>	<b>NNW 1/2 - 1 (0.721 mi.)</b>	<b>56</b>	<b>25</b>	
Release Tracking Number / Current Status: 3-0029202 / RAO					
<b>NO LOCATION AID</b>	<b>10 HAMMOND POND PKWY</b>	<b>S 1/2 - 1 (0.730 mi.)</b>	<b>57</b>	<b>26</b>	
Release Tracking Number / Current Status: 3-0013381 / RAONR					
<b>BOSTON COLLEGE</b>	<b>200 ST THOMAS MOORE</b>	<b>N 1/2 - 1 (0.807 mi.)</b>	<b>62</b>	<b>28</b>	
Release Tracking Number / Current Status: 3-0016890 / RAO					
<b>NO LOCATION AID</b>	<b>HEATH HILL RD</b>	<b>ENE 1/2 - 1 (0.820 mi.)</b>	<b>63</b>	<b>28</b>	
Release Tracking Number / Current Status: 3-0014221 / URAM					
<b>CUMBERLAND FARMS GUL</b>	<b>1195 BOYLSTON ST</b>	<b>ENE 1/2 - 1 (0.841 mi.)</b>	<b>64</b>	<b>29</b>	
Release Tracking Number / Current Status: 3-0023609 / RAO					
Release Tracking Number / Current Status: 3-0014010 / RAONR					
Release Tracking Number / Current Status: 3-0011189 / RAONR					
Release Tracking Number / Current Status: 3-0004823 / RAO					
<b>BROOKLINE/NEWTON LIN</b>	<b>39 KENSINGTON CIR</b>	<b>SSW 1/2 - 1 (0.854 mi.)</b>	<b>H65</b>	<b>29</b>	
Release Tracking Number / Current Status: 3-0026416 / RAO					
<b>HAMPTON PLACE CONDOM</b>	<b>77 FLORENCE ST</b>	<b>WSW 1/2 - 1 (0.862 mi.)</b>	<b>66</b>	<b>30</b>	
Release Tracking Number / Current Status: 3-0024494 / RAO					
<b>BROOKLINE/NEWTON LIN</b>	<b>31 KENSINGTON CIR</b>	<b>SSW 1/2 - 1 (0.870 mi.)</b>	<b>H67</b>	<b>30</b>	
Release Tracking Number / Current Status: 3-0026418 / RAO					
<b>NO LOCATION AID</b>	<b>375 CHESTNUT HILL AV</b>	<b>NNE 1/2 - 1 (0.883 mi.)</b>	<b>68</b>	<b>30</b>	
Release Tracking Number / Current Status: 3-0033550 / UNCLSS					
<b>BROOKLINE/NEWTON LIN</b>	<b>45 MARTHAS LN</b>	<b>SSW 1/2 - 1 (0.898 mi.)</b>	<b>I69</b>	<b>31</b>	

## EXECUTIVE SUMMARY

Release Tracking Number / Current Status: 3-0026417 / RAO				
<b>BROOKLINE/NEWTON (CH</b>	<b>33 MARTHAS LN</b>	<b>SSW 1/2 - 1 (0.922 mi.)</b>	<b>I70</b>	<b>31</b>
Release Tracking Number / Current Status: 3-0025862 / RAO				
<b>BOSTON COLLEGE/SERVI</b>	<b>140 COMMONWEALTH AVE</b>	<b>NNW 1/2 - 1 (0.953 mi.)</b>	<b>J72</b>	<b>32</b>
Release Tracking Number / Current Status: 3-0030690 / RAO				
Release Tracking Number / Current Status: 3-0016681 / RAO				
Release Tracking Number / Current Status: 3-0010103 / RAO				
Release Tracking Number / Current Status: 3-0025465 / RAO				
<b>BOSTON COLLEGE MAIN</b>	<b>140 COMMONWEALTH AVE</b>	<b>NNW 1/2 - 1 (0.953 mi.)</b>	<b>J73</b>	<b>33</b>
Release Tracking Number / Current Status: 3-0023101 / RAO				
<b>RESIDENTIAL PROPERTY</b>	<b>42 FISHER AVE</b>	<b>ENE 1/2 - 1 (0.968 mi.)</b>	<b>74</b>	<b>34</b>
Release Tracking Number / Current Status: 3-0030508 / RAO				
<b>TRACKMANS LOBBY</b>	<b>400 CHESTNUT HILL AV</b>	<b>NE 1/2 - 1 (0.974 mi.)</b>	<b>75</b>	<b>34</b>
Release Tracking Number / Current Status: 3-0026609 / RAO				

### **State and tribal landfill and/or solid waste disposal site lists**

SWF/LF: A review of the SWF/LF list, as provided by EDR, has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>OLD BROOKLINE ASH LA</b>	<b>870 HAMMOND ST</b>	<b>S 1/4 - 1/2 (0.452 mi.)</b>	<b>46</b>	<b>22</b>
Database: SWF/LF, Date of Government Version: 01/31/2016				
Current Operational Status: Inactive				
Current Operational Status: Closed				

### **State and tribal leaking storage tank lists**

LAST: A review of the LAST list, as provided by EDR, and dated 06/28/2016 has revealed that there are 2 LAST sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>MCNEILLY GARAGE</b>	<b>639 HAMMOND ST</b>	<b>WSW 0 - 1/8 (0.034 mi.)</b>	<b>A3</b>	<b>8</b>
Release Tracking Number / Current Status: 3-0016950 / RAO				
<b>RESIDENCE</b>	<b>17 GLENOE RD</b>	<b>S 1/8 - 1/4 (0.153 mi.)</b>	<b>26</b>	<b>15</b>
Release Tracking Number / Current Status: 3-0028316 / RAO				

LUST: A review of the LUST list, as provided by EDR, and dated 06/28/2016 has revealed that there are 15 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>WIESCHHOFF RESIDENCE</b>	<b>30 NORFOLK RD</b>	<b>NNE 1/8 - 1/4 (0.181 mi.)</b>	<b>28</b>	<b>15</b>

## EXECUTIVE SUMMARY

Release Tracking Number / Current Status: 3-0015731 / RAO				
<b>RANDOLPH</b>	<b>375 HEATH ST</b>	<b>E 1/8 - 1/4 (0.235 mi.)</b>	<b>34</b>	<b>17</b>
Release Tracking Number / Current Status: 3-0012797 / RAO				
<b>CHESTNUT HILL BENEVO</b>	<b>910 BOYLSTON ST</b>	<b>ENE 1/4 - 1/2 (0.324 mi.)</b>	<b>41</b>	<b>20</b>
Release Tracking Number / Current Status: 3-0025358 / RAO				
<b>NO LOCATION AID</b>	<b>413 HAMMOND STREET</b>	<b>NNW 1/4 - 1/2 (0.451 mi.)</b>	<b>45</b>	<b>21</b>
Release Tracking Number / Current Status: 3-0032719 / PSNC				
<b>CHESTNUT HILL</b>	<b>88 ESSEX RD</b>	<b>NNW 1/4 - 1/2 (0.496 mi.)</b>	<b>47</b>	<b>22</b>
Release Tracking Number / Current Status: 3-0011951 / RAO				

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>MCNEILLY GARAGE</b>	<b>639 HAMMOND ST</b>	<b>WSW 0 - 1/8 (0.034 mi.)</b>	<b>A3</b>	<b>8</b>
Release Tracking Number / Current Status: 3-0016950 / RAO				
Release Tracking Number / Current Status: 3-0023538 / RAONR				
<b>EXXON STATION #3-325</b>	<b>1180 BOYLSTON ST</b>	<b>WNW 0 - 1/8 (0.061 mi.)</b>	<b>B9</b>	<b>10</b>
Release Tracking Number / Current Status: 3-0013540 / RAO				
Release Tracking Number / Current Status: 3-0019813 / REMOPS				
Release Tracking Number / Current Status: 3-0032394 / RAONR				
<b>CHESTNUT HILL SHOPPI</b>	<b>13 BOYLSTON ST</b>	<b>W 1/8 - 1/4 (0.218 mi.)</b>	<b>E33</b>	<b>17</b>
Release Tracking Number / Current Status: 3-0012843 / RAO				
<b>GENERAL CINEMAS FMR</b>	<b>27 BOYLSTON ST</b>	<b>W 1/4 - 1/2 (0.264 mi.)</b>	<b>G36</b>	<b>18</b>
Release Tracking Number / Current Status: 3-0001261 / REMOPS				
<b>NO LOCATION AID</b>	<b>25 BOYLSTON ST</b>	<b>W 1/4 - 1/2 (0.266 mi.)</b>	<b>G37</b>	<b>18</b>
Release Tracking Number / Current Status: 3-0028099 / URAM				
<b>CHESTNUT HILL MEDICA</b>	<b>25 BOYLSTON ST</b>	<b>W 1/4 - 1/2 (0.266 mi.)</b>	<b>G38</b>	<b>19</b>
Release Tracking Number / Current Status: 3-0024881 / RAO				
<b>NO LOCATION AID</b>	<b>132 YARMOUTH RD</b>	<b>SE 1/4 - 1/2 (0.311 mi.)</b>	<b>40</b>	<b>20</b>
Release Tracking Number / Current Status: 3-0024451 / RAO				
<b>SHAWS SUPERMARKET</b>	<b>1 BOYLSTON ST</b>	<b>W 1/4 - 1/2 (0.349 mi.)</b>	<b>42</b>	<b>20</b>
Release Tracking Number / Current Status: 3-0028137 / RAO				
<b>NO LOCATION AID</b>	<b>59 VALLEY RD</b>	<b>NE 1/4 - 1/2 (0.376 mi.)</b>	<b>43</b>	<b>21</b>
Release Tracking Number / Current Status: 3-0017161 / RAO				
<b>SILBERT RESIDENCE</b>	<b>106 SPOONER RD</b>	<b>NNE 1/4 - 1/2 (0.411 mi.)</b>	<b>44</b>	<b>21</b>
Release Tracking Number / Current Status: 3-0020035 / RAO				

### **State and tribal registered storage tank lists**

UST: A review of the UST list, as provided by EDR, and dated 08/22/2016 has revealed that there are 5 UST sites within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CARRIE F CARROLL Tank Status: Tank Removed Facility Id: 11645	640 HAMMOND ST	SW 0 - 1/8 (0.016 mi.)	A2	8
S J MCNEILLY OLDS	639 HAMMOND ST	WSW 0 - 1/8 (0.034 mi.)	A4	9

## EXECUTIVE SUMMARY

Tank Status: Tank Removed Facility Id: 11658				
CHESTNUT HILL INVEST Tank Status: Tank Removed Facility Id: 11655	1180 BOYLSTON ST	WNW 0 - 1/8 (0.060 mi.)	B8	10
S J MCNEILLY OLDS Tank Status: Tank Removed Facility Id: 11636	14 SHEAFE ST	W 0 - 1/8 (0.080 mi.)	C16	12
CUMBERLAND FARMS #24 Tank Status: Tank Removed Tank Status: In Use Facility Id: 11657	1195 BOYLSTON ST	WNW 1/8 - 1/4 (0.130 mi.)	D24	14

### **State and tribal institutional control / engineering control registries**

INST CONTROL: A review of the INST CONTROL list, as provided by EDR, and dated 06/28/2016 has revealed that there are 2 INST CONTROL sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>CHESTNUT HILL SHOPPI</b> Release Tracking Number: 3-0013293	<b>9 BOYLSTON ST</b>	<b>W 1/8 - 1/4 (0.207 mi.)</b>	<b>E29</b>	<b>16</b>
<b>CHESTNUT HILL SHOPPI</b> Release Tracking Number: 3-0012843	<b>13 BOYLSTON ST</b>	<b>W 1/8 - 1/4 (0.218 mi.)</b>	<b>E33</b>	<b>17</b>

### **ADDITIONAL ENVIRONMENTAL RECORDS**

#### **Other Ascertainable Records**

RCRA NonGen / NLR: A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 06/21/2016 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>MCNEILLY S J OLDSMOB</b>	<b>639 HAMMOND ST</b>	<b>WSW 0 - 1/8 (0.034 mi.)</b>	<b>A6</b>	<b>10</b>

DRYCLEANERS: A review of the DRYCLEANERS list, as provided by EDR, and dated 07/07/2016 has revealed that there is 1 DRYCLEANERS site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>CENTRAL CLEANERS OF</b> Facility Id: 53011	<b>621 HAMMOND ST</b>	<b>W 0 - 1/8 (0.066 mi.)</b>	<b>B13</b>	<b>12</b>

## EXECUTIVE SUMMARY

HW GEN: A review of the HW GEN list, as provided by EDR, and dated 06/21/2016 has revealed that there are 8 HW GEN sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PINE MANOR COLLEGE EPA Id: MV6177317033	400 HEATH ST	E 1/8 - 1/4 (0.151 mi.)	25	14
<b><u>Lower Elevation</u></b>	<b><u>Address</u></b>	<b><u>Direction / Distance</u></b>	<b><u>Map ID</u></b>	<b><u>Page</u></b>
<b>CUMBERLAND FARMS #70</b> State Generator Status: SQG-MA State Generator Status: VQG-MA EPA Id: MV6175668000 EPA Id: MAD985288703	<b>1180 BOYLSTON ST</b>	<b>WNW 0 - 1/8 (0.061 mi.)</b>	<b>B12</b>	<b>11</b>
<b>CENTRAL CLEANERS OF</b> EPA Id: MAD980734503	<b>621 HAMMOND ST</b>	<b>W 0 - 1/8 (0.066 mi.)</b>	<b>B13</b>	<b>12</b>
<b>S J MCNEILLY OLDS</b> State Generator Status: VQG-MA State Generator Status: SQG-MA EPA Id: MV6177319994 EPA Id: MA5000005256	<b>14 SHEAFE ST</b>	<b>W 0 - 1/8 (0.086 mi.)</b>	<b>C17</b>	<b>13</b>
<b>CUMBERLAND FARMS 245</b> State Generator Status: VQG-MA EPA Id: MAC300002557	<b>1195 BOYLSTON ST</b>	<b>WNW 1/8 - 1/4 (0.130 mi.)</b>	<b>D21</b>	<b>14</b>
CVS PHARMACY 1862 EPA Id: MAC300019684	1195 BOYLSTON ST	WNW 1/8 - 1/4 (0.130 mi.)	D23	14
BRIMMER & MAY SCHOOL State Generator Status: VQG-MA EPA Id: MV6175667462	69 MIDDLESEX RD	N 1/8 - 1/4 (0.178 mi.)	27	15
NEW ENGLAND PODIATRY EPA Id: MV6176308280	1244 BOYLSTON ST	W 1/8 - 1/4 (0.214 mi.)	F31	16

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR Hist Auto: A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 4 EDR Hist Auto sites within approximately 0.125 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	639 HAMMOND ST	WSW 0 - 1/8 (0.034 mi.)	A5	9
Not reported	629 HAMMOND ST	WSW 0 - 1/8 (0.035 mi.)	A7	10
Not reported	1180 BOYLSTON ST	WNW 0 - 1/8 (0.061 mi.)	B10	11
Not reported	14 SHEAFE ST	W 0 - 1/8 (0.087 mi.)	C18	13

## EXECUTIVE SUMMARY

EDR Hist Cleaner: A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there is 1 EDR Hist Cleaner site within approximately 0.125 miles of the target property.

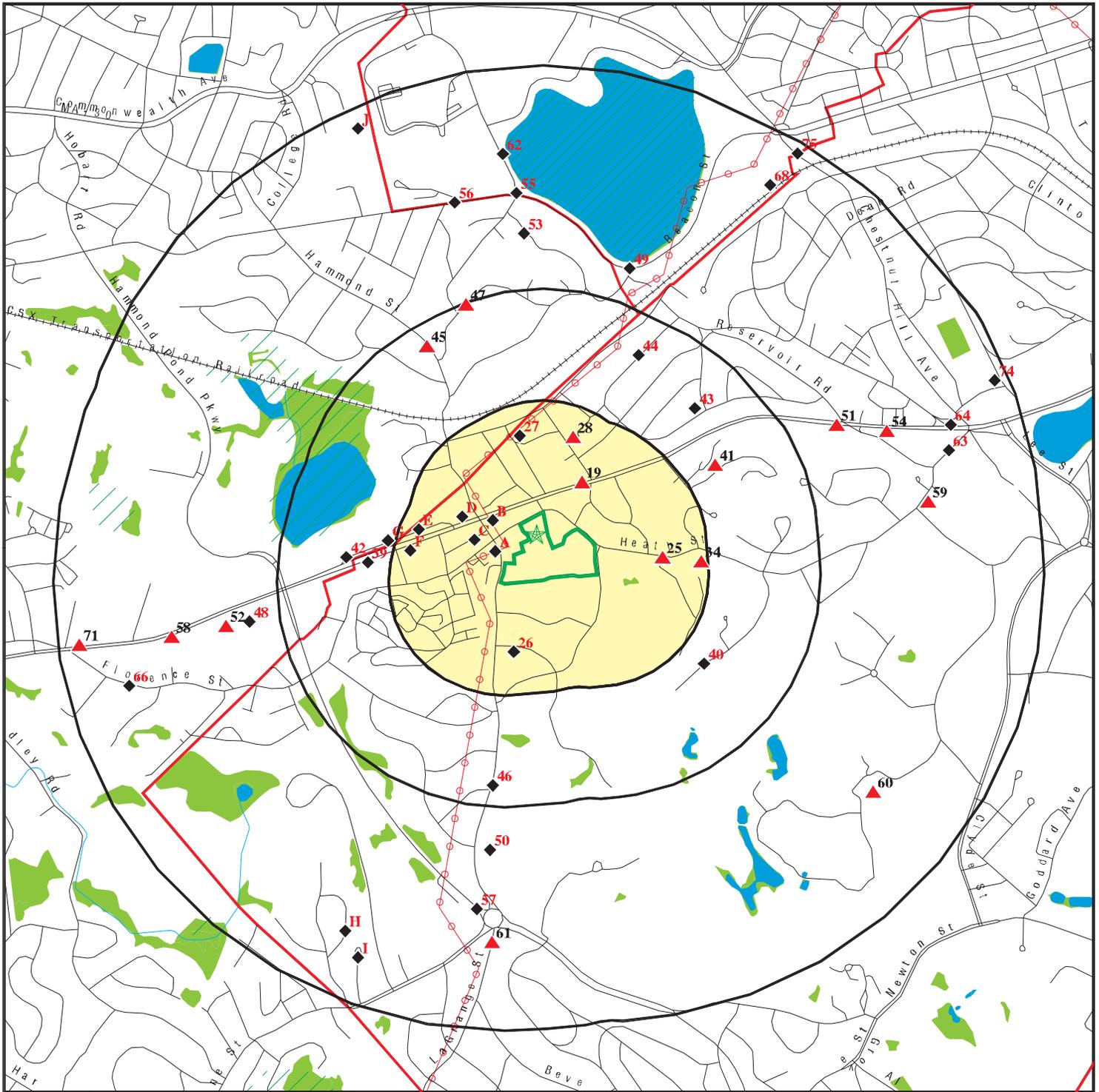
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	621 HAMMOND ST	W 0 - 1/8 (0.066 mi.)	B15	12

Count: 9 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BRIGHTON	S113882724	ALLSTON/BRIGHTON POOL	NORTH BEACON STREET	02135	SHWS, RELEASE
BRIGHTON	S106512462	32 AND 38 EVERETT ST	61-69 NORTH BEACON ST	02135	SHWS, RELEASE, ENF
BRIGHTON	S118643365	NO LOCATION AID	NORTH BEACON STREET	02135	SHWS, RELEASE
BRIGHTON	S106512769	FLYNN RECREATION CTR & ALUMINI	BOSTON COLLEGE CAMPUS	02135	SHWS, RELEASE
BROOKLINE	S108476911	AT CENTER STREET	BEACON ST		SHWS, RELEASE
BROOKLINE	S110055591	INTERSECTION OF BOYLSTON AND WARRE	BOYLSTON ST	02445	SHWS, RELEASE
BROOKLINE	S117277493	111 BOYLSTON ST & 10-12 KERRIGAN P	111 BOYLSTON ST & 10-12 KERRIG	02445	SHWS, LUST, RELEASE
BROOKLINE	S113805076	NO LOCATION AID	61 SHAW ROAD		SHWS, RELEASE
NEWTON	S113411735	CONGREGATION MISHKAN TEFILA	300 HAMMOND POND PARKWAY	02467	SHWS, LUST, RELEASE

# OVERVIEW MAP - 4795721.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

County Boundary

Power transmission lines

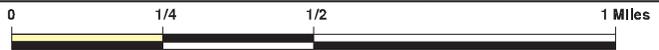
100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Critical Environmental Concern

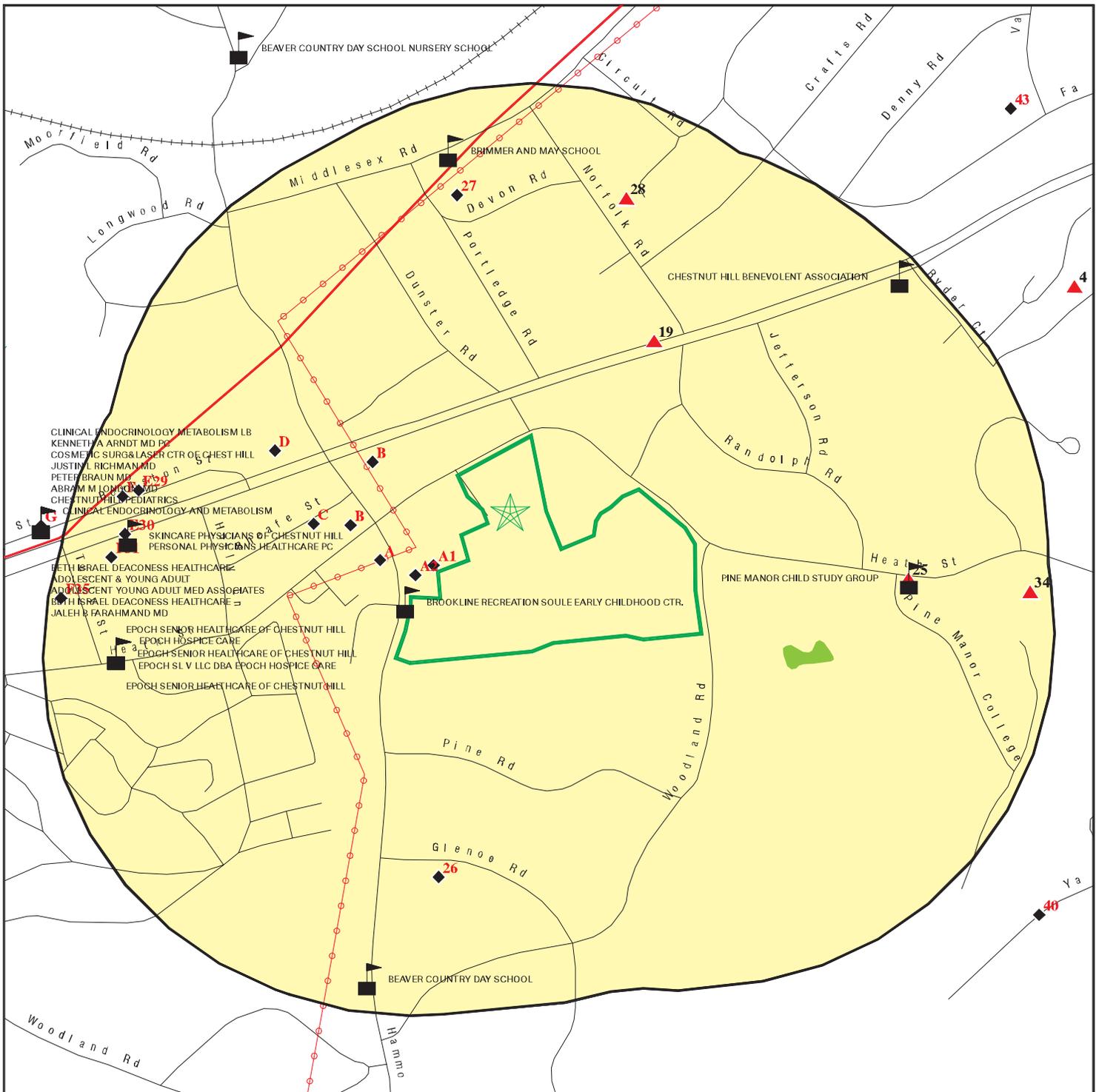


This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 2475-001 Levi Brookline Baldwin School  
 ADDRESS: 484 Heath Street  
 CHESTNUT HILL MA 02467  
 LAT/LONG: 42.322894 / 71.161403

CLIENT: Endpoint, LLC  
 CONTACT: Katie Snyder  
 INQUIRY #: 4795721.2s  
 DATE: December 02, 2016 11:35 am

# DETAIL MAP - 4795721.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles



Indian Reservations BIA

County Boundary

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Critical Environmental Concern



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 2475-001 Levi Brookline Baldwin School  
 ADDRESS: 484 Heath Street  
 CHESTNUT HILL MA 02467  
 LAT/LONG: 42.322894 / 71.161403

CLIENT: Endpoint, LLC  
 CONTACT: Katie Snyder  
 INQUIRY #: 4795721.2s  
 DATE: December 02, 2016 11:36 am

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b>STANDARD ENVIRONMENTAL RECORDS</b>								
<b><i>Federal NPL site list</i></b>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
<b><i>Federal Delisted NPL site list</i></b>								
Delisted NPL	1.000		0	0	0	0	NR	0
<b><i>Federal CERCLIS list</i></b>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<b><i>Federal CERCLIS NFRAP site list</i></b>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<b><i>Federal RCRA CORRACTS facilities list</i></b>								
CORRACTS	1.000		0	0	0	0	NR	0
<b><i>Federal RCRA non-CORRACTS TSD facilities list</i></b>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<b><i>Federal RCRA generators list</i></b>								
RCRA-LQG	0.250		0	1	NR	NR	NR	1
RCRA-SQG	0.250		1	0	NR	NR	NR	1
RCRA-CESQG	0.250		1	1	NR	NR	NR	2
<b><i>Federal institutional controls / engineering controls registries</i></b>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<b><i>Federal ERNS list</i></b>								
ERNS	TP		NR	NR	NR	NR	NR	0
<b><i>State- and tribal - equivalent CERCLIS</i></b>								
SHWS	1.000		4	5	5	28	NR	42
<b><i>State and tribal landfill and/or solid waste disposal site lists</i></b>								
SWF/LF	0.500		0	0	1	NR	NR	1
<b><i>State and tribal leaking storage tank lists</i></b>								
LAST	0.500		1	1	0	NR	NR	2
LUST	0.500		2	3	10	NR	NR	15
INDIAN LUST	0.500		0	0	0	NR	NR	0
<b><i>State and tribal registered storage tank lists</i></b>								
FEMA UST	0.250		0	0	NR	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		4	1	NR	NR	NR	5
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
<b>State and tribal institutional control / engineering control registries</b>								
INST CONTROL	0.500		0	2	0	NR	NR	2
<b>State and tribal voluntary cleanup sites</b>								
INDIAN VCP	0.500		0	0	0	NR	NR	0
<b>State and tribal Brownfields sites</b>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b>ADDITIONAL ENVIRONMENTAL RECORDS</b>								
<b>Local Brownfield lists</b>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b>Local Lists of Landfill / Solid Waste Disposal Sites</b>								
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
<b>Local Lists of Hazardous waste / Contaminated Sites</b>								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
<b>Local Land Records</b>								
LIENS	TP		NR	NR	NR	NR	NR	0
LIENS 2	TP		NR	NR	NR	NR	NR	0
<b>Records of Emergency Release Reports</b>								
HMIRS	TP		NR	NR	NR	NR	NR	0
RELEASE	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
SPILLS 80	TP		NR	NR	NR	NR	NR	0
<b>Other Ascertainable Records</b>								
RCRA NonGen / NLR	0.250		1	0	NR	NR	NR	1
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		1	0	NR	NR	NR	1
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
GWDP	TP		NR	NR	NR	NR	NR	0
HW GEN	0.250		3	5	NR	NR	NR	8
LEAD	TP		NR	NR	NR	NR	NR	0
MERCURY	0.500		0	0	0	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
TIER 2	TP		NR	NR	NR	NR	NR	0
TSD	0.500		0	0	0	NR	NR	0
ABANDONED MINES	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0

### EDR HIGH RISK HISTORICAL RECORDS

#### *EDR Exclusive Records*

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		4	NR	NR	NR	NR	4
EDR Hist Cleaner	0.125		1	NR	NR	NR	NR	1

### EDR RECOVERED GOVERNMENT ARCHIVES

#### *Exclusive Recovered Govt. Archives*

RGA HWS	TP		NR	NR	NR	NR	NR	0
---------	----	--	----	----	----	----	----	---

## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	23	19	16	28	0	86

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

A1  
SW  
< 1/8  
0.006 mi.  
30 ft.

**NO LOCATION AID**  
**640 HAMMOND ST**  
**BROOKLINE, MA 02445**

**SHWS** S101025231  
**RELEASE** N/A  
**SPILLS**

[Click here for full text details](#)

Relative:  
Lower

**SHWS**  
Release Tracking Number / Current Status: 3-0020733 / RAO  
Release Tracking Number / Current Status: 3-0003009 / DEPND5

Click here to access the MA DEP site for this facility

**RELEASE**  
Release Tracking Number / Current Status: 3-0003009 / DEPND5  
Release Tracking Number / Current Status: 3-0020733 / RAO

Click here to access the MA DEP site for this facility

**SPILLS**  
Facility Id: 3-3009  
Case Closed: YES  
Spill ID: N89-1728

A2  
SW  
< 1/8  
0.016 mi.  
83 ft.

**CARRIE F CARROLL**  
**640 HAMMOND ST**  
**BROOKLINE, MA 02467**

**UST** U004246666  
N/A

[Click here for full text details](#)

Relative:  
Lower

**UST**  
Facility Id: 11645  
Tank Status: Tank Removed

A3  
WSW  
< 1/8  
0.034 mi.  
179 ft.

**MCNEILLY GARAGE**  
**639 HAMMOND ST**  
**BROOKLINE, MA 02146**

**SHWS** S101017033  
**LUST** N/A  
**LAST**  
**RELEASE**  
**SPILLS**  
**ENF**

[Click here for full text details](#)

Relative:  
Lower

**SHWS**  
Release Tracking Number / Current Status: 3-0019556 / RAONR  
Release Tracking Number / Current Status: 3-0017343 / RAONR  
Release Tracking Number / Current Status: 3-0002320 / RAO  
Release Tracking Number / Current Status: 3-0026526 / RAONR  
Release Tracking Number / Current Status: 3-0026468 / RAONR  
Release Tracking Number / Current Status: 3-0016950 / RAO

Click here to access the MA DEP site for this facility

**LUST**  
Release Tracking Number / Current Status: 3-0016950 / RAO

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MCNEILLY GARAGE (Continued)**

**S101017033**

Release Tracking Number / Current Status: 3-0023538 / RAONR

[Click here to access the MA DEP site for this facility](#)

**LAST**

Release Tracking Number / Current Status: 3-0016950 / RAO

**RELEASE**

Release Tracking Number / Current Status: 3-0002320 / RAO  
Release Tracking Number / Current Status: 3-0016950 / RAO  
Release Tracking Number / Current Status: 3-0017343 / RAONR  
Release Tracking Number / Current Status: 3-0019556 / RAONR  
Release Tracking Number / Current Status: 3-0023538 / RAONR  
Release Tracking Number / Current Status: 3-0026468 / RAONR  
Release Tracking Number / Current Status: 3-0026526 / RAONR

[Click here to access the MA DEP site for this facility](#)

**SPILLS**

Facility Id: 3-2320  
Case Closed: YES  
Spill ID: N87-0373

**ENF**

Program Id: 3-0016950

**A4**  
**WSW**  
**< 1/8**  
**0.034 mi.**  
**179 ft.**

**S J MCNEILLY OLDS**  
**639 HAMMOND ST**  
**BROOKLINE, MA 02467**

**UST** **U004246671**  
**N/A**

[Click here for full text details](#)

**Relative:**  
**Lower**

**UST**

Facility Id: 11658  
Tank Status: Tank Removed

**A5**  
**WSW**  
**< 1/8**  
**0.034 mi.**  
**179 ft.**

**639 HAMMOND ST**  
**CHESTNUT HILL, MA 02467**

**EDR Hist Auto** **1015586709**  
**N/A**

[Click here for full text details](#)

**Relative:**  
**Lower**

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**A6**  
**WSW**  
< 1/8  
0.034 mi.  
179 ft.

**MCNEILLY S J OLDSMOBILE INC**  
**639 HAMMOND ST**  
**NEWTON, MA 02467**

**RCRA NonGen / NLR**  
**FINDS**  
**ECHO**

**1000203039**  
**MAD981893795**

[Click here for full text details](#)

Relative:  
Lower

**RCRA NonGen / NLR**  
EPA Id: MAD981893795

**FINDS**

Registry ID:: 110008413582

**A7**  
**WSW**  
< 1/8  
0.035 mi.  
185 ft.

**629 HAMMOND ST**  
**CHESTNUT HILL, MA 02467**

**EDR Hist Auto**

**1015583017**  
**N/A**

[Click here for full text details](#)

Relative:  
Lower

**B8**  
**WNW**  
< 1/8  
0.060 mi.  
318 ft.

**CHESTNUT HILL INVESTMENTS LLC**  
**1180 BOYLSTON ST**  
**BROOKLINE, MA 02467**

**UST**

**U004246669**  
**N/A**

[Click here for full text details](#)

Relative:  
Lower

**UST**

Facility Id: 11655  
Tank Status: Tank Removed

**B9**  
**WNW**  
< 1/8  
0.061 mi.  
322 ft.

**EXXON STATION #3-3258**  
**1180 BOYLSTON ST**  
**BROOKLINE, MA 02146**

**SHWS**  
**LUST**  
**RELEASE**  
**ENF**

**S104545565**  
**N/A**

[Click here for full text details](#)

Relative:  
Lower

**SHWS**

Release Tracking Number / Current Status: 3-0020511 / RAONR  
Release Tracking Number / Current Status: 3-0013540 / RAO  
Release Tracking Number / Current Status: 3-0032314 / PSNC  
Release Tracking Number / Current Status: 3-0032394 / RAONR  
Release Tracking Number / Current Status: 3-0019813 / REMOPS

[Click here to access the MA DEP site for this facility](#)

**LUST**

Release Tracking Number / Current Status: 3-0013540 / RAO  
Release Tracking Number / Current Status: 3-0019813 / REMOPS  
Release Tracking Number / Current Status: 3-0032394 / RAONR

[Click here to access the MA DEP site for this facility](#)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**EXXON STATION #3-3258 (Continued)**

**S104545565**

**RELEASE**

Release Tracking Number / Current Status: 3-0013540 / RAO  
Release Tracking Number / Current Status: 3-0019813 / REMOPS  
Release Tracking Number / Current Status: 3-0020511 / RAONR  
Release Tracking Number / Current Status: 3-0032314 / PSNC  
Release Tracking Number / Current Status: 3-0032394 / RAONR

[Click here to access the MA DEP site for this facility](#)

**ENF**

Program Id: 3-0019813

**B10**  
**WNW**  
< 1/8  
0.061 mi.  
322 ft.

**1180 BOYLSTON ST**  
**CHESTNUT HILL, MA 02467**

**EDR Hist Auto 1015174289**  
**N/A**

[Click here for full text details](#)

**Relative:**  
**Lower**

**B11**  
**WNW**  
< 1/8  
0.061 mi.  
322 ft.

**EXXON DIV OF CFI 70011**  
**1180 BOYLSTON ST**  
**NEWTON, MA 02467**

**RCRA-SQG 1004717941**  
**MAD985288703**

[Click here for full text details](#)

**Relative:**  
**Lower**

**RCRA-SQG**  
EPA Id: MAD985288703

**B12**  
**WNW**  
< 1/8  
0.061 mi.  
322 ft.

**CUMBERLAND FARMS #70011**  
**1180 BOYLSTON ST**  
**CHESTNUT HILL, MA 02467**

**Financial Assurance U002008865**  
**HW GEN N/A**

[Click here for full text details](#)

**Relative:**  
**Lower**

**Financial Assurance**  
Facility Id: 11655

**HW GEN**

State Generator Status: SQG-MA  
State Generator Status: VQG-MA  
EPA Id: MV6175668000  
EPA Id: MAD985288703

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance		Database(s)	
Elevation	Site		

---

<b>B13</b> West < 1/8 0.066 mi. 350 ft.	<b>CENTRAL CLEANERS OF BROOKLINE INC</b> 621 HAMMOND ST BROOKLINE, MA 02467  <a href="#">Click here for full text details</a>  <b>Relative:</b> Lower  <b>DRYCLEANERS</b> Facility Id: 53011  <b>HW GEN</b> EPA Id: MAD980734503	<b>DRYCLEANERS</b> HW GEN	<b>S106488664</b> N/A
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<b>B14</b> West < 1/8 0.066 mi. 350 ft.	<b>CENTRAL CLEANERS</b> 621 HAMMOND STREET BROOKLINE, MA 02467  <a href="#">Click here for full text details</a>  <b>Relative:</b> Lower  <b>RCRA-CESQG</b> EPA Id: MAD980734503  <b>ICIS</b> FRS ID:: 110002464119  <b>US AIRS</b> EPA plant ID:: 110002464119  <b>FINDS</b> Registry ID:: 110002464119	<b>RCRA-CESQG</b> ICIS US AIRS FINDS ECHO	<b>1004518477</b> <b>MAD980734503</b>
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<b>B15</b> West < 1/8 0.066 mi. 350 ft.	<b>621 HAMMOND ST</b> CHESTNUT HILL, MA 02467  <a href="#">Click here for full text details</a>  <b>Relative:</b> Lower	<b>EDR Hist Cleaner</b>	<b>1015082036</b> N/A
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<b>C16</b> West < 1/8 0.080 mi. 425 ft.	<b>S J MCNEILLY OLDS</b> 14 SHEAFE ST BROOKLINE, MA 02467  <a href="#">Click here for full text details</a>  <b>Relative:</b> Lower  <b>UST</b> Facility Id: 11636 Tank Status: Tank Removed	<b>UST</b>	<b>U004246662</b> N/A
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MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

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<b>C17</b> West < 1/8 0.086 mi. 454 ft.	<b>S J MCNEILLY OLDS</b> 14 SHEAFE ST CHESTNUT HILL, MA 02467	<b>Financial Assurance</b> HW GEN	<b>U003655126</b> N/A
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[Click here for full text details](#)

Relative:  
Lower  
**Financial Assurance**  
Facility Id: 11636

**HW GEN**  
 State Generator Status: VQG-MA  
 State Generator Status: SQG-MA  
 EPA Id: MV6177319994  
 EPA Id: MA5000005256

<b>C18</b> West < 1/8 0.087 mi. 459 ft.	<b>14 SHEAFE ST</b> CHESTNUT HILL, MA 02467	<b>EDR Hist Auto</b>	<b>1015218764</b> N/A
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[Click here for full text details](#)

Relative:  
Lower

<b>19</b> NE < 1/8 0.106 mi. 559 ft.	<b>ROUTE 9</b> 1075 BOYLSTON ST BROOKLINE, MA	<b>SHWS</b> RELEASE	<b>S106344199</b> N/A
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[Click here for full text details](#)

Relative:  
Higher  
**SHWS**  
 Release Tracking Number / Current Status: 3-0023648 / RAO  
  
 Click here to access the MA DEP site for this facility

**RELEASE**  
 Release Tracking Number / Current Status: 3-0023648 / RAO  
  
 Click here to access the MA DEP site for this facility

<b>D20</b> WNW 1/8-1/4 0.130 mi. 689 ft.	<b>CUMBERLAND FARMS 2456</b> 1195 BOYLSTON ST NEWTON, MA 02467	<b>RCRA-CESQG</b>	<b>1008403171</b> MAC300002557
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[Click here for full text details](#)

Relative:  
Lower  
**RCRA-CESQG**  
 EPA Id: MAC300002557

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

D21      CUMBERLAND FARMS 2456      Financial Assurance      U002008870  
 WNW      1195 BOYLSTON ST      HW GEN      N/A  
 1/8-1/4      CHESTNUT HILL, MA 02467  
 0.130 mi.  
 689 ft.

[Click here for full text details](#)

Relative:  
 Lower      Financial Assurance  
 Facility Id: 11657

HW GEN  
 State Generator Status: VQG-MA  
 EPA Id: MAC300002557

D22      CVS PHARMACY 1862      RCRA-LQG      1014954037  
 WNW      1195 BOYLSTON STREET & HAMMOND      MAC300019684  
 1/8-1/4      CHESTNUT HILL, MA 02467  
 0.130 mi.  
 689 ft.

[Click here for full text details](#)

Relative:  
 Lower      RCRA-LQG  
 EPA Id: MAC300019684

D23      CVS PHARMACY 1862      HW GEN      S113409398  
 WNW      1195 BOYLSTON ST      N/A  
 1/8-1/4      CHESTNUT HILL, MA 02467  
 0.130 mi.  
 689 ft.

[Click here for full text details](#)

Relative:  
 Lower      HW GEN  
 EPA Id: MAC300019684

D24      CUMBERLAND FARMS #2456      UST      U004246670  
 WNW      1195 BOYLSTON ST      N/A  
 1/8-1/4      BROOKLINE, MA 02467  
 0.130 mi.  
 689 ft.

[Click here for full text details](#)

Relative:  
 Lower      UST  
 Facility Id: 11657  
 Tank Status: Tank Removed  
 Tank Status: In Use

25      PINE MANOR COLLEGE      HW GEN      S112558779  
 East      400 HEATH ST      N/A  
 1/8-1/4      NEWTON, MA 02467  
 0.151 mi.  
 795 ft.

[Click here for full text details](#)

Relative:  
 Higher      HW GEN  
 EPA Id: MV6177317033

MAP FINDINGS

Map ID Direction Distance Elevation		Database(s)	EDR ID Number EPA ID Number
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<b>26</b> South 1/8-1/4 0.153 mi. 807 ft.	<b>RESIDENCE</b> 17 GLENOE RD BROOKLINE, MA 02467	<b>SHWS</b> <b>LAST</b> <b>RELEASE</b>	<b>S109546243</b> <b>N/A</b>
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[Click here for full text details](#)

**Relative:**  
**Lower**

**SHWS**  
 Release Tracking Number / Current Status: 3-0028316 / RAO

Click here to access the MA DEP site for this facility

**LAST**  
 Release Tracking Number / Current Status: 3-0028316 / RAO

**RELEASE**  
 Release Tracking Number / Current Status: 3-0028316 / RAO

Click here to access the MA DEP site for this facility

<b>27</b> North 1/8-1/4 0.178 mi. 942 ft.	<b>BRIMMER &amp; MAY SCHOOL</b> 69 MIDDLESEX RD CHESTNUT HILL, MA 02467	<b>HW GEN</b>	<b>S116687554</b> <b>N/A</b>
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[Click here for full text details](#)

**Relative:**  
**Lower**

**HW GEN**  
 State Generator Status: VQG-MA  
 EPA Id: MV6175667462

<b>28</b> NNE 1/8-1/4 0.181 mi. 958 ft.	<b>WIESCHHOFF RESIDENCE</b> 30 NORFOLK RD BROOKLINE, MA 02146	<b>LUST</b> <b>RELEASE</b>	<b>S102967418</b> <b>N/A</b>
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[Click here for full text details](#)

**Relative:**  
**Higher**

**LUST**  
 Release Tracking Number / Current Status: 3-0015731 / RAO

Click here to access the MA DEP site for this facility

**RELEASE**  
 Release Tracking Number / Current Status: 3-0015731 / RAO

Click here to access the MA DEP site for this facility

MAP FINDINGS

Map ID Direction Distance Elevation		Database(s)	EDR ID Number EPA ID Number
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<b>E29</b> West 1/8-1/4 0.207 mi. 1092 ft.	<b>CHESTNUT HILL SHOPPING CENTER</b> <b>9 BOYLSTON ST</b> <b>CHESTNUT HILL, MA 02167</b>	<b>SHWS</b> <b>INST CONTROL</b> <b>RELEASE</b>	<b>S106511285</b> <b>N/A</b>
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[Click here for full text details](#)

**Relative:**  
**Lower**

**SHWS**  
Release Tracking Number / Current Status: 3-0013293 / RAO

Click here to access the MA DEP site for this facility

**INST CONTROL**  
Release Tracking Number: 3-0013293

**RELEASE**  
Release Tracking Number / Current Status: 3-0013293 / RAO

Click here to access the MA DEP site for this facility

<b>E30</b> West 1/8-1/4 0.207 mi. 1094 ft.	<b>COMMERCIAL PROPERTY</b> <b>1244-1262 BOYLSTON ST</b> <b>BROOKLINE, MA 02146</b>	<b>SHWS</b> <b>RELEASE</b>	<b>S100362879</b> <b>N/A</b>
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[Click here for full text details](#)

**Relative:**  
**Lower**

**SHWS**  
Release Tracking Number / Current Status: 3-0002125 / DEPNFA

Click here to access the MA DEP site for this facility

**RELEASE**  
Release Tracking Number / Current Status: 3-0002125 / DEPNFA

Click here to access the MA DEP site for this facility

<b>F31</b> West 1/8-1/4 0.214 mi. 1129 ft.	<b>NEW ENGLAND PODIATRY</b> <b>1244 BOYLSTON ST</b> <b>CHESTNUT HILL, MA 02467</b>	<b>HW GEN</b>	<b>S112558726</b> <b>N/A</b>
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[Click here for full text details](#)

**Relative:**  
**Lower**

**HW GEN**  
EPA Id: MV6176308280

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**E32**  
West  
1/8-1/4  
0.216 mi.  
1141 ft.

**CHESTNUT HILL SHOPPING CTR**  
11 BOYLSTON ST  
NEWTON, MA 02467

**SHWS** S105309362  
**RELEASE** N/A

Relative:  
Lower

[Click here for full text details](#)

**SHWS**  
Release Tracking Number / Current Status: 3-0021391 / RAO  
  
Click here to access the MA DEP site for this facility

**RELEASE**  
Release Tracking Number / Current Status: 3-0021391 / RAO  
  
Click here to access the MA DEP site for this facility

**E33**  
West  
1/8-1/4  
0.218 mi.  
1150 ft.

**CHESTNUT HILL SHOPPING CENTER**  
13 BOYLSTON ST  
NEWTON, MA

**LUST** S102086954  
**INST CONTROL** N/A  
**RELEASE**

Relative:  
Lower

[Click here for full text details](#)

**LUST**  
Release Tracking Number / Current Status: 3-0012843 / RAO  
  
Click here to access the MA DEP site for this facility

**INST CONTROL**  
Release Tracking Number: 3-0012843

**RELEASE**  
Release Tracking Number / Current Status: 3-0012843 / RAO  
  
Click here to access the MA DEP site for this facility

**34**  
East  
1/8-1/4  
0.235 mi.  
1239 ft.

**RANDOLPH**  
375 HEATH ST  
BROOKLINE, MA

**LUST** S104545420  
**RELEASE** N/A

Relative:  
Higher

[Click here for full text details](#)

**LUST**  
Release Tracking Number / Current Status: 3-0012797 / RAO  
  
Click here to access the MA DEP site for this facility

**RELEASE**  
Release Tracking Number / Current Status: 3-0012797 / RAO  
  
Click here to access the MA DEP site for this facility

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

---

<b>F35</b> West 1/8-1/4 0.241 mi. 1272 ft.	<b>1268 BOYLSTON ST NEAR RTE 9 EAST</b> <b>BOYLSTON ST</b> <b>BROOKLINE, MA 02146</b>	<b>SHWS</b> <b>RELEASE</b>	<b>S103545736</b> <b>N/A</b>
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[Click here for full text details](#)

**Relative:**  
**Lower**

**SHWS**  
 Release Tracking Number / Current Status: 3-0011162 / RAO

Click here to access the MA DEP site for this facility

**RELEASE**  
 Release Tracking Number / Current Status: 3-0011162 / RAO

Click here to access the MA DEP site for this facility

---

<b>G36</b> West 1/4-1/2 0.264 mi. 1392 ft.	<b>GENERAL CINEMAS FMR</b> <b>27 BOYLSTON ST</b> <b>NEWTON, MA 02158</b>	<b>SHWS</b> <b>LUST</b> <b>RELEASE</b>	<b>S105199353</b> <b>N/A</b>
--	--	--	---------------------------------

[Click here for full text details](#)

**Relative:**  
**Lower**

**SHWS**  
 Release Tracking Number / Current Status: 3-0001261 / REMOPS

Click here to access the MA DEP site for this facility

**LUST**  
 Release Tracking Number / Current Status: 3-0001261 / REMOPS

Click here to access the MA DEP site for this facility

**RELEASE**  
 Release Tracking Number / Current Status: 3-0001261 / REMOPS

Click here to access the MA DEP site for this facility

---

<b>G37</b> West 1/4-1/2 0.266 mi. 1407 ft.	<b>NO LOCATION AID</b> <b>25 BOYLSTON ST</b> <b>CHESTNUT HILL, MA 02467</b>	<b>SHWS</b> <b>LUST</b> <b>RELEASE</b> <b>HW GEN</b>	<b>S109489589</b> <b>N/A</b>
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[Click here for full text details](#)

**Relative:**  
**Lower**

**SHWS**  
 Release Tracking Number / Current Status: 3-0028099 / URAM

Click here to access the MA DEP site for this facility

**LUST**  
 Release Tracking Number / Current Status: 3-0028099 / URAM

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**NO LOCATION AID (Continued)**

**S109489589**

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0028099 / URAM

[Click here to access the MA DEP site for this facility](#)

**HW GEN**

EPA Id: MV6175666900

EPA Id: MV6177540400

**G38**  
West  
1/4-1/2  
0.266 mi.  
1407 ft.

**CHESTNUT HILL MEDICAL CENTER**  
25 BOYLSTON ST  
NEWTON, MA 02467

**LUST** **S106954469**  
**RELEASE** **N/A**  
**ENF**

[Click here for full text details](#)

Relative:  
Lower

**LUST**

Release Tracking Number / Current Status: 3-0024881 / RAO

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0024881 / RAO

[Click here to access the MA DEP site for this facility](#)

**ENF**

Program Id: 3-0024881

**39**  
West  
1/4-1/2  
0.299 mi.  
1580 ft.

**NO LOCATION AID**  
1280 AND 1290 BOYLSTON ST  
BROOKLINE, MA 02146

**SHWS** **S102967387**  
**RELEASE** **N/A**

[Click here for full text details](#)

Relative:  
Lower

**SHWS**

Release Tracking Number / Current Status: 3-0015680 / RAO

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0015680 / RAO

[Click here to access the MA DEP site for this facility](#)

MAP FINDINGS

Map ID Direction Distance Elevation		Database(s)	EDR ID Number EPA ID Number
--	--	-------------	--------------------------------

<b>40</b> SE 1/4-1/2 0.311 mi. 1643 ft.	<b>NO LOCATION AID</b> <b>132 YARMOUTH RD</b> <b>BROOKLINE, MA</b>	<b>LUST</b> <b>RELEASE</b>	<b>S106776105</b> <b>N/A</b>
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[Click here for full text details](#)

Relative:  
Lower

**LUST**  
Release Tracking Number / Current Status: 3-0024451 / RAO

Click here to access the MA DEP site for this facility

**RELEASE**  
Release Tracking Number / Current Status: 3-0024451 / RAO

Click here to access the MA DEP site for this facility

<b>41</b> ENE 1/4-1/2 0.324 mi. 1713 ft.	<b>CHESTNUT HILL BENEVOLENT ASSOC</b> <b>910 BOYLSTON ST</b> <b>CHESTNUT HILL, MA 02467</b>	<b>SHWS</b> <b>LUST</b> <b>RELEASE</b> <b>HW GEN</b>	<b>S106953985</b> <b>N/A</b>
--	---	---	---------------------------------

[Click here for full text details](#)

Relative:  
Higher

**SHWS**  
Release Tracking Number / Current Status: 3-0024837 / RAO

Click here to access the MA DEP site for this facility

**LUST**  
Release Tracking Number / Current Status: 3-0025358 / RAO

Click here to access the MA DEP site for this facility

**RELEASE**  
Release Tracking Number / Current Status: 3-0024837 / RAO  
Release Tracking Number / Current Status: 3-0025358 / RAO

Click here to access the MA DEP site for this facility

**HW GEN**  
State Generator Status: VQG-MA  
EPA Id: MV6177345600

<b>42</b> West 1/4-1/2 0.349 mi. 1842 ft.	<b>SHAWS SUPERMARKET</b> <b>1 BOYLSTON ST</b> <b>NEWTON, MA 02458</b>	<b>LUST</b> <b>RELEASE</b>	<b>S109489851</b> <b>N/A</b>
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[Click here for full text details](#)

Relative:  
Lower

**LUST**  
Release Tracking Number / Current Status: 3-0028137 / RAO

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHAWS SUPERMARKET (Continued)**

**S109489851**

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0028137 / RAO

[Click here to access the MA DEP site for this facility](#)

43  
NE  
1/4-1/2  
0.376 mi.  
1985 ft.

**NO LOCATION AID**  
**59 VALLEY RD**  
**BROOKLINE, MA 02146**

**LUST** **S103383804**  
**RELEASE** **N/A**

[Click here for full text details](#)

Relative:  
Lower

**LUST**

Release Tracking Number / Current Status: 3-0017161 / RAO

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0017161 / RAO

[Click here to access the MA DEP site for this facility](#)

44  
NNE  
1/4-1/2  
0.411 mi.  
2172 ft.

**SILBERT RESIDENCE**  
**106 SPOONER RD**  
**BROOKLINE, MA 02146**

**LUST** **S104847431**  
**RELEASE** **N/A**

[Click here for full text details](#)

Relative:  
Lower

**LUST**

Release Tracking Number / Current Status: 3-0020035 / RAO

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0020035 / RAO

[Click here to access the MA DEP site for this facility](#)

45  
NNW  
1/4-1/2  
0.451 mi.  
2379 ft.

**NO LOCATION AID**  
**413 HAMMOND STREET**  
**NEWTON, MA 02467**

**SHWS** **S117552821**  
**LUST** **N/A**  
**RELEASE**

[Click here for full text details](#)

Relative:  
Higher

**SHWS**

Release Tracking Number / Current Status: 3-0032719 / PSNC

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**NO LOCATION AID (Continued)**

**S117552821**

[Click here to access the MA DEP site for this facility](#)

**LUST**

Release Tracking Number / Current Status: 3-0032719 / PSNC

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0032719 / PSNC

[Click here to access the MA DEP site for this facility](#)

**46**  
South  
1/4-1/2  
0.452 mi.  
2385 ft.

**OLD BROOKLINE ASH LANDFILL**  
870 HAMMOND ST  
BROOKLINE, MA 02146

**SWF/LF** **S102687632**  
**HW GEN** **N/A**

[Click here for full text details](#)

Relative:  
Lower

**SWF/LF**

Current Operational Status: Inactive  
Current Operational Status: Closed

**HW GEN**

State Generator Status: SQG-MA  
EPA Id: MV6176462400

**47**  
NNW  
1/4-1/2  
0.496 mi.  
2618 ft.

**CHESTNUT HILL**  
88 ESSEX RD  
NEWTON, MA 02165

**LUST** **S107395354**  
**RELEASE** **N/A**  
**LEAD**

[Click here for full text details](#)

Relative:  
Higher

**LUST**

Release Tracking Number / Current Status: 3-0011951 / RAO

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0011951 / RAO

[Click here to access the MA DEP site for this facility](#)

**LEAD**

Inspector License Number: 1981

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**48**  
**WSW**  
**1/2-1**  
**0.568 mi.**  
**2997 ft.**

**PARK INN HOTEL**  
**160 BOYLSTON ST**  
**NEWTON, MA 02159**

**SHWS** **S106132260**  
**RELEASE** **N/A**

**Relative:**  
**Lower**

[Click here for full text details](#)

**SHWS**

Release Tracking Number / Current Status: 3-0023265 / RAO

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0023265 / RAO

[Click here to access the MA DEP site for this facility](#)

**49**  
**NNE**  
**1/2-1**  
**0.579 mi.**  
**3056 ft.**

**VEHICLE ACCIDENT**  
**BEACON STREET AND RESERVOIR RD**  
**BOSTON, MA 02135**

**SHWS** **S106512936**  
**RELEASE** **N/A**

**Relative:**  
**Lower**

[Click here for full text details](#)

**SHWS**

Release Tracking Number / Current Status: 3-0023873 / RAO

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0023873 / RAO

[Click here to access the MA DEP site for this facility](#)

**50**  
**South**  
**1/2-1**  
**0.596 mi.**  
**3149 ft.**

**ASH LANDFILL FMR**  
**HAMMOND ST**  
**BROOKLINE, MA 02146**

**SHWS** **S105199317**  
**INST CONTROL** **N/A**  
**RELEASE**

**Relative:**  
**Lower**

[Click here for full text details](#)

**SHWS**

Release Tracking Number / Current Status: 3-0000939 / RAO

[Click here to access the MA DEP site for this facility](#)

**INST CONTROL**

Release Tracking Number: 3-0000939

**RELEASE**

Release Tracking Number / Current Status: 3-0000939 / RAO

[Click here to access the MA DEP site for this facility](#)

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**51**  
**ENE**  
**1/2-1**  
**0.605 mi.**  
**3195 ft.**

**RESERVOIR RD**  
**830 BOYLSTON ST**  
**BROOKLINE, MA 02146**

**SHWS** **S105596765**  
**RELEASE** **N/A**

**Relative:**  
**Higher**

[Click here for full text details](#)

**SHWS**  
Release Tracking Number / Current Status: 3-0022088 / RAO  
  
Click here to access the MA DEP site for this facility

**RELEASE**  
Release Tracking Number / Current Status: 3-0022088 / RAO  
  
Click here to access the MA DEP site for this facility

**52**  
**WSW**  
**1/2-1**  
**0.621 mi.**  
**3280 ft.**

**MILTONS**  
**176 BOYLSTON ST**  
**NEWTON, MA 02467**

**SHWS** **S110115148**  
**RELEASE** **N/A**  
**ENF**

**Relative:**  
**Higher**

[Click here for full text details](#)

**SHWS**  
Release Tracking Number / Current Status: 3-0028976 / DPS  
  
Click here to access the MA DEP site for this facility

**RELEASE**  
Release Tracking Number / Current Status: 3-0028976 / DPS  
  
Click here to access the MA DEP site for this facility

**ENF**  
Program Id: 3-0028976

**53**  
**North**  
**1/2-1**  
**0.626 mi.**  
**3303 ft.**

**CAROL POST**  
**33 CHESTNUT HILL RD**  
**NEWTON, MA 02467**

**SHWS** **S106512960**  
**RELEASE** **N/A**

**Relative:**  
**Lower**

[Click here for full text details](#)

**SHWS**  
Release Tracking Number / Current Status: 3-0023917 / RAO  
  
Click here to access the MA DEP site for this facility

**RELEASE**  
Release Tracking Number / Current Status: 3-0023917 / RAO  
  
Click here to access the MA DEP site for this facility

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
--	------	-------------	--------------------------------

<b>54</b> <b>ENE</b> <b>1/2-1</b> <b>0.702 mi.</b> <b>3708 ft.</b>	<b>DERJAMI TEXACO</b> <b>800 BOYLSTON ST</b> <b>BROOKLINE, MA 02146</b>	<b>SHWS</b> <b>RELEASE</b>	<b>S100830408</b> <b>N/A</b>
--	---	-------------------------------	---------------------------------

[Click here for full text details](#)

**Relative:**  
**Higher**

**SHWS**  
Release Tracking Number / Current Status: 3-0002245 / PENNFA

Click here to access the MA DEP site for this facility

**RELEASE**  
Release Tracking Number / Current Status: 3-0002245 / PENNFA

Click here to access the MA DEP site for this facility

<b>55</b> <b>North</b> <b>1/2-1</b> <b>0.717 mi.</b> <b>3784 ft.</b>	<b>MERKERT CHEMISTRY CENTER</b> <b>2635 BEACON ST</b> <b>BRIGHTON, MA 02467</b>	<b>SHWS</b> <b>RELEASE</b> <b>ENF</b>	<b>S110361000</b> <b>N/A</b>
--	---	---	---------------------------------

[Click here for full text details](#)

**Relative:**  
**Lower**

**SHWS**  
Release Tracking Number / Current Status: 3-0029276 / RAO

Click here to access the MA DEP site for this facility

**RELEASE**  
Release Tracking Number / Current Status: 3-0029276 / RAO

Click here to access the MA DEP site for this facility

**ENF**  
Program Id: 3-0029276

<b>56</b> <b>NNW</b> <b>1/2-1</b> <b>0.721 mi.</b> <b>3806 ft.</b>	<b>BOSTON COLLEGE - SILVIO O CONTE FORUM</b> <b>2601 BEACON ST</b> <b>BOSTON, MA</b>	<b>SHWS</b> <b>RELEASE</b>	<b>S110303400</b> <b>N/A</b>
--	--	-------------------------------	---------------------------------

[Click here for full text details](#)

**Relative:**  
**Lower**

**SHWS**  
Release Tracking Number / Current Status: 3-0029202 / RAO

Click here to access the MA DEP site for this facility

**RELEASE**  
Release Tracking Number / Current Status: 3-0029202 / RAO

Click here to access the MA DEP site for this facility

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**57**  
South  
1/2-1  
0.730 mi.  
3855 ft.

**NO LOCATION AID**  
**10 HAMMOND POND PKWY**  
**NEWTON, MA**

**SHWS S101035793**  
**LUST N/A**  
**SPILLS**  
**RELEASE**  
**LEAD**

Relative:  
Lower

[Click here for full text details](#)

**SHWS**

Release Tracking Number / Current Status: 3-0013381 / RAONR

[Click here to access the MA DEP site for this facility](#)

**LUST**

Release Tracking Number / Current Status: 3-0013381 / RAONR

[Click here to access the MA DEP site for this facility](#)

**SPILLS**

Facility Id: 0000  
Case Closed: YES  
Spill ID: N90-1654

**RELEASE**

Release Tracking Number / Current Status: 3-0013381 / RAONR

[Click here to access the MA DEP site for this facility](#)

**LEAD**

Inspector License Number: 1377

**58**  
WSW  
1/2-1  
0.745 mi.  
3935 ft.

**OMNI FOODS GROCERY STORE**  
**200 BOYLSTON ST**  
**NEWTON, MA 02467**

**SHWS S106343868**  
**LUST N/A**  
**RELEASE**

Relative:  
Higher

[Click here for full text details](#)

**SHWS**

Release Tracking Number / Current Status: 3-0025099 / RAO

[Click here to access the MA DEP site for this facility](#)

**LUST**

Release Tracking Number / Current Status: 3-0023714 / RAO

Release Tracking Number / Current Status: 3-0025099 / RAO

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0023714 / RAO

Release Tracking Number / Current Status: 3-0025099 / RAO

[Click here to access the MA DEP site for this facility](#)

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**59**  
East  
1/2-1  
0.752 mi.  
3970 ft.

**WARREN STREET PARCEL**  
80 HEATH ST  
BROOKLINE, MA 02445

**SHWS** S110526358  
**RELEASE** N/A

Relative:  
Higher

[Click here for full text details](#)

**SHWS**

Release Tracking Number / Current Status: 3-0029516 / RAO

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0029516 / RAO

[Click here to access the MA DEP site for this facility](#)

**60**  
SE  
1/2-1  
0.786 mi.  
4148 ft.

**THE COUNTRY CLUB STABLES BUILDING**  
191 CLYDE STREET  
CHESTNUT HILL, MA 02467

**SHWS** S107305732  
**LUST** N/A  
**RELEASE**  
**LEAD**

Relative:  
Higher

[Click here for full text details](#)

**SHWS**

Release Tracking Number / Current Status: 3-0033554 / UNCLSS  
Release Tracking Number / Current Status: 3-0033455 / UNCLSS

[Click here to access the MA DEP site for this facility](#)

**LUST**

Release Tracking Number / Current Status: 3-0033455 / UNCLSS

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0033455 / UNCLSS  
Release Tracking Number / Current Status: 3-0033554 / UNCLSS

[Click here to access the MA DEP site for this facility](#)

**LEAD**

Inspector License Number: 2753

**61**  
South  
1/2-1  
0.802 mi.  
4235 ft.

**CHESTNUT HILL**  
12 LAGRANGE ST  
BROOKLINE, MA

**SHWS** S109029220  
**RELEASE** N/A

Relative:  
Higher

[Click here for full text details](#)

**SHWS**

Release Tracking Number / Current Status: 3-0019536 / RAO

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CHESTNUT HILL (Continued)**

**S109029220**

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0019536 / RAO

[Click here to access the MA DEP site for this facility](#)

**62**  
North  
1/2-1  
0.807 mi.  
4260 ft.

**BOSTON COLLEGE**  
**200 ST THOMAS MOORE DR**  
**BRIGHTON, MA 02135**

**SHWS S106511782**  
**LAST N/A**  
**RELEASE**

[Click here for full text details](#)

Relative:  
Lower

**SHWS**

Release Tracking Number / Current Status: 3-0016890 / RAO

[Click here to access the MA DEP site for this facility](#)

**LAST**

Release Tracking Number / Current Status: 3-0016890 / RAO

**RELEASE**

Release Tracking Number / Current Status: 3-0016890 / RAO

[Click here to access the MA DEP site for this facility](#)

**63**  
ENE  
1/2-1  
0.820 mi.  
4332 ft.

**NO LOCATION AID**  
**HEATH HILL RD**  
**BROOKLINE, MA 02146**

**SHWS S104545697**  
**RELEASE N/A**

[Click here for full text details](#)

Relative:  
Lower

**SHWS**

Release Tracking Number / Current Status: 3-0014221 / URAM

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0014221 / URAM

[Click here to access the MA DEP site for this facility](#)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

64  
ENE  
1/2-1  
0.841 mi.  
4439 ft.

**CUMBERLAND FARMS GULF**  
1195 BOYLSTON ST  
BROOKLINE, MA 02146

**SHWS S100831629**  
**LUST N/A**  
**RELEASE**

Relative:  
Lower

[Click here for full text details](#)

**SHWS**

- Release Tracking Number / Current Status: 3-0023609 / RAO
- Release Tracking Number / Current Status: 3-0014010 / RAONR
- Release Tracking Number / Current Status: 3-0011189 / RAONR
- Release Tracking Number / Current Status: 3-0004823 / RAO

[Click here to access the MA DEP site for this facility](#)

**LUST**

- Release Tracking Number / Current Status: 3-0004823 / RAO
- Release Tracking Number / Current Status: 3-0012565 / RAONR

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

- Release Tracking Number / Current Status: 3-0004823 / RAO
- Release Tracking Number / Current Status: 3-0011189 / RAONR
- Release Tracking Number / Current Status: 3-0012565 / RAONR
- Release Tracking Number / Current Status: 3-0014010 / RAONR
- Release Tracking Number / Current Status: 3-0023609 / RAO

[Click here to access the MA DEP site for this facility](#)

H65  
SSW  
1/2-1  
0.854 mi.  
4509 ft.

**BROOKLINE/NEWTON LINE CHESTNUT HILL02467**  
39 KENSINGTON CIR  
BROOKLINE, MA

**SHWS S108347864**  
**RELEASE N/A**

Relative:  
Lower

[Click here for full text details](#)

**SHWS**

- Release Tracking Number / Current Status: 3-0026416 / RAO

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

- Release Tracking Number / Current Status: 3-0026416 / RAO

[Click here to access the MA DEP site for this facility](#)

MAP FINDINGS

Map ID Direction Distance Elevation		Database(s)	EDR ID Number EPA ID Number
--	--	-------------	--------------------------------

<b>66</b> <b>WSW</b> <b>1/2-1</b> <b>0.862 mi.</b> <b>4549 ft.</b>	<b>HAMPTON PLACE CONDOMINIUMS</b> <b>77 FLORENCE ST</b> <b>NEWTON, MA 02467</b>	<b>SHWS</b> <b>RELEASE</b>	<b>S106775982</b> <b>N/A</b>
--	---	-------------------------------	---------------------------------

[Click here for full text details](#)

**Relative:**  
**Lower**

**SHWS**  
Release Tracking Number / Current Status: 3-0024494 / RAO

Click here to access the MA DEP site for this facility

**RELEASE**  
Release Tracking Number / Current Status: 3-0024494 / RAO

Click here to access the MA DEP site for this facility

---

<b>H67</b> <b>SSW</b> <b>1/2-1</b> <b>0.870 mi.</b> <b>4596 ft.</b>	<b>BROOKLINE/NEWTON LINECHESTNUTHILL02467</b> <b>31 KENSINGTON CIR</b> <b>BROOKLINE, MA</b>	<b>SHWS</b> <b>RELEASE</b>	<b>S108348086</b> <b>N/A</b>
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[Click here for full text details](#)

**Relative:**  
**Lower**

**SHWS**  
Release Tracking Number / Current Status: 3-0026418 / RAO

Click here to access the MA DEP site for this facility

**RELEASE**  
Release Tracking Number / Current Status: 3-0026418 / RAO

Click here to access the MA DEP site for this facility

---

<b>68</b> <b>NNE</b> <b>1/2-1</b> <b>0.883 mi.</b> <b>4660 ft.</b>	<b>NO LOCATION AID</b> <b>375 CHESTNUT HILL AVENUE</b> <b>BRIGHTON, MA 02135</b>	<b>SHWS</b> <b>LUST</b> <b>RELEASE</b>	<b>S118643369</b> <b>N/A</b>
--	--	--	---------------------------------

[Click here for full text details](#)

**Relative:**  
**Lower**

**SHWS**  
Release Tracking Number / Current Status: 3-0033550 / UNCLSS

Click here to access the MA DEP site for this facility

**LUST**  
Release Tracking Number / Current Status: 3-0033550 / UNCLSS

Click here to access the MA DEP site for this facility

**RELEASE**  
Release Tracking Number / Current Status: 3-0033550 / UNCLSS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**NO LOCATION AID (Continued)**

**S118643369**

[Click here to access the MA DEP site for this facility](#)

**169**  
**SSW**  
**1/2-1**  
**0.898 mi.**  
**4742 ft.**

**BROOKLINE/NEWTON LINE CHESTNUTHILL02467**  
**45 MARTHAS LN**  
**BROOKLINE, MA**

**SHWS** **S108348098**  
**RELEASE** **N/A**

[Click here for full text details](#)

**Relative:**  
**Lower**

**SHWS**

Release Tracking Number / Current Status: 3-0026417 / RAO

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0026417 / RAO

[Click here to access the MA DEP site for this facility](#)

**170**  
**SSW**  
**1/2-1**  
**0.922 mi.**  
**4868 ft.**

**BROOKLINE/NEWTON (CHESTNUT HILL) LINE**  
**33 MARTHAS LN**  
**BROOKLINE, MA**

**SHWS** **S108117203**  
**RELEASE** **N/A**  
**ENF**

[Click here for full text details](#)

**Relative:**  
**Lower**

**SHWS**

Release Tracking Number / Current Status: 3-0025862 / RAO

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0025862 / RAO

[Click here to access the MA DEP site for this facility](#)

**ENF**

Program Id: 3-0025862

**71**  
**WSW**  
**1/2-1**  
**0.952 mi.**  
**5026 ft.**

**SUNOCO SERVICE STATION**  
**325 BOYLSTON ST**  
**NEWTON, MA 02159**

**SHWS** **1000690310**  
**LUST** **MAD000637363**  
**UST**  
**AST**  
**RELEASE**  
**RCRA NonGen / NLR**  
**Financial Assurance**

[Click here for full text details](#)

**Relative:**  
**Higher**

**SHWS**

Release Tracking Number / Current Status: 3-0019998 / RAONR

Release Tracking Number / Current Status: 3-0016895 / RAO

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SUNOCO SERVICE STATION (Continued)**

**1000690310**

[Click here to access the MA DEP site for this facility](#)

**LUST**

Release Tracking Number / Current Status: 3-0017193 / RAONR

[Click here to access the MA DEP site for this facility](#)

**UST**

Facility Id: 10687  
Tank Status: Tank Removed  
Tank Status: In Use

**AST**

Release Tracking Number: 10687

**RELEASE**

Release Tracking Number / Current Status: 3-0016895 / RAO  
Release Tracking Number / Current Status: 3-0017193 / RAONR  
Release Tracking Number / Current Status: 3-0019998 / RAONR

[Click here to access the MA DEP site for this facility](#)

**RCRA NonGen / NLR**

EPA Id: MAD000637363

**Financial Assurance**

Facility Id: 10687

J72  
NNW  
1/2-1  
0.953 mi.  
5032 ft.

**BOSTON COLLEGE/SERVICE BLDG  
140 COMMONWEALTH AVE  
CHESTNUT HILL, MA 02167**

**SHWS U003001464  
INST CONTROL N/A  
RELEASE  
Financial Assurance  
TIER 2**

[Click here for full text details](#)

Relative:  
Lower

**SHWS**

Release Tracking Number / Current Status: 3-0030690 / RAO  
Release Tracking Number / Current Status: 3-0016681 / RAO  
Release Tracking Number / Current Status: 3-0010103 / RAO  
Release Tracking Number / Current Status: 3-0025465 / RAO

[Click here to access the MA DEP site for this facility](#)

**INST CONTROL**

Release Tracking Number: 3-0010103

**RELEASE**

Release Tracking Number / Current Status: 3-0010103 / RAO

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BOSTON COLLEGE/SERVICE BLDG (Continued)**

**U003001464**

Release Tracking Number / Current Status: 3-0016681 / RAO

Release Tracking Number / Current Status: 3-0025465 / RAO

Release Tracking Number / Current Status: 3-0030690 / RAO

[Click here to access the MA DEP site for this facility](#)

**Financial Assurance**

Facility Id: 527

**TIER 2**

Facility Id: FATR2015000000009993

J73  
NNW  
1/2-1  
0.953 mi.  
5032 ft.

**BOSTON COLLEGE MAIN CAMPUS**  
**140 COMMONWEALTH AVENUE**  
**CHESTNUT HILL, MA 02467**

[Click here for full text details](#)

Relative:  
Lower

**SHWS S106030083**  
**LUST N/A**  
**RELEASE**  
**AIRS**  
**HW GEN**  
**LEAD**  
**TIER 2**

**SHWS**

Release Tracking Number / Current Status: 3-0023101 / RAO

[Click here to access the MA DEP site for this facility](#)

**LUST**

Release Tracking Number / Current Status: 3-0023101 / RAO

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0023101 / RAO

[Click here to access the MA DEP site for this facility](#)

**AIRS**

Facility Status: APPROV

Facility Status: WITHD

Facility Status: NOTREQ

Date Closed: 04/24/1998

Date Closed: 04/08/2000

Date Closed: 04/17/2007

Date Closed: 11/06/2006

Date Closed: 01/12/2006

Date Closed: 04/01/2009

Date Closed: 08/05/2008

Date Closed: 07/20/2009

Date Closed: 09/13/2002

Date Closed: 12/07/1999

**HW GEN**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BOSTON COLLEGE MAIN CAMPUS (Continued)**

**S106030083**

State Generator Status: VQG-MA  
EPA Id: MAD045896339

**LEAD**

Inspector License Number: 3561

**TIER 2**

Facility Id: FATR20125K2XMX002P9H  
Facility Id: FATR20125K54YW01VPWB

74  
ENE  
1/2-1  
0.968 mi.  
5112 ft.

**RESIDENTIAL PROPERTY**  
**42 FISHER AVE**  
**BROOKLINE, MA 02445**

**SHWS S109160963**  
**RELEASE N/A**  
**LEAD**

[Click here for full text details](#)

Relative:  
Lower

**SHWS**

Release Tracking Number / Current Status: 3-0030508 / RAO

[Click here to access the MA DEP site for this facility](#)

**RELEASE**

Release Tracking Number / Current Status: 3-0030508 / RAO

[Click here to access the MA DEP site for this facility](#)

**LEAD**

Inspector License Number: 1950

75  
NE  
1/2-1  
0.974 mi.  
5145 ft.

**TRACKMANS LOBBY**  
**400 CHESTNUT HILL AVE**  
**BRIGHTON, MA 02135**

**SHWS S108476791**  
**LAST N/A**  
**INST CONTROL**  
**RELEASE**  
**ENF**

[Click here for full text details](#)

Relative:  
Lower

**SHWS**

Release Tracking Number / Current Status: 3-0026609 / RAO

[Click here to access the MA DEP site for this facility](#)

**LAST**

Release Tracking Number / Current Status: 3-0026609 / RAO

**INST CONTROL**

Release Tracking Number: 3-0026609

**RELEASE**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TRACKMANS LOBBY (Continued)**

**S108476791**

Release Tracking Number / Current Status: 3-0026609 / RAO

[Click here to access the MA DEP site for this facility](#)

**ENF**

Program Id: 3-0026609

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov.Date	Arvl. Date	Active Date
MA	AIRS	Permitted Facilities Listing	Department of Environmental Protection	07/19/2016	07/25/2016	10/04/2016
MA	AST	Aboveground Storage Tank Database	Department of Public Safety	10/22/2009	10/28/2009	11/06/2009
MA	BROWNFIELDS	Completed Brownfields Covenants Listing	Office of the Attorney General	12/31/2015	02/04/2016	04/01/2016
MA	BROWNFIELDS 2	Potential Brownfields Listing	Department of Environmental Protection	05/13/2016	05/24/2016	07/19/2016
MA	DRYCLEANERS	Regulated Drycleaning Facilities	Department of Environmental Protection	07/07/2016	07/12/2016	07/19/2016
MA	ENFORCEMENT	Enforcement Action Cases	Department of Environmental Quality	08/12/2016	08/22/2016	10/04/2016
MA	Financial Assurance 1	Financial Assurance Information Listing	Department of Environmental Protection	12/01/2010	12/23/2010	02/03/2011
MA	Financial Assurance 2	Financial Assurance Information Listing	Office of State Fire Marshal	10/21/2011	10/25/2011	11/18/2011
MA	Financial Assurance 3	Financial Assurance Information listing	Department of Environmental Protection	10/01/2014	10/30/2014	11/10/2014
MA	GWDP	Ground Water Discharge Permits	MassGIS	03/10/2016	08/02/2016	10/04/2016
MA	HW GEN	List of Massachusetts Hazardous Waste Generators	Department of Environmental Protection	06/21/2016	06/28/2016	07/19/2016
MA	INST CONTROL	Sites With Activity and Use Limitation	Department of Environmental Protection	06/28/2016	07/13/2016	07/19/2016
MA	LAST	Leaking Aboveground Storage Tank Sites	Department of Environmental Protection	06/28/2016	07/13/2016	07/19/2016
MA	LEAD	Lead Inspection Database	Department of Health & Human Services, Childh	07/09/2015	07/15/2015	08/04/2015
MA	LF PROFILES	Landfill Profiles Listing	Department of Environmental Protection	07/01/2015	10/27/2015	12/14/2015
MA	LIENS	Liens Information Listing	Department of Environmental Protection	02/24/2014	02/27/2014	03/14/2014
MA	LUST	Leaking Underground Storage Tank Listing	Department of Environmental Protection	06/28/2016	07/13/2016	07/19/2016
MA	MA SPILLS	Historical Spill List	Department of Environmental Protection	09/30/1993	12/03/2003	12/31/2003
MA	MERCURY	Mercury Product Recycling Drop-Off Locations Listing	Department of Environmental Protection	06/06/2016	06/09/2016	07/19/2016
MA	NPDES	NPDES Permit Listing	Department of Environmental Protection	06/22/2016	08/17/2016	10/04/2016
MA	RELEASE	Reportable Releases	Department of Environmental Protection	06/28/2016	07/13/2016	07/19/2016
MA	RGA HWS	Recovered Government Archive State Hazardous Waste Facilitie	Department of Environmental Protection	06/28/2016	07/01/2013	12/24/2013
MA	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan	Department of Environmental Protection	06/28/2016	07/13/2016	07/19/2016
MA	SHWS	Site Transition List	Department of Environmental Protection	06/28/2016	07/13/2016	07/19/2016
MA	SPILLS 80	SPILLS80 data from FirstSearch	FirstSearch	03/10/1998	01/03/2013	03/05/2013
MA	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	12/11/2012	01/03/2013	02/08/2013
MA	SWF/LF	Solid Waste Facility Database/Transfer Stations	Department of Environmental Protection	01/31/2016	04/07/2016	04/21/2016
MA	TIER 2	Tier 2 Information Listing	Massachusetts Emergency Management Agency	12/31/2015	05/26/2016	07/19/2016
MA	TSD	TSD Facility	Department of Environmental Protection	04/01/2015	06/30/2015	07/10/2015
MA	UST	Summary Listing of all the Tanks Registered in the State of	Department of Fire Services, Office of the Pu	08/22/2016	08/23/2016	10/04/2016
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	04/22/2013	03/03/2015	03/09/2015
US	ABANDONED MINES	Abandoned Mines	Department of Interior	06/09/2016	06/13/2016	09/02/2016
US	BRS	Biennial Reporting System	EPANTIS	12/31/2013	02/24/2015	09/30/2015
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2005	08/07/2009	10/22/2009
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	07/01/2014	09/10/2014	10/20/2014
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	03/31/2016	08/01/2016	09/23/2016
US	CORRACTS	Corrective Action Report	EPA	06/27/2016	06/30/2016	09/02/2016
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	06/02/2016	06/03/2016	09/02/2016
US	DOD	Department of Defense Sites	USGS	12/31/2005	11/10/2006	01/11/2007
US	DOT OPS	Incident and Accident Data	Department of Transportation, Office of Pipeli	07/31/2012	08/07/2012	09/18/2012
US	Delisted NPL	National Priority List Deletions	EPA	03/07/2016	04/05/2016	04/15/2016
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	09/18/2016	09/20/2016	10/21/2016
US	EDR Hist Auto	EDR Exclusive Historic Gas Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historic Dry Cleaners	EDR, Inc.			
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov. Date	Arvl. Date	Active Date
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	09/26/2016	09/29/2016	11/11/2016
US	FEDERAL FACILITY	Federal Facility Site Information listing	Environmental Protection Agency	09/14/2016	10/04/2016	10/21/2016
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	12/31/2005	02/06/2006	01/11/2007
US	FEMA UST	Underground Storage Tank Listing	FEMA	01/01/2010	02/16/2010	04/12/2010
US	FINDS	Facility Index System/Facility Registry System	EPA	07/15/2016	09/07/2016	11/11/2016
US	FTTS	FIFRA/TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	01/31/2015	07/08/2015	10/13/2015
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	08/22/2016	08/23/2016	10/21/2016
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	07/21/2016	07/26/2016	09/23/2016
US	HIST FITTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	06/27/2016	06/28/2016	09/23/2016
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	07/27/2016	08/05/2016	10/21/2016
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Services, Indian	04/01/2014	08/06/2014	01/29/2015
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	10/27/2015	10/29/2015	01/04/2016
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	01/07/2016	01/08/2016	02/18/2016
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	02/05/2016	04/29/2016	06/03/2016
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	02/17/2016	04/27/2016	06/03/2016
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	12/11/2015	02/19/2016	06/03/2016
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	10/09/2015	02/12/2016	06/03/2016
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	10/13/2015	10/23/2015	02/18/2016
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	02/25/2016	04/27/2016	06/03/2016
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2005	12/08/2006	01/11/2007
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	10/20/2015	10/29/2015	01/04/2016
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	01/07/2016	01/08/2016	02/18/2016
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	02/05/2016	04/29/2016	06/03/2016
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	11/05/2015	11/13/2015	01/04/2016
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	12/03/2015	02/04/2016	06/03/2016
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	09/23/2014	11/25/2014	01/29/2015
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	01/26/2016	02/05/2016	06/03/2016
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	02/25/2016	04/27/2016	06/03/2016
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
US	INDIAN VCP R7	Voluntary Cleanup Priority Listing	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	03/07/2016	04/07/2016	09/02/2016
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	02/18/2014	03/18/2014	04/24/2014
US	LUCIS	Land Use Control Information System	Department of the Navy	05/28/2015	05/29/2015	06/11/2015
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	08/30/2016	09/08/2016	10/21/2016
US	NPL	National Priority List	EPA	03/07/2016	04/05/2016	04/15/2016
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	PADS	PCB Activity Database System	EPA	01/20/2016	04/28/2016	09/02/2016
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	02/01/2011	10/19/2011	01/10/2012
US	PRP	Potentially Responsible Parties	EPA	10/25/2013	10/17/2014	10/20/2014
US	Proposed NPL	Proposed National Priority List Sites	EPA	03/07/2016	04/05/2016	04/15/2016

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov. Date	Arvl. Date	Active Date
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RADINFO	Radiation Information Database	Environmental Protection Agency	10/03/2016	10/05/2016	10/21/2016
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	06/21/2016	06/30/2016	09/02/2016
US	RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generators	Environmental Protection Agency	06/21/2016	06/30/2016	09/02/2016
US	RCRA-LOG	RCRA - Large Quantity Generators	Environmental Protection Agency	06/21/2016	06/30/2016	09/02/2016
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	06/21/2016	06/30/2016	09/02/2016
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	06/21/2016	06/30/2016	09/02/2016
US	RMP	Risk Management Plans	Environmental Protection Agency	08/01/2016	08/22/2016	11/11/2016
US	ROD	Records Of Decision	EPA	11/25/2013	12/12/2013	02/24/2014
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	03/07/2011	03/09/2011	05/02/2011
US	SEMS	Superfund Enterprise Management System	EPA	03/07/2016	04/05/2016	04/15/2016
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	03/07/2016	04/05/2016	04/15/2016
US	SSTS	Section 7 Tracking Systems	EPA	12/31/2009	12/10/2010	02/25/2011
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2014	11/24/2015	04/05/2016
US	TSCA	Toxic Substances Control Act	EPA	12/31/2012	01/15/2015	01/29/2015
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	09/14/2010	10/07/2011	03/01/2012
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	EPA	06/30/2016	07/25/2016	10/21/2016
US	US AIRS MINOR	Air Facility System Data	EPA	06/30/2016	07/25/2016	10/21/2016
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	09/20/2016	09/21/2016	11/11/2016
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	08/30/2016	09/06/2016	09/23/2016
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	05/09/2016	06/01/2016	09/02/2016
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	07/12/2016	08/17/2016	10/21/2016
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	08/31/2016	09/06/2016	09/23/2016
US	US INST CONTROL	Sites with Institutional Controls	Environmental Protection Agency	05/09/2016	06/01/2016	09/02/2016
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	08/05/2016	09/01/2016	09/23/2016
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	12/05/2005	02/29/2008	04/18/2008
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	UXO	Unexploded Ordnance Sites	Department of Defense	10/25/2015	01/29/2016	04/05/2016

## Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

## Electric Power Transmission Line Data

Source: PennWell Corporation

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# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St
Acronym
Full Name
Government Agency
Gov Date
Anvl Date
Active Date

US	AHA Hospitals	Sensitive Receptor: AHA Hospitals	American Hospital Association, Inc.		
US	Medical Centers	Sensitive Receptor: Medical Centers	Centers for Medicare & Medicaid Services		
US	Nursing Homes	Sensitive Receptor: Nursing Homes	National Institutes of Health		
US	Public Schools	Sensitive Receptor: Public Schools	National Center for Education Statistics		
US	Private Schools	Sensitive Receptor: Private Schools	National Center for Education Statistics		
US	Flood Zones	100-year and 500-year flood zones	Emergency Management Agency (FEMA)		
US	NWI	National Wetlands Inventory	U.S. Fish and Wildlife Service		
MA	State Wetlands	Wetland Inventory	MassDEP		
US	Topographic Map		U.S. Geological Survey		

## STREET AND ADDRESS INFORMATION

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## GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM

### TARGET PROPERTY ADDRESS

2475-001 LEVI BROOKLINE BALDWIN SCHOOL  
484 HEATH STREET  
CHESTNUT HILL, MA 02467

### TARGET PROPERTY COORDINATES

Latitude (North):	42.322894 - 42° 19' 22.42"
Longitude (West):	71.161403 - 71° 9' 41.05"
Universal Tranverse Mercator:	Zone 19
UTM X (Meters):	321896.6
UTM Y (Meters):	4687676.0
Elevation:	194 ft. above sea level

### USGS TOPOGRAPHIC MAP

Target Property Map:	5646211 NEWTON, MA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

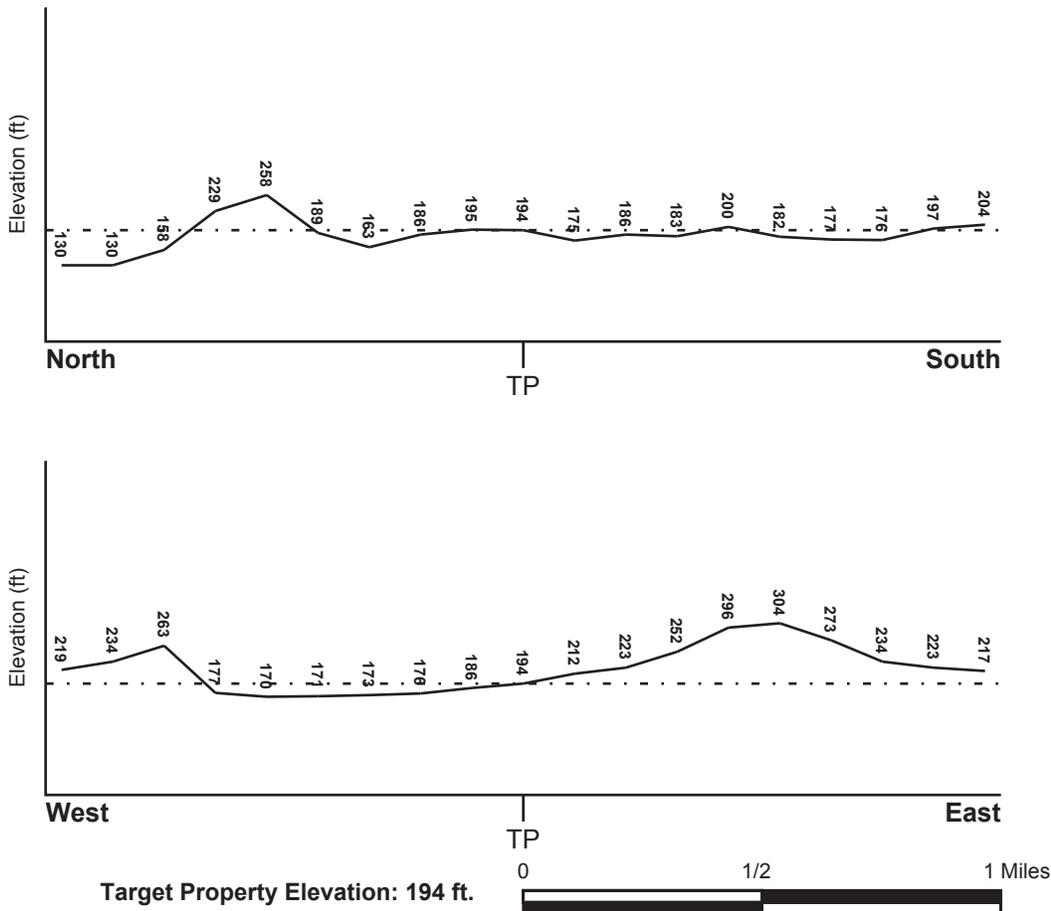
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General West

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## **FEMA FLOOD ZONE**

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
25017C0558E	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
25025C0059G	FEMA FIRM Flood data
25025C0058G	FEMA FIRM Flood data
25025C0066G	FEMA FIRM Flood data
25025C0067G	FEMA FIRM Flood data
25017C0566E	FEMA FIRM Flood data

## **NATIONAL WETLAND INVENTORY**

<u>NWI Quad at Target Property</u> NEWTON	<u>NWI Electronic Data Coverage</u> YES - refer to the Overview Map and Detail Map
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## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
1	1/2 - 1 Mile WSW	Varies
2	1/2 - 1 Mile ENE	N

For additional site information, refer to Physical Setting Source Map Findings.

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

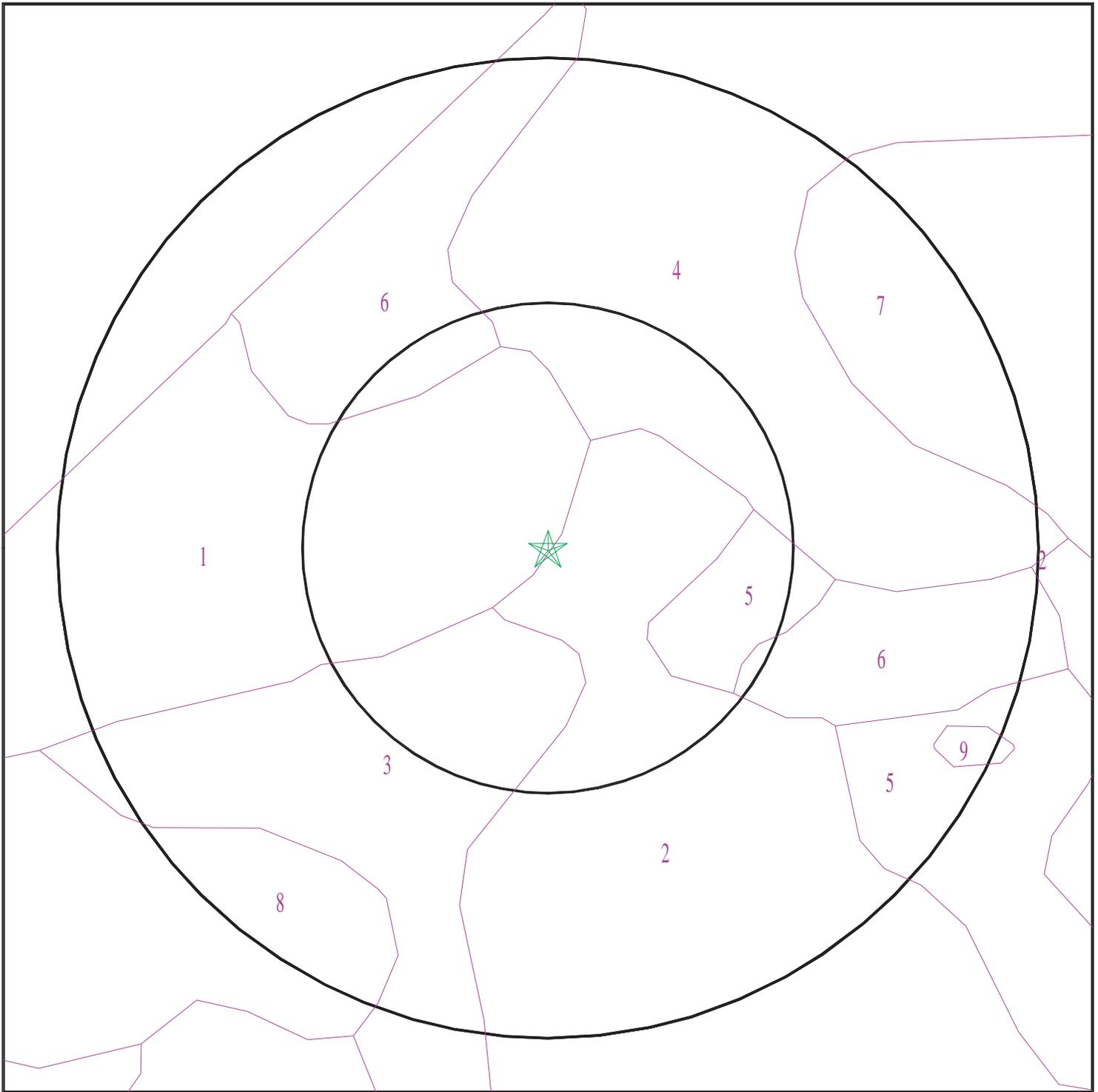
Era:	Paleozoic
System:	Cambrian
Series:	Cambrian
Code:	Ce ( <i>decoded above as Era, System &amp; Series</i> )

#### **GEOLOGIC AGE IDENTIFICATION**

Category: Eugeosynclinal Deposits

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

# SSURGO SOIL MAP - 4795721.2s



- ★ Target Property
- SSURGO Soil
- Water



SITE NAME: 2475-001 Levi Brookline Baldwin School  
ADDRESS: 484 Heath Street  
CHESTNUT HILL MA 02467  
LAT/LONG: 42.322894 / 71.161403

CLIENT: Endpoint, LLC  
CONTACT: Katie Snyder  
INQUIRY #: 4795721.2s  
DATE: December 02, 2016 11:36 am

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

---

#### Soil Map ID: 1

Soil Component Name: Urban land

Soil Surface Texture:  
Hydrologic Group: Not reported

Soil Drainage Class:  
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

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#### Soil Map ID: 2

Soil Component Name: Charlton

Soil Surface Texture: fine sandy loam

Hydrologic Group: Not reported

Soil Drainage Class: Well drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 38 inches

Depth to Watertable Min: > 0 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
2	5 inches	35 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
3	35 inches	59 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5

### Soil Map ID: 3

Soil Component Name: Merrimac

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	18 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 14.11	Max: 6 Min: 3.6
2	18 inches	22 inches	gravelly loamy sand	Not reported	Not reported	Max: 141.14 Min: 14.11	Max: 6 Min: 3.6
3	22 inches	59 inches	sr to sand to very gravelly coarse sand	Not reported	Not reported	Max: 141.14 Min: 42.34	Max: 6 Min: 3.6

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### Soil Map ID: 4

Soil Component Name: Newport

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
2	9 inches	25 inches	channery silt loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
3	25 inches	59 inches	channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: 6 Min: 4.5

### Soil Map ID: 5

Soil Component Name: Hollis

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class C/D - Drained/undrained hydrology class of soils that can be drained and classified.

Soil Drainage Class: Well drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	3 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
2	3 inches	14 inches	gravelly fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
3	14 inches	18 inches	unweathered bedrock	Not reported	Not reported	Max: 0.9999 Min: 0	Max: Min:

### Soil Map ID: 6

Soil Component Name: Udorthents

Soil Surface Texture: variable

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:  
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	variable	Not reported	Not reported	Max: 141.14 Min: 0.42	Max: Min:
2	5 inches	59 inches	variable	Not reported	Not reported	Max: 141.14 Min: 0.42	Max: Min:

### Soil Map ID: 7

Soil Component Name: Newport

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
2	9 inches	25 inches	channery silt loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
3	25 inches	59 inches	channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: 6 Min: 4.5

### Soil Map ID: 8

Soil Component Name: Charlton

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	5 inches	35 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
3	35 inches	59 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5

### Soil Map ID: 9

Soil Component Name: Water

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:  
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

### LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

### WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
3	USGS40000472233	1/2 - 1 Mile NW
4	USGS40000471943	1/2 - 1 Mile SSE

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
5	MA8000000000471	1/2 - 1 Mile NNW
6	MA8000000000114	1/2 - 1 Mile NNW

# PHYSICAL SETTING SOURCE MAP - 4795721.2s



- |  |  |                                     |
|--|--|-------------------------------------|
| County Boundary                            | Groundwater Flow Direction                 | Potentially Productive Aquifers     |
| Major Roads                                | Indeterminate Groundwater Flow at Location | Not Potentially Productive Aquifers |
| Contour Lines                              | Groundwater Flow Varies at Location        | DEP Approved Zone IIs               |
| Earthquake epicenter, Richter 5 or greater |  | EPA Designated Sole Src. Aq.        |
| Water Wells                                |  |                                     |
| Public Water Supply Wells                  |  |                                     |
| Cluster of Multiple Icons                  |  |                                     |

SITE NAME: 2475-001 Levi Brookline Baldwin School  
 ADDRESS: 484 Heath Street  
 CHESTNUT HILL MA 02467  
 LAT/LONG: 42.322894 / 71.161403

CLIENT: Endpoint, LLC  
 CONTACT: Katie Snyder  
 INQUIRY #: 4795721.2s  
 DATE: December 02, 2016 11:36 am

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database

EDR ID Number

<b>1</b> WSW 1/2 - 1 Mile Lower	<a href="#">Click here for full text details</a>	AQUIFLOW	45978
<b>2</b> ENE 1/2 - 1 Mile Higher	<a href="#">Click here for full text details</a>	AQUIFLOW	4881
<b>3</b> NW 1/2 - 1 Mile Lower	<a href="#">Click here for full text details</a>	FED USGS	USGS40000472233
<b>4</b> SSE 1/2 - 1 Mile Lower	<a href="#">Click here for full text details</a>	FED USGS	USGS40000471943
<b>5</b> NNW 1/2 - 1 Mile Lower	<a href="#">Click here for full text details</a>	MA WELLS	MA8000000000471
<b>6</b> NNW 1/2 - 1 Mile Lower	<a href="#">Click here for full text details</a>	MA WELLS	MA8000000000114

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

State Database: MA Radon

### Radon Test Results

County	% of sites > 4 pCi/L	Median
NORFOLK	21	1.9

Federal EPA Radon Zone for NORFOLK County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.
- : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
- : Zone 3 indoor average level < 2 pCi/L.

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### Federal Area Radon Information for NORFOLK COUNTY, MA

Number of sites tested: 146

Area	Average Activity	% < 4 pCi/L	% 4-20 pCi/L	% > 20 pCi/L
Living Area - 1st Floor	2.522 pCi/L	89%	11%	0%
Living Area - 2nd Floor	0.500 pCi/L	100%	0%	0%
Basement	2.907 pCi/L	82%	18%	1%

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Source: U.S. Geological Survey

## HYDROLOGIC INFORMATION

**Flood Zone Data:** This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

### State Wetlands Data: Wetland Inventory

Source: MassDEP

Telephone: 617-292-5907

## HYDROGEOLOGIC INFORMATION

### AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

### SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

### FEDERAL WATER WELLS

#### PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

### STATE RECORDS

#### Massachusetts Geographic Information System (MassGIS) Datalayers

Source: Executive Office of Environmental Affairs

Public Water Supply Database: The Public Water Supply datalayer contains the locations of public community surface and groundwater supply sources and public non-community supply sources as defined in 310 CMR 22.00.

## OTHER STATE DATABASE INFORMATION

Areas of Critical Environmental Concern Datalayer: The Areas of Critical Environmental Concern (ACEC) datalayer shows the location of areas that have been designated ACECs by the Secretary of Environmental Affairs. ACEC designation requires greater environmental review of certain kinds of proposed development under state jurisdiction within the ACEC boundaries. The ACEC Program is administered by the Department of Environmental Management (DEM) on behalf of the Secretary of Environmental Affairs. The Massachusetts Coastal Zone Management (MCZM) Office managed the original Coastal ACEC Program from 1978 to 1993, and continues to play a key role in monitoring coastal ACECs. Procedures for ACEC designation and the general policies governing the effects of designation are contained in the ACEC regulations (301 CMR 12.00). The ACEC datalayer has been compiled by MCZM and DEM and includes both coastal and inland areas.

EPA Designated Sole Source Aquifers Datalayer: The Sole Source Aquifer datalayer was compiled by the Department of Environmental Protection (DEP) Division of Water Supply (DWS). Seven Sole Source Aquifers have been designated by the US Environmental Protection Agency (EPA) for Massachusetts. A Sole Source Aquifer (SSA) is an aquifer designated by US EPA as the sole or principal source of drinking water for a given aquifer service area; that is, an aquifer which is needed to supply 50% or more of the drinking water for that area and for which there are no reasonably available alternative sources should that aquifer become contaminated. The aquifers were defined by a EPA hydrogeologist.

Aquifers Datalayer: MassGIS produced an aquifer datalayer composed of 20 individual panels, generally based on the boundaries of the major drainage basins. Areas of high and medium yield were mapped. This datalayer includes polygon attribute coding to help in the identification of areas in which cleanup of hazardous waste sites must meet drinking water standards, as defined in the Massachusetts Contingency Plan (MCP) (310 CMR 40.00000).

Non-Potential Drinking Water Source Areas: Non-Potential Drinking Water Source Areas (NPDWSA) are regulatory in nature, representing one of many considerations used in determining the standards to which ground water must be cleaned in the event of a release of oil or hazardous material. NPDWSAs are not based on existing water quality and do not indicate poor ambient conditions.

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

DEP Approved Zone IIs Datalayer: The Department of Environmental Protection (DEP) approved Zone IIs datalayer was compiled by the DEP Division of Water Supply (DWS). The database contains 281 approved Zone IIs statewide. As stated in 310 CMR 22.02, a Zone II is "that area of an aquifer which contributes water to a well under the most severe pumping and recharge conditions that can be realistically anticipated (180 days of pumping at safe yield, with no recharge from precipitation.) It is bounded by the groundwater divides which result from pumping the well and by the contact of the aquifer with less permeable materials such as till or bedrock. In some cases, streams or lakes may act as recharge boundaries. In all cases, Zone IIs shall extend up gradient to its point of intersection with prevailing hydrogeologic boundaries (a groundwater flow divide, a contact with till or bedrock, or a recharge boundary)." These data are used in association with the Public Water Supplies datalayer. The following describes certain unique features of this association.

- Any proposed new well which will pump at least 100,000 gallons per day must have a Zone II delineation completed and approved by DEP prior to the well coming on line.
- Additionally, a new source may not be on-line yet, but other, older wells may fall within its Zone II boundary.
- Further, existing wells must have a Zone II delineated as a condition of receiving a water withdrawal permit under the Water Management Act.

### RADON

State Database: MA Radon  
Source: Department of Health  
Telephone: 413-586-7525  
Radon Test Results

#### Area Radon Information

Source: USGS  
Telephone: 703-356-4020  
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### EPA Radon Zones

Source: EPA  
Telephone: 703-356-4020  
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

### OTHER

Airport Landing Facilities: Private and public use landing facilities  
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater  
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

### STREET AND ADDRESS INFORMATION

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2475-001 Levi Brookline Baldwin School

484 Heath Street

CHESTNUT HILL, MA 02467

Inquiry Number: 4795721.3

December 02, 2016

## Certified Sanborn® Map Report



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

# Certified Sanborn® Map Report

12/02/16

**Site Name:**

2475-001 Levi Brookline Baldv  
484 Heath Street  
CHESTNUT HILL, MA 02467  
EDR Inquiry # 4795721.3

**Client Name:**

Endpoint, LLC  
25 Buttrick Road  
Londonderry, NH 03053  
Contact: Katie Snyder



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**Certification #** ECA1-47D2-AFB2  
**PO #** 2475-001  
**Project** Levi Brookline Baldwin School

**Maps Provided:**

- 1969
- 1965
- 1957
- 1950
- 1925



Sanborn® Library search results

Certification #: ECA1-47D2-AFB2

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- Library of Congress
- University Publications of America
- EDR Private Collection

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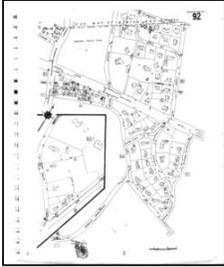
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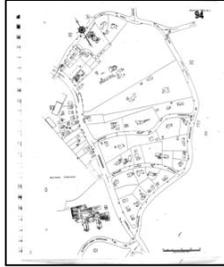
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### 1969 Source Sheets

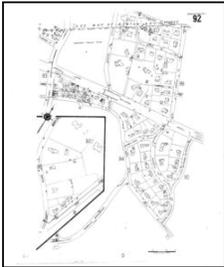


Volume 2, Sheet 92  
1969

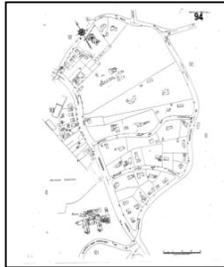


Volume 2, Sheet 94  
1969

### 1965 Source Sheets

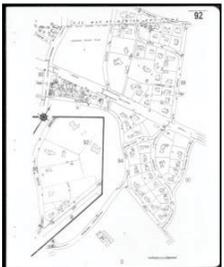


Volume 2, Sheet 92  
1965



Volume 2, Sheet 94  
1965

### 1957 Source Sheets

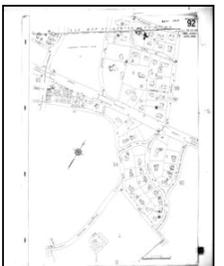


Volume 2, Sheet 92  
1957

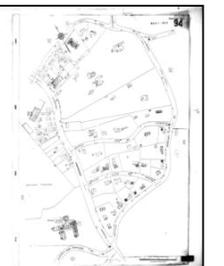


Volume 2, Sheet 94  
1957

### 1950 Source Sheets



Volume 1, Sheet 92  
1950



Volume 1, Sheet 94  
1950

**Sanborn Sheet Key**

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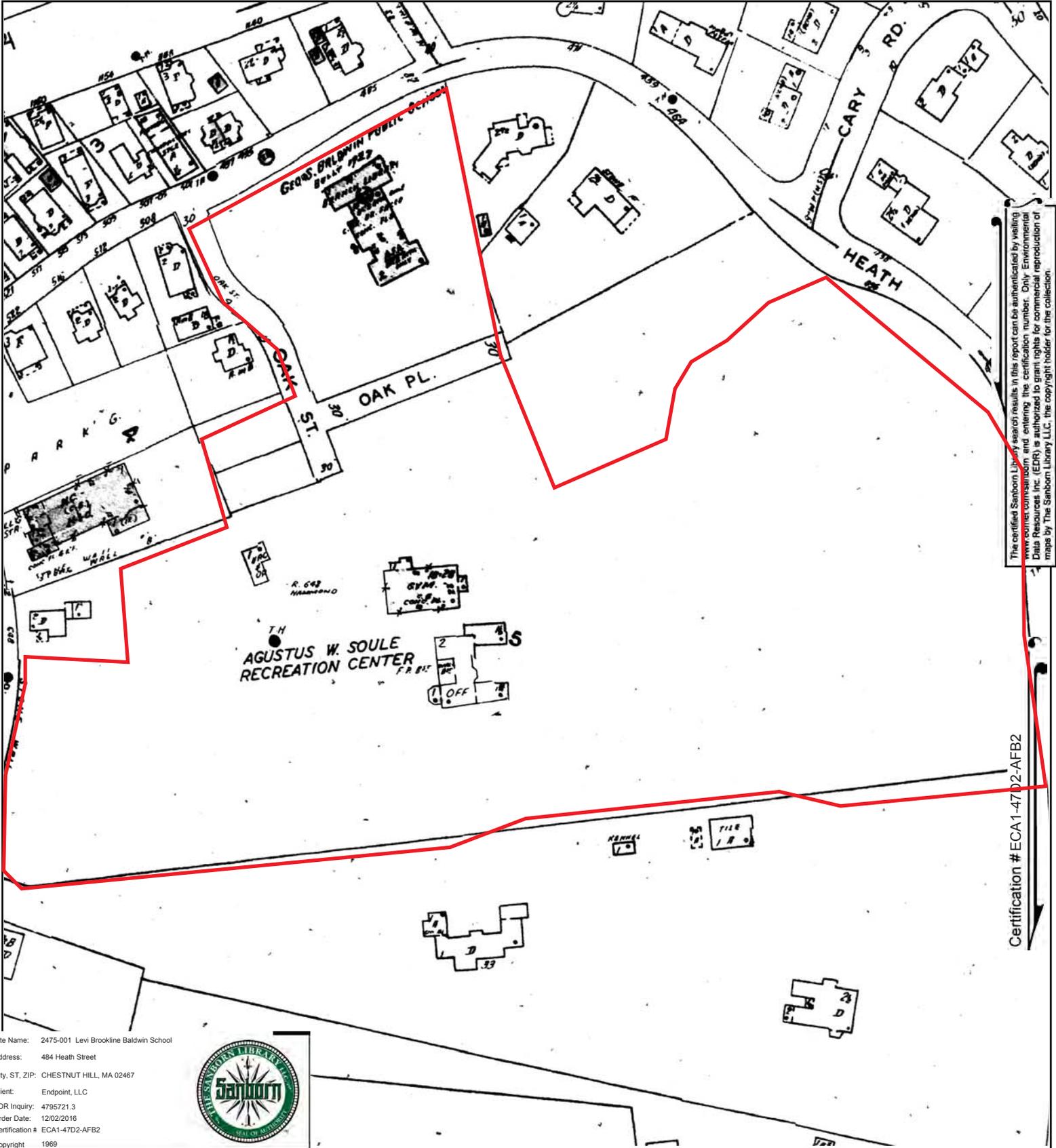
**1925 Source Sheets**



Volume 1, Sheet 91  
1925



Volume 1, Sheet 94  
1925



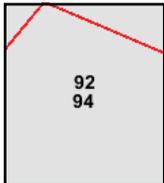
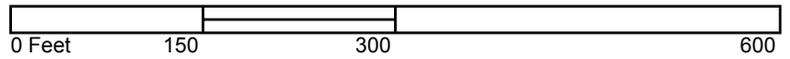
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Certification # ECA1-47D2-AFB2

Site Name: 2475-001 Levi Brookline Baldwin School  
 Address: 484 Heath Street  
 City, ST, ZIP: CHESTNUT HILL, MA 02467  
 Client: Endpoint, LLC  
 EDR Inquiry: 4795721.3  
 Order Date: 12/02/2016  
 Certification #: ECA1-47D2-AFB2  
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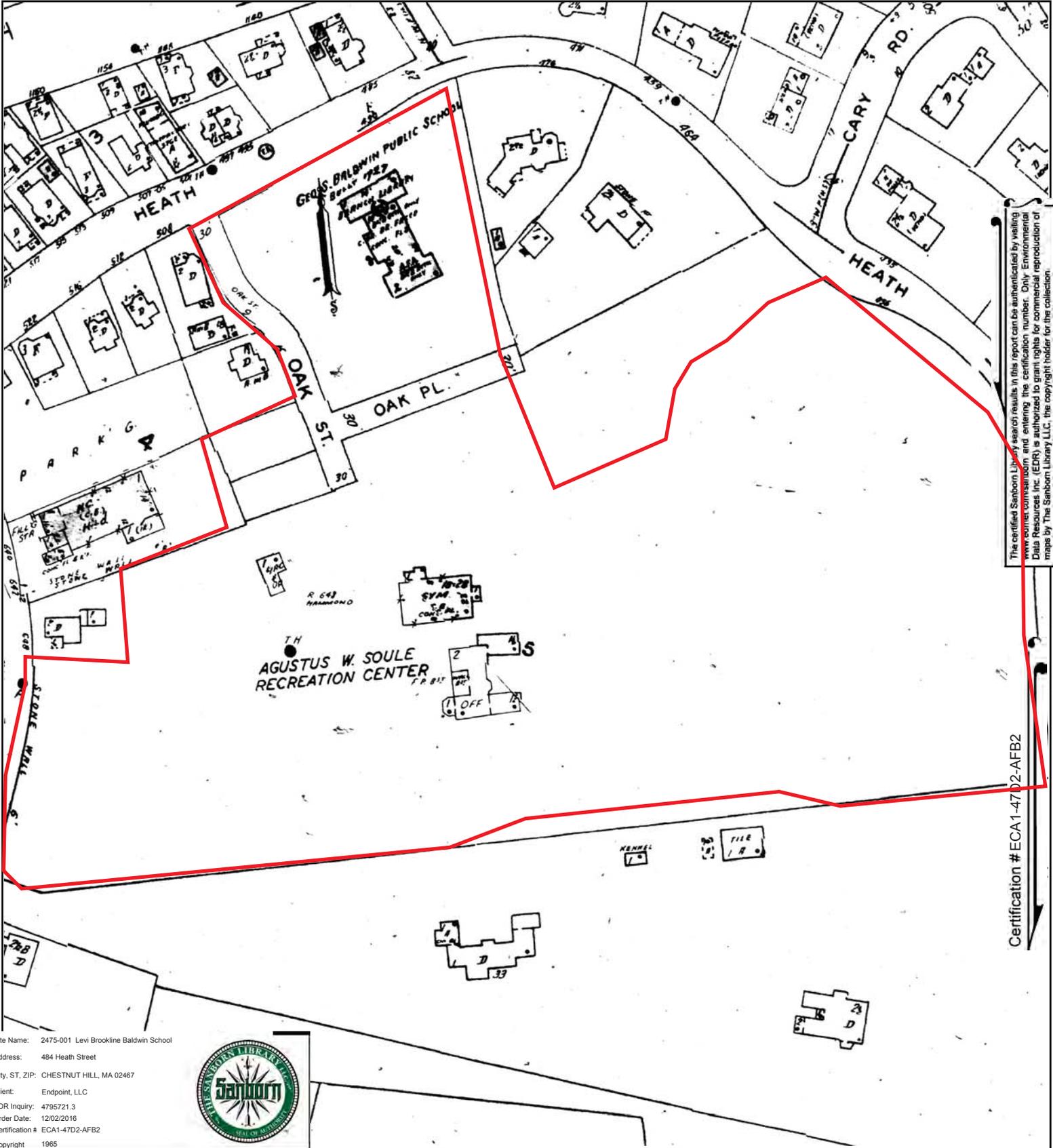


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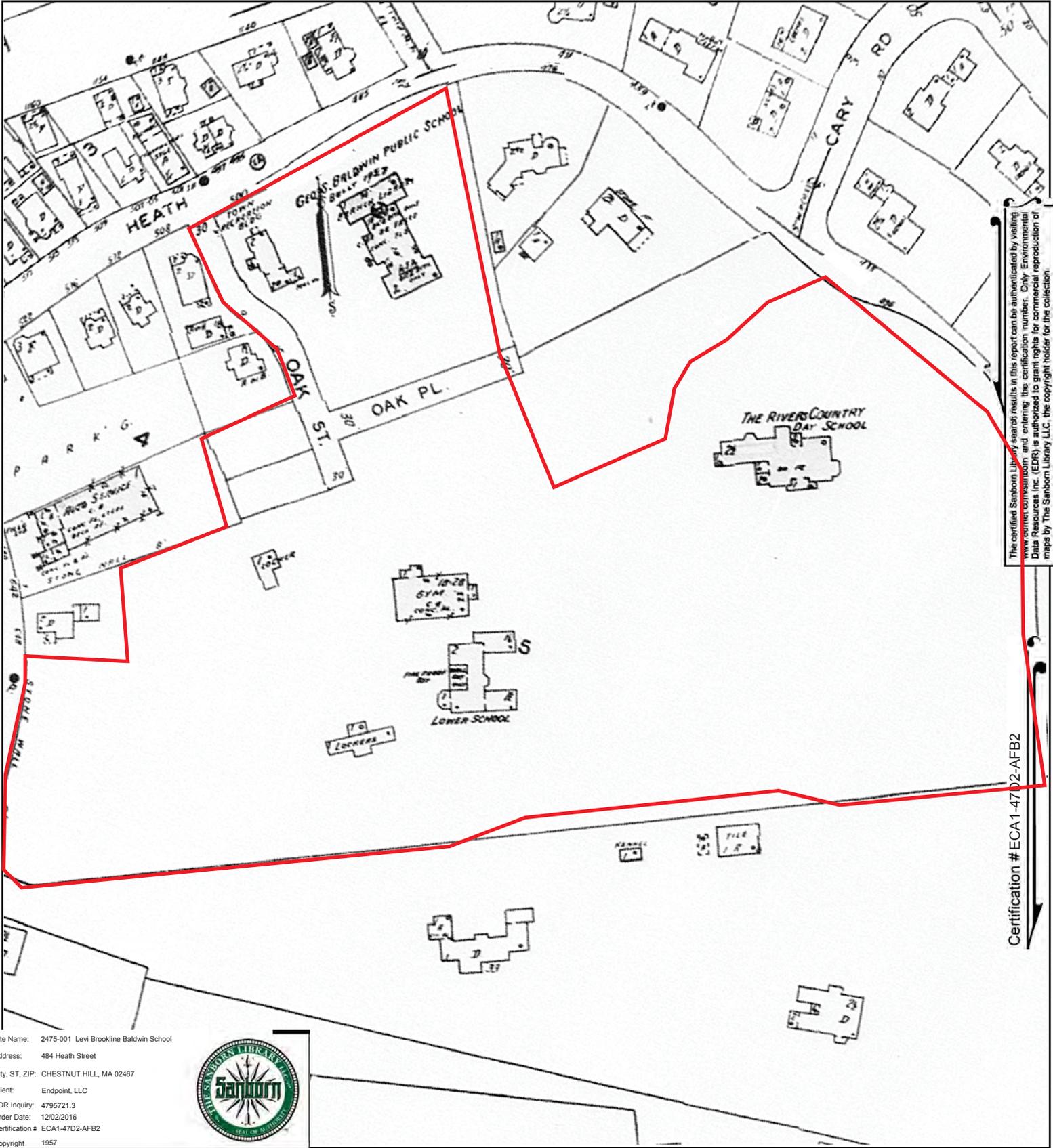
Volume 2, Sheet 94  
 Volume 2, Sheet 92





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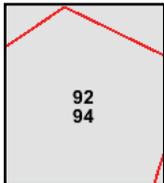
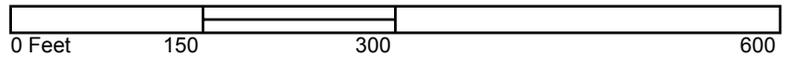
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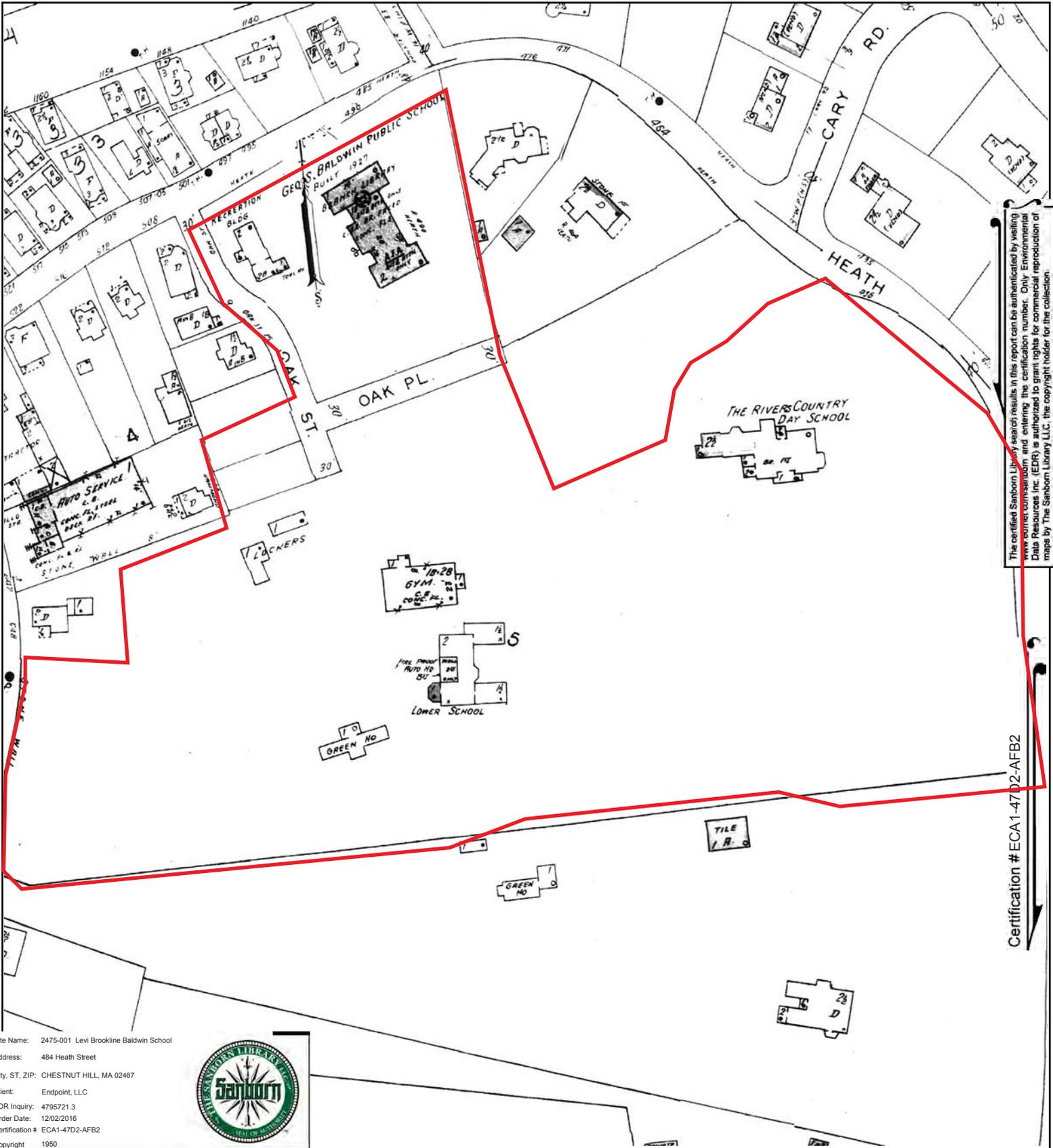


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 Outlined areas indicate map sheets within the collection.



Volume 2, Sheet 94  
 Volume 2, Sheet 92





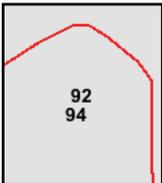
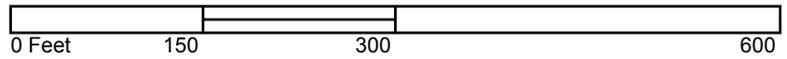
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Certification # ECA1-47D2-AFB2

Site Name: 2475-001 Levi Brookline Baldwin School  
 Address: 484 Heath Street  
 City, ST, ZIP: CHESTNUT HILL, MA 02467  
 Client: Endpoint, LLC  
 EDR Inquiry: 4795721.3  
 Order Date: 12/02/2016  
 Certification #: ECA1-47D2-AFB2  
 Copyright: 1950

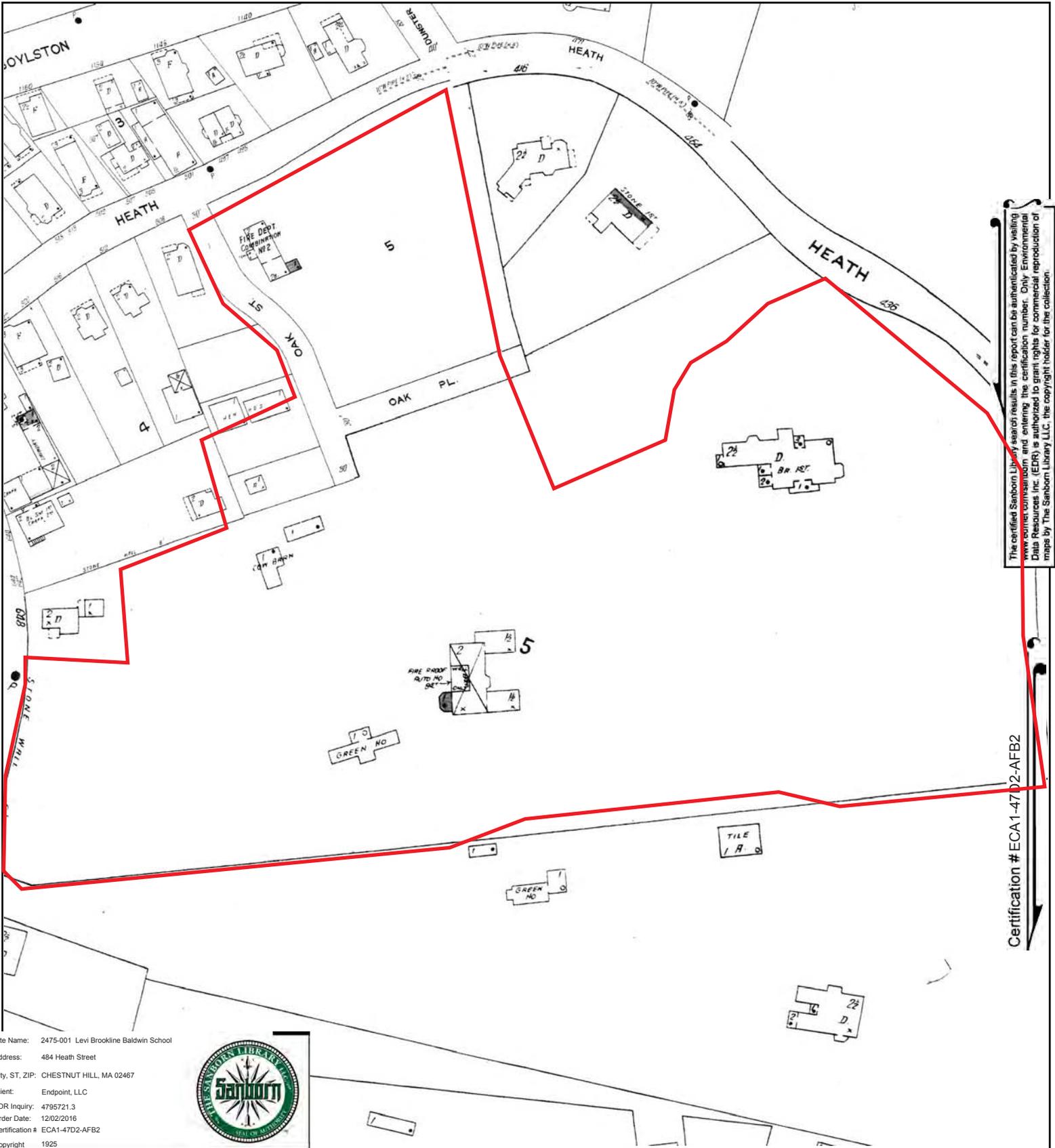


This Certified Sanborn Map combines the following sheets. Outlined areas indicate map sheets within the collection.



Volume 1, Sheet 94  
 Volume 1, Sheet 92

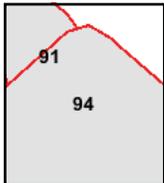
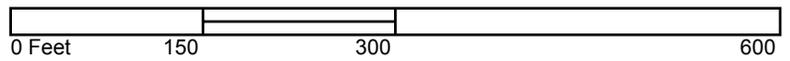




Site Name: 2475-001 Levi Brookline Baldwin School  
 Address: 484 Heath Street  
 City, ST, ZIP: CHESTNUT HILL, MA 02467  
 Client: Endpoint, LLC  
 EDR Inquiry: 4795721.3  
 Order Date: 12/02/2016  
 Certification # ECA1-47D2-AFB2  
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Volume 1, Sheet 94  
 Volume 1, Sheet 91



EndPoint Project 2475-001  
Phase I Environmental Site Assessment  
Baldwin School and Soule Recreation Center  
490 Heath St. and 652 Hammond St., Brookline, MA  
February 7, 2017



## APPENDIX G

Tier 1 VES

**2475-001 Levi Brookline Baldwin School**

484 Heath Street

CHESTNUT HILL, MA 02467

Inquiry Number: 4795721.8s

February 6, 2017

## EDR Vapor Encroachment Screen

Prepared using EDR's Vapor Encroachment Worksheet

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Aerial Photography .....	4
Map Findings .....	5
Record Sources and Currency .....	GR-1

***Thank you for your business.***  
 Please contact EDR at 1-800-352-0050  
 with any questions or comments.

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The EDR Vapor Encroachment Worksheet enables EDR's customers to make certain online modifications that effects maps, text and calculations contained in this Report. As a result, maps, text and calculations contained in this Report may have been so modified. EDR has not taken any action to verify any such modifications, and this report and the findings set forth herein must be read in light of this fact. Environmental Data Resources shall not be responsible for any customer's decision to include or not include in any final report any records determined to be within the relevant minimum search distances.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of the ASTM Standard Practice for Assessment of Vapor Encroachment into Structures on Property Involved in Real Estate Transactions (E 2600).

STANDARD ENVIRONMENTAL RECORDS	Maximum Search Distance*	Summary		
		property	1/10	1/10 - 1/3
Federal NPL	0.333	0	0	0
Federal CERCLIS	0.333	0	0	0
Federal RCRA CORRACTS facilities list	0.333	0	0	0
Federal RCRA TSD facilities list	0.333	0	0	0
Federal RCRA generators list	property	0	-	-
Federal institutional controls / engineering controls registries	0.333	0	0	0
Federal ERNS list	property	0	-	-
State and tribal - equivalent NPL	not searched	-	-	-
State and tribal - equivalent CERCLIS	0.333	0	3	10
State and tribal landfill / solid waste disposal	0.333	0	0	0
State and tribal leaking storage tank lists	0.333	0	2	9
State and tribal registered storage tank lists	property	0	-	-
State and tribal institutional control / engineering control registries	property	0	-	-
State and tribal voluntary cleanup sites	property	0	-	-
State and tribal Brownfields sites	0.333	0	0	0
<b>Other Standard Environmental Records</b>	<b>0.333</b>	<b>0</b>	<b>6</b>	<b>20</b>
<b>HISTORICAL USE RECORDS</b>				
Former manufactured Gas Plants	0.333	0	0	0
Historical Gas Stations	0.125	0	4	0
Historical Dry Cleaners	0.125	0	1	0
Exclusive Recovered Govt. Archives	property	0	-	-

\*Each category may include several separate databases, each having a different search distance. For each category, the table reports the maximum search distance applied. See the section 'Record Sources and Currency' for information on individual databases.

# EXECUTIVE SUMMARY

## TARGET PROPERTY INFORMATION

### ADDRESS

2475-001 LEVI BROOKLINE BALDWIN SCHOOL  
484 HEATH STREET  
CHESTNUT HILL, MA 02467

### COORDINATES

Latitude (North):	42.322894 - 42° 19' 22.42218"
Longitude (West):	71.161403 - 71° 9' 41.03943"
Elevation:	194 ft. above sea level

# EXECUTIVE SUMMARY

## PHYSICAL SETTING INFORMATION

Flood Zone: Available  
NWI Wetlands: Available

## **AQUIFLOW®**

Search Radius: 0.333 Mile.

**No Aquiflow sites reported.**

## **DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY**

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

---

### **Soil Map ID: 1**

Soil Component Name: Urban land  
Soil Surface Texture:  
Hydrologic Group: Not reported  
Soil Drainage Class:  
Hydric Status: Unknown  
Corrosion Potential - Uncoated Steel: Not Reported  
Depth to Bedrock Min: > 0 inches  
Depth to Watertable Min: > 0 inches  
No Layer Information available.

---

### **Soil Map ID: 2**

Soil Component Name: Scarboro  
Soil Surface Texture: mucky fine sandy loam  
Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.  
Soil Drainage Class: Very poorly drained

## EXECUTIVE SUMMARY

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	mucky fine sandy loam	Not reported	Not reported	Max: 141.14 Min: 42.34	Max: 6 Min: 4.5
2	9 inches	59 inches	sr to loamy fine sand to gravelly coarse sand	Not reported	Not reported	Max: 141.14 Min: 42.34	Max: 6 Min: 4.5

### Soil Map ID: 3

Soil Component Name: Charlton

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 38 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
2	5 inches	35 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5

## EXECUTIVE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
3	35 inches	59 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5

### Soil Map ID: 4

Soil Component Name: Merrimac

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	18 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 14.11	Max: 6 Min: 3.6
2	18 inches	22 inches	gravelly loamy sand	Not reported	Not reported	Max: 141.14 Min: 14.11	Max: 6 Min: 3.6
3	22 inches	59 inches	sr to sand to very gravelly coarse sand	Not reported	Not reported	Max: 141.14 Min: 42.34	Max: 6 Min: 3.6

### Soil Map ID: 5

Soil Component Name: Newport

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

## EXECUTIVE SUMMARY

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
2	9 inches	25 inches	channery silt loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
3	25 inches	59 inches	channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: 6 Min: 4.5

### Soil Map ID: 6

Soil Component Name: Hollis

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class C/D - Drained/undrained hydrology class of soils that can be drained and classified.

Soil Drainage Class: Well drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	3 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
2	3 inches	14 inches	gravelly fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5

## EXECUTIVE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
3	14 inches	18 inches	unweathered bedrock	Not reported	Not reported	Max: 0.9999 Min: 0	Max: Min:

### Soil Map ID: 7

Soil Component Name: Udorthents

Soil Surface Texture: variable

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Unknown

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	variable	Not reported	Not reported	Max: 141.14 Min: 0.42	Max: Min:
2	5 inches	59 inches	variable	Not reported	Not reported	Max: 141.14 Min: 0.42	Max: Min:

### Soil Map ID: 8

Soil Component Name: Newport

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

## EXECUTIVE SUMMARY

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
2	9 inches	25 inches	channery silt loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
3	25 inches	59 inches	channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: 6 Min: 4.5

### Soil Map ID: 9

Soil Component Name: Charlton

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5

# EXECUTIVE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	5 inches	35 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
3	35 inches	59 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5

---

### Soil Map ID: 10

Soil Component Name: Water

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Unknown

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

---

### Soil Map ID: 11

Soil Component Name: Montauk

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 68 inches

## EXECUTIVE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 3.6
2	9 inches	29 inches	fine sandy loam	Not reported	Not reported	Max: 4.23 Min: 0.42	Max: 6 Min: 3.6
3	29 inches	59 inches	loamy sand	Not reported	Not reported	Max: 0.42 Min: 0.14	Max: 6 Min: 3.6

### Soil Map ID: 12

Soil Component Name: Merrimac

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	18 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 14.11	Max: 6 Min: 3.6
2	18 inches	22 inches	gravelly loamy sand	Not reported	Not reported	Max: 141.14 Min: 14.11	Max: 6 Min: 3.6
3	22 inches	59 inches	sr to sand to very gravelly coarse sand	Not reported	Not reported	Max: 141.14 Min: 42.34	Max: 6 Min: 3.6

## EXECUTIVE SUMMARY

### Soil Map ID: 13

Soil Component Name: Newport

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
2	9 inches	25 inches	channery silt loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
3	25 inches	59 inches	channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: 6 Min: 4.5

### Soil Map ID: 14

Soil Component Name: Newport

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

## EXECUTIVE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
2	9 inches	25 inches	channery silt loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
3	25 inches	59 inches	channery silt loam	Not reported	Not reported	Max: 1.41 Min: 0	Max: 6 Min: 4.5

### Soil Map ID: 15

Soil Component Name: Charlton

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
2	5 inches	35 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5
3	35 inches	59 inches	fine sandy loam	Not reported	Not reported	Max: 42.34 Min: 4.23	Max: 6 Min: 4.5

# EXECUTIVE SUMMARY

**Soil Map ID: 16**

Soil Component Name: Sudbury

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 69 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	11 inches	sandy loam	Not reported	Not reported	Max: 42.34 Min: 14.11	Max: 6 Min: 3.6
2	11 inches	22 inches	sandy loam	Not reported	Not reported	Max: 42.34 Min: 14.11	Max: 6 Min: 3.6
3	22 inches	59 inches	gravelly coarse sand	Not reported	Not reported	Max: 141.14 Min: 14.11	Max: 6 Min: 3.6

# EXECUTIVE SUMMARY

## SEARCH RESULTS

Unmappable (orphan) sites are not considered in the foregoing analysis.

## STANDARD ENVIRONMENTAL RECORDS

<u>Name</u>	<u>Address</u>	<u>Dist/Dir</u>	<u>Map ID</u>	<u>Page</u>
NO LOCATION AID SHWS: State and tribal - equivalent CERCLIS SPILLS: Other Standard Environmental Records RELEASE: Other Standard Environmental Records	640 HAMMOND ST	<1/10 SW	▼ A1	21
MCNEILLY GARAGE SHWS: State and tribal - equivalent CERCLIS ENF: Other Standard Environmental Records LUST: State and tribal leaking storage tank lists RELEASE: Other Standard Environmental Records SPILLS: Other Standard Environmental Records LAST: State and tribal leaking storage tank lists	639 HAMMOND ST	<1/10 WSW	▼ A3	26
CUMBERLAND FARMS #70011 HW GEN: Other Standard Environmental Records	1180 BOYLSTON ST	<1/10 WNW	▼ B5	57
EXXON STATION #3-3258 SHWS: State and tribal - equivalent CERCLIS ENF: Other Standard Environmental Records LUST: State and tribal leaking storage tank lists RELEASE: Other Standard Environmental Records	1180 BOYLSTON ST	<1/10 WNW	▼ B6	58
CENTRAL CLEANERS OF BROOKLINE INC HW GEN: Other Standard Environmental Records DRYCLEANERS: Other Standard Environmental Records	621 HAMMOND ST	<1/10 W	▼ B9	89
S J MCNEILLY OLDS HW GEN: Other Standard Environmental Records	14 SHEAFE ST	<1/10 W	▼ C10	90
ROUTE 9 SHWS: State and tribal - equivalent CERCLIS RELEASE: Other Standard Environmental Records	1075 BOYLSTON ST	1/10 - 1/3 NE	▲ 12	93
CUMBERLAND FARMS 2456 HW GEN: Other Standard Environmental Records	1195 BOYLSTON ST	1/10 - 1/3 WNW	▼ D13	95
CVS PHARMACY 1862 HW GEN: Other Standard Environmental Records	1195 BOYLSTON ST	1/10 - 1/3 WNW	▼ D14	96
PINE MANOR COLLEGE HW GEN: Other Standard Environmental Records	400 HEATH ST	1/10 - 1/3 E	▲ 15	97
RESIDENCE SHWS: State and tribal - equivalent CERCLIS LAST: State and tribal leaking storage tank lists RELEASE: Other Standard Environmental Records	17 GLENOE RD	1/10 - 1/3 S	▼ 16	98
BRIMMER & MAY SCHOOL	69 MIDDLESEX RD	1/10 - 1/3 N	▼ 17	102

## EXECUTIVE SUMMARY

<u>Name</u>	<u>Address</u>	<u>Dist/Dir</u>	<u>Map ID</u>	<u>Page</u>
HW GEN: Other Standard Environmental Records				
WIESCHHOFF RESIDENCE LUST: State and tribal leaking storage tank lists RELEASE: Other Standard Environmental Records	30 NORFOLK RD	1/10 - 1/3 NNE	▲ 18	103
CHESTNUT HILL SHOPPING CENTER SHWS: State and tribal - equivalent CERCLIS RELEASE: Other Standard Environmental Records INST CONTROL: State and tribal institutional control / engineering control registries	9 BOYLSTON ST	1/10 - 1/3 W	▼ E19	106
COMMERCIAL PROPERTY SHWS: State and tribal - equivalent CERCLIS RELEASE: Other Standard Environmental Records	1244-1262 BOYLSTON ST	1/10 - 1/3 W	▼ E20	110
NEW ENGLAND PODIATRY HW GEN: Other Standard Environmental Records	1244 BOYLSTON ST	1/10 - 1/3 W	▼ F21	112
CHESTNUT HILL SHOPPING CTR SHWS: State and tribal - equivalent CERCLIS RELEASE: Other Standard Environmental Records	11 BOYLSTON ST	1/10 - 1/3 W	▼ E22	113
CHESTNUT HILL SHOPPING CENTER LUST: State and tribal leaking storage tank lists RELEASE: Other Standard Environmental Records INST CONTROL: State and tribal institutional control / engineering control registries	13 BOYLSTON ST	1/10 - 1/3 W	▼ E23	115
RANDOLPH LUST: State and tribal leaking storage tank lists RELEASE: Other Standard Environmental Records	375 HEATH ST	1/10 - 1/3 E	▲ 24	120
1268 BOYLSTON ST NEAR RTE 9 EAST SHWS: State and tribal - equivalent CERCLIS RELEASE: Other Standard Environmental Records	BOYLSTON ST	1/10 - 1/3 W	▼ F25	122
GENERAL CINEMAS FMR SHWS: State and tribal - equivalent CERCLIS LUST: State and tribal leaking storage tank lists RELEASE: Other Standard Environmental Records	27 BOYLSTON ST	1/10 - 1/3 W	▼ G26	124
NO LOCATION AID SHWS: State and tribal - equivalent CERCLIS LUST: State and tribal leaking storage tank lists RELEASE: Other Standard Environmental Records HW GEN: Other Standard Environmental Records	25 BOYLSTON ST	1/10 - 1/3 W	▼ G27	143
CHESTNUT HILL MEDICAL CENTER ENF: Other Standard Environmental Records LUST: State and tribal leaking storage tank lists RELEASE: Other Standard Environmental Records	25 BOYLSTON ST	1/10 - 1/3 W	▼ G28	147
NO LOCATION AID SHWS: State and tribal - equivalent CERCLIS RELEASE: Other Standard Environmental Records	1280 AND 1290 BOYLSTON ST	1/10 - 1/3 W	▼ 29	152

## EXECUTIVE SUMMARY

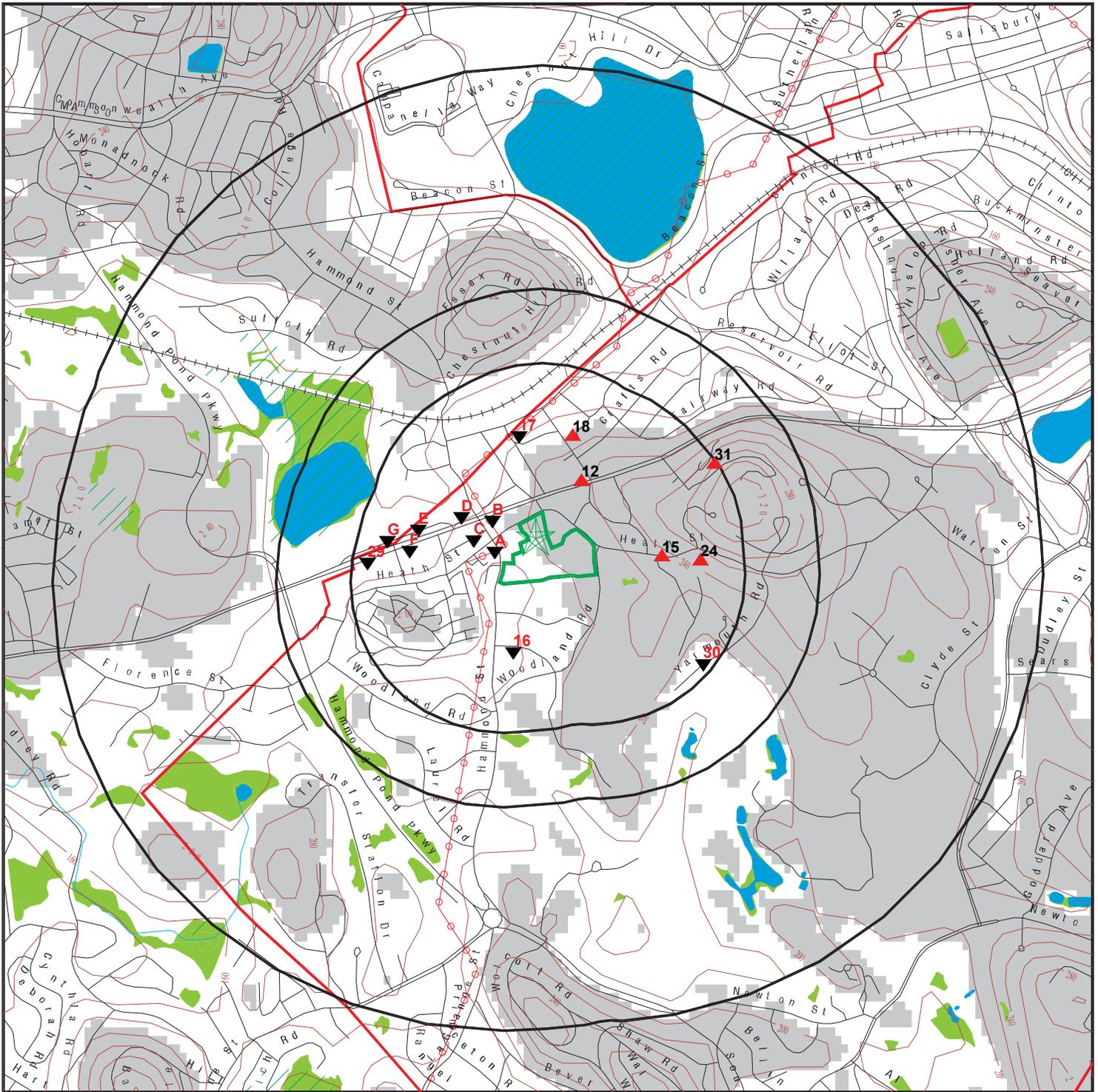
<u>Name</u>	<u>Address</u>	<u>Dist/Dir</u>	<u>Map ID</u>	<u>Page</u>
NO LOCATION AID LUST: State and tribal leaking storage tank lists RELEASE: Other Standard Environmental Records	132 YARMOUTH RD	1/10 - 1/3 SE	▼ 30	154
CHESTNUT HILL BENEVOLENT ASSOC SHWS: State and tribal - equivalent CERCLIS LUST: State and tribal leaking storage tank lists RELEASE: Other Standard Environmental Records HW GEN: Other Standard Environmental Records	910 BOYLSTON ST	1/10 - 1/3 ENE	▲ 31	156

### HISTORICAL USE RECORDS

<u>Name</u>	<u>Address</u>	<u>Dist/Dir</u>	<u>Map ID</u>	<u>Page</u>
639 HAMMOND ST EDR Hist Auto: Historical Gas Stations	639 HAMMOND ST	<1/10 WSW	▼ A2	25
629 HAMMOND ST EDR Hist Auto: Historical Gas Stations	629 HAMMOND ST	<1/10 WSW	▼ A4	56
1180 BOYLSTON ST EDR Hist Auto: Historical Gas Stations	1180 BOYLSTON ST	<1/10 WNW	▼ B7	86
621 HAMMOND ST EDR Hist Cleaner: Historical Dry Cleaners	621 HAMMOND ST	<1/10 W	▼ B8	87
14 SHEAFE ST EDR Hist Auto: Historical Gas Stations	14 SHEAFE ST	<1/10 W	▼ C11	91



# SECONDARY MAP - 4795721.8S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Contour Lines

County Boundary

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Upgradient Area

Areas of Critical Environmental Concern

SITE NAME: 2475-001 Levi Brookline Baldwin School  
 ADDRESS: 484 Heath Street  
 CHESTNUT HILL MA 02467  
 LAT/LONG: 42.322894 / 71.161403

CLIENT: Endpoint, LLC  
 CONTACT: Katie Snyder  
 INQUIRY #: 4795721.8s  
 DATE: December 02, 2016 12:37 pm

# AERIAL PHOTOGRAPHY - 4795721.8s



<p><b>SITE NAME:</b> 2475-001 Levi Brookline Baldwin School <b>ADDRESS:</b> 484 Heath Street CHESTNUT HILL MA 02467 <b>LAT/LONG:</b> 42.322894 / 71.161403</p>	<p><b>CLIENT:</b> Endpoint, LLC <b>CONTACT:</b> Katie Snyder <b>INQUIRY #:</b> 4795721.8s <b>DATE:</b> December 02, 2016 12:39 pm</p>
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MAP FINDINGS

LEGEND

FACILITY NAME FACILITY ADDRESS, CITY, ST, ZIP		EDR SITE ID NUMBER
▼ MAP ID#	Direction Distance Range (Distance feet / miles)	ASTM 2600 Record Sources found in this report. Each database searched has been assigned to one or more categories. For detailed information about categorization, see the section of the report Records Searched and Currency.
	Relative Elevation Feet Above Sea Level	
<b>Worksheet:</b>		
<b>Comments:</b> Comments may be added on the online Vapor Encroachment Worksheet.		

DATABASE ACRONYM: Applicable categories (A hoverbox with database description).

NO LOCATION AID 640 HAMMOND ST, BROOKLINE, MA, 02445-0000		S101025231
▼ A1	SW <1/10 (30 ft. / 0.006 mi.)	State and tribal - equivalent CERCLIS Other Standard Environmental Records
	12 ft. Lower Elevation 182 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Comments:** Soil characteristics would make vapor migration from the source or plume unlikely.

**Conditions:**

Chemicals of Concern: YES

Petroleum Hydrocarbon Chemicals of Concern: YES

**Groundwater Flow Gradient:**

Downgradient: YES

Topographically: YES

**SHWS: State and tribal - equivalent CERCLIS**

Release Tracking Number/Current Status: 3-0020733 / RAO

Release Town: BROOKLINE

Notification Date: 05/17/2001

Category: 120 DY

Associated ID: Not Reported

**Current Status:** **Response Action Outcome**

Status Date: 09/14/2001

Phase: Not Reported

Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.

Oil Or Haz Material: Oil and Hazardous Material

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0020733](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0020733) for this facility:

MAP FINDINGS

**NO LOCATION AID, 640 HAMMOND ST, BROOKLINE, MA 02445-0000 (Continued)**

**Chemicals:**

Chemical:	C9 THRU C10 AROMATIC HYDROCARBONS
Quantity:	375 milligrams per kilogram
Chemical:	LEAD
Quantity:	618 milligrams per kilogram
Chemical:	C5 THRU C8 ALIPHATIC HYDROCARBONS
Quantity:	1180 milligrams per kilogram

**Actions:**

Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	5/17/2001
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	5/17/2001
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Written Plan Received
Action Date:	5/17/2001
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Fee Received - FMCRA Use Only
Action Date:	5/29/2001
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	7/6/2001
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Response Action Outcome - RAO
Action Status:	RAO Statement Received
Action Date:	9/14/2001
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Release Tracking Number/Current Status:	3-0003009 / DEPND5
Release Town:	BROOKLINE
Notification Date:	01/15/1990
Category:	NONE
Associated ID:	Not Reported
<b>Current Status:</b>	<b>Not a Disposal Site (DEP)</b>
Status Date:	04/24/1996
Phase:	Not Reported
Response Action Outcome:	-
Oil Or Haz Material:	Oil
Location Type:	BUS DEPOT
Source:	PIPE

MAP FINDINGS

**NO LOCATION AID, 640 HAMMOND ST, BROOKLINE, MA 02445-0000 (Continued)**

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0003009](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0003009) for this facility:

**Chemicals:**

Chemical: WASTE OIL  
Quantity: Not Reported

**Actions:**

Action Type: Release Disposition  
Action Status: Valid Transition Site  
Action Date: 1/15/1990  
Response Action Outcome: Not Reported

Action Type: TREGS  
Action Status: DEPND5  
Action Date: 4/24/1996  
Response Action Outcome: Not Reported

**MA Spills: Other Standard Environmental Records**

Facility ID: 3-3009  
Spill ID: N89-1728  
Staff Lead: OTTENHEIMER, D  
Date Entered: 19891116  
Last Entered: 19931213  
First Response: 19891016  
Spill Date: 19891016  
Spill Time: Not Reported  
Report Date: 19891016  
Report Time: 09:40AM  
Case Closed: YES  
Mat Type: PETROLEUM  
Virgin Waste: VIRGIN  
Contam Soil: Not Reported  
Env Impact: SOIL  
Other Impact: Not Reported  
Material: DIESEL FUEL  
Other Material: Not Reported  
Qty Reported: UNKNOWN  
Qty Actual: UNKNOWN  
Qty Reported: -----  
Qty Actual: -----  
CAS No: Not Reported  
PCB Lev (ppm): NONE  
Source: U.S.T.  
Other Source: Not Reported  
Incident: TANK REMOVAL  
Other Incdnt: Not Reported  
Cleanup Type: ---  
Contractor: NOT USED

MAP FINDINGS

**NO LOCATION AID, 640 HAMMOND ST, BROOKLINE, MA 02445-0000 (Continued)**

Referral: SA  
LUST Elig: YES  
Report Prep: Not Reported  
Category: Not Reported  
Notifier: BOB WAAS  
Notif Tel: Not Reported  
Days/Close: 0

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status: 3-0003009 / DEPND5  
Primary ID: Not Reported  
Official City: BROOKLINE  
Notification: 01/15/1990  
Category: NONE  
Status Date: 04/24/1996  
Phase: Not Reported  
Response Action Outcome: -  
Oil / Haz Material Type: Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0003009](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0003009) for this facility:

Release Tracking Number/Current Status: 3-0020733 / RAO  
Primary ID: Not Reported  
Official City: BROOKLINE  
Notification: 05/17/2001  
Category: 120 DY  
Status Date: 09/14/2001  
Phase: Not Reported  
Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.  
Oil / Haz Material Type: Oil and Hazardous Material

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0020733](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0020733) for this facility:

MAP FINDINGS

639 HAMMOND ST 639 HAMMOND ST, CHESTNUT HILL, MA, 02467			1015586709
▼ A2	WSW <1/10	(179 ft. / 0.034 mi.)	Historical Gas Stations
	13 ft. Lower Elevation	181 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Not Applicable: YES

**Groundwater Flow Gradient:**

Downgradient: YES

**EDR Historical Auto Stations: Historical Gas Stations**

Name:	INTERNATIONAL AUTO
Year:	1999
Address:	639 HAMMOND ST
Name:	INTERNATIONAL AUTO
Year:	2000
Address:	639 HAMMOND ST
Name:	MICHAEL J HAYNES AUTO REPAIR
Year:	2002
Address:	639 HAMMOND ST
Name:	ARMENDS AUTO BODY INC
Year:	2003
Address:	639 HAMMOND ST

MAP FINDINGS

MCNEILLY GARAGE 639 HAMMOND ST, BROOKLINE, MA, 02146			S101017033
▼ A3	WSW <1/10	(179 ft. / 0.034 mi.)	State and tribal - equivalent CERCLIS
	13 ft. Lower Elevation	181 ft. Above Sea Level	State and tribal leaking storage tank lists Other Standard Environmental Records

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Comments:** The source is downgradient and beyond the critical distance.

**Conditions:**

Petroleum Hydrocarbon Chemicals of Concern: YES

**Groundwater Flow Gradient:**

Downgradient: YES

Topographically: YES

**SHWS: State and tribal - equivalent CERCLIS**

Release Tracking Number/Current Status: 3-0019556 / RAONR

Release Town: BROOKLINE

Notification Date: 05/18/2000

Category: 72 HR

Associated ID: 3-0016950

**Current Status:** **Response Action Outcome Not Required**

Status Date: 05/04/2001

Phase: Not Reported

Response Action Outcome: -

Oil Or Haz Material: Oil

Location Type: COMMERCIAL

Source: UNKNOWN

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0019556](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0019556) for this facility:

**Chemicals:**

Chemical: WASTE OIL

Quantity: 4 inches

Chemical: NAPL

Quantity: 4 inches

**Actions:**

Action Type: Tier Classification

Action Status: Tier 2 Extension

Action Date: 10/2/2006

Response Action Outcome: Not Reported

Action Type: Tier Classification

Action Status: Tier 2 Transfer

Action Date: 10/2/2006

Response Action Outcome: Not Reported

Action Type: Tier Classification

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	10/2/2006
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	10/27/2000
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Classification
Action Date:	10/27/2000
Response Action Outcome:	Not Reported
Action Type:	Immediate Response Action
Action Status:	Completion Statement Received
Action Date:	11/1/2000
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	12/14/2007
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	12/22/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Revised Statement or Transmittal Received
Action Date:	12/22/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Transfer
Action Date:	12/22/2003
Response Action Outcome:	Not Reported
Action Type:	Immediate Response Action
Action Status:	Oral Approval of Plan or Action
Action Date:	5/18/2000
Response Action Outcome:	Not Reported
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	5/18/2000
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via IRA Completion Statement
Action Date:	5/4/2001
Response Action Outcome:	Not Reported
Action Type:	RAO Not Required

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Status: Linked to a Tier Classified Site  
 Action Date: 5/4/2001  
 Response Action Outcome: Not Reported

Action Type: A Notice sent to a Potentially Responsible Party (PRP)  
 Action Status: A MassDEP piece of correspondence was issued (approvals, NORs, etc.)  
 Action Date: 6/20/2000  
 Response Action Outcome: Not Reported

Action Type: RNF  
 Action Status: Reportable Release under MGL 21E  
 Action Date: 6/7/2000  
 Response Action Outcome: Not Reported

Action Type: Compliance and Enforcement Action  
 Action Status: Notice of Non-Compliance Issued  
 Action Date: 8/20/2001  
 Response Action Outcome: Not Reported

Release Tracking Number/Current Status: 3-0017343 / RAONR

Release Town: BROOKLINE  
 Notification Date: 09/23/1998  
 Category: 120 DY  
 Associated ID: 3-0016950

**Current Status: Response Action Outcome Not Required**

Status Date: 12/22/2003  
 Phase: PHASE II  
 Response Action Outcome: -  
 Oil Or Haz Material: Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0017343](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0017343) for this facility:

**Chemicals:**

Chemical: WASTE OIL  
 Quantity: Not Reported

**Actions:**

Action Type: Tier Classification  
 Action Status: RTN Linked to TCLASS Via Tier Classification Submittal  
 Action Date: 10/2/2006  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Transfer  
 Action Date: 10/2/2006  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Extension  
 Action Date: 10/2/2006  
 Response Action Outcome: Not Reported

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Type:	Tier Classification
Action Status:	Tier 2 Classification
Action Date:	10/27/2000
Response Action Outcome:	Not Reported
Action Type:	Phase 1
Action Status:	Completion Statement Received
Action Date:	10/27/2000
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	10/27/2000
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	12/14/2007
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	12/22/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Transfer
Action Date:	12/22/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Revised Statement or Transmittal Received
Action Date:	12/22/2003
Response Action Outcome:	Not Reported
Action Type:	RAO Not Required
Action Status:	Linked to a Tier Classified Site
Action Date:	12/22/2003
Response Action Outcome:	Not Reported
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	4/9/1999
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via IRA Completion Statement
Action Date:	5/4/2001
Response Action Outcome:	Not Reported
Action Type:	Compliance and Enforcement Action
Action Status:	Notice of Non-Compliance Issued
Action Date:	8/17/2000
Response Action Outcome:	Not Reported

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Type: Release Disposition  
 Action Status: Reportable Release under MGL 21E  
 Action Date: 9/23/1998  
 Response Action Outcome: Not Reported

Action Type: RNF  
 Action Status: Reportable Release under MGL 21E  
 Action Date: 9/23/1998  
 Response Action Outcome: Not Reported

Release Tracking Number/Current Status: 3-0002320 / RAO

Release Town: BROOKLINE  
 Notification Date: 03/09/1988  
 Category: NONE  
 Associated ID: Not Reported

**Current Status: Response Action Outcome**

Status Date: 11/01/2000  
 Phase: PHASE IV

Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.

Oil Or Haz Material: Not Reported

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0002320](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0002320) for this facility:

**Chemicals:**

Chemical: UNKNOWN  
 Quantity: Not Reported

**Actions:**

Action Type: Response Action Outcome - RAO  
 Action Status: RAO Statement Received  
 Action Date: 11/1/2000  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Compliance and Enforcement Action  
 Action Status: Notice of Non-Compliance Issued  
 Action Date: 11/12/1998  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Phase 3  
 Action Status: Completion Statement Received  
 Action Date: 11/17/1999  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Abatement Measure  
 Action Status: Completion Statement Received  
 Action Date: 11/17/1999  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Phase 2  
 Action Status: Completion Statement Received

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Date:	11/17/1999
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	Tier 2 Transfer
Action Date:	11/5/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Phase 4
Action Status:	Written Plan Received
Action Date:	3/24/2000
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Disposition
Action Status:	Valid Transition Site
Action Date:	3/9/1988
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	3/9/1988
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	TREGS
Action Status:	LSPFA
Action Date:	8/8/1996
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Phase 1
Action Status:	Completion Statement Received
Action Date:	8/9/1996
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	8/9/1996
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Written Plan Received
Action Date:	9/22/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Release Tracking Number/Current Status:	3-0026526 / RAONR
Release Town:	BROOKLINE
Notification Date:	01/10/2007
Category:	120 DY
Associated ID:	3-0016950
<b>Current Status:</b>	<b>Response Action Outcome Not Required</b>
Status Date:	12/14/2007
Phase:	Not Reported
Response Action Outcome:	-
Oil Or Haz Material:	Oil

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Source: UNKNOWN

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0026526](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0026526) for this facility:

**Chemicals:**

Chemical: WASTE OIL  
 Quantity: 939 milligrams per kilogram

**Actions:**

Action Type: Release Disposition  
 Action Status: Reportable Release under MGL 21E  
 Action Date: 1/10/2007  
 Response Action Outcome: Not Reported

Action Type: RNF  
 Action Status: Reportable Release under MGL 21E  
 Action Date: 1/10/2007  
 Response Action Outcome: Not Reported

Action Type: Release Abatement Measure  
 Action Status: Written Plan Received  
 Action Date: 1/17/2007  
 Response Action Outcome: Not Reported

Action Type: Release Abatement Measure  
 Action Status: Fee Received - FMCRA Use Only  
 Action Date: 1/19/2007  
 Response Action Outcome: Not Reported

Action Type: A Notice sent to a Potentially Responsible Party (PRP)  
 Action Status: A MassDEP piece of correspondence was issued (approvals, NORs, etc.)  
 Action Date: 1/24/2007  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Transfer  
 Action Date: 10/2/2006  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Extension  
 Action Date: 10/2/2006  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: RTN Linked to TCLASS Via Tier Classification Submittal  
 Action Date: 10/2/2006  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Classification  
 Action Date: 10/27/2000  
 Response Action Outcome: Not Reported

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Type:	Tier Classification
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	10/27/2000
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Status or Interim Report Received
Action Date:	11/21/2007
Response Action Outcome:	Not Reported
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	ALSENT
Action Date:	12/11/2007
Response Action Outcome:	Not Reported
Action Type:	RAO Not Required
Action Status:	Linked to a Tier Classified Site
Action Date:	12/14/2007
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	12/14/2007
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Transfer
Action Date:	12/22/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	12/22/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Revised Statement or Transmittal Received
Action Date:	12/22/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via IRA Completion Statement
Action Date:	5/4/2001
Response Action Outcome:	Not Reported
Release Tracking Number/Current Status:	3-0026468 / RAONR
Release Town:	BROOKLINE
Notification Date:	12/13/2006
Category:	120 DY
Associated ID:	3-0016950
<b>Current Status:</b>	<b>Response Action Outcome Not Required</b>
Status Date:	12/14/2007
Phase:	Not Reported

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Response Action Outcome: -  
 Oil Or Haz Material: Hazardous Material  
 Source: UNKNOWN  
 Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0026468](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0026468)  
 for this facility:

**Chemicals:**

Chemical: BENZO[A]ANTHRACENE  
 Quantity: 9.4 milligrams per kilogram  
 Chemical: BENZO[A]PYRENE  
 Quantity: 8.45 milligrams per kilogram  
 Chemical: CADMIUM  
 Quantity: 2.07 milligrams per kilogram  
 Chemical: LEAD  
 Quantity: 4280 milligrams per kilogram  
 Chemical: CHRYSENE  
 Quantity: 8.56 milligrams per kilogram  
 Chemical: BENZO[B]FLUORANTHENE  
 Quantity: 9.89 milligrams per kilogram  
 Chemical: PETROLEUM HYDROCARBONS  
 Quantity: 392 milligrams per kilogram  
 Chemical: URBAN FILL  
 Quantity: Not Reported

**Actions:**

Action Type: Release Abatement Measure  
 Action Status: Modified Revised or Updated Plan Received  
 Action Date: 1/31/2007  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Extension  
 Action Date: 10/2/2006  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Transfer  
 Action Date: 10/2/2006  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: RTN Linked to TCLASS Via Tier Classification Submittal  
 Action Date: 10/2/2006  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Transmittal, Notice, or Notification Received  
 Action Date: 10/27/2000  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Classification

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Date:	10/27/2000
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Status or Interim Report Received
Action Date:	11/20/2007
Response Action Outcome:	Not Reported
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	12/13/2006
Response Action Outcome:	Not Reported
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	12/13/2006
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	12/14/2007
Response Action Outcome:	Not Reported
Action Type:	RAO Not Required
Action Status:	Linked to a Tier Classified Site
Action Date:	12/14/2007
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Written Plan Received
Action Date:	12/18/2006
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Fee Received - FMCRA Use Only
Action Date:	12/20/2006
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	12/22/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Revised Statement or Transmittal Received
Action Date:	12/22/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Transfer
Action Date:	12/22/2003
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Status or Interim Report Received

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Date: 5/31/2007  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: RTN Linked to TCLASS Via IRA Completion Statement  
 Action Date: 5/4/2001  
 Response Action Outcome: Not Reported

Release Tracking Number/Current Status: 3-0016950 / RAO  
 Release Town: BROOKLINE  
 Notification Date: 06/22/1998  
 Category: 72 HR  
 Associated ID: 3-0016950

**Current Status:** **Response Action Outcome**  
 Status Date: 03/28/2008  
 Phase: PHASE IV  
 Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.

Oil Or Haz Material: Oil  
 Location Type: COMMERCIAL  
 Source: UNKNOWN  
 Source: AST  
 Source: UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0016950](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0016950) for this facility:

**Chemicals:**

Chemical: GASOLINE  
 Quantity: 140 parts per million

**Actions:**

Action Type: Phase 4  
 Action Status: Written Plan Received  
 Action Date: 10/1/2007  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Tier Classification  
 Action Status: Tier 2 Extension  
 Action Date: 10/2/2006  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Tier Classification  
 Action Status: RTN Linked to TCLASS Via Tier Classification Submittal  
 Action Date: 10/2/2006  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: RLFA  
 Action Status: FOLOFF  
 Action Date: 10/2/2006  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Type:	Tier Classification
Action Status:	Tier 2 Transfer
Action Date:	10/2/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Written Plan Received
Action Date:	10/2/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Written Denial of Plan
Action Date:	10/23/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RLFA
Action Status:	FOLOFF
Action Date:	10/23/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Compliance and Enforcement Action
Action Status:	Interim Deadline Letter Issued
Action Date:	10/23/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	Tier 2 Classification
Action Date:	10/27/2000
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Phase 1
Action Status:	Completion Statement Received
Action Date:	10/27/2000
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	10/27/2000
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Written Plan Received
Action Date:	10/7/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Compliance and Enforcement Action
Action Status:	Notice of Non-Compliance Issued
Action Date:	10/8/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Written Plan Received
Action Date:	11/17/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Type:	Compliance and Enforcement Action
Action Status:	Interim Deadline Letter Issued
Action Date:	11/24/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Written Approval of Plan
Action Date:	11/24/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	12/14/2007
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Phase 2
Action Status:	Scope of Work Received
Action Date:	12/22/2003
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	12/22/2003
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	Revised Statement or Transmittal Received
Action Date:	12/22/2003
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	Tier 2 Transfer
Action Date:	12/22/2003
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Compliance and Enforcement Action
Action Status:	ACO
Action Date:	12/28/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Modified Revised or Updated Plan Received
Action Date:	2/1/2007
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Status or Interim Report Received
Action Date:	2/1/2007
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Status or Interim Report Received
Action Date:	2/15/2008
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Type:	Release Abatement Measure
Action Status:	Completion Statement Received
Action Date:	3/28/2008
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Response Action Outcome - RAO
Action Status:	RAO Statement Received
Action Date:	3/28/2008
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Completion Statement Received
Action Date:	4/21/1999
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Phase 3
Action Status:	Completion Statement Received
Action Date:	4/5/2007
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Compliance and Enforcement Action
Action Status:	Notice of Enforcement Conference
Action Date:	5/25/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via IRA Completion Statement
Action Date:	5/4/2001
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	6/22/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Oral Approval of Plan or Action
Action Date:	6/22/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	7/27/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	7/3/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Compliance and Enforcement Action
Action Status:	Interim Deadline Letter Issued
Action Date:	7/9/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	7/9/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Status or Interim Report Received
Action Date:	8/2/2007
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	8/3/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Written Plan Received
Action Date:	9/22/2004
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Phase 2
Action Status:	Completion Statement Received
Action Date:	9/22/2004
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Completion Statement Received
Action Date:	9/7/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Compliance and Enforcement Action
Action Status:	Notice of Non-Compliance Issued
Action Date:	9/8/2004
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

**ENFORCEMENT: Other Standard Environmental Records**

Region:	NERO
DEP Region:	NERO
DEP Program:	3A
DEP Bureau:	BWSC
Program:	Not Reported
Program Id:	3-0016950
High Or Low Level Enforcement:	HLE
FMF #:	Not Reported
Comptroller Billing Name:	Not Reported
Town Where Violation Occurred:	Not Reported
Date Executed:	12/28/2006
ENF #:	ACO-NE-06-3A029
Document Type:	ACO
AG Ref (Y/N):	Not Reported
Doc Archived (Y/N):	Not Reported
EJ Community (Y/N):	Not Reported

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Regional Comment:	Not Reported
Final Payment Due Date:	Not Reported
ACOP \$:	Not Reported
PAN \$:	Not Reported
EMS (Y/N):	Not Reported
EMS\$:	Not Reported
SEP (Y/N):	Not Reported
SEP \$:	Not Reported
Demand \$:	Not Reported
Suspended \$:	Not Reported
Ownership:	Commercially Owned

**LUST: State and tribal leaking storage tank lists**

**Facility:**

Release Tracking Number/Current Status:	3-0016950 / RAO
Status Date:	03/28/2008
Source Type:	UST
Release Town:	BROOKLINE
Notification Date:	06/22/1998
Category:	72 HR
Associated ID:	3-0016950
Phase:	PHASE IV
Response Action Outcome:	A2 - A permanent solution has been achieved. Contamination has not been reduced to background.
Oil Or Haz Material:	Oil
Location Type:	COMMERCIAL
Source:	UNKNOWN
Source:	AST
Source:	UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0016950](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0016950) for this facility:

**Chemicals:**

Chemical:	GASOLINE
Quantity:	140 parts per million

**Actions:**

Action Type:	Phase 4
Action Status:	Written Plan Received
Action Date:	10/1/2007
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	Tier 2 Extension
Action Date:	10/2/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	10/2/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RLFA
Action Status:	FOLOFF
Action Date:	10/2/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	Tier 2 Transfer
Action Date:	10/2/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Written Plan Received
Action Date:	10/2/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Written Denial of Plan
Action Date:	10/23/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RLFA
Action Status:	FOLOFF
Action Date:	10/23/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Compliance and Enforcement Action
Action Status:	Interim Deadline Letter Issued
Action Date:	10/23/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	Tier 2 Classification
Action Date:	10/27/2000
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Phase 1
Action Status:	Completion Statement Received
Action Date:	10/27/2000
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	10/27/2000
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Written Plan Received
Action Date:	10/7/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Type:	Compliance and Enforcement Action
Action Status:	Notice of Non-Compliance Issued
Action Date:	10/8/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Written Plan Received
Action Date:	11/17/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Compliance and Enforcement Action
Action Status:	Interim Deadline Letter Issued
Action Date:	11/24/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Written Approval of Plan
Action Date:	11/24/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	12/14/2007
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Phase 2
Action Status:	Scope of Work Received
Action Date:	12/22/2003
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	12/22/2003
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	Revised Statement or Transmittal Received
Action Date:	12/22/2003
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	Tier 2 Transfer
Action Date:	12/22/2003
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Compliance and Enforcement Action
Action Status:	ACO
Action Date:	12/28/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Modified Revised or Updated Plan Received
Action Date:	2/1/2007
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Type:	Release Abatement Measure
Action Status:	Status or Interim Report Received
Action Date:	2/1/2007
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Status or Interim Report Received
Action Date:	2/15/2008
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Completion Statement Received
Action Date:	3/28/2008
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Response Action Outcome - RAO
Action Status:	RAO Statement Received
Action Date:	3/28/2008
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Completion Statement Received
Action Date:	4/21/1999
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Phase 3
Action Status:	Completion Statement Received
Action Date:	4/5/2007
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Compliance and Enforcement Action
Action Status:	Notice of Enforcement Conference
Action Date:	5/25/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via IRA Completion Statement
Action Date:	5/4/2001
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	6/22/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Oral Approval of Plan or Action
Action Date:	6/22/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	7/27/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	7/3/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Compliance and Enforcement Action
Action Status:	Interim Deadline Letter Issued
Action Date:	7/9/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	7/9/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Status or Interim Report Received
Action Date:	8/2/2007
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	8/3/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Written Plan Received
Action Date:	9/22/2004
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Phase 2
Action Status:	Completion Statement Received
Action Date:	9/22/2004
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Completion Statement Received
Action Date:	9/7/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Compliance and Enforcement Action
Action Status:	Notice of Non-Compliance Issued
Action Date:	9/8/2004
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

**Facility:**

Release Tracking Number/Current Status:	3-0023538 / RAONR
Status Date:	10/02/2006
Source Type:	UST
Release Town:	BROOKLINE
Notification Date:	01/23/2004
Category:	72 HR

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Associated ID: 3-0016950  
 Phase: Not Reported  
 Response Action Outcome: -  
 Oil Or Haz Material: Oil  
 Location Type: COMMERCIAL  
 Source: UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0023538](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0023538) for this facility:

**Chemicals:**

Chemical: GASOLINE  
 Quantity: 166 parts per million  
 Chemical: GASOLINE  
 Quantity: 100 parts per million

**Actions:**

Action Type: Immediate Response Action  
 Action Status: IRA Assessment Only  
 Action Date: 1/23/2004  
 Response Action Outcome: Not Reported

Action Type: Release Disposition  
 Action Status: Reportable Release under MGL 21E  
 Action Date: 1/23/2004  
 Response Action Outcome: Not Reported

Action Type: Immediate Response Action  
 Action Status: Written Approval of Plan  
 Action Date: 10/12/2004  
 Response Action Outcome: Not Reported

Action Type: Compliance and Enforcement Action  
 Action Status: Interim Deadline Letter Issued  
 Action Date: 10/12/2004  
 Response Action Outcome: Not Reported

Action Type: Release Disposition  
 Action Status: Reportable Release under MGL 21E  
 Action Date: 10/14/2004  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Extension  
 Action Date: 10/2/2006  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Transfer  
 Action Date: 10/2/2006  
 Response Action Outcome: Not Reported

Action Type: RAO Not Required

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Status:	Linked to a Tier Classified Site
Action Date:	10/2/2006
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	10/2/2006
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Classification
Action Date:	10/27/2000
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	10/27/2000
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	12/14/2007
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	12/22/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Revised Statement or Transmittal Received
Action Date:	12/22/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Transfer
Action Date:	12/22/2003
Response Action Outcome:	Not Reported
Action Type:	Compliance and Enforcement Action
Action Status:	Notice of Non-Compliance Issued
Action Date:	4/14/2005
Response Action Outcome:	Not Reported
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	4/16/2004
Response Action Outcome:	Not Reported
Action Type:	Compliance and Enforcement Action
Action Status:	Notice of Enforcement Conference
Action Date:	5/25/2006
Response Action Outcome:	Not Reported
Action Type:	Tier Classification

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Status:	RTN Linked to TCLASS Via IRA Completion Statement
Action Date:	5/4/2001
Response Action Outcome:	Not Reported
Action Type:	Compliance and Enforcement Action
Action Status:	Interim Deadline Letter Issued
Action Date:	7/9/2006
Response Action Outcome:	Not Reported
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	7/9/2006
Response Action Outcome:	Not Reported
Action Type:	Immediate Response Action
Action Status:	Status or Interim Report Received
Action Date:	9/22/2004
Response Action Outcome:	Not Reported
Action Type:	Immediate Response Action
Action Status:	Written Plan Received
Action Date:	9/22/2004
Response Action Outcome:	Not Reported
Action Type:	Immediate Response Action
Action Status:	Completion Statement Received
Action Date:	9/7/2006
Response Action Outcome:	Not Reported

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status:	3-0002320 / RAO
Primary ID:	Not Reported
Official City:	BROOKLINE
Notification:	03/09/1988
Category:	NONE
Status Date:	11/01/2000
Phase:	PHASE IV
Response Action Outcome:	A2 - A permanent solution has been achieved. Contamination has not been reduced to background.
Oil / Haz Material Type:	Not Reported

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0002320](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0002320) for this facility:

Release Tracking Number/Current Status:	3-0016950 / RAO
Primary ID:	3-0016950
Official City:	BROOKLINE
Notification:	06/22/1998
Category:	72 HR
Status Date:	03/28/2008
Phase:	PHASE IV

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.

Oil / Haz Material Type: Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0016950](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0016950) for this facility:

Release Tracking Number/Current Status: 3-0017343 / RAONR

Primary ID: 3-0016950

Official City: BROOKLINE

Notification: 09/23/1998

Category: 120 DY

Status Date: 12/22/2003

Phase: PHASE II

Response Action Outcome: -

Oil / Haz Material Type: Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0017343](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0017343) for this facility:

Release Tracking Number/Current Status: 3-0019556 / RAONR

Primary ID: 3-0016950

Official City: BROOKLINE

Notification: 05/18/2000

Category: 72 HR

Status Date: 05/04/2001

Phase: Not Reported

Response Action Outcome: -

Oil / Haz Material Type: Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0019556](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0019556) for this facility:

Release Tracking Number/Current Status: 3-0023538 / RAONR

Primary ID: 3-0016950

Official City: BROOKLINE

Notification: 01/23/2004

Category: 72 HR

Status Date: 10/02/2006

Phase: Not Reported

Response Action Outcome: -

Oil / Haz Material Type: Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0023538](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0023538) for this facility:

Release Tracking Number/Current Status: 3-0026468 / RAONR

Primary ID: 3-0016950

Official City: BROOKLINE

Notification: 12/13/2006

Category: 120 DY

Status Date: 12/14/2007

Phase: Not Reported

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Response Action Outcome: -  
 Oil / Haz Material Type: Hazardous Material

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0026468](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0026468) for this facility:

Release Tracking Number/Current Status: 3-0026526 / RAONR  
 Primary ID: 3-0016950  
 Official City: BROOKLINE  
 Notification: 01/10/2007  
 Category: 120 DY  
 Status Date: 12/14/2007  
 Phase: Not Reported  
 Response Action Outcome: -  
 Oil / Haz Material Type: Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0026526](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0026526) for this facility:

**MA Spills: Other Standard Environmental Records**

Facility ID: 3-2320  
 Spill ID: N87-0373  
 Staff Lead: OTHER  
 Date Entered: 19881227  
 Last Entered: 19930804  
 First Response: 19891129  
 Spill Date: Not Reported  
 Spill Time: Not Reported  
 Report Date: 19870326  
 Report Time: Not Reported  
 Case Closed: YES  
 Mat Type: PETROLEUM  
 Virgin Waste: WASTE  
 Contam Soil: Not Reported  
 Env Impact: SOIL  
 Other Impact: Not Reported  
 Material: WASTE OIL  
 Other Material: Not Reported  
 Qty Reported: -----  
 Qty Actual: -----  
 Qty Reported: -----  
 Qty Actual: -----  
 CAS No: Not Reported  
 PCB Lev (ppm): NONE  
 Source: A.S.T.  
 Other Source: Not Reported  
 Incident: SPILL  
 Other Incdnt: Not Reported  
 Cleanup Type: ---  
 Contractor: NOT USED  
 Referral: SA

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

LUST Elig: NO  
 Report Prep: Not Reported  
 Category: Not Reported  
 Notifier: Not Reported  
 Notif Tel: Not Reported  
 Days/Close: 0

**LAST: State and tribal leaking storage tank lists**

Release Tracking Number/Current Status: 3-0016950 / RAO  
 Source Type: AST  
 Release Town: BROOKLINE  
 Notification Date: 06/22/1998  
 Category: 72 HR  
 Associated ID: 3-0016950  
 Status Date: 03/28/2008  
 Phase: PHASE IV  
 Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.  
 Oil Or Haz Material: Oil

**Chemicals:**

Chemical: GASOLINE  
 Quantity: 140 parts per million  
 Location Type: COMMERCIAL  
 Source: UNKNOWN  
 Source: AST  
 Source: UST

**Actions:**

Action Type: Phase 4  
 Action Status: Written Plan Received  
 Action Date: 10/1/2007  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.  
 Action Type: Tier Classification  
 Action Status: Tier 2 Extension  
 Action Date: 10/2/2006  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.  
 Action Type: Tier Classification  
 Action Status: RTN Linked to TCLASS Via Tier Classification Submittal  
 Action Date: 10/2/2006  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.  
 Action Type: RLFA  
 Action Status: FOLOFF  
 Action Date: 10/2/2006  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.  
 Action Type: Tier Classification  
 Action Status: Tier 2 Transfer

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Date: 10/2/2006  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Abatement Measure  
 Action Status: Written Plan Received  
 Action Date: 10/2/2006  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Immediate Response Action  
 Action Status: Written Denial of Plan  
 Action Date: 10/23/1998  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: RLFA  
 Action Status: FOLOFF  
 Action Date: 10/23/1998  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Compliance and Enforcement Action  
 Action Status: Interim Deadline Letter Issued  
 Action Date: 10/23/1998  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Tier Classification  
 Action Status: Tier 2 Classification  
 Action Date: 10/27/2000  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Phase 1  
 Action Status: Completion Statement Received  
 Action Date: 10/27/2000  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Tier Classification  
 Action Status: Transmittal, Notice, or Notification Received  
 Action Date: 10/27/2000  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Immediate Response Action  
 Action Status: Written Plan Received  
 Action Date: 10/7/1998  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Compliance and Enforcement Action  
 Action Status: Notice of Non-Compliance Issued  
 Action Date: 10/8/1998  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Immediate Response Action  
 Action Status: Written Plan Received  
 Action Date: 11/17/1998  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Compliance and Enforcement Action  
 Action Status: Interim Deadline Letter Issued

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Date: 11/24/1998  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Immediate Response Action  
 Action Status: Written Approval of Plan  
 Action Date: 11/24/1998  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Tier Classification  
 Action Status: RTN Linked to TCLASS Via Tier Classification Submittal  
 Action Date: 12/14/2007  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Phase 2  
 Action Status: Scope of Work Received  
 Action Date: 12/22/2003  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Tier Classification  
 Action Status: RTN Linked to TCLASS Via Tier Classification Submittal  
 Action Date: 12/22/2003  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Tier Classification  
 Action Status: Revised Statement or Transmittal Received  
 Action Date: 12/22/2003  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Tier Classification  
 Action Status: Tier 2 Transfer  
 Action Date: 12/22/2003  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Compliance and Enforcement Action  
 Action Status: ACO  
 Action Date: 12/28/2006  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Abatement Measure  
 Action Status: Modified Revised or Updated Plan Received  
 Action Date: 2/1/2007  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Abatement Measure  
 Action Status: Status or Interim Report Received  
 Action Date: 2/1/2007  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Abatement Measure  
 Action Status: Status or Interim Report Received  
 Action Date: 2/15/2008  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Abatement Measure  
 Action Status: Completion Statement Received

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Date: 3/28/2008  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Response Action Outcome - RAO  
 Action Status: RAO Statement Received  
 Action Date: 3/28/2008  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Immediate Response Action  
 Action Status: Completion Statement Received  
 Action Date: 4/21/1999  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Phase 3  
 Action Status: Completion Statement Received  
 Action Date: 4/5/2007  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Compliance and Enforcement Action  
 Action Status: Notice of Enforcement Conference  
 Action Date: 5/25/2006  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Tier Classification  
 Action Status: RTN Linked to TCLASS Via IRA Completion Statement  
 Action Date: 5/4/2001  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Disposition  
 Action Status: Reportable Release under MGL 21E  
 Action Date: 6/22/1998  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Immediate Response Action  
 Action Status: Oral Approval of Plan or Action  
 Action Date: 6/22/1998  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: A Notice sent to a Potentially Responsible Party (PRP)  
 Action Status: A MassDEP piece of correspondence was issued (approvals, NORs, etc.)  
 Action Date: 7/27/1998  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: RNF  
 Action Status: Reportable Release under MGL 21E  
 Action Date: 7/3/1998  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Compliance and Enforcement Action  
 Action Status: Interim Deadline Letter Issued  
 Action Date: 7/9/2006  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: A Notice sent to a Potentially Responsible Party (PRP)  
 Action Status: A MassDEP piece of correspondence was issued (approvals, NORs, etc.)

MAP FINDINGS

**MCNEILLY GARAGE, 639 HAMMOND ST, BROOKLINE, MA 02146 (Continued)**

Action Date: 7/9/2006  
Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Abatement Measure  
Action Status: Status or Interim Report Received  
Action Date: 8/2/2007  
Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: RNF  
Action Status: Reportable Release under MGL 21E  
Action Date: 8/3/1998  
Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Abatement Measure  
Action Status: Written Plan Received  
Action Date: 9/22/2004  
Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Phase 2  
Action Status: Completion Statement Received  
Action Date: 9/22/2004  
Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Abatement Measure  
Action Status: Completion Statement Received  
Action Date: 9/7/2006  
Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Compliance and Enforcement Action  
Action Status: Notice of Non-Compliance Issued  
Action Date: 9/8/2004  
Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

MAP FINDINGS

629 HAMMOND ST 629 HAMMOND ST, CHESTNUT HILL, MA, 02467			1015583017
▼ A4	WSW <1/10	(185 ft. / 0.035 mi.)	Historical Gas Stations
	13 ft. Lower Elevation	181 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Not Applicable: YES

**Groundwater Flow Gradient:**

Downgradient: YES

**EDR Historical Auto Stations: Historical Gas Stations**

Name:	MICHAEL HYNES AUTO REPAIR
Year:	2003
Address:	629 HAMMOND ST
Name:	MICHAEL HYNES AUTO REPAIR
Year:	2005
Address:	629 HAMMOND ST
Name:	MICHAEL J HYNES AUTO BODY
Year:	2010
Address:	629 HAMMOND ST
Name:	MICHAEL HYNES AUTO REPAIR
Year:	2011
Address:	629 HAMMOND ST
Name:	MICHAEL HYNES AUTO REPAIR
Year:	2012
Address:	629 HAMMOND ST

MAP FINDINGS

CUMBERLAND FARMS #70011 1180 BOYLSTON ST, CHESTNUT HILL, MA, 02467		U002008865				
▼ B5	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px 5px;">WNW &lt;1/10</td> <td style="text-align: right; padding: 2px 5px;">(322 ft. / 0.061 mi.)</td> </tr> <tr> <td style="padding: 2px 5px;">8 ft. Lower Elevation</td> <td style="text-align: right; padding: 2px 5px;">186 ft. Above Sea Level</td> </tr> </table>	WNW <1/10	(322 ft. / 0.061 mi.)	8 ft. Lower Elevation	186 ft. Above Sea Level	Other Standard Environmental Records
WNW <1/10	(322 ft. / 0.061 mi.)					
8 ft. Lower Elevation	186 ft. Above Sea Level					

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Not Applicable: YES

**HW GEN: Other Standard Environmental Records**

EPA Id:	MV6175668000
RCRA Generator Status:	Not Reported
State Generator Status:	SQG-MA
EPA Id:	MAD985288703
RCRA Generator Status:	SQG
State Generator Status:	VQG-MA

MAP FINDINGS

EXXON STATION #3-3258 1180 BOYLSTON ST, BROOKLINE, MA, 02146-0000			S104545565
▼ B6	WNW <1/10	(322 ft. / 0.061 mi.)	State and tribal - equivalent CERCLIS
	8 ft. Lower Elevation	186 ft. Above Sea Level	State and tribal leaking storage tank lists Other Standard Environmental Records

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Comments:** The source is downgradient and beyond the critical distance.

**Conditions:**

Petroleum Hydrocarbon Chemicals of Concern: YES

**Groundwater Flow Gradient:**

Downgradient: YES

Topographically: YES

**SHWS: State and tribal - equivalent CERCLIS**

Release Tracking Number/Current Status: 3-0020511 / RAONR

Release Town: BROOKLINE

Notification Date: 03/23/2001

Category: 72 HR

Associated ID: 3-0019813

**Current Status:** **Response Action Outcome Not Required**

Status Date: 08/01/2001

Phase: Not Reported

Response Action Outcome: -

Oil Or Haz Material: Oil

Location Type: COMMERCIAL

Source: UNKNOWN

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0020511](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0020511) for this facility:

**Chemicals:**

Chemical: GASOLINE

Quantity: 24 inches

Chemical: GASOLINE

Quantity: .6 inches

**Actions:**

Action Type: Tier Classification

Action Status: Tier 2 Transfer

Action Date: 10/3/2003

Response Action Outcome: Not Reported

Action Type: Tier Classification

Action Status: RTN Linked to TCLASS Via IRA Completion Statement

Action Date: 10/31/2014

Response Action Outcome: Not Reported

Action Type: Immediate Response Action

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Action Status:	Status or Interim Report Received
Action Date:	11/6/2001
Response Action Outcome:	Not Reported
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	12/5/2001
Response Action Outcome:	Not Reported
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	3/23/2001
Response Action Outcome:	Not Reported
Action Type:	Immediate Response Action
Action Status:	Oral Approval of Plan or Action
Action Date:	3/23/2001
Response Action Outcome:	Not Reported
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	4/6/2001
Response Action Outcome:	Not Reported
Action Type:	Immediate Response Action
Action Status:	Written Plan Received
Action Date:	5/30/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Extension
Action Date:	6/17/2008
Response Action Outcome:	Not Reported
Action Type:	Immediate Response Action
Action Status:	Written Denial of Plan
Action Date:	6/20/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Extension
Action Date:	6/21/2006
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Extension
Action Date:	6/22/2007
Response Action Outcome:	Not Reported
Action Type:	RLFA
Action Status:	FOLOFF
Action Date:	6/27/2001
Response Action Outcome:	Not Reported
Action Type:	Immediate Response Action

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Action Status:	Completion Statement Received
Action Date:	6/28/2002
Response Action Outcome:	Not Reported
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	7/18/2001
Response Action Outcome:	Not Reported
Action Type:	Immediate Response Action
Action Status:	Written Plan Received
Action Date:	7/5/2001
Response Action Outcome:	Not Reported
Action Type:	Immediate Response Action
Action Status:	Status or Interim Report Received
Action Date:	7/5/2001
Response Action Outcome:	Not Reported
Action Type:	RAO Not Required
Action Status:	Linked to a Tier Classified Site
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Classification
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Legal Notice Published
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	RLFA
Action Status:	FOLOFF
Action Date:	8/16/2001
Response Action Outcome:	Not Reported
Release Tracking Number/Current Status:	3-0013540 / RAO
Release Town:	BROOKLINE
Notification Date:	03/08/1996
Category:	72 HR
Associated ID:	Not Reported

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

<b>Current Status:</b>	<b>Response Action Outcome</b>
Status Date:	06/26/1996
Phase:	Not Reported
Response Action Outcome:	A2 - A permanent solution has been achieved. Contamination has not been reduced to background.
Oil Or Haz Material:	Oil
Location Type:	COMMERCIAL
Source:	PIPE
Source:	UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0013540](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0013540) for this facility:

**Chemicals:**

Chemical:	UNKNOWN CHEMICAL OF TYPE - OIL
Quantity:	100 parts per million

**Actions:**

Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	3/18/1996
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	3/8/1996
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Oral Approval of Plan or Action
Action Date:	3/8/1996
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Written Plan Received
Action Date:	5/13/1996
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	5/20/1996
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RLFA
Action Status:	FOLOFF
Action Date:	6/10/1996
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Completion Statement Received
Action Date:	6/26/1996
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Response Action Outcome - RAO

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Action Status: RAO Statement Received  
 Action Date: 6/26/1996  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Release Tracking Number/Current Status: 3-0032314 / PSNC

Release Town: BROOKLINE  
 Notification Date: 07/18/2014  
 Category: 120 DY  
 Associated ID: Not Reported

**Current Status: PSNC**  
 Status Date: 07/22/2015  
 Phase: Not Reported  
 Response Action Outcome: -  
 Oil Or Haz Material: Hazardous Material  
 Source: UNKNOWN

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0032314](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0032314) for this facility:

**Chemicals:**

Chemical: LEAD  
 Quantity: 230 milligrams per kilogram

**Actions:**

Action Type: BOL  
 Action Status: SHPFAC  
 Action Date: 10/17/2014  
 Response Action Outcome: Not Reported

Action Type: BOL  
 Action Status: Transmittal, Notice, or Notification Received  
 Action Date: 10/3/2014  
 Response Action Outcome: Not Reported

Action Type: BOL  
 Action Status: Transmittal, Notice, or Notification Received  
 Action Date: 10/8/2014  
 Response Action Outcome: Not Reported

Action Type: Response Action Outcome - RAO  
 Action Status: PSCREV  
 Action Date: 12/10/2015  
 Response Action Outcome: Not Reported

Action Type: Release Abatement Measure  
 Action Status: Completion Statement Received  
 Action Date: 12/16/2005  
 Response Action Outcome: Not Reported

Action Type: Release Abatement Measure  
 Action Status: Completion Statement Received  
 Action Date: 5/1/2015

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Response Action Outcome:	Not Reported
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	ALSENT
Action Date:	5/5/2015
Response Action Outcome:	Not Reported
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	7/18/2014
Response Action Outcome:	Not Reported
Action Type:	RNFE
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	7/18/2014
Response Action Outcome:	Not Reported
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	7/18/2014
Response Action Outcome:	Not Reported
Action Type:	Response Action Outcome - RAO
Action Status:	PSNRCD
Action Date:	7/22/2015
Response Action Outcome:	Not Reported
Action Type:	Response Action Outcome - RAO
Action Status:	Fee Received - FMCRA Use Only
Action Date:	7/27/2015
Response Action Outcome:	Not Reported
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	8/1/2014
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Written Plan Received
Action Date:	8/15/2005
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Written Plan Received
Action Date:	8/19/2014
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Level I - Technical Screen Audit
Action Date:	8/20/2014
Response Action Outcome:	Not Reported
Release Tracking Number/Current Status:	3-0032394 / RAONR
Release Town:	BROOKLINE

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Notification Date: 08/27/2014  
 Category: 72 HR  
 Associated ID: 3-0019813  
**Current Status: Response Action Outcome Not Required**  
 Status Date: 10/31/2014  
 Phase: Not Reported  
 Response Action Outcome: -  
 Oil Or Haz Material: Oil  
 Location Type: COMMERCIAL  
 Source: 3 GASOLINE  
 Source: TANK  
 Source: UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0032394](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0032394) for this facility:

**Chemicals:**

Chemical: GASOLINE  
 Quantity: 2700 parts per million

**Actions:**

Action Type: RNFE  
 Action Status: Transmittal, Notice, or Notification Received  
 Action Date: 10/29/2014  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Transfer  
 Action Date: 10/3/2003  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: RTN Linked to TCLASS Via IRA Completion Statement  
 Action Date: 10/31/2014  
 Response Action Outcome: Not Reported

Action Type: Immediate Response Action  
 Action Status: Completion Statement Received  
 Action Date: 10/31/2014  
 Response Action Outcome: Not Reported

Action Type: RAO Not Required  
 Action Status: Linked to a Tier Classified Site  
 Action Date: 10/31/2014  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Extension  
 Action Date: 6/17/2008  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Extension

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Action Date:	6/21/2006
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Extension
Action Date:	6/22/2007
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Legal Notice Published
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Classification
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	8/27/2014
Response Action Outcome:	Not Reported
Action Type:	Immediate Response Action
Action Status:	Oral Approval of Plan or Action
Action Date:	8/27/2014
Response Action Outcome:	Not Reported
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	9/11/2014
Response Action Outcome:	Not Reported
Release Tracking Number/Current Status:	3-0019813 / REMOPS
Release Town:	BROOKLINE
Notification Date:	08/01/2000
Category:	120 DY
Associated ID:	3-0019813
<b>Current Status:</b>	<b>Remedy Operation Status</b>
Status Date:	03/22/2016
Phase:	PHASE V
Response Action Outcome:	-
Oil Or Haz Material:	Oil and Hazardous Material

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Source: TANK  
 Source: UST  
 Source: UNKNOWN

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0019813](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0019813) for this facility:

**Chemicals:**

Chemical: C9 THRU C12 ALIPHATIC HYDROCARBONS  
 Quantity: 6600 micrograms per liter  
 Chemical: C9 THRU C10 AROMATIC HYDROCARBONS  
 Quantity: 350 milligrams per kilogram  
 Chemical: NAPHTHALENE  
 Quantity: 8.8 milligrams per kilogram  
 Chemical: C9 THRU C10 AROMATIC HYDROCARBONS  
 Quantity: 6500 micrograms per liter  
 Chemical: C5 THRU C8 ALIPHATIC HYDROCARBONS  
 Quantity: 2140 micrograms per liter  
 Chemical: TOTAL XYLENES  
 Quantity: 6200 micrograms per liter

**Actions:**

Action Type: Release Abatement Measure  
 Action Status: Completion Statement Received  
 Action Date: 10/15/2004  
 Response Action Outcome: Not Reported

Action Type: A Notice sent to a Potentially Responsible Party (PRP)  
 Action Status: A MassDEP piece of correspondence was issued (approvals, NORs, etc.)  
 Action Date: 10/17/2000  
 Response Action Outcome: Not Reported

Action Type: Release Abatement Measure  
 Action Status: Status or Interim Report Received  
 Action Date: 10/17/2002  
 Response Action Outcome: Not Reported

Action Type: Release Abatement Measure  
 Action Status: Status or Interim Report Received  
 Action Date: 10/21/2003  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Transfer  
 Action Date: 10/3/2003  
 Response Action Outcome: Not Reported

Action Type: Phase 5  
 Action Status: Status or Interim Report Received  
 Action Date: 10/3/2007  
 Response Action Outcome: Not Reported

Action Type: Phase 5

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Action Status:	RMRINT
Action Date:	10/3/2007
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via IRA Completion Statement
Action Date:	10/31/2014
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Completion Statement Received
Action Date:	12/16/2005
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/13/2012
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	3/13/2012
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/17/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	3/17/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	3/21/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/21/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	3/22/2006
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Submittal Received
Action Date:	3/22/2016
Response Action Outcome:	Not Reported
Action Type:	Phase 5

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Action Status:	RMRINT
Action Date:	3/22/2016
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/24/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Submittal Received
Action Date:	3/24/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	3/26/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/26/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/26/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	3/26/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/28/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	3/28/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	3/30/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/30/2009
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Action Status:	Status or Interim Report Received
Action Date:	4/18/2003
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	4/2/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	4/2/2015
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Status or Interim Report Received
Action Date:	4/20/2004
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Completion Statement Received
Action Date:	5/1/2015
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Extension
Action Date:	6/17/2008
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Extension
Action Date:	6/21/2006
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Extension
Action Date:	6/22/2007
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Written Plan Received
Action Date:	6/28/2002
Response Action Outcome:	Not Reported
Action Type:	Phase 2
Action Status:	Completion Statement Received
Action Date:	7/17/2003
Response Action Outcome:	Not Reported
Action Type:	Phase 3
Action Status:	Completion Statement Received
Action Date:	7/17/2003
Response Action Outcome:	Not Reported
Action Type:	Phase 4

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Action Status:	Written Plan Received
Action Date:	7/30/2004
Response Action Outcome:	Not Reported
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	8/1/2000
Response Action Outcome:	Not Reported
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	8/1/2000
Response Action Outcome:	Not Reported
Action Type:	Phase 1
Action Status:	Completion Statement Received
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Phase 2
Action Status:	Scope of Work Received
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Legal Notice Published
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Classification
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Compliance and Enforcement Action
Action Status:	Notice of Non-Compliance Issued
Action Date:	8/14/2007
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Written Plan Received
Action Date:	8/15/2005
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Action Status:	Written Plan Received
Action Date:	8/19/2014
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Level I - Technical Screen Audit
Action Date:	8/20/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Submittal Received
Action Date:	8/6/2008
Response Action Outcome:	Not Reported
Action Type:	BOL
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	9/1/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	9/26/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	9/26/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	9/26/2012
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	9/26/2012
Response Action Outcome:	Not Reported
Action Type:	Phase 4
Action Status:	As-Built Construction Report Received
Action Date:	9/27/2005
Response Action Outcome:	Not Reported
Action Type:	Phase 4
Action Status:	Completion Statement Received
Action Date:	9/27/2005
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	9/27/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Action Status:	RMRINT
Action Date:	9/27/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	9/28/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	9/28/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	9/28/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	9/28/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	9/29/2006
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINI
Action Date:	9/29/2006
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	9/29/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	9/29/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	9/29/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	9/29/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Action Status:	RMRINT
Action Date:	9/30/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Submittal Received
Action Date:	9/30/2014
Response Action Outcome:	Not Reported
Action Type:	BOL
Action Status:	SHPFAC
Action Date:	9/30/2014
Response Action Outcome:	Not Reported

**ENFORCEMENT: Other Standard Environmental Records**

Region:	NERO
DEP Region:	NERO
DEP Program:	3C
DEP Bureau:	BWSC
Program:	Not Reported
Program Id:	3-0019813
High Or Low Level Enforcement:	LLE
FMF #:	Not Reported
Comptroller Billing Name:	Not Reported
Town Where Violation Occurred:	Not Reported
Date Executed:	08/14/2007
ENF #:	NON-NE-07-3C023
Document Type:	NON
AG Ref (Y/N):	Not Reported
Doc Archived (Y/N):	Not Reported
EJ Community (Y/N):	Not Reported
Regional Comment:	Not Reported
Final Payment Due Date:	Not Reported
ACOP \$:	Not Reported
PAN \$:	Not Reported
EMS (Y/N):	Not Reported
EMS\$:	Not Reported
SEP (Y/N):	Not Reported
SEP \$:	Not Reported
Demand \$:	Not Reported
Suspended \$:	Not Reported
Ownership:	Commercially Owned

**LUST: State and tribal leaking storage tank lists**

**Facility:**

Release Tracking Number/Current Status:	3-0013540 / RAO
Status Date:	06/26/1996

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Source Type: UST  
 Release Town: BROOKLINE  
 Notification Date: 03/08/1996  
 Category: 72 HR  
 Associated ID: Not Reported  
 Phase: Not Reported  
 Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.  
 Oil Or Haz Material: Oil  
 Location Type: COMMERCIAL  
 Source: PIPE  
 Source: UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0013540](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0013540) for this facility:

**Chemicals:**

Chemical: UNKNOWN CHEMICAL OF TYPE - OIL  
 Quantity: 100 parts per million

**Actions:**

Action Type: A Notice sent to a Potentially Responsible Party (PRP)  
 Action Status: A MassDEP piece of correspondence was issued (approvals, NORs, etc.)  
 Action Date: 3/18/1996  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Disposition  
 Action Status: Reportable Release under MGL 21E  
 Action Date: 3/8/1996  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Immediate Response Action  
 Action Status: Oral Approval of Plan or Action  
 Action Date: 3/8/1996  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Immediate Response Action  
 Action Status: Written Plan Received  
 Action Date: 5/13/1996  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: RNF  
 Action Status: Reportable Release under MGL 21E  
 Action Date: 5/20/1996  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: RLFA  
 Action Status: FOLOFF  
 Action Date: 6/10/1996  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Immediate Response Action  
 Action Status: Completion Statement Received

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Action Date: 6/26/1996  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.  
 Action Type: Response Action Outcome - RAO  
 Action Status: RAO Statement Received  
 Action Date: 6/26/1996  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

**Facility:**

Release Tracking Number/Current Status: 3-0019813 / REMOPS  
 Status Date: 03/22/2016  
 Source Type: UST  
 Release Town: BROOKLINE  
 Notification Date: 08/01/2000  
 Category: 120 DY  
 Associated ID: 3-0019813  
 Phase: PHASE V  
 Response Action Outcome: -  
 Oil Or Haz Material: Oil and Hazardous Material  
 Source: TANK  
 Source: UST  
 Source: UNKNOWN

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0019813](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0019813) for this facility:

**Chemicals:**

Chemical: C9 THRU C12 ALIPHATIC HYDROCARBONS  
 Quantity: 6600 micrograms per liter  
 Chemical: C9 THRU C10 AROMATIC HYDROCARBONS  
 Quantity: 350 milligrams per kilogram  
 Chemical: NAPHTHALENE  
 Quantity: 8.8 milligrams per kilogram  
 Chemical: C9 THRU C10 AROMATIC HYDROCARBONS  
 Quantity: 6500 micrograms per liter  
 Chemical: C5 THRU C8 ALIPHATIC HYDROCARBONS  
 Quantity: 2140 micrograms per liter  
 Chemical: TOTAL XYLENES  
 Quantity: 6200 micrograms per liter

**Actions:**

Action Type: Release Abatement Measure  
 Action Status: Completion Statement Received  
 Action Date: 10/15/2004  
 Response Action Outcome: Not Reported  
 Action Type: A Notice sent to a Potentially Responsible Party (PRP)  
 Action Status: A MassDEP piece of correspondence was issued (approvals, NORs, etc.)  
 Action Date: 10/17/2000

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Status or Interim Report Received
Action Date:	10/17/2002
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Status or Interim Report Received
Action Date:	10/21/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Transfer
Action Date:	10/3/2003
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	10/3/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	10/3/2007
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via IRA Completion Statement
Action Date:	10/31/2014
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Completion Statement Received
Action Date:	12/16/2005
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/13/2012
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	3/13/2012
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/17/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	3/17/2010

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	3/21/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/21/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	3/22/2006
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Submittal Received
Action Date:	3/22/2016
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/22/2016
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/24/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Submittal Received
Action Date:	3/24/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	3/26/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/26/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/26/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	3/26/2013

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/28/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	3/28/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	3/30/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	3/30/2009
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Status or Interim Report Received
Action Date:	4/18/2003
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	4/2/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	4/2/2015
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Status or Interim Report Received
Action Date:	4/20/2004
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Completion Statement Received
Action Date:	5/1/2015
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Extension
Action Date:	6/17/2008
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Extension
Action Date:	6/21/2006

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Extension
Action Date:	6/22/2007
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Written Plan Received
Action Date:	6/28/2002
Response Action Outcome:	Not Reported
Action Type:	Phase 2
Action Status:	Completion Statement Received
Action Date:	7/17/2003
Response Action Outcome:	Not Reported
Action Type:	Phase 3
Action Status:	Completion Statement Received
Action Date:	7/17/2003
Response Action Outcome:	Not Reported
Action Type:	Phase 4
Action Status:	Written Plan Received
Action Date:	7/30/2004
Response Action Outcome:	Not Reported
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	8/1/2000
Response Action Outcome:	Not Reported
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	8/1/2000
Response Action Outcome:	Not Reported
Action Type:	Phase 1
Action Status:	Completion Statement Received
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Phase 2
Action Status:	Scope of Work Received
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Legal Notice Published
Action Date:	8/1/2001

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Classification
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Compliance and Enforcement Action
Action Status:	Notice of Non-Compliance Issued
Action Date:	8/14/2007
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Written Plan Received
Action Date:	8/15/2005
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Written Plan Received
Action Date:	8/19/2014
Response Action Outcome:	Not Reported
Action Type:	Release Abatement Measure
Action Status:	Level I - Technical Screen Audit
Action Date:	8/20/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Submittal Received
Action Date:	8/6/2008
Response Action Outcome:	Not Reported
Action Type:	BOL
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	9/1/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	9/26/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	9/26/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	9/26/2012

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	9/26/2012
Response Action Outcome:	Not Reported
Action Type:	Phase 4
Action Status:	As-Built Construction Report Received
Action Date:	9/27/2005
Response Action Outcome:	Not Reported
Action Type:	Phase 4
Action Status:	Completion Statement Received
Action Date:	9/27/2005
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	9/27/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	9/27/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	9/28/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	9/28/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	9/28/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	9/28/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	9/29/2006
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINI
Action Date:	9/29/2006

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	9/29/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	9/29/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	9/29/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	9/29/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	9/30/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Submittal Received
Action Date:	9/30/2014
Response Action Outcome:	Not Reported
Action Type:	BOL
Action Status:	SHPFAC
Action Date:	9/30/2014
Response Action Outcome:	Not Reported

**Facility:**

Release Tracking Number/Current Status:	3-0032394 / RAONR
Status Date:	10/31/2014
Source Type:	UST
Release Town:	BROOKLINE
Notification Date:	08/27/2014
Category:	72 HR
Associated ID:	3-0019813
Phase:	Not Reported
Response Action Outcome:	-
Oil Or Haz Material:	Oil
Location Type:	COMMERCIAL
Source:	3 GASOLINE
Source:	TANK

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Source: UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0032394](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0032394) for this facility:

**Chemicals:**

Chemical: GASOLINE  
 Quantity: 2700 parts per million

**Actions:**

Action Type: RNFE  
 Action Status: Transmittal, Notice, or Notification Received  
 Action Date: 10/29/2014  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Transfer  
 Action Date: 10/3/2003  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: RTN Linked to TCLASS Via IRA Completion Statement  
 Action Date: 10/31/2014  
 Response Action Outcome: Not Reported

Action Type: Immediate Response Action  
 Action Status: Completion Statement Received  
 Action Date: 10/31/2014  
 Response Action Outcome: Not Reported

Action Type: RAO Not Required  
 Action Status: Linked to a Tier Classified Site  
 Action Date: 10/31/2014  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Extension  
 Action Date: 6/17/2008  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Extension  
 Action Date: 6/21/2006  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Tier 2 Extension  
 Action Date: 6/22/2007  
 Response Action Outcome: Not Reported

Action Type: Tier Classification  
 Action Status: Legal Notice Published  
 Action Date: 8/1/2001  
 Response Action Outcome: Not Reported

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Action Type:	Tier Classification
Action Status:	Tier 2 Classification
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	RTN Linked to TCLASS Via Tier Classification Submittal
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	8/1/2001
Response Action Outcome:	Not Reported
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	8/27/2014
Response Action Outcome:	Not Reported
Action Type:	Immediate Response Action
Action Status:	Oral Approval of Plan or Action
Action Date:	8/27/2014
Response Action Outcome:	Not Reported
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	9/11/2014
Response Action Outcome:	Not Reported

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status:	3-0013540 / RAO
Primary ID:	Not Reported
Official City:	BROOKLINE
Notification:	03/08/1996
Category:	72 HR
Status Date:	06/26/1996
Phase:	Not Reported
Response Action Outcome:	A2 - A permanent solution has been achieved. Contamination has not been reduced to background.
Oil / Haz Material Type:	Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0013540](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0013540) for this facility:

Release Tracking Number/Current Status:	3-0019813 / REMOPS
Primary ID:	3-0019813
Official City:	BROOKLINE
Notification:	08/01/2000
Category:	120 DY
Status Date:	03/22/2016

MAP FINDINGS

**EXXON STATION #3-3258, 1180 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Phase: PHASE V  
 Response Action Outcome: -  
 Oil / Haz Material Type: Oil and Hazardous Material

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0019813](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0019813) for this facility:

Release Tracking Number/Current Status: 3-0020511 / RAONR  
 Primary ID: 3-0019813  
 Official City: BROOKLINE  
 Notification: 03/23/2001  
 Category: 72 HR  
 Status Date: 08/01/2001  
 Phase: Not Reported  
 Response Action Outcome: -  
 Oil / Haz Material Type: Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0020511](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0020511) for this facility:

Release Tracking Number/Current Status: 3-0032314 / PSNC  
 Primary ID: Not Reported  
 Official City: BROOKLINE  
 Notification: 07/18/2014  
 Category: 120 DY  
 Status Date: 07/22/2015  
 Phase: Not Reported  
 Response Action Outcome: -  
 Oil / Haz Material Type: Hazardous Material

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0032314](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0032314) for this facility:

Release Tracking Number/Current Status: 3-0032394 / RAONR  
 Primary ID: 3-0019813  
 Official City: BROOKLINE  
 Notification: 08/27/2014  
 Category: 72 HR  
 Status Date: 10/31/2014  
 Phase: Not Reported  
 Response Action Outcome: -  
 Oil / Haz Material Type: Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0032394](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0032394) for this facility:

MAP FINDINGS

1180 BOYLSTON ST 1180 BOYLSTON ST, CHESTNUT HILL, MA, 02467			1015174289
▼ B7	WNW <1/10	(322 ft. / 0.061 mi.)	Historical Gas Stations
	8 ft. Lower Elevation	186 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Not Applicable: YES

**Groundwater Flow Gradient:**

Crossgradient: YES

**EDR Historical Auto Stations: Historical Gas Stations**

Name:	TANNOUS TURNPIKE EXXON SERVICE
Year:	2002
Address:	1180 BOYLSTON ST
Name:	TURNPIKE EXXON
Year:	2003
Address:	1180 BOYLSTON ST
Name:	TANNOUS TURNPIKE EXXON SERVICE
Year:	2004
Address:	1180 BOYLSTON ST
Name:	TANNOUS TURNPIKE EXXON SERVICE
Year:	2005
Address:	1180 BOYLSTON ST
Name:	TURNPIKE EXXON
Year:	2006
Address:	1180 BOYLSTON ST
Name:	TURNPIKE EXXON
Year:	2007
Address:	1180 BOYLSTON ST
Name:	CHESTNUT MOTORS
Year:	2008
Address:	1180 BOYLSTON ST
Name:	TANNOUS TURNPIKE EXXON SERVICE
Year:	2009
Address:	1180 BOYLSTON ST
Name:	CHESTNUT MOTORS
Year:	2010
Address:	1180 BOYLSTON ST
Name:	CHESTNUT MOTORS
Year:	2012
Address:	1180 BOYLSTON ST

MAP FINDINGS

621 HAMMOND ST 621 HAMMOND ST, CHESTNUT HILL, MA, 02467		1015082036
▼ B8	W <1/10 (350 ft. / 0.066 mi.)	Historical Dry Cleaners
	8 ft. Lower Elevation 186 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Not Applicable: YES

**Groundwater Flow Gradient:**

Downgradient: YES

**EDR Historical Cleaners: Historical Dry Cleaners**

Name:	CENTRAL CLEANERS INC
Year:	2001
Address:	621 HAMMOND ST
Name:	CENTRAL CLEANERS INC
Year:	2002
Address:	621 HAMMOND ST
Name:	CENTRAL CLEANERS INC
Year:	2003
Address:	621 HAMMOND ST
Name:	CENTRAL CLEANERS INC
Year:	2004
Address:	621 HAMMOND ST
Name:	CENTRAL CLEANERS INC
Year:	2005
Address:	621 HAMMOND ST
Name:	CENTRAL CLEANERS INC
Year:	2006
Address:	621 HAMMOND ST
Name:	CENTRAL CLEANERS INC
Year:	2007
Address:	621 HAMMOND ST
Name:	CENTRAL CLEANERS INC
Year:	2008
Address:	621 HAMMOND ST
Name:	CENTRAL CLEANERS INC
Year:	2010
Address:	621 HAMMOND ST
Name:	CENTRAL CLEANERS INC
Year:	2011
Address:	621 HAMMOND ST

MAP FINDINGS

**621 HAMMOND ST, 621 HAMMOND ST, CHESTNUT HILL, MA 02467 (Continued)**

Name: CENTRAL CLEANERS INC  
Year: 2012  
Address: 621 HAMMOND ST

MAP FINDINGS

CENTRAL CLEANERS OF BROOKLINE INC 621 HAMMOND ST, BROOKLINE, MA, 02467		S106488664
▼ B9	W <1/10 (350 ft. / 0.066 mi.)	Other Standard Environmental Records
	8 ft. Lower Elevation 186 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Not Applicable: YES

**Groundwater Flow Gradient:**

Downgradient: YES

**HW GEN: Other Standard Environmental Records**

EPA Id: MAD980734503  
 RCRA Generator Status: VSQG  
 State Generator Status: Not Reported

**DRYCLEANERS: Other Standard Environmental Records**

Facility ID: 53011  
 Classification Type: Non-applicability classification--still in business but not using perc  
 Reg Obj Contact: BARRY BERNARD  
 Reg Obj Mail Address: 621 HAMMOND ST  
 Mail Town Name: NEWTON  
 Mail Zip Code: 024670000  
 DEP Region Code: NE  
 Mailing State: MA  
 Reg Obj Phone: 6172324477

MAP FINDINGS

S J MCNEILLY OLDS 14 SHEAFE ST, CHESTNUT HILL, MA, 02467		U003655126				
▼ C10	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px 5px;">W &lt;1/10</td> <td style="text-align: right; padding: 2px 5px;">(454 ft. / 0.086 mi.)</td> </tr> <tr> <td style="padding: 2px 5px;">6 ft. Lower Elevation</td> <td style="text-align: right; padding: 2px 5px;">188 ft. Above Sea Level</td> </tr> </table>	W <1/10	(454 ft. / 0.086 mi.)	6 ft. Lower Elevation	188 ft. Above Sea Level	Other Standard Environmental Records
W <1/10	(454 ft. / 0.086 mi.)					
6 ft. Lower Elevation	188 ft. Above Sea Level					

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Not Applicable: YES

**Groundwater Flow Gradient:**

Downgradient: YES

**HW GEN: Other Standard Environmental Records**

EPA Id:	MV6177319994
RCRA Generator Status:	VSQG
State Generator Status:	VQG-MA
EPA Id:	MA5000005256
RCRA Generator Status:	Not Reported
State Generator Status:	SQG-MA

MAP FINDINGS

14 SHEAFE ST 14 SHEAFE ST, CHESTNUT HILL, MA, 02467			1015218764
▼ C11	W <1/10	(459 ft. / 0.087 mi.)	Historical Gas Stations
	6 ft. Lower Elevation	188 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Not Applicable: YES

**Groundwater Flow Gradient:**

Downgradient: YES

**EDR Historical Auto Stations: Historical Gas Stations**

Name:	RPM AUTOMOTIVE INC
Year:	2002
Address:	14 SHEAFE ST
Name:	RPM AUTOMOTIVE INC
Year:	2003
Address:	14 SHEAFE ST
Name:	RPM AUTOMOTIVE INC
Year:	2004
Address:	14 SHEAFE ST
Name:	MICHAEL HYNES AUTO REPAIR
Year:	2005
Address:	14 SHEAFE ST
Name:	MICHAEL HYNES AUTO REPAIR
Year:	2006
Address:	14 SHEAFE ST
Name:	HYNES AUTO BODY
Year:	2007
Address:	14 SHEAFE ST
Name:	MICHAEL HYNES AUTO REPAIR
Year:	2008
Address:	14 SHEAFE ST
Name:	MICHAEL HYNES AUTO REPAIR
Year:	2009
Address:	14 SHEAFE ST
Name:	HYNES AUTO BODY
Year:	2010
Address:	14 SHEAFE ST
Name:	HYNES AUTO BODY
Year:	2011
Address:	14 SHEAFE ST

MAP FINDINGS

**14 SHEAFE ST, 14 SHEAFE ST, CHESTNUT HILL, MA 02467 (Continued)**

Name:	HYNES AUTO BODY
Year:	2012
Address:	14 SHEAFE ST

MAP FINDINGS

ROUTE 9 1075 BOYLSTON ST, BROOKLINE, MA,		S106344199
▲ 12	NE 1/10 - 1/3 (559 ft. / 0.106 mi.)	State and tribal - equivalent CERCLIS Other Standard Environmental Records
	18 ft. Higher Elevation 212 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Comments:** Soil characteristics would make vapor migration from the source or plume unlikely.

**Conditions:**

Chemicals of Concern: YES

Petroleum Hydrocarbon Chemicals of Concern: YES

**Groundwater Flow Gradient:**

Upgradient or Indeterminate: YES

Topographically: YES

**Geological Attributes - Soil Geology:**

Silty-clay, low-permeability soil: YES

**SHWS: State and tribal - equivalent CERCLIS**

Release Tracking Number/Current Status: 3-0023648 / RAO

Release Town: BROOKLINE

Notification Date: 03/02/2004

Category: 120 DY

Associated ID: Not Reported

**Current Status:** **Response Action Outcome**

Status Date: 10/28/2004

Phase: Not Reported

Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.

Oil Or Haz Material: Oil and Hazardous Material

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0023648](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0023648) for this facility:

**Chemicals:**

Chemical: AROCLOR 1242

Quantity: 8.72 milligrams per kilogram

Chemical: C11 THRU C22 AROMATIC HYDROCARBONS

Quantity: 3940 milligrams per kilogram

Chemical: TPH

Quantity: 14000 milligrams per kilogram

Chemical: EPH C9-C18

Quantity: 6340 milligrams per kilogram

**Actions:**

Action Type: Response Action Outcome - RAO

Action Status: RAO Statement Received

Action Date: 10/28/2004

MAP FINDINGS

**ROUTE 9, 1075 BOYLSTON ST, BROOKLINE, MA (Continued)**

Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Response Action Outcome - RAO
Action Status:	Fee Received - FMCRA Use Only
Action Date:	10/29/2004
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	3/15/2004
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	3/2/2004
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	3/2/2004
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status:	3-0023648 / RAO
Primary ID:	Not Reported
Official City:	BROOKLINE
Notification:	03/02/2004
Category:	120 DY
Status Date:	10/28/2004
Phase:	Not Reported
Response Action Outcome:	A2 - A permanent solution has been achieved. Contamination has not been reduced to background.
Oil / Haz Material Type:	Oil and Hazardous Material

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0023648](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0023648) for this facility:

MAP FINDINGS

CUMBERLAND FARMS 2456 1195 BOYLSTON ST, CHESTNUT HILL, MA, 02467			U002008870
▼ D13	WNW 1/10 - 1/3	(689 ft. / 0.13 mi.)	Other Standard Environmental Records
	14 ft. Lower Elevation	180 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Not Applicable: YES

**Groundwater Flow Gradient:**

Crossgradient: YES

**HW GEN: Other Standard Environmental Records**

EPA Id:	MAC300002557
RCRA Generator Status:	VSQG
State Generator Status:	VQG-MA

MAP FINDINGS

CVS PHARMACY 1862 1195 BOYLSTON ST, CHESTNUT HILL, MA, 02467		S113409398
▼ D14	WNW 1/10 - 1/3 (689 ft. / 0.13 mi.)	Other Standard Environmental Records
	14 ft. Lower Elevation 180 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Not Applicable: YES

**Groundwater Flow Gradient:**

Crossgradient: YES

**HW GEN: Other Standard Environmental Records**

EPA Id:	MAC300019684
RCRA Generator Status:	LQG
State Generator Status:	Not Reported

MAP FINDINGS

PINE MANOR COLLEGE 400 HEATH ST, NEWTON, MA, 02467		S112558779
▲ 15	E 1/10 - 1/3 (795 ft. / 0.151 mi.)	Other Standard Environmental Records
	37 ft. Higher Elevation 231 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Not Applicable: YES

**Groundwater Flow Gradient:**

Upgradient or Indeterminate: YES

**HW GEN: Other Standard Environmental Records**

EPA Id:	MV6177317033
RCRA Generator Status:	VSQG
State Generator Status:	Not Reported

MAP FINDINGS

RESIDENCE 17 GLENOE RD, BROOKLINE, MA, 02467-0000			S109546243
▼ 16	S 1/10 - 1/3	(807 ft. / 0.153 mi.)	State and tribal - equivalent CERCLIS
	19 ft. Lower Elevation	175 ft. Above Sea Level	State and tribal leaking storage tank lists Other Standard Environmental Records

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Comments:** Soil characteristics would make vapor migration from the source or plume unlikely.

The source is downgradient and beyond the critical distance.

**Conditions:**

Petroleum Hydrocarbon Chemicals of Concern: YES

**Groundwater Flow Gradient:**

Downgradient: YES

Topographically: YES

**Geological Attributes - Soil Geology:**

Silty-clay, low-permeability soil: YES

**SHWS: State and tribal - equivalent CERCLIS**

Release Tracking Number/Current Status: 3-0028316 / RAO

Release Town: BROOKLINE

Notification Date: 02/12/2009

Category: 120 DY

Associated ID: Not Reported

**Current Status:** **Response Action Outcome**

Status Date: 07/06/2009

Phase: Not Reported

Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.

Oil Or Haz Material: Oil

Source: AST

Source: PIPE

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0028316](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0028316) for this facility:

**Chemicals:**

Chemical: OIL

Quantity: .25 inches

**Actions:**

Action Type: Response Action Outcome - RAO

Action Status: Level I - Technical Screen Audit

Action Date: 11/3/2009

Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: RNF

Action Status: Reportable Release under MGL 21E

Action Date: 2/12/2009

MAP FINDINGS

**RESIDENCE, 17 GLENNOE RD, BROOKLINE, MA 02467-0000 (Continued)**

Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	2/12/2009
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Level I - Technical Screen Audit
Action Date:	2/13/2009
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Written Plan Received
Action Date:	2/13/2009
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Fee Received - FMCRA Use Only
Action Date:	2/19/2009
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	4/4/2009
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RLFA
Action Status:	FOLOFF
Action Date:	4/4/2009
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Response Action Outcome - RAO
Action Status:	Fee Received - FMCRA Use Only
Action Date:	7/10/2009
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Response Action Outcome - RAO
Action Status:	RAO Statement Received
Action Date:	7/6/2009
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Completion Statement Received
Action Date:	7/6/2009
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

**LAST: State and tribal leaking storage tank lists**

Release Tracking Number/Current Status:	3-0028316 / RAO
Source Type:	AST
Release Town:	BROOKLINE
Notification Date:	02/12/2009
Category:	120 DY

MAP FINDINGS

**RESIDENCE, 17 GLENOE RD, BROOKLINE, MA 02467-0000 (Continued)**

Associated ID: Not Reported  
 Status Date: 07/06/2009  
 Phase: Not Reported  
 Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.  
 Oil Or Haz Material: Oil

**Chemicals:**

Chemical: OIL  
 Quantity: .25 inches  
 Source: AST  
 Source: PIPE

**Actions:**

Action Type: Response Action Outcome - RAO  
 Action Status: Level I - Technical Screen Audit  
 Action Date: 11/3/2009  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: RNF  
 Action Status: Reportable Release under MGL 21E  
 Action Date: 2/12/2009  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Disposition  
 Action Status: Reportable Release under MGL 21E  
 Action Date: 2/12/2009  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Abatement Measure  
 Action Status: Level I - Technical Screen Audit  
 Action Date: 2/13/2009  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Abatement Measure  
 Action Status: Written Plan Received  
 Action Date: 2/13/2009  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Abatement Measure  
 Action Status: Fee Received - FMCRA Use Only  
 Action Date: 2/19/2009  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: A Notice sent to a Potentially Responsible Party (PRP)  
 Action Status: A MassDEP piece of correspondence was issued (approvals, NORs, etc.  
 Action Date: 4/4/2009  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: RLFA  
 Action Status: FOLOFF  
 Action Date: 4/4/2009  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

MAP FINDINGS

**RESIDENCE, 17 GLENNOE RD, BROOKLINE, MA 02467-0000 (Continued)**

Action Type:	Response Action Outcome - RAO
Action Status:	Fee Received - FMCRA Use Only
Action Date:	7/10/2009
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Response Action Outcome - RAO
Action Status:	RAO Statement Received
Action Date:	7/6/2009
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Abatement Measure
Action Status:	Completion Statement Received
Action Date:	7/6/2009
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status:	3-0028316 / RAO
Primary ID:	Not Reported
Official City:	BROOKLINE
Notification:	02/12/2009
Category:	120 DY
Status Date:	07/06/2009
Phase:	Not Reported
Response Action Outcome:	A2 - A permanent solution has been achieved. Contamination has not been reduced to background.
Oil / Haz Material Type:	Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0028316](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0028316) for this facility:

MAP FINDINGS

BRIMMER & MAY SCHOOL 69 MIDDLESEX RD, CHESTNUT HILL, MA, 02467			S116687554
▼ 17	N 1/10 - 1/3	(942 ft. / 0.179 mi.)	Other Standard Environmental Records
	16 ft. Lower Elevation	178 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Not Applicable: YES

**Groundwater Flow Gradient:**

Crossgradient: YES

**HW GEN: Other Standard Environmental Records**

EPA Id:	MV6175667462
RCRA Generator Status:	VSQG
State Generator Status:	VQG-MA

MAP FINDINGS

WIESCHHOFF RESIDENCE 30 NORFOLK RD, BROOKLINE, MA, 02146-0000		S102967418
▲ 18	NNE 1/10 - 1/3 (958 ft. / 0.181 mi.)	State and tribal leaking storage tank lists Other Standard Environmental Records
	1 ft. Higher Elevation 195 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Comments:** Soil characteristics would make vapor migration from the source or plume unlikely.

**Conditions:**

Petroleum Hydrocarbon Chemicals of Concern: YES

**Groundwater Flow Gradient:**

Upgradient or Indeterminate: YES

Topographically: YES

**Geological Attributes - Soil Geology:**

Silty-clay, low-permeability soil: YES

**LUST: State and tribal leaking storage tank lists**

**Facility:**

Release Tracking Number/Current Status: 3-0015731 / RAO  
 Status Date: 11/23/1998  
 Source Type: UST  
 Release Town: BROOKLINE  
 Notification Date: 11/20/1997  
 Category: 72 HR  
 Associated ID: Not Reported  
 Phase: Not Reported  
 Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.  
 Oil Or Haz Material: Oil  
 Location Type: RESIDENTIAL  
 Source: UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0015731](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0015731) for this facility:

**Chemicals:**

Chemical: #2 FUEL OIL  
 Quantity: 100 parts per million  
 Chemical: FUEL OIL #2  
 Quantity: 210 parts per million

**Actions:**

Action Type: A Notice sent to a Potentially Responsible Party (PRP)  
 Action Status: A MassDEP piece of correspondence was issued (approvals, NORs, etc.)  
 Action Date: 1/2/1998  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

MAP FINDINGS

**WIESCHHOFF RESIDENCE, 30 NORFOLK RD, BROOKLINE, MA 02146-0000 (Continued)**

Action Type:	Immediate Response Action
Action Status:	Written Plan Received
Action Date:	1/22/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	1/22/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Status or Interim Report Received
Action Date:	10/2/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	11/20/1997
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Oral Approval of Plan or Action
Action Date:	11/20/1997
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Oral Approval of a Modified Plan
Action Date:	11/21/1997
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Response Action Outcome - RAO
Action Status:	RAO Statement Received
Action Date:	11/23/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Response Action Outcome - RAO
Action Status:	Fee Received - FMCRA Use Only
Action Date:	11/24/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Oral Approval of Plan or Action
Action Date:	2/20/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Status or Interim Report Received
Action Date:	3/25/1998
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status:	3-0015731 / RAO
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MAP FINDINGS

**WIESCHHOFF RESIDENCE, 30 NORFOLK RD, BROOKLINE, MA 02146-0000 (Continued)**

Primary ID:	Not Reported
Official City:	BROOKLINE
Notification:	11/20/1997
Category:	72 HR
Status Date:	11/23/1998
Phase:	Not Reported
Response Action Outcome:	A2 - A permanent solution has been achieved. Contamination has not been reduced to background.
Oil / Haz Material Type:	Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0015731](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0015731) for this facility:

MAP FINDINGS

CHESTNUT HILL SHOPPING CENTER 9 BOYLSTON ST, CHESTNUT HILL, MA, 02167-0000			S106511285
▼ E19	W 1/10 - 1/3	(1092 ft. / 0.207 mi.)	State and tribal - equivalent CERCLIS
	21 ft. Lower Elevation	173 ft. Above Sea Level	State and tribal institutional control / engineering control registries Other Standard Environmental Records

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Comments:** The source is downgradient and beyond the critical distance.

Soil characteristics would make vapor migration from the source or plume unlikely.

**Conditions:**

Petroleum Hydrocarbon Chemicals of Concern: YES

**Groundwater Flow Gradient:**

Downgradient: YES

Topographically: YES

**Geological Attributes - Soil Geology:**

Silty-clay, low-permeability soil: YES

**SHWS: State and tribal - equivalent CERCLIS**

Release Tracking Number/Current Status: 3-0013293 / RAO

Release Town: NEWTON

Notification Date: 12/22/1995

Category: 120 DY

Associated ID: Not Reported

**Current Status: Response Action Outcome**

Status Date: 10/18/1996

Phase: Not Reported

Response Action Outcome: A3 - A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.

Oil Or Haz Material: Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0013293](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0013293) for this facility:

**Chemicals:**

Chemical: #2 FUEL OIL

Quantity: 2300 milligrams per kilogram

**Actions:**

Action Type: Response Action Outcome - RAO

Action Status: RAO Statement Received

Action Date: 10/18/1996

Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.

Action Type: Activity and Use Limitation

Action Status: Transmittal, Notice, or Notification Received

Action Date: 10/18/1996

MAP FINDINGS

**CHESTNUT HILL SHOPPING CENTER, 9 BOYLSTON ST, CHESTNUT HILL, MA 02167-0000 (Continued)**

Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Response Action Outcome - RAO
Action Status:	Fee Received - FMCRA Use Only
Action Date:	10/21/1996
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	12/22/1995
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	12/22/1995
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Response Action Outcome - RAO
Action Status:	Level I - Technical Screen Audit
Action Date:	12/26/2001
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	12/29/1995
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	An activity type that is related to an Audit
Action Status:	NOA
Action Date:	4/20/1999
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	An activity type that is related to an Audit
Action Status:	NAFNVD
Action Date:	6/14/2010
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Activity and Use Limitation
Action Status:	Legal Notice Published
Action Date:	6/17/2002
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	An activity type that is related to an Audit
Action Status:	Audit Follow-up Completion Statement Received
Action Date:	6/18/2002
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Activity and Use Limitation

MAP FINDINGS

**CHESTNUT HILL SHOPPING CENTER, 9 BOYLSTON ST, CHESTNUT HILL, MA 02167-0000 (Continued)**

Action Status:	Amendment Received or Issued
Action Date:	6/18/2002
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Activity and Use Limitation
Action Status:	Level II - Audit Inspection
Action Date:	6/3/2010
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	RLFA
Action Status:	FLDRAN
Action Date:	6/3/2010
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status:	3-0013293 / RAO
Primary ID:	Not Reported
Official City:	NEWTON
Notification:	12/22/1995
Category:	120 DY
Status Date:	10/18/1996
Phase:	Not Reported
Response Action Outcome:	A3 - A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Oil / Haz Material Type:	Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0013293](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0013293) for this facility:

**INST CONTROL: State and tribal institutional control / engineering control registries**

Release Tracking Number:	3-0013293
Action Type:	AUL
Action Stat:	AMEND
Action Date:	06/18/2002
Response Action Outcome:	A3 - A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Release Tracking Number:	3-0013293
Action Type:	AUL
Action Stat:	LEGNOT
Action Date:	06/17/2002
Response Action Outcome:	A3 - A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Release Tracking Number:	3-0013293
Action Type:	AUL
Action Stat:	RECPT
Action Date:	10/18/1996
Response Action Outcome:	A3 - A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.

MAP FINDINGS

**CHESTNUT HILL SHOPPING CENTER, 9 BOYLSTON ST, CHESTNUT HILL, MA 02167-0000 (Continued)**

Release Tracking Number: 3-0013293  
Action Type: AUL  
Action Stat: SNAUDI  
Action Date: 06/03/2010  
Response Action Outcome: A3 - A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.

MAP FINDINGS

COMMERCIAL PROPERTY 1244-1262 BOYLSTON ST, BROOKLINE, MA, 02146		S100362879
▼ E20	W 1/10 - 1/3 (1094 ft. / 0.207 mi.)	State and tribal - equivalent CERCLIS Other Standard Environmental Records
	20 ft. Lower Elevation 174 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Not Applicable: YES

**Groundwater Flow Gradient:**

Downgradient: YES

**SHWS: State and tribal - equivalent CERCLIS**

Release Tracking Number/Current Status: 3-0002125 / DEP NFA

Release Town: BROOKLINE

Notification Date: 04/15/1989

Category: NONE

Associated ID: Not Reported

**Current Status:** **No Further Action (DEP Determined)**

Status Date: 04/23/1996

Phase: Not Reported

Response Action Outcome: -

Oil Or Haz Material: Not Reported

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0002125](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0002125) for this facility:

**Chemicals:**

Chemical: UNKNOWN

Quantity: Not Reported

**Actions:**

Action Type: Release Disposition

Action Status: Valid Transition Site

Action Date: 4/15/1989

Response Action Outcome: Not Reported

Action Type: TREGS

Action Status: DEP NFA

Action Date: 4/23/1996

Response Action Outcome: Not Reported

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status: 3-0002125 / DEP NFA

Primary ID: Not Reported

Official City: BROOKLINE

Notification: 04/15/1989

MAP FINDINGS

**COMMERCIAL PROPERTY, 1244-1262 BOYLSTON ST, BROOKLINE, MA 02146 (Continued)**

Category:	NONE
Status Date:	04/23/1996
Phase:	Not Reported
Response Action Outcome:	-
Oil / Haz Material Type:	Not Reported

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0002125](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0002125) for this facility:

MAP FINDINGS

NEW ENGLAND PODIATRY 1244 BOYLSTON ST, CHESTNUT HILL, MA, 02467			S112558726
▼ F21	W 1/10 - 1/3	(1129 ft. / 0.214 mi.)	Other Standard Environmental Records
	20 ft. Lower Elevation	174 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Not Applicable: YES

**Groundwater Flow Gradient:**

Downgradient: YES

**HW GEN: Other Standard Environmental Records**

EPA Id:	MV6176308280
RCRA Generator Status:	VSQG
State Generator Status:	Not Reported

MAP FINDINGS

CHESTNUT HILL SHOPPING CTR 11 BOYLSTON ST, NEWTON, MA, 02467-1719			S105309362
▼ E22	W 1/10 - 1/3	(1141 ft. / 0.216 mi.)	State and tribal - equivalent CERCLIS Other Standard Environmental Records
	21 ft. Lower Elevation	173 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Comments:** Soil characteristics would make vapor migration from the source or plume unlikely.

The source is downgradient and beyond the critical distance.

**Conditions:**

Petroleum Hydrocarbon Chemicals of Concern: YES

**Groundwater Flow Gradient:**

Downgradient: YES

Topographically: YES

**Geological Attributes - Soil Geology:**

Silty-clay, low-permeability soil: YES

**SHWS: State and tribal - equivalent CERCLIS**

Release Tracking Number/Current Status: 3-0021391 / RAO

Release Town: NEWTON

Notification Date: 01/04/2002

Category: 120 DY

Associated ID: Not Reported

**Current Status:** **Response Action Outcome**

Status Date: 01/10/2003

Phase: Not Reported

Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.

Oil Or Haz Material: Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0021391](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0021391) for this facility:

**Chemicals:**

Chemical: FUEL OIL #2

Quantity: .36 inches

Chemical: C9 THRU C18 ALIPHATIC HYDROCARBONS

Quantity: 5400 micrograms per liter

**Actions:**

Action Type: Response Action Outcome - RAO

Action Status: RAO Statement Received

Action Date: 1/10/2003

Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Response Action Outcome - RAO

Action Status: Fee Received - FMCRA Use Only

Action Date: 1/13/2003

MAP FINDINGS

**CHESTNUT HILL SHOPPING CTR, 11 BOYLSTON ST, NEWTON, MA 02467-1719 (Continued)**

Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: RNF

Action Status: Reportable Release under MGL 21E

Action Date: 1/4/2002

Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Disposition

Action Status: Reportable Release under MGL 21E

Action Date: 1/4/2002

Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: A Notice sent to a Potentially Responsible Party (PRP)

Action Status: A MassDEP piece of correspondence was issued (approvals, NORs, etc.)

Action Date: 4/3/2002

Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status: 3-0021391 / RAO

Primary ID: Not Reported

Official City: NEWTON

Notification: 01/04/2002

Category: 120 DY

Status Date: 01/10/2003

Phase: Not Reported

Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.

Oil / Haz Material Type: Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0021391](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0021391) for this facility:

MAP FINDINGS

CHESTNUT HILL SHOPPING CENTER 13 BOYLSTON ST, NEWTON, MA,		S102086954
▼ E23	W 1/10 - 1/3 (1150 ft. / 0.218 mi.)	State and tribal leaking storage tank lists
	21 ft. Lower Elevation 173 ft. Above Sea Level	State and tribal institutional control / engineering control registries Other Standard Environmental Records

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Comments:** The source is downgradient and beyond the critical distance.

Soil characteristics would make vapor migration from the source or plume unlikely.

**Conditions:**

Petroleum Hydrocarbon Chemicals of Concern: YES

**Groundwater Flow Gradient:**

Downgradient: YES

Topographically: YES

**Geological Attributes - Soil Geology:**

Silty-clay, low-permeability soil: YES

**LUST: State and tribal leaking storage tank lists**

**Facility:**

Release Tracking Number/Current Status: 3-0012843 / RAO  
 Status Date: 09/03/1996  
 Source Type: UST  
 Release Town: NEWTON  
 Notification Date: 08/24/1995  
 Category: 72 HR  
 Associated ID: Not Reported  
 Phase: Not Reported  
 Response Action Outcome: A3 - A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.  
 Oil Or Haz Material: Oil  
 Location Type: COMMERCIAL  
 Source: UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0012843](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0012843) for this facility:

**Chemicals:**

Chemical: #2 FUEL OIL  
 Quantity: 3400 milligrams per kilogram

**Actions:**

Action Type: An activity type that is related to an Audit  
 Action Status: Audit Follow-up Completion Statement Received  
 Action Date: 1/25/2002

MAP FINDINGS

**CHESTNUT HILL SHOPPING CENTER, 13 BOYLSTON ST, NEWTON, MA (Continued)**

Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	10/23/1995
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Immediate Response Action
Action Status:	Written Plan Received
Action Date:	10/23/1995
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	RLFA
Action Status:	FOLOFF
Action Date:	11/7/1995
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Immediate Response Action
Action Status:	Status or Interim Report Received
Action Date:	12/22/1995
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	12/27/1995
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	An activity type that is related to an Audit
Action Status:	AFUPLN
Action Date:	2/27/2001
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	An activity type that is related to an Audit
Action Status:	Notice of Non-compliance related to an Audit
Action Date:	2/29/2000
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	An activity type that is related to an Audit
Action Status:	Interim Deadline Letter Issued
Action Date:	2/29/2000
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	RLFA
Action Status:	FLDRAN
Action Date:	4/11/2000
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	An activity type that is related to an Audit

MAP FINDINGS

**CHESTNUT HILL SHOPPING CENTER, 13 BOYLSTON ST, NEWTON, MA (Continued)**

Action Status:	NOA
Action Date:	4/20/1999
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	An activity type that is related to an Audit
Action Status:	NAFNVD
Action Date:	6/14/2010
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Activity and Use Limitation
Action Status:	Amendment Received or Issued
Action Date:	6/27/2001
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Activity and Use Limitation
Action Status:	Level II - Audit Inspection
Action Date:	6/3/2010
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	RLFA
Action Status:	FLDRAN
Action Date:	6/3/2010
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Immediate Response Action
Action Status:	Status or Interim Report Received
Action Date:	7/10/1996
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Activity and Use Limitation
Action Status:	Legal Notice Published
Action Date:	7/2/2001
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Response Action Outcome - RAO
Action Status:	Fee Received - FMCRA Use Only
Action Date:	8/23/1996
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Immediate Response Action
Action Status:	Oral Approval of Plan or Action
Action Date:	8/24/1995
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	8/24/1995
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.

MAP FINDINGS

**CHESTNUT HILL SHOPPING CENTER, 13 BOYLSTON ST, NEWTON, MA (Continued)**

Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	9/12/1995
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Response Action Outcome - RAO
Action Status:	RAO Statement Received
Action Date:	9/3/1996
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Immediate Response Action
Action Status:	Completion Statement Received
Action Date:	9/3/1996
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Action Type:	Activity and Use Limitation
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	9/3/1996
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status:	3-0012843 / RAO
Primary ID:	Not Reported
Official City:	NEWTON
Notification:	08/24/1995
Category:	72 HR
Status Date:	09/03/1996
Phase:	Not Reported
Response Action Outcome:	A3 - A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Oil / Haz Material Type:	Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0012843](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0012843) for this facility:

**INST CONTROL: State and tribal institutional control / engineering control registries**

Release Tracking Number:	3-0012843
Action Type:	AUL
Action Stat:	AMEND
Action Date:	06/27/2001
Response Action Outcome:	A3 - A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.
Release Tracking Number:	3-0012843
Action Type:	AUL
Action Stat:	LEGNOT
Action Date:	07/02/2001

MAP FINDINGS

**CHESTNUT HILL SHOPPING CENTER, 13 BOYLSTON ST, NEWTON, MA (Continued)**

Response Action Outcome: A3 - A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.

Release Tracking Number: 3-0012843

Action Type: AUL

Action Stat: RECPT

Action Date: 09/03/1996

Response Action Outcome: A3 - A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.

Release Tracking Number: 3-0012843

Action Type: AUL

Action Stat: SNAUDI

Action Date: 06/03/2010

Response Action Outcome: A3 - A permanent solution has been achieved. Contamination has not been reduced to background and an Activity and use Limitation (AUL) has been implemented.

MAP FINDINGS

RANDOLPH 375 HEATH ST, BROOKLINE, MA,		S104545420
▲ 24	E 1/10 - 1/3 44 ft. Higher Elevation	(1239 ft. / 0.235 mi.) 238 ft. Above Sea Level
	State and tribal leaking storage tank lists Other Standard Environmental Records	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Petroleum Hydrocarbon Chemicals of Concern: YES

**Groundwater Flow Gradient:**

Upgradient or Indeterminate: YES

**LUST: State and tribal leaking storage tank lists**

**Facility:**

Release Tracking Number/Current Status: 3-0012797 / RAO  
 Status Date: 10/31/1995  
 Source Type: UST  
 Release Town: BROOKLINE  
 Notification Date: 08/11/1995  
 Category: 72 HR  
 Associated ID: Not Reported  
 Phase: Not Reported  
 Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.  
 Oil Or Haz Material: Oil  
 Location Type: RESIDENTIAL  
 Source: UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0012797](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0012797) for this facility:

**Chemicals:**

Chemical: #2 FUEL OIL  
 Quantity: 849 parts per million  
 Chemical: TPH  
 Quantity: 750000 micrograms per gallon

**Actions:**

Action Type: Response Action Outcome - RAO  
 Action Status: RAO Statement Received  
 Action Date: 10/31/1995  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.  
 Action Type: Release Disposition  
 Action Status: Reportable Release under MGL 21E  
 Action Date: 8/11/1995  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

MAP FINDINGS

**RANDOLPH, 375 HEATH ST, BROOKLINE, MA (Continued)**

Action Type:	Immediate Response Action
Action Status:	Oral Approval of Plan or Action
Action Date:	8/11/1995
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	8/30/1995
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	9/18/1995
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status:	3-0012797 / RAO
Primary ID:	Not Reported
Official City:	BROOKLINE
Notification:	08/11/1995
Category:	72 HR
Status Date:	10/31/1995
Phase:	Not Reported
Response Action Outcome:	A2 - A permanent solution has been achieved. Contamination has not been reduced to background.
Oil / Haz Material Type:	Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0012797](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0012797) for this facility:

MAP FINDINGS

1268 BOYLSTON ST NEAR RTE 9 EAST BOYLSTON ST, BROOKLINE, MA, 02146		S103545736
▼ F25	W 1/10 - 1/3 (1272 ft. / 0.241 mi.)	State and tribal - equivalent CERCLIS Other Standard Environmental Records
	19 ft. Lower Elevation 175 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Comments:** Soil characteristics would make vapor migration from the source or plume unlikely.

The source is downgradient and beyond the critical distance.

**Conditions:**

Petroleum Hydrocarbon Chemicals of Concern: YES

**Groundwater Flow Gradient:**

Downgradient: YES

Topographically: YES

**Geological Attributes - Soil Geology:**

Silty-clay, low-permeability soil: YES

**SHWS: State and tribal - equivalent CERCLIS**

Release Tracking Number/Current Status:	3-0011162 / RAO
Release Town:	BROOKLINE
Notification Date:	06/18/1994
Category:	TWO HR
Associated ID:	Not Reported
<b>Current Status:</b>	<b>Response Action Outcome</b>
Status Date:	08/17/1994
Phase:	Not Reported
Response Action Outcome:	A1 - A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Oil Or Haz Material:	Oil
Location Type:	ROADWAY
Source:	FUELTANK
Source:	VEHICLE

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0011162](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0011162) for this facility:

**Chemicals:**

Chemical:	DIESEL FUEL
Quantity:	30 gallons

**Actions:**

Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	6/18/1994
Response Action Outcome:	A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Action Type:	RLFA

MAP FINDINGS

**1268 BOYLSTON ST NEAR RTE 9 EAST, BOYLSTON ST, BROOKLINE, MA 02146 (Continued)**

Action Status:	FOLFLD
Action Date:	6/18/1994
Response Action Outcome:	A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Action Type:	Immediate Response Action
Action Status:	Oral Approval of Plan or Action
Action Date:	6/18/1994
Response Action Outcome:	A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Action Type:	RLFA
Action Status:	FOLOFF
Action Date:	6/20/1994
Response Action Outcome:	A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	6/23/1994
Response Action Outcome:	A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Action Type:	Response Action Outcome - RAO
Action Status:	RAO Statement Received
Action Date:	8/17/1994
Response Action Outcome:	A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	8/17/1994
Response Action Outcome:	A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status:	3-0011162 / RAO
Primary ID:	Not Reported
Official City:	BROOKLINE
Notification:	06/18/1994
Category:	TWO HR
Status Date:	08/17/1994
Phase:	Not Reported
Response Action Outcome:	A1 - A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Oil / Haz Material Type:	Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0011162](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0011162) for this facility:

MAP FINDINGS

GENERAL CINEMAS FMR 27 BOYLSTON ST, NEWTON, MA, 02158		S105199353
▼ G26	W 1/10 - 1/3 (1392 ft. / 0.264 mi.)	State and tribal - equivalent CERCLIS
	21 ft. Lower Elevation 173 ft. Above Sea Level	State and tribal leaking storage tank lists Other Standard Environmental Records

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Not Applicable: YES

**Groundwater Flow Gradient:**

Downgradient: YES

**SHWS: State and tribal - equivalent CERCLIS**

Release Tracking Number/Current Status: 3-0001261 / REMOPS

Release Town: NEWTON

Notification Date: 01/15/1990

Category: NONE

Associated ID: Not Reported

**Current Status: Remedy Operation Status**

Status Date: 08/19/2004

Phase: Not Reported

Response Action Outcome: -

Oil Or Haz Material: Not Reported

Location Type: COMMERCIAL

Source: UNKNOWN

Source: UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0001261](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0001261) for this facility:

**Chemicals:**

Chemical: UNKNOWN

Quantity: Not Reported

**Actions:**

Action Type: Release Disposition

Action Status: Valid Transition Site

Action Date: 1/15/1990

Response Action Outcome: Not Reported

Action Type: Tier Classification

Action Status: Transmittal, Notice, or Notification Received

Action Date: 1/4/1994

Response Action Outcome: Not Reported

Action Type: TREGS

Action Status: WAVACC

Action Date: 1/4/1994

Response Action Outcome: Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Tier Classification
Action Status:	Tier 2 Classification
Action Date:	1/4/1999
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Legal Notice Published
Action Date:	10/16/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Revised Statement or Transmittal Received
Action Date:	10/16/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Transfer
Action Date:	10/16/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Extension
Action Date:	10/16/2003
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Action Status or AUL Terminated
Action Date:	10/16/2003
Response Action Outcome:	Not Reported
Action Type:	TREGS
Action Status:	WAVSIG
Action Date:	11/10/1993
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Extension
Action Date:	11/4/1998
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	11/4/1998
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Completion Statement Received
Action Date:	11/4/1998
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	11/4/1999
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	11/6/2000
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/14/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/14/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/14/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/14/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/14/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/14/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/15/2012
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/15/2012
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/15/2012
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/16/2011
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/16/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/16/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/16/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/16/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/16/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/17/2004
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/17/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/17/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/17/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/19/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/19/2008
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/19/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/19/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/19/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/19/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/20/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/20/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/20/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/21/2006
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/21/2006
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/21/2006
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/23/2005
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Phase 2
Action Status:	Scope of Work Received
Action Date:	2/6/1995
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	3/12/2002
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	5/10/2000
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	5/11/2001
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	5/4/1999
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/11/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/11/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/11/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/13/2012
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/13/2012
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/13/2012
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/14/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/14/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/14/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/15/2016
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/15/2016
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/15/2016
Response Action Outcome:	Not Reported
Action Type:	Phase 4
Action Status:	Modified Revised or Updated Plan Received
Action Date:	6/16/2004
Response Action Outcome:	Not Reported
Action Type:	Phase 3
Action Status:	Completion Statement Received
Action Date:	6/16/2004
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	6/16/2004
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/17/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/17/2010
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/17/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/17/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/17/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/17/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/17/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/17/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/17/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/19/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/19/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/19/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/20/2005
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/20/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/20/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/20/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/21/2006
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/21/2006
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/21/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/21/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/21/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	7/15/2002
Response Action Outcome:	Not Reported
Action Type:	TREGS
Action Status:	WAVREC
Action Date:	7/9/1993
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Submittal Received
Action Date:	8/19/2004
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	9/14/2006
Response Action Outcome:	Not Reported
Action Type:	Phase 4
Action Status:	Written Plan Received
Action Date:	9/27/1999
Response Action Outcome:	Not Reported
Action Type:	Phase 3
Action Status:	Written Plan Received
Action Date:	9/29/1997
Response Action Outcome:	Not Reported

**LUST: State and tribal leaking storage tank lists**

**Facility:**

Release Tracking Number/Current Status:	3-0001261 / REMOPS
Status Date:	08/19/2004
Source Type:	UST
Release Town:	NEWTON
Notification Date:	01/15/1990
Category:	NONE
Associated ID:	Not Reported
Phase:	Not Reported
Response Action Outcome:	-
Oil Or Haz Material:	Not Reported
Location Type:	COMMERCIAL
Source:	UNKNOWN
Source:	UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0001261](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0001261) for this facility:

**Chemicals:**

Chemical:	UNKNOWN
Quantity:	Not Reported

**Actions:**

Action Type:	Release Disposition
Action Status:	Valid Transition Site
Action Date:	1/15/1990
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	1/4/1994
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	TREGS
Action Status:	WAVACC
Action Date:	1/4/1994
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Classification
Action Date:	1/4/1999
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Legal Notice Published
Action Date:	10/16/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Revised Statement or Transmittal Received
Action Date:	10/16/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Transfer
Action Date:	10/16/2003
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Extension
Action Date:	10/16/2003
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Action Status or AUL Terminated
Action Date:	10/16/2003
Response Action Outcome:	Not Reported
Action Type:	TREGS
Action Status:	WAVSIG
Action Date:	11/10/1993
Response Action Outcome:	Not Reported
Action Type:	Tier Classification
Action Status:	Tier 2 Extension
Action Date:	11/4/1998
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	11/4/1998
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Completion Statement Received
Action Date:	11/4/1998
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	11/4/1999
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	11/6/2000
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/14/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/14/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/14/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/14/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/14/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/14/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/15/2012
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/15/2012
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/15/2012
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/16/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/16/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/16/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/16/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/16/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/16/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/17/2004
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/17/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/17/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/17/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/19/2008
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/19/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/19/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/19/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/19/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/19/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/20/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/20/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/20/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/21/2006
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	12/21/2006
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	12/21/2006
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	12/23/2005
Response Action Outcome:	Not Reported
Action Type:	Phase 2
Action Status:	Scope of Work Received
Action Date:	2/6/1995
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	3/12/2002
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	5/10/2000
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	5/11/2001
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	5/4/1999
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/11/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/11/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/11/2009
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/13/2012
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/13/2012
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/13/2012
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/14/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/14/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/14/2013
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/15/2016
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/15/2016
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/15/2016
Response Action Outcome:	Not Reported
Action Type:	Phase 4
Action Status:	Modified Revised or Updated Plan Received
Action Date:	6/16/2004
Response Action Outcome:	Not Reported
Action Type:	Phase 3
Action Status:	Completion Statement Received
Action Date:	6/16/2004
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	6/16/2004
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/17/2010
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/17/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/17/2010
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/17/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/17/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/17/2011
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/17/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/17/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/17/2015
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/19/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/19/2014
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/19/2014
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/20/2005
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/20/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/20/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/20/2008
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/21/2006
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/21/2006
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	6/21/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Status or Interim Report Received
Action Date:	6/21/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	RMRINT
Action Date:	6/21/2007
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Inspection and Monitoring Report Received
Action Date:	7/15/2002
Response Action Outcome:	Not Reported
Action Type:	TREGS
Action Status:	WAVREC
Action Date:	7/9/1993
Response Action Outcome:	Not Reported

MAP FINDINGS

**GENERAL CINEMAS FMR, 27 BOYLSTON ST, NEWTON, MA 02158 (Continued)**

Action Type:	Phase 5
Action Status:	Remedy Operation Status Submittal Received
Action Date:	8/19/2004
Response Action Outcome:	Not Reported
Action Type:	Phase 5
Action Status:	Remedy Operation Status Report Received
Action Date:	9/14/2006
Response Action Outcome:	Not Reported
Action Type:	Phase 4
Action Status:	Written Plan Received
Action Date:	9/27/1999
Response Action Outcome:	Not Reported
Action Type:	Phase 3
Action Status:	Written Plan Received
Action Date:	9/29/1997
Response Action Outcome:	Not Reported

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status:	3-0001261 / REMOPS
Primary ID:	Not Reported
Official City:	NEWTON
Notification:	01/15/1990
Category:	NONE
Status Date:	08/19/2004
Phase:	Not Reported
Response Action Outcome:	-
Oil / Haz Material Type:	Not Reported

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0001261](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0001261) for this facility:

MAP FINDINGS

NO LOCATION AID 25 BOYLSTON ST, CHESTNUT HILL, MA, 02467-1715		S109489589
▼ G27	W 1/10 - 1/3 (1407 ft. / 0.267 mi.)	State and tribal - equivalent CERCLIS
	21 ft. Lower Elevation 173 ft. Above Sea Level	State and tribal leaking storage tank lists Other Standard Environmental Records

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Comments:** The source is downgradient and beyond the critical distance.

Soil characteristics would make vapor migration from the source or plume unlikely.

**Conditions:**

Petroleum Hydrocarbon Chemicals of Concern: YES

**Groundwater Flow Gradient:**

Downgradient: YES

Topographically: YES

**Geological Attributes - Soil Geology:**

Silty-clay, low-permeability soil: YES

**SHWS: State and tribal - equivalent CERCLIS**

Release Tracking Number/Current Status: 3-0028099 / URAM  
 Release Town: NEWTON  
 Notification Date: 10/23/2008  
 Category: 120 DY  
 Associated ID: Not Reported  
**Current Status: URAM**  
 Status Date: 10/29/2008  
 Phase: Not Reported  
 Response Action Outcome: -  
 Oil Or Haz Material: Oil  
 Location Type: ROADWAY  
 Source: 3-24881  
 Source: RTN  
 Source: UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0028099](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0028099) for this facility:

**Chemicals:**

Chemical: C9 THRU C18 ALIPHATIC HYDROCARBONS  
 Quantity: 1000 milligrams per kilogram

**Actions:**

Action Type: Release Disposition  
 Action Status: Reportable Release under MGL 21E  
 Action Date: 10/23/2008  
 Response Action Outcome: Not Reported  
 Action Type: Utility-related Abatement Measure  
 Action Status: Notice of Intent to Conduct a URAM

MAP FINDINGS

**NO LOCATION AID, 25 BOYLSTON ST, CHESTNUT HILL, MA 02467-1715 (Continued)**

Action Date:	10/23/2008
Response Action Outcome:	Not Reported
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	URAMLR
Action Date:	10/27/2008
Response Action Outcome:	Not Reported
Action Type:	Utility-related Abatement Measure
Action Status:	Notification of URAM Received
Action Date:	10/29/2008
Response Action Outcome:	Not Reported
Action Type:	Utility-related Abatement Measure
Action Status:	Completion Statement Received
Action Date:	10/29/2008
Response Action Outcome:	Not Reported
Action Type:	Utility-related Abatement Measure
Action Status:	Level I - Technical Screen Audit
Action Date:	2/3/2009
Response Action Outcome:	Not Reported

**LUST: State and tribal leaking storage tank lists**

**Facility:**

Release Tracking Number/Current Status:	3-0028099 / URAM
Status Date:	10/29/2008
Source Type:	UST
Release Town:	NEWTON
Notification Date:	10/23/2008
Category:	120 DY
Associated ID:	Not Reported
Phase:	Not Reported
Response Action Outcome:	-
Oil Or Haz Material:	Oil
Location Type:	ROADWAY
Source:	3-24881
Source:	RTN
Source:	UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0028099](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0028099) for this facility:

**Chemicals:**

Chemical:	C9 THRU C18 ALIPHATIC HYDROCARBONS
Quantity:	1000 milligrams per kilogram

**Actions:**

MAP FINDINGS

**NO LOCATION AID, 25 BOYLSTON ST, CHESTNUT HILL, MA 02467-1715 (Continued)**

Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	10/23/2008
Response Action Outcome:	Not Reported
Action Type:	Utility-related Abatement Measure
Action Status:	Notice of Intent to Conduct a URAM
Action Date:	10/23/2008
Response Action Outcome:	Not Reported
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	URAMLR
Action Date:	10/27/2008
Response Action Outcome:	Not Reported
Action Type:	Utility-related Abatement Measure
Action Status:	Notification of URAM Received
Action Date:	10/29/2008
Response Action Outcome:	Not Reported
Action Type:	Utility-related Abatement Measure
Action Status:	Completion Statement Received
Action Date:	10/29/2008
Response Action Outcome:	Not Reported
Action Type:	Utility-related Abatement Measure
Action Status:	Level I - Technical Screen Audit
Action Date:	2/3/2009
Response Action Outcome:	Not Reported

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status:	3-0028099 / URAM
Primary ID:	Not Reported
Official City:	NEWTON
Notification:	10/23/2008
Category:	120 DY
Status Date:	10/29/2008
Phase:	Not Reported
Response Action Outcome:	-
Oil / Haz Material Type:	Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0028099](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0028099) for this facility:

**HW GEN: Other Standard Environmental Records**

EPA Id:	MV6175666900
RCRA Generator Status:	VSQG
State Generator Status:	Not Reported
EPA Id:	MV6177540400
RCRA Generator Status:	VSQG

MAP FINDINGS

**NO LOCATION AID, 25 BOYLSTON ST, CHESTNUT HILL, MA 02467-1715 (Continued)**

State Generator Status:

Not Reported

MAP FINDINGS

CHESTNUT HILL MEDICAL CENTER 25 BOYLSTON ST, NEWTON, MA, 02467-0000		S106954469
▼ G28	W 1/10 - 1/3 (1407 ft. / 0.267 mi.)	State and tribal leaking storage tank lists Other Standard Environmental Records
	21 ft. Lower Elevation 173 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Conditions:**

Not Applicable: YES

**Groundwater Flow Gradient:**

Downgradient: YES

**ENFORCEMENT: Other Standard Environmental Records**

Region: NERO  
 DEP Region: NERO  
 DEP Program: 3A  
 DEP Bureau: BWSC  
 Program: Not Reported  
 Program Id: 3-0024881  
 High Or Low Level Enforcement: LLE  
 FMF #: Not Reported  
 Comptroller Billing Name: Not Reported  
 Town Where Violation Occurred: Not Reported  
 Date Executed: 05/10/2010  
 ENF #: NON-NE-10-3A036  
 Document Type: NON  
 AG Ref (Y/N): Not Reported  
 Doc Archived (Y/N): Not Reported  
 EJ Community (Y/N): Not Reported  
 Regional Comment: Not Reported  
 Final Payment Due Date: Not Reported  
 ACOP \$: Not Reported  
 PAN \$: Not Reported  
 EMS (Y/N): Not Reported  
 EMS\$: Not Reported  
 SEP (Y/N): Not Reported  
 SEP \$: Not Reported  
 Demand \$: Not Reported  
 Suspended \$: Not Reported  
 Ownership: Commercially Owned

**LUST: State and tribal leaking storage tank lists**

**Facility:**

Release Tracking Number/Current Status: 3-0024881 / RAO  
 Status Date: 05/14/2010  
 Source Type: UST

MAP FINDINGS

**CHESTNUT HILL MEDICAL CENTER, 25 BOYLSTON ST, NEWTON, MA 02467-0000 (Continued)**

Release Town: NEWTON  
 Notification Date: 05/19/2005  
 Category: 72 HR  
 Associated ID: Not Reported  
 Phase: PHASE II  
 Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.  
 Oil Or Haz Material: Oil  
 Location Type: COMMERCIAL  
 Source: UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0024881](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0024881) for this facility:

**Chemicals:**

Chemical: TOTAL VOCS  
 Quantity: 125 parts per million  
 Chemical: FUEL OIL #2  
 Quantity: 120 parts per million

**Actions:**

Action Type: Immediate Response Action  
 Action Status: Status or Interim Report Received  
 Action Date: 10/21/2008  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Immediate Response Action  
 Action Status: Oral Approval of Plan or Action  
 Action Date: 11/29/2007  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: RLFA  
 Action Status: FOLOFF  
 Action Date: 11/29/2007  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Response Action Outcome - RAO  
 Action Status: Level I - Technical Screen Audit  
 Action Date: 12/16/2010  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Immediate Response Action  
 Action Status: Status or Interim Report Received  
 Action Date: 3/1/2006  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Immediate Response Action  
 Action Status: Status or Interim Report Received  
 Action Date: 3/26/2007  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Phase 3  
 Action Status: Notice of Delay in Meeting RA Deadline Received

MAP FINDINGS

**CHESTNUT HILL MEDICAL CENTER, 25 BOYLSTON ST, NEWTON, MA 02467-0000 (Continued)**

Action Date: 4/1/2009  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Phase 2  
 Action Status: Notice of Delay in Meeting RA Deadline Received  
 Action Date: 4/1/2009  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Immediate Response Action  
 Action Status: Completion Statement Received  
 Action Date: 4/24/2009  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: A Notice sent to a Potentially Responsible Party (PRP)  
 Action Status: ALSENT  
 Action Date: 4/6/2006  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Immediate Response Action  
 Action Status: Status or Interim Report Received  
 Action Date: 4/8/2008  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Compliance and Enforcement Action  
 Action Status: Notice of Non-Compliance Issued  
 Action Date: 5/10/2010  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Response Action Outcome - RAO  
 Action Status: RAO Statement Received  
 Action Date: 5/14/2010  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Immediate Response Action  
 Action Status: Oral Approval of Plan or Action  
 Action Date: 5/19/2005  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Release Disposition  
 Action Status: Reportable Release under MGL 21E  
 Action Date: 5/19/2005  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: RLFA  
 Action Status: FOLOFF  
 Action Date: 5/19/2005  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: A Notice sent to a Potentially Responsible Party (PRP)  
 Action Status: A MassDEP piece of correspondence was issued (approvals, NORs, etc.)  
 Action Date: 6/10/2005  
 Response Action Outcome: A permanent solution has been achieved. Contamination has not been reduced to background.

Action Type: Tier Classification  
 Action Status: Tier 2 Classification

MAP FINDINGS

**CHESTNUT HILL MEDICAL CENTER, 25 BOYLSTON ST, NEWTON, MA 02467-0000 (Continued)**

Action Date:	6/7/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Tier Classification
Action Status:	Transmittal, Notice, or Notification Received
Action Date:	6/7/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Phase 2
Action Status:	Scope of Work Received
Action Date:	6/7/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Phase 1
Action Status:	Completion Statement Received
Action Date:	6/7/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Level I - Technical Screen Audit
Action Date:	7/16/2009
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	7/26/2005
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Written Plan Received
Action Date:	7/26/2005
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Status or Interim Report Received
Action Date:	9/19/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Status or Interim Report Received
Action Date:	9/25/2007
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Status or Interim Report Received
Action Date:	9/26/2005
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status:	3-0024881 / RAO
Primary ID:	Not Reported
Official City:	NEWTON
Notification:	05/19/2005

MAP FINDINGS

**CHESTNUT HILL MEDICAL CENTER, 25 BOYLSTON ST, NEWTON, MA 02467-0000 (Continued)**

Category: 72 HR  
Status Date: 05/14/2010  
Phase: PHASE II  
Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.  
Oil / Haz Material Type: Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0024881](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0024881) for this facility:

MAP FINDINGS

NO LOCATION AID 1280 AND 1290 BOYLSTON ST, BROOKLINE, MA, 02146-0000			S102967387
▼ 29	W 1/10 - 1/3	(1580 ft. / 0.299 mi.)	State and tribal - equivalent CERCLIS Other Standard Environmental Records
	19 ft. Lower Elevation	175 ft. Above Sea Level	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Comments:** Soil characteristics would make vapor migration from the source or plume unlikely.

The source is downgradient and beyond the critical distance.

**Conditions:**

Petroleum Hydrocarbon Chemicals of Concern: YES

**Groundwater Flow Gradient:**

Downgradient: YES

Topographically: YES

**Geological Attributes - Soil Geology:**

Silty-clay, low-permeability soil: YES

**SHWS: State and tribal - equivalent CERCLIS**

Release Tracking Number/Current Status:	3-0015680 / RAO
Release Town:	BROOKLINE
Notification Date:	11/01/1997
Category:	TWO HR
Associated ID:	Not Reported
<b>Current Status:</b>	<b>Response Action Outcome</b>
Status Date:	12/18/1997
Phase:	Not Reported
Response Action Outcome:	A1 - A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Oil Or Haz Material:	Oil
Location Type:	ROADWAY
Location Type:	COMMERCIAL
Source:	PIPE

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0015680](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0015680) for this facility:

**Chemicals:**

Chemical:	HYDRAULIC FLUID
Quantity:	30 gallons
Chemical:	HYDRAULIC FLUID
Quantity:	15 gallons

**Actions:**

Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	11/1/1997
Response Action Outcome:	A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

MAP FINDINGS

**NO LOCATION AID, 1280 AND 1290 BOYLSTON ST, BROOKLINE, MA 02146-0000 (Continued)**

Action Type:	RLFA
Action Status:	FLDD1U
Action Date:	11/1/1997
Response Action Outcome:	A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	11/12/1997
Response Action Outcome:	A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	11/28/1997
Response Action Outcome:	A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Action Type:	Compliance and Enforcement Action
Action Status:	Notice of Non-Compliance Issued
Action Date:	12/12/1997
Response Action Outcome:	A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Action Type:	Response Action Outcome - RAO
Action Status:	RAO Statement Received
Action Date:	12/18/1997
Response Action Outcome:	A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	12/18/1997
Response Action Outcome:	A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status:	3-0015680 / RAO
Primary ID:	Not Reported
Official City:	BROOKLINE
Notification:	11/01/1997
Category:	TWO HR
Status Date:	12/18/1997
Phase:	Not Reported
Response Action Outcome:	A1 - A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Oil / Haz Material Type:	Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0015680](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0015680) for this facility:

MAP FINDINGS

NO LOCATION AID 132 YARMOUTH RD, BROOKLINE, MA,		S106776105
▼ 30	SE 1/10 - 1/3 5 ft. Lower Elevation	(1643 ft. / 0.311 mi.) 189 ft. Above Sea Level
	State and tribal leaking storage tank lists Other Standard Environmental Records	

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Comments:** Soil characteristics would make vapor migration from the source or plume unlikely.

The source is crossgradient. The distance between the source and the target property is greater than the critical distance plus a factor to account for plume width.

**Conditions:**

Petroleum Hydrocarbon Chemicals of Concern: YES

**Groundwater Flow Gradient:**

Crossgradient: YES

Topographically: YES

**Geological Attributes - Soil Geology:**

Silty-clay, low-permeability soil: YES

**LUST: State and tribal leaking storage tank lists**

**Facility:**

Release Tracking Number/Current Status: 3-0024451 / RAO  
 Status Date: 03/31/2005  
 Source Type: UST  
 Release Town: BROOKLINE  
 Notification Date: 12/01/2004  
 Category: 72 HR  
 Associated ID: Not Reported  
 Phase: Not Reported  
 Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.  
 Oil Or Haz Material: Oil  
 Location Type: RESIDENTIAL  
 Source: UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0024451](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0024451) for this facility:

**Chemicals:**

Chemical: TOTAL VOCS  
 Quantity: 100 parts per million  
 Chemical: FUEL OIL #2  
 Quantity: 263 parts per million

**Actions:**

Action Type: A Notice sent to a Potentially Responsible Party (PRP)  
 Action Status: A MassDEP piece of correspondence was issued (approvals, NORs, etc.)

MAP FINDINGS

**NO LOCATION AID, 132 YARMOUTH RD, BROOKLINE, MA (Continued)**

Action Date:	1/10/2005
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	1/31/2005
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	12/1/2004
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Oral Approval of Plan or Action
Action Date:	12/1/2004
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RLFA
Action Status:	FOLOFF
Action Date:	12/1/2004
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RLFA
Action Status:	FOLOFF
Action Date:	2/10/2005
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Written Plan Received
Action Date:	2/7/2005
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Response Action Outcome - RAO
Action Status:	RAO Statement Received
Action Date:	3/31/2005
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status:	3-0024451 / RAO
Primary ID:	Not Reported
Official City:	BROOKLINE
Notification:	12/01/2004
Category:	72 HR
Status Date:	03/31/2005
Phase:	Not Reported
Response Action Outcome:	A2 - A permanent solution has been achieved. Contamination has not been reduced to background.
Oil / Haz Material Type:	Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0024451](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0024451) for this facility:

MAP FINDINGS

CHESTNUT HILL BENEVOLENT ASSOC 910 BOYLSTON ST, CHESTNUT HILL, MA, 02467-2404			S106953985
▲ 31	ENE 1/10 - 1/3	(1713 ft. / 0.324 mi.)	State and tribal - equivalent CERCLIS
	90 ft. Higher Elevation	284 ft. Above Sea Level	State and tribal leaking storage tank lists Other Standard Environmental Records

**Worksheet:**

**Impact on Target Property:** VEC does not exist

**Comments:** Soil characteristics would make vapor migration from the source or plume unlikely.

**Conditions:**

Chemicals of Concern: YES

**Groundwater Flow Gradient:**

Upgradient or Indeterminate: YES

Topographically: YES

**Geological Attributes - Soil Geology:**

Silty-clay, low-permeability soil: YES

**SHWS: State and tribal - equivalent CERCLIS**

Release Tracking Number/Current Status: 3-0024837 / RAO

Release Town: NEWTON

Notification Date: 05/06/2005

Category: 120 DY

Associated ID: Not Reported

**Current Status:** **Response Action Outcome**

Status Date: 05/06/2005

Phase: Not Reported

Response Action Outcome: B1 - Remedial actions have not been conducted because a level of No Significant Risk exists.

Oil Or Haz Material: Hazardous Material

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0024837](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0024837) for this facility:

**Chemicals:**

Chemical: NAPHTHALENE

Quantity: 7.2 milligrams per kilogram

**Actions:**

Action Type: A Notice sent to a Potentially Responsible Party (PRP)

Action Status: A MassDEP piece of correspondence was issued (approvals, NORs, etc.)

Action Date: 5/18/2005

Response Action Outcome: Remedial actions have not been conducted because a level of No Significant Risk exists.

Action Type: RNF

Action Status: Reportable Release under MGL 21E

Action Date: 5/6/2005

Response Action Outcome: Remedial actions have not been conducted because a level of No Significant Risk exists.

Action Type: Response Action Outcome - RAO

Action Status: RAO Statement Received

MAP FINDINGS

**CHESTNUT HILL BENEVOLENT ASSOC, 910 BOYLSTON ST, CHESTNUT HILL, MA 02467-2404 (Continued)**

Action Date:	5/6/2005
Response Action Outcome:	Remedial actions have not been conducted because a level of No Significant Risk exists.
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	5/6/2005
Response Action Outcome:	Remedial actions have not been conducted because a level of No Significant Risk exists.

**LUST: State and tribal leaking storage tank lists**

**Facility:**

Release Tracking Number/Current Status:	3-0025358 / RAO
Status Date:	09/06/2006
Source Type:	UST
Release Town:	NEWTON
Notification Date:	10/27/2005
Category:	72 HR
Associated ID:	Not Reported
Phase:	Not Reported
Response Action Outcome:	A2 - A permanent solution has been achieved. Contamination has not been reduced to background.
Oil Or Haz Material:	Oil
Location Type:	RESIDENTIAL
Source:	UST

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0025358](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0025358) for this facility:

**Chemicals:**

Chemical:	FUEL OIL #2
Quantity:	100 parts per million
Chemical:	TOTAL VOCS
Quantity:	110 parts per million

**Actions:**

Action Type:	Immediate Response Action
Action Status:	Modified Revised or Updated Plan Received
Action Date:	1/6/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Release Disposition
Action Status:	Reportable Release under MGL 21E
Action Date:	10/27/2005
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RLFA
Action Status:	FOLOFF
Action Date:	10/27/2005
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

MAP FINDINGS

**CHESTNUT HILL BENEVOLENT ASSOC, 910 BOYLSTON ST, CHESTNUT HILL, MA 02467-2404 (Continued)**

Action Type:	Immediate Response Action
Action Status:	Oral Approval of Plan or Action
Action Date:	10/27/2005
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RNF
Action Status:	Reportable Release under MGL 21E
Action Date:	11/1/2005
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Oral Approval of a Modified Plan
Action Date:	11/14/2005
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	RLFA
Action Status:	FOLOFF
Action Date:	11/14/2005
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	A MassDEP piece of correspondence was issued (approvals, NORs, etc.
Action Date:	11/21/2005
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Written Plan Received
Action Date:	12/30/2005
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Immediate Response Action
Action Status:	Completion Statement Received
Action Date:	3/2/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Response Action Outcome - RAO
Action Status:	RAO Statement Received
Action Date:	9/6/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	A Notice sent to a Potentially Responsible Party (PRP)
Action Status:	ALSENT
Action Date:	9/7/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.
Action Type:	Response Action Outcome - RAO
Action Status:	Fee Received - FMCRA Use Only
Action Date:	9/8/2006
Response Action Outcome:	A permanent solution has been achieved. Contamination has not been reduced to background.

**Release: Other Standard Environmental Records**

Release Tracking Number/Current Status:	3-0024837 / RAO
Primary ID:	Not Reported

MAP FINDINGS

**CHESTNUT HILL BENEVOLENT ASSOC, 910 BOYLSTON ST, CHESTNUT HILL, MA 02467-2404 (Continued)**

Official City: NEWTON  
Notification: 05/06/2005  
Category: 120 DY  
Status Date: 05/06/2005  
Phase: Not Reported  
Response Action Outcome: B1 - Remedial actions have not been conducted because a level of No Significant Risk exists.  
Oil / Haz Material Type: Hazardous Material

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0024837](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0024837) for this facility:

Release Tracking Number/Current Status: 3-0025358 / RAO

Primary ID: Not Reported  
Official City: NEWTON  
Notification: 10/27/2005  
Category: 72 HR  
Status Date: 09/06/2006  
Phase: Not Reported  
Response Action Outcome: A2 - A permanent solution has been achieved. Contamination has not been reduced to background.  
Oil / Haz Material Type: Oil

Click here to access the MA DEP site [http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR\\_MA\\_DEP&facid=3-0025358](http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_MA_DEP&facid=3-0025358) for this facility:

**HW GEN: Other Standard Environmental Records**

EPA Id: MV6177345600  
RCRA Generator Status: VSQG  
State Generator Status: VQG-MA

## RECORD SOURCES AND CURRENCY

To maintain currency of the following databases, EDR contacts the appropriate agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

### **STANDARD ENVIRONMENTAL RECORDS**

#### **PRP:** Potentially Responsible Parties

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013

Source: EPA

Number of Days to Update: 3

Telephone: 202-564-6023

Last EDR Contact :11/07/2016

#### **RMP:** Risk Management Plans

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2016

Source: Environmental Protection Agency

Number of Days to Update: 81

Telephone: 202-564-8600

Last EDR Contact :11/18/2016

#### **AIRS:** Permitted Facilities Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of Air Quality permit applications.

Date of Government Version: 07/19/2016

Source: Department of Environmental Protection

Number of Days to Update: 71

Telephone: 617-292-5789

Last EDR Contact :10/17/2016

#### **AST:** Aboveground Storage Tank Database

Standard Environmental Record Source: State and tribal registered storage tank lists

Search Distance: Property

Registered Aboveground Storage Tanks.

Date of Government Version: 10/22/2009

Source: Department of Public Safety

Number of Days to Update: 9

Telephone: 617-556-1035

Last EDR Contact :10/17/2016

#### **BROWNFIELDS:** Completed Brownfields Covenants Listing

Standard Environmental Record Source: State and tribal Brownfields sites

## RECORD SOURCES AND CURRENCY

Search Distance: 0.333 Mile

Under Massachusetts law, M.G.L. c. 21E is the statute that governs the cleanup of releases of oil and/or hazardous material to the environment. The Brownfields Act of 1998 amended M.G.L. c. 21E by establishing significant liability relief and financial incentives to spur the redevelopment of brownfields, while ensuring that the Commonwealth's environmental standards are met. Most brownfields are redeveloped with the benefit of liability protections that operate automatically under M.G.L. c. 21E.

Date of Government Version: 12/31/2015

Source: Office of the Attorney General

Number of Days to Update: 57

Telephone: 617-963-2423

Last EDR Contact :11/04/2016

### **BROWNFIELDS 2:** Potential Brownfields Listing

Standard Environmental Record Source: State and tribal Brownfields sites

A listing of potential brownfields site locations in the state.

Date of Government Version: 05/13/2016

Source: Department of Environmental Protection

Number of Days to Update: 56

Telephone: 617-556-1007

Last EDR Contact :11/04/2016

### **DRYCLEANERS:** Regulated Drycleaning Facilities

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.25 Mile

A listing of Department of Environmental Protection regulated drycleaning facilities that use perchloroethylene under the Environmental Results Program.

Date of Government Version: 07/07/2016

Source: Department of Environmental Protection

Number of Days to Update: 7

Telephone: 617-292-5633

Last EDR Contact :10/31/2016

### **ENFORCEMENT:** Enforcement Action Cases

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of enforcement action cases tracked by Department of Environmental Protection programs, including Solid Waste and Hazardous Waste.

Date of Government Version: 08/12/2016

Source: Department of Environmental Quality

Number of Days to Update: 43

Telephone: 617-292-5979

Last EDR Contact :11/11/2016

### **GWDP:** Ground Water Discharge Permits

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

The Ground Water Discharge Permits datalayer (formerly known as Groundwater Discharge Points) is a statewide point dataset containing approximate locations of permitted discharges to groundwater.

Date of Government Version: 03/10/2016

Source: MassGIS

Number of Days to Update: 63

Telephone: 617-556-1150

Last EDR Contact :11/03/2016

### **HW GEN:** List of Massachusetts Hazardous Waste Generators

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.25 Mile

## RECORD SOURCES AND CURRENCY

Permanent generator identification numbers for all Massachusetts generators of hazardous waste and waste oil that have registered with or notified MassDEP of their hazardous waste activities.

Date of Government Version: 06/21/2016  
Number of Days to Update: 21  
Last EDR Contact :09/27/2016

Source: Department of Environmental Protection  
Telephone: 617-292-5500

### **INST CONTROL:** Sites With Activity and Use Limitation

Standard Environmental Record Source: State and tribal institutional control / engineering control registries  
Search Distance: Property

Activity and Use Limitations establish limits and conditions on the future use of contaminated property, and therefore allow cleanups to be tailored to these uses.

Date of Government Version: 06/28/2016  
Number of Days to Update: 6  
Last EDR Contact :10/13/2016

Source: Department of Environmental Protection  
Telephone: 617-292-5990

### **LAST:** Leaking Aboveground Storage Tank Sites

Standard Environmental Record Source: State and tribal leaking storage tank lists  
Search Distance: 0.333 Mile

Sites within the Releases Database that have a AST listed as its source.

Date of Government Version: 06/28/2016  
Number of Days to Update: 6  
Last EDR Contact :10/13/2016

Source: Department of Environmental Protection  
Telephone: 617-292-5500

### **LEAD:** Lead Inspection Database

Standard Environmental Record Source: Other Standard Environmental Records  
Search Distance: Property

The Massachusetts Childhood Lead Poisoning Prevention Program data of lead inspection for the state.

Date of Government Version: 07/09/2015  
Number of Days to Update: 20  
Last EDR Contact :09/26/2016

Source: Department of Health & Human Services, Childhood Lead Poisoning Prevention Progr  
Telephone: 617-624-5757

### **LF PROFILES:** Landfill Profiles Listing

Standard Environmental Record Source: State and tribal landfill / solid waste disposal

This spreadsheet describes landfills that have actively accepted waste or have closed under MassDEP Solid Waste Regulations first adopted in 1971 (310 CMR 16.00 and 310 CMR 19.00). The list does not include landfills that closed before 1971 (and which never had a MassDEP permit or approval), or for which agency data is incomplete.

Date of Government Version: 07/01/2015  
Number of Days to Update: 48  
Last EDR Contact :10/07/2016

Source: Department of Environmental Protection  
Telephone: 617-292-5868

### **LIENS:** Liens Information Listing

Standard Environmental Record Source: Other Standard Environmental Records  
Search Distance: Property

A listing of environmental liens.

Date of Government Version: 02/24/2014  
Number of Days to Update: 15

Source: Department of Environmental Protection  
Telephone: 617-292-5628

## RECORD SOURCES AND CURRENCY

Last EDR Contact :11/17/2016

**LUST:** Leaking Underground Storage Tank Listing

Standard Environmental Record Source: State and tribal leaking storage tank lists

Search Distance: 0.333 Mile

Sites within the Leaking Underground Storage Tank Listing that have a UST listed as its source.

Date of Government Version: 06/28/2016

Source: Department of Environmental Protection

Number of Days to Update: 6

Telephone: 617-292-5990

Last EDR Contact :10/13/2016

**MA SPILLS:** Historical Spill List

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

The Spills Database was the release notification tracking system for spills that occurred prior to October 1, 1993. This information should be considered to be primarily of historical interest since all of the listed spills have either been cleaned up or assigned new tracking numbers and moved to the Reportable Releases or Sites Transition List databases.

Date of Government Version: 09/30/1993

Source: Department of Environmental Protection

Number of Days to Update: 28

Telephone: 617-292-5720

Last EDR Contact :12/03/2003

**MERCURY:** Mercury Product Recycling Drop-Off Locations Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

A listing of locations, collecting and recycling for mercury-added products. Mercury is toxic to the human nervous system, as well as fish and animals. Mercury can enter the body either through skin absorption or through inhalation of mercury vapors. At room temperature, small beads of mercury will vaporize.

Date of Government Version: 06/06/2016

Source: Department of Environmental Protection

Number of Days to Update: 40

Telephone: 617-292-5632

Last EDR Contact :11/17/2016

**NPDES:** NPDES Permit Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Listing of treatment plants in Massachusetts that hold permits to discharge to groundwater.

Date of Government Version: 06/22/2016

Source: Department of Environmental Protection

Number of Days to Update: 48

Telephone: 508-767-2781

Last EDR Contact :11/18/2016

**RELEASE:** Reportable Releases

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Contains information on all releases of oil and hazardous materials that have been reported to DEP

Date of Government Version: 06/28/2016

Source: Department of Environmental Protection

Number of Days to Update: 6

Telephone: 617-292-5990

Last EDR Contact :10/13/2016

**SHWS:** Site Transition List

## RECORD SOURCES AND CURRENCY

Standard Environmental Record Source: State and tribal - equivalent CERCLIS  
Search Distance: 0.333 Mile

Contains information on releases of oil and hazardous materials that have been reported to DEP.

Date of Government Version: 06/28/2016                      Source: Department of Environmental Protection  
Number of Days to Update: 6                                      Telephone: 617-292-5990  
Last EDR Contact :10/13/2016

### **SWF/LF:** Solid Waste Facility Database/Transfer Stations

Standard Environmental Record Source: State and tribal landfill / solid waste disposal  
Search Distance: 0.333 Mile

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 01/31/2016                      Source: Department of Environmental Protection  
Number of Days to Update: 14                                      Telephone: 617-292-5989  
Last EDR Contact :10/07/2016

### **TIER 2:** Tier 2 Information Listing

Standard Environmental Record Source: Other Standard Environmental Records  
Search Distance: Property

A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report

Date of Government Version: 12/31/2015                      Source: Massachusetts Emergency Management Agency  
Number of Days to Update: 54                                      Telephone: 508-820-2019  
Last EDR Contact :10/17/2016

### **TSD:** TSD Facility

Standard Environmental Record Source: Other Standard Environmental Records  
Search Distance: 0.333 Mile

List of Licensed Hazardous Waste Treatment, Storage Disposal Facilities (TSDFs) in Massachusetts.

Date of Government Version: 04/01/2015                      Source: Department of Environmental Protection  
Number of Days to Update: 10                                      Telephone: 617-292-5580  
Last EDR Contact :09/30/2016

### **UST:** Summary Listing of all the Tanks Registered in the State of Massachusetts

Standard Environmental Record Source: State and tribal registered storage tank lists  
Search Distance: Property

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 08/22/2016                      Source: Department of Fire Services, Office of the Public Safety  
Number of Days to Update: 42                                      Telephone: 617-556-1035  
Last EDR Contact :10/17/2016

### **2020 COR ACTION:** 2020 Corrective Action Program List

Standard Environmental Record Source: Other Standard Environmental Records  
Search Distance: 0.25 Mile

## RECORD SOURCES AND CURRENCY

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013

Source: Environmental Protection Agency

Number of Days to Update: 6

Telephone: 703-308-4044

Last EDR Contact :11/11/2016

### **COAL ASH DOE:** Steam-Electric Plant Operation Data

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005

Source: Department of Energy

Number of Days to Update: 76

Telephone: 202-586-8719

Last EDR Contact :09/09/2016

### **COAL ASH EPA:** Coal Combustion Residues Surface Impoundments List

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014

Source: Environmental Protection Agency

Number of Days to Update: 40

Telephone: Not Reported

Last EDR Contact :09/06/2016

### **CONSENT:** Superfund (CERCLA) Consent Decrees

Standard Environmental Record Source: Federal NPL

Search Distance: 0.333 Mile

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2016

Source: Department of Justice, Consent Decree Library

Number of Days to Update: 53

Telephone: Varies

Last EDR Contact :09/26/2016

### **CORRACTS:** Corrective Action Report

Standard Environmental Record Source: Federal RCRA CORRACTS facilities list

Search Distance: 0.333 Mile

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/27/2016

Source: EPA

Number of Days to Update: 64

Telephone: 800-424-9346

Last EDR Contact :09/28/2016

### **DEBRIS REGION 9:** Torres Martinez Reservation Illegal Dump Site Locations

Standard Environmental Record Source: State and tribal landfill / solid waste disposal

Search Distance: 0.333 Mile

## RECORD SOURCES AND CURRENCY

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009

Source: EPA, Region 9

Number of Days to Update: 137

Telephone: 415-947-4219

Last EDR Contact :10/24/2016

### **DOCKET HWC:** Hazardous Waste Compliance Docket Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/02/2016

Source: Environmental Protection Agency

Number of Days to Update: 91

Telephone: 202-564-0527

Last EDR Contact :11/28/2016

### **DOT OPS:** Incident and Accident Data

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012

Source: Department of Transportation, Office of Pipeline Safety

Number of Days to Update: 42

Telephone: 202-366-4595

Last EDR Contact :11/02/2016

### **Delisted NPL:** National Priority List Deletions

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/07/2016

Source: EPA

Number of Days to Update: 10

Telephone: Not Reported

Last EDR Contact :10/05/2016

### **ECHO:** Enforcement & Compliance History Information

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/18/2016

Source: Environmental Protection Agency

Number of Days to Update: 31

Telephone: 202-564-2280

Last EDR Contact :09/20/2016

### **EPA WATCH LIST:** EPA WATCH LIST

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

## RECORD SOURCES AND CURRENCY

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013

Source: Environmental Protection Agency

Number of Days to Update: 88

Telephone: 617-520-3000

Last EDR Contact :11/08/2016

### **ERNS:** Emergency Response Notification System

Standard Environmental Record Source: Federal ERNS list

Search Distance: Property

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/26/2016

Source: National Response Center, United States Coast Guard

Number of Days to Update: 43

Telephone: 202-267-2180

Last EDR Contact :09/29/2016

### **FEMA UST:** Underground Storage Tank Listing

Standard Environmental Record Source: State and tribal registered storage tank lists

Search Distance: Property

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010

Source: FEMA

Number of Days to Update: 55

Telephone: 202-646-5797

Last EDR Contact :10/11/2016

### **FINDS:** Facility Index System/Facility Registry System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/15/2016

Source: EPA

Number of Days to Update: 65

Telephone: Not Reported

Last EDR Contact :09/07/2016

### **FTTS:** FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Number of Days to Update: 25

Telephone: 202-566-1667

## RECORD SOURCES AND CURRENCY

Last EDR Contact :11/17/2016

**FTTS INSP:** FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Standard Environmental Record Source: Other Standard Environmental Records

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009

Source: EPA

Number of Days to Update: 25

Telephone: 202-566-1667

Last EDR Contact :11/17/2016

**FUDS:** Formerly Used Defense Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015

Source: U.S. Army Corps of Engineers

Number of Days to Update: 97

Telephone: 202-528-4285

Last EDR Contact :09/09/2016

**FUELS PROGRAM:** EPA Fuels Program Registered Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/22/2016

Source: EPA

Number of Days to Update: 59

Telephone: 800-385-6164

Last EDR Contact :11/22/2016

**FUSRAP:** Formerly Utilized Sites Remedial Action Program

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/21/2016

Source: Department of Energy

Number of Days to Update: 59

Telephone: 202-586-3559

Last EDR Contact :11/08/2016

**HIST FTTS:** FIFRA/TSCA Tracking System Administrative Case Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006

Source: Environmental Protection Agency

Number of Days to Update: 40

Telephone: 202-564-2501

## RECORD SOURCES AND CURRENCY

Last EDR Contact :12/17/2007

**HMIRS:** Hazardous Materials Information Reporting System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/27/2016

Source: U.S. Department of Transportation

Number of Days to Update: 87

Telephone: 202-366-4555

Last EDR Contact :09/27/2016

**ICIS:** Integrated Compliance Information System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/27/2016

Source: Environmental Protection Agency

Number of Days to Update: 77

Telephone: 202-564-5088

Last EDR Contact :10/11/2016

**INDIAN LUST R1:** Leaking Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal leaking storage tank lists

Search Distance: 0.333 Mile

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015

Source: EPA Region 1

Number of Days to Update: 67

Telephone: 617-918-1313

Last EDR Contact :10/28/2016

**INDIAN LUST R10:** Leaking Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal leaking storage tank lists

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016

Source: EPA Region 10

Number of Days to Update: 41

Telephone: 206-553-2857

Last EDR Contact :10/28/2016

**INDIAN LUST R4:** Leaking Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal leaking storage tank lists

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/05/2016

Source: EPA Region 4

Number of Days to Update: 35

Telephone: 404-562-8677

Last EDR Contact :10/28/2016

**INDIAN LUST R5:** Leaking Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal leaking storage tank lists

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 02/17/2016

Source: EPA, Region 5

Number of Days to Update: 37

Telephone: 312-886-7439

## RECORD SOURCES AND CURRENCY

Last EDR Contact :10/28/2016

**INDIAN LUST R6:** Leaking Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal leaking storage tank lists  
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 12/11/2015

Source: EPA Region 6

Number of Days to Update: 105

Telephone: 214-665-6597

Last EDR Contact :10/28/2016

**INDIAN LUST R7:** Leaking Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal leaking storage tank lists  
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/09/2015

Source: EPA Region 7

Number of Days to Update: 112

Telephone: 913-551-7003

Last EDR Contact :10/28/2016

**INDIAN LUST R8:** Leaking Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal leaking storage tank lists  
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015

Source: EPA Region 8

Number of Days to Update: 118

Telephone: 303-312-6271

Last EDR Contact :10/28/2016

**INDIAN LUST R9:** Leaking Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal leaking storage tank lists  
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/25/2016

Source: Environmental Protection Agency

Number of Days to Update: 37

Telephone: 415-972-3372

Last EDR Contact :10/28/2016

**INDIAN ODI:** Report on the Status of Open Dumps on Indian Lands

Standard Environmental Record Source: Other Standard Environmental Records  
Search Distance: 0.333 Mile

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998

Source: Environmental Protection Agency

Number of Days to Update: 52

Telephone: 703-308-8245

Last EDR Contact :10/31/2016

**INDIAN UST R1:** Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists  
Search Distance: Property

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015

Source: EPA, Region 1

Number of Days to Update: 67

Telephone: 617-918-1313

Last EDR Contact :10/28/2016

## RECORD SOURCES AND CURRENCY

### **INDIAN UST R10:** Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 01/07/2016

Source: EPA Region 10

Number of Days to Update: 41

Telephone: 206-553-2857

Last EDR Contact :10/28/2016

### **INDIAN UST R4:** Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/05/2016

Source: EPA Region 4

Number of Days to Update: 35

Telephone: 404-562-9424

Last EDR Contact :10/28/2016

### **INDIAN UST R5:** Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2015

Source: EPA Region 5

Number of Days to Update: 52

Telephone: 312-886-6136

Last EDR Contact :10/28/2016

### **INDIAN UST R6:** Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 12/03/2015

Source: EPA Region 6

Number of Days to Update: 120

Telephone: 214-665-7591

Last EDR Contact :10/28/2016

### **INDIAN UST R7:** Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014

Source: EPA Region 7

Number of Days to Update: 65

Telephone: 913-551-7003

Last EDR Contact :10/28/2016

### **INDIAN UST R8:** Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 01/26/2016

Source: EPA Region 8

Number of Days to Update: 119

Telephone: 303-312-6137

Last EDR Contact :10/28/2016

### **INDIAN UST R9:** Underground Storage Tanks on Indian Land

## RECORD SOURCES AND CURRENCY

Standard Environmental Record Source: State and tribal registered storage tank lists

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/25/2016

Source: EPA Region 9

Number of Days to Update: 37

Telephone: 415-972-3368

Last EDR Contact :10/28/2016

### **INDIAN VCP R1:** Voluntary Cleanup Priority Listing

Standard Environmental Record Source: State and tribal voluntary cleanup sites

Search Distance: Property

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015

Source: EPA, Region 1

Number of Days to Update: 142

Telephone: 617-918-1102

Last EDR Contact :09/26/2016

### **INDIAN VCP R7:** Voluntary Cleanup Priority Listing

Standard Environmental Record Source: State and tribal voluntary cleanup sites

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008

Source: EPA, Region 7

Number of Days to Update: 27

Telephone: 913-551-7365

Last EDR Contact :04/20/2009

### **LEAD SMELTER 1:** Lead Smelter Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of former lead smelter site locations.

Date of Government Version: 03/07/2016

Source: Environmental Protection Agency

Number of Days to Update: 148

Telephone: 703-603-8787

Last EDR Contact :10/20/2016

### **LEAD SMELTER 2:** Lead Smelter Sites

Standard Environmental Record Source: Other Standard Environmental Records

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001

Source: American Journal of Public Health

Number of Days to Update: 36

Telephone: 703-305-6451

Last EDR Contact :12/02/2009

### **LIENS 2:** CERCLA Lien Information

Standard Environmental Record Source: Federal CERCLIS

Search Distance: Property

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014

Source: Environmental Protection Agency

Number of Days to Update: 37

Telephone: 202-564-6023

## RECORD SOURCES AND CURRENCY

Last EDR Contact :10/28/2016

### **LUCIS:** Land Use Control Information System

Standard Environmental Record Source: Federal institutional controls / engineering controls registries

Search Distance: 0.333 Mile

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015

Source: Department of the Navy

Number of Days to Update: 13

Telephone: 843-820-7326

Last EDR Contact :11/18/2016

### **MLTS:** Material Licensing Tracking System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016

Source: Nuclear Regulatory Commission

Number of Days to Update: 43

Telephone: 301-415-7169

Last EDR Contact :11/07/2016

### **NPL:** National Priority List

Standard Environmental Record Source: Federal NPL

Search Distance: 0.333 Mile

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/07/2016

Source: EPA

Number of Days to Update: 10

Telephone: Not Reported

Last EDR Contact :10/05/2016

### **NPL Site Boundaries**

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-566-0690

EPA Region 1  
Telephone: 617-918-1102

EPA Region 2  
Telephone: 212-637-4293

EPA Region 3  
Telephone: 215-814-5418

EPA Region 4  
Telephone: 404-562-8681

EPA Region 5  
Telephone: 312-353-1063

EPA Region 6  
Telephone: 214-655-6659

EPA Region 7  
Telephone: 913-551-7247

## RECORD SOURCES AND CURRENCY

EPA Region 8  
Telephone: 303-312-6118

EPA Region 9  
Telephone: 415-947-4579

EPA Region 10  
Telephone: 206-553-4479

### **NPL LIENS:** Federal Superfund Liens

Standard Environmental Record Source: Federal NPL

Search Distance: Property

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991

Source: EPA

Number of Days to Update: 56

Telephone: 202-564-4267

Last EDR Contact :08/15/2011

### **ODI:** Open Dump Inventory

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985

Source: Environmental Protection Agency

Number of Days to Update: 39

Telephone: 800-424-9346

Last EDR Contact :06/09/2004

### **PADS:** PCB Activity Database System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2016

Source: EPA

Number of Days to Update: 127

Telephone: 202-566-0500

Last EDR Contact :10/14/2016

### **PCB TRANSFORMER:** PCB Transformer Registration Database

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011

Source: Environmental Protection Agency

Number of Days to Update: 83

Telephone: 202-566-0517

Last EDR Contact :10/28/2016

### **Proposed NPL:** Proposed National Priority List Sites

Standard Environmental Record Source: Federal NPL

Search Distance: 0.333 Mile

## RECORD SOURCES AND CURRENCY

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/07/2016

Source: EPA

Number of Days to Update: 10

Telephone: Not Reported

Last EDR Contact :10/05/2016

### **RAATS:** RCRA Administrative Action Tracking System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995

Source: EPA

Number of Days to Update: 35

Telephone: 202-564-4104

Last EDR Contact :06/02/2008

### **RADINFO:** Radiation Information Database

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/03/2016

Source: Environmental Protection Agency

Number of Days to Update: 16

Telephone: 202-343-9775

Last EDR Contact :10/05/2016

### **RCRA NonGen / NLR:** RCRA - Non Generators / No Longer Regulated

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/21/2016

Source: Environmental Protection Agency

Number of Days to Update: 64

Telephone: 703-308-8895

Last EDR Contact :09/28/2016

### **RCRA-CESQG:** RCRA - Conditionally Exempt Small Quantity Generators

Standard Environmental Record Source: Federal RCRA generators list

Search Distance: Property

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/21/2016

Source: Environmental Protection Agency

Number of Days to Update: 64

Telephone: 703-308-8895

Last EDR Contact :09/28/2016

## RECORD SOURCES AND CURRENCY

### **RCRA-LQG:** RCRA - Large Quantity Generators

Standard Environmental Record Source: Federal RCRA generators list

Search Distance: Property

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/21/2016

Source: Environmental Protection Agency

Number of Days to Update: 64

Telephone: 703-308-8895

Last EDR Contact :09/28/2016

### **RCRA-SQG:** RCRA - Small Quantity Generators

Standard Environmental Record Source: Federal RCRA generators list

Search Distance: Property

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/21/2016

Source: Environmental Protection Agency

Number of Days to Update: 64

Telephone: 703-308-8895

Last EDR Contact :09/28/2016

### **RCRA-TSDF:** RCRA - Treatment, Storage and Disposal

Standard Environmental Record Source: Federal RCRA TSD facilities list

Search Distance: 0.333 Mile

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/21/2016

Source: Environmental Protection Agency

Number of Days to Update: 64

Telephone: 703-308-8895

Last EDR Contact :09/28/2016

### **ROD:** Records Of Decision

Standard Environmental Record Source: Federal NPL

Search Distance: 0.333 Mile

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013

Source: EPA

Number of Days to Update: 74

Telephone: 703-416-0223

Last EDR Contact :09/09/2016

### **SCRD DRYCLEANERS:** State Coalition for Remediation of Drycleaners Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

## RECORD SOURCES AND CURRENCY

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011

Source: Environmental Protection Agency

Number of Days to Update: 54

Telephone: 615-532-8599

Last EDR Contact :11/17/2016

### **SEMS:** Superfund Enterprise Management System

Standard Environmental Record Source: Federal CERCLIS

Search Distance: 0.333 Mile

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 03/07/2016

Source: EPA

Number of Days to Update: 10

Telephone: 800-424-9346

Last EDR Contact :10/20/2016

### **SEMS-ARCHIVE:** Superfund Enterprise Management System Archive

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 03/07/2016

Source: EPA

Number of Days to Update: 10

Telephone: 800-424-9346

Last EDR Contact :10/20/2016

### **SSTS:** Section 7 Tracking Systems

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009

Source: EPA

Number of Days to Update: 77

Telephone: 202-564-4203

Last EDR Contact :10/24/2016

### **TRIS:** Toxic Chemical Release Inventory System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

## RECORD SOURCES AND CURRENCY

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014

Source: EPA

Number of Days to Update: 133

Telephone: 202-566-0250

Last EDR Contact :11/22/2016

### **TSCA:** Toxic Substances Control Act

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012

Source: EPA

Number of Days to Update: 14

Telephone: 202-260-5521

Last EDR Contact :09/23/2016

### **UMTRA:** Uranium Mill Tailings Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010

Source: Department of Energy

Number of Days to Update: 146

Telephone: 505-845-0011

Last EDR Contact :09/09/2016

### **US AIRS (AFS):** Aerometric Information Retrieval System Facility Subsystem (AFS)

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 06/30/2016

Source: EPA

Number of Days to Update: 88

Telephone: 202-564-2496

Last EDR Contact :09/26/2016

### **US AIRS MINOR:** Air Facility System Data

Standard Environmental Record Source: Other Standard Environmental Records

A listing of minor source facilities.

Date of Government Version: 06/30/2016

Source: EPA

Number of Days to Update: 88

Telephone: 202-564-2496

Last EDR Contact :09/26/2016

### **US BROWNFIELDS:** A Listing of Brownfields Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

## RECORD SOURCES AND CURRENCY

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/20/2016

Source: Environmental Protection Agency

Number of Days to Update: 51

Telephone: 202-566-2777

Last EDR Contact :09/21/2016

### **US CDL:** Clandestine Drug Labs

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/30/2016

Source: Drug Enforcement Administration

Number of Days to Update: 17

Telephone: 202-307-1000

Last EDR Contact :11/29/2016

### **US ENG CONTROLS:** Engineering Controls Sites List

Standard Environmental Record Source: Federal institutional controls / engineering controls registries

Search Distance: Property

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 05/09/2016

Source: Environmental Protection Agency

Number of Days to Update: 93

Telephone: 703-603-0695

Last EDR Contact :11/29/2016

### **US FIN ASSUR:** Financial Assurance Information

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 07/12/2016

Source: Environmental Protection Agency

Number of Days to Update: 65

Telephone: 202-566-1917

Last EDR Contact :11/16/2016

### **US HIST CDL:** National Clandestine Laboratory Register

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 08/31/2016

Source: Drug Enforcement Administration

Number of Days to Update: 17

Telephone: 202-307-1000

Last EDR Contact :08/31/2016

## RECORD SOURCES AND CURRENCY

### **US INST CONTROL:** Sites with Institutional Controls

Standard Environmental Record Source: Federal institutional controls / engineering controls registries

Search Distance: Property

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 05/09/2016

Source: Environmental Protection Agency

Number of Days to Update: 93

Telephone: 703-603-0695

Last EDR Contact :11/29/2016

### **US MINES:** Mines Master Index File

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/05/2016

Source: Department of Labor, Mine Safety and Health Administration

Number of Days to Update: 22

Telephone: 303-231-5959

Last EDR Contact :12/01/2016

### **US MINES 2:** Ferrous and Nonferrous Metal Mines Database Listing

Standard Environmental Record Source: Other Standard Environmental Records

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005

Source: USGS

Number of Days to Update: 49

Telephone: 703-648-7709

Last EDR Contact :11/29/2016

### **US MINES 3:** Active Mines & Mineral Plants Database Listing

Standard Environmental Record Source: Other Standard Environmental Records

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011

Source: USGS

Number of Days to Update: 97

Telephone: 703-648-7709

Last EDR Contact :09/02/2016

### **DOD:** Department of Defense Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005

Source: USGS

Number of Days to Update: 62

Telephone: 888-275-8747

Last EDR Contact :10/14/2016

### **INDIAN RESERV:** Indian Reservations

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

## RECORD SOURCES AND CURRENCY

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005

Source: USGS

Number of Days to Update: 34

Telephone: 202-208-3710

Last EDR Contact :10/14/2016

### **PWS:** Public Water System Data

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

This Safe Drinking Water Information System (SDWIS) file contains public water systems name and address, population served and the primary source of water

Date of Government Version: 12/17/2013

Source: EPA

Number of Days to Update: 279

Telephone: Not Reported

Last EDR Contact :11/28/2016

# RECORD SOURCES AND CURRENCY

## HISTORICAL USE RECORDS

### **RGA HWS:** Recovered Government Archive State Hazardous Waste Facilities List

Standard Environmental Record Source: Exclusive Recovered Govt. Archives  
Search Distance: Property

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Protection in Massachusetts.

Date of Government Version: Not Reported                      Source: Department of Environmental Protection  
Number of Days to Update: 176                                      Telephone: Not Reported  
Last EDR Contact :06/01/2012

### **RGA LUST:** Recovered Government Archive Leaking Underground Storage Tank

Standard Environmental Record Source: Exclusive Recovered Govt. Archives  
Search Distance: Property

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Protection in Massachusetts.

Date of Government Version: Not Reported                      Source: Department of Environmental Protection  
Number of Days to Update: 176                                      Telephone: Not Reported  
Last EDR Contact :06/01/2012

### **EDR Hist Auto:** EDR Exclusive Historic Gas Stations

Standard Environmental Record Source: Historical Gas Stations  
Search Distance: 0.125 Mile

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: 02/20/2007                      Source: EDR, Inc.  
Number of Days to Update: 42                                      Telephone: Not Reported  
Last EDR Contact :02/21/2007

### **EDR Hist Cleaner:** EDR Exclusive Historic Dry Cleaners

Standard Environmental Record Source: Historical Dry Cleaners  
Search Distance: 0.125 Mile

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: 02/20/2007                      Source: EDR, Inc.  
Number of Days to Update: 42                                      Telephone: Not Reported  
Last EDR Contact :02/21/2007

### **EDR MGP:** EDR Proprietary Manufactured Gas Plants

Standard Environmental Record Source: Former manufactured Gas Plants  
Search Distance: 0.333 Mile

## RECORD SOURCES AND CURRENCY

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: 08/28/2009

Source: EDR, Inc.

Number of Days to Update: 55

Telephone: Not Reported

Last EDR Contact :11/30/2012

# RECORD SOURCES AND CURRENCY

## TOPOGRAPHIC INFORMATION

### **USGS 7.5' Digital Elevation Model (DEM)**

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5' minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

## HYDROLOGIC INFORMATION

**Flood Zone Data:** This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

## HYDROGEOLOGIC INFORMATION

### **AQUIFLOW® Information System**

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW® Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### **STATSGO: State Soil Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Services. The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

### **SSURGO: Soil Survey Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

## STREET AND ADDRESS INFORMATION

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#### 4.4 Asbestos Survey Report

February 17, 2017

EndPoint Project 2475-001

Philip Gray  
Jonathan Levi Architects  
266 Beacon Street  
Boston, MA 02116  
[pgray@leviarc.com](mailto:pgray@leviarc.com)

VIA EMAIL

**Re:** Asbestos Survey – Visual Only  
Baldwin School and Soule Recreation Center  
484/490 Heath St., 654 Hammond St., and 650 Hammond St.  
Brookline, Massachusetts

Dear Mr. Gray,

EndPoint, LLC (EndPoint) has prepared this report documenting our visual inspection services for asbestos containing building media at the Baldwin School building, Soule Environmental Education building, and the Soule Gymnasium, located at 484/490 Heath Street, 654 Hammond Street, and 652 Hammond Street, respectively, in the Chestnut Hill neighborhood of Brookline, MA (the Subject Property). This work was conducted based on our proposal and your authorization to proceed (via email). The asbestos survey was conducted to identify if suspected asbestos containing materials (ACMs) were present in the Subject Property's Baldwin School building, Soule Environmental Education building, and the Soule Gymnasium. Any suspect ACMs would be treated as if they were asbestos-containing and would require abatement activities prior to or management of planned renovations at the above-mentioned Subject Property, in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAPs) Regulations.

#### ASBESTOS SURVEY

On December 27, 2016 Ms. Katie Snyder and Ms. Sara Knowles of EndPoint, Asbestos Hazard Emergency Response Act (AHERA) accredited and Massachusetts certified Asbestos Inspectors (AI900553 and AI900693, respectively), were on site to conduct a survey of the Subject Property. Based on our correspondence with you and an understanding that the buildings are still in use, bulk samples of building materials suspected of containing asbestos were not collected from any of the three buildings, in order to preserve the integrity and aesthetic appeal of the properties. A visual inspection of each of the three buildings was conducted. Because samples were not collected, building materials that would typically be sampled due to them possibly containing asbestos were deemed suspect asbestos-containing building

---

**New Hampshire Office**  
25 Buttrick Road, Unit D-2  
Londonderry, NH 03053  
P:603-965-3810  
F:603-965-3827

**Boston Office**  
101 Summer Street  
Boston, MA 02110  
P:617-307-5058  
F:617-439-0325

**Marlborough Office**  
225 Cedar Hill Street, Suite 200  
Marlborough, MA 01752  
P: 508-630-2231  
F: 508-630-2101

materials (ACBM). It should be noted that all suspect ACBM observed in each of the three buildings were noted to be intact and well maintained.

An ACBM is defined in Massachusetts as any building material within a school building that contains asbestos at a concentration greater than or equal to 1% by weight. As discussed above, because bulk samples of building materials were not collected, and therefore not analyzed, these materials are considered “Suspect” ACBMs until bulk samples are collected and analyzed, and based on the analyses, the materials are determined to not contain asbestos.

### Baldwin School

Based on historical asbestos inspections conducted at the Baldwin School, it was determined that wall and ceiling plaster at the property is already known to likely contain asbestos. This material was observed in each of the classrooms, offices, bathrooms, storage rooms and hallways. Please refer to the attached photographic log for selected pictures of locations throughout the properties where known and suspected ACBMs were identified.

Building materials that are considered to be suspect ACBM are identified below:

#### Exterior:

- Roofing materials on building (adhesive on clay shingles, asphalt shingles, tar, sublayers, etc.). – Approximately 7,000 square feet (SF).
- Roofing materials on detached sheds (asphalt shingles, tar, sublayers, etc.). – Approximately 100 square feet (SF)
- Window caulking and glazing – Approximately 80 windows (and door windows) of various shapes and sizes.

#### Interior:

- Ceiling and wall plaster was observed throughout the property, on each floor. Plastered walls and ceilings were observed to be intact and well maintained, and in some areas, labeled as ACBM (see photograph). – Approximately 12,100 SF.
- White ½” floor tiles were observed in the bathrooms on the 1<sup>st</sup> floor. The associated mastic and grout are also suspected ACBM. Floor tiles were observed to be intact, and no visible mastic was noted. – Approximately 300 SF.
- White 4” wall tiles were observed in the bathrooms and water-fountain areas on the 1<sup>st</sup> floor. The associated mastic and grout are also suspected ACBM. Wall tiles were observed to be intact, and no visible mastic was noted. – Approximately 750 SF.

- Tan 9"x9" floor tiles were observed in the 1<sup>st</sup> Floor Kitchen and underneath the carpet in the Classroom/Lunchroom and Lounge. The associated mastic is also suspected ACM. Tiles were observed to be intact, and no visible mastic was noted. – Approximately 1,400 SF.
- Beige 12"x12" floor tiles were observed in the 1<sup>st</sup> Floor Classroom/Lunchroom and Classroom/Library. The associated mastic is also suspected ACM. Tiles were observed to be intact, and no visible mastic was noted. – Approximately 1,000 SF.
- Red/Brown 4"x4" floor tiles were observed in the 1<sup>st</sup> floor entryways to the building (front and side). The associated grout and mastic are also suspected ACM. Tiles were observed to be intact, and no visible mastic was noted. – Approximately 75 SF.
- Blue and Green carpeting was observed in the 1<sup>st</sup> floor Classrooms, Offices, and Hallway. The associated mastic is also suspected ACM. Carpet was observed to be intact, and no visible mastic was noted. – Approximately 2,000 SF.
- White wainscoting was observed in the 1<sup>st</sup> floor bathroom. The wood wainscoting is not a suspect ACM; however, the associated mastic is. Wainscoting was observed to be intact, and no visible mastic was noted. – Approximately 150 SF.
- Tan Flooring (linoleum or sealed tiles) was observed in Basement Classrooms, Classroom/Nap Room, Bathroom, and Hallway. The associated mastic is also suspected ACM. The flooring was observed to be intact, and no visible mastic was noted. – Approximately 1,600 SF.
- Blue carpeting was observed in the Basement Activity Room, Office, Classrooms, and Hallway. The associated mastic is also suspected ACM. Carpet was observed to be intact, and no visible mastic was noted. – Approximately 1,800 SF.
- Blue- and white-painted 12"x12" acoustical ceiling tiles were observed in the Basement Activity Room. The tiles are reportedly cemented to the ceiling; therefore, the adhesive/cement is also suspected ACM. The ceiling tiles were observed to be intact, and no visible adhesive/cement was noted.
- Fire Doors were observed in the boiler room of the building, at the entrances to each of the surrounding rooms. Fire doors were labeled as being ACM (see photographs) – Approximately two 10'x3' doors, one 15'x6' door, and one 2'x3' door.
- Pipe Fitting Insulation (joints and elbows) on fiberglass-insulated pipes was observed in the attic and boiler room. This material is also assumed to be located behind walls and above ceilings. The fittings that were able to be observed were noted to be intact. – Approximately 200 LF.

The aforementioned Suspect ACMs were observed to be in good condition (intact), except where noted above. The Suspect ACMs will need to be removed as part of future asbestos abatement activities prior to any renovation or demolition projects affecting said materials; unless bulk samples are collected and analyzed, and based on the analysis, the materials are determined to not contain asbestos.

Soule Environmental Education Center

Building materials that are considered to be suspect ACBM are identified below:

Exterior:

- Roofing materials on building and detached sheds (asphalt shingles, rolled roofing, tar, sublayers, etc.). – Approximately 1,300 SF.
- Roofing materials on detached sheds (asphalt shingles, rolled roofing, tar, sublayers, etc.). – Approximately 25 SF.
- Stucco/Cementitious Siding was observed on the exterior of the building and intact. – Approximately 450 SF.

Interior:

- Tan 12”x12” floor tiles were observed in RM1. The associated mastic is suspected ACBM. Floor tiles were observed to be intact, and no visible mastic was noted. – Approximately 400 SF.
- Tan cove base was observed in RM1, RM2, RM3, and the Hall. The associated mastic is also suspected ACBM. Cove base was observed to be intact, and no visible mastic was noted. – Approximately 60 SF.
- Light green wallboard and joint compound was observed in RM1, RM2, RM3, and the Hall. Walls were observed to be intact. – Approximately 1,700 SF.
- White wallboard and joint compound was observed on the ceilings in RM1, RM2, RM3, and the Hall. Ceilings were observed to be intact. – Approximately 700 SF.
- White textured insulation on underside of laboratory sink was observed in RM1. The sink and the textured insulation were observed to be intact. – Approximately 2 SF.
- Black laboratory countertop was observed in RM1. The associated mastic is also suspected ACBM. The countertop was observed to be intact, and no visible mastic was noted. – Approximately 10 SF.
- Tan Flooring (linoleum) was observed in RM1 and RM2. The associated mastic is also suspected ACBM. The flooring was observed to be intact, and no visible mastic was noted. – Approximately 210 SF.
- Red carpeting was observed in the Hall. The associated mastic is also suspected ACBM. Carpet was observed to be intact, and no visible mastic was noted. – Approximately 80 SF.

The aforementioned Suspect ACMs were observed to be in good condition (intact), except where noted above. The Suspect ACMs will need to be removed as part of future asbestos abatement activities prior to any renovation or demolition projects affecting said materials; unless bulk samples are collected and analyzed, and based on the analysis, the materials are determined to not contain asbestos.

Soule Gymnasium

Building materials that are considered to be suspect ACBM are identified below:

Exterior:

- Roofing materials on building (asphalt shingles, tar, sublayers, etc.). – Approximately 4,600 SF.
- Roofing materials on detached sheds (asphalt shingles, tar, sublayers, etc.). – Approximately 75 SF.

Interior:

- Loose acoustical ceiling panels (2 boxes of 10 panels each) were observed to be stored in RM1. Packages of ceiling tiles were observed to be intact. – Approximately 160 SF.
- Blue wall tile was observed in RM2. The associated grout and mastic are also suspected ACBM. Wall tiles were observed to be intact, and no visible mastic was noted. – Approximately 210 SF.
- Black floor tile was observed in RM2. The associated grout and mastic are also suspected ACBM. Floor tiles were observed to be intact, and no visible mastic was noted. – Approximately 80 SF.
- Black slip-resistant flooring was observed in RM4 and RM6. The associated mastic is also suspected ACBM. The flooring was observed to be intact, and no visible mastic was noted. – Approximately 200 SF.
- White ceiling board was observed at the basement exits, RM 4 and RM6. The ceiling board was observed to be intact. – Approximately 210 SF.
- Black cove base was observed in RM5. The associated mastic is also suspected ACBM. Cove base was observed to be intact, and no visible mastic was noted. – Approximately 75 SF.
- White 2'x4' acoustical ceiling panels were observed in RM5. The ceiling panels were observed to be intact. – Approximately 3,300 SF.
- Pipe Fitting Insulation (joints and elbows) on fiberglass-insulated pipes was observed in the attic and basement. This material is also assumed to be located behind walls and above ceilings. The fittings that were able to be observed were noted to be intact. – Approximately 175 LF.

The aforementioned Suspect ACMs were observed to be in good condition (intact), except where noted above. The Suspect ACMs will need to be removed as part of future asbestos abatement activities prior to any renovation or demolition projects affecting said materials; unless bulk samples are collected and analyzed, and based on the analysis, the materials are determined to not contain asbestos.

### POLYCHLORINATED BIPHENYLS

On December 27, 2016 Ms. Snyder and Ms. Knowles also visually inspected the Subject Property for building materials that could contain polychlorinated biphenyls (PCBs). As was the case with suspect ACM, samples of the suspected PCB-containing materials were also not collected in order to maintain the integrity and aesthetic appeal of the buildings.

Building materials that are suspected of being PCB-containing are as follows:

#### Baldwin School

- Window/Door caulking and glazing – Approximately 80 windows (and door windows) of various shapes and sizes.

#### Soule Environmental Science Center

- Window/Door caulking and glazing – Approximately 15 windows (and door windows) of various shapes and sizes.

#### Soule Gymnasium

- Window/Door caulking and glazing – Approximately 28 windows (and door windows) of various shapes and sizes.
- Grout compound at wall intersections (observed in basement stairwell) – Approximately 10 LF.

### CONCLUSIONS AND RECOMMENDATIONS

The aforementioned Suspect ACMs were observed to be in good condition (intact). The Suspect ACMs will need to be removed as part of future asbestos abatement activities prior to any renovation or demolition projects that would disturb those materials; unless bulk samples are collected and analyzed, and based on the analyses the materials are determined to not contain asbestos. EndPoint conducted this asbestos survey using visual observations only; therefore, this asbestos survey does not meet the NESHAPs Regulation for obtaining a building permit to renovate or demolish the portions of the building described within this report. As previously mentioned, should renovations or demolition be required in any of the aforementioned areas, a thorough asbestos survey including bulk sample collection and analysis would be required to determine if the suspect ACBMs do not contain asbestos. Note that there is a 10-day permit process to obtain an asbestos abatement permit.

The suspected PCB-containing materials, including the window/door glazing and caulking, and any brick or cement joint caulking/grout would need to be sampled and analyzed in order to determine if the materials do not contain PCBs, prior to any renovation or demolition.

EndPoint Project 2475-001  
Asbestos Survey Report  
Baldwin School and Soule Recreation Center  
Brookline, MA  
February 17, 2017  
Page 7 of 7



We appreciate the opportunity to assist you in this matter. Please call us if you have any questions regarding this report or any other matter at (603) 965-3810.

Sincerely,  
**EndPoint, LLC**

Katie Snyder  
Asbestos Inspector (AI900553)

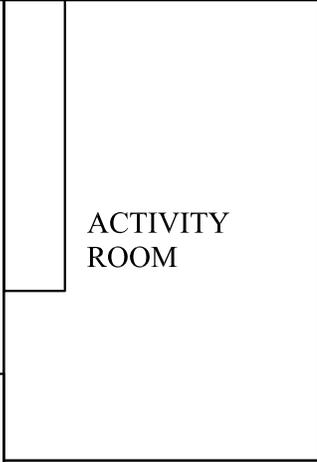
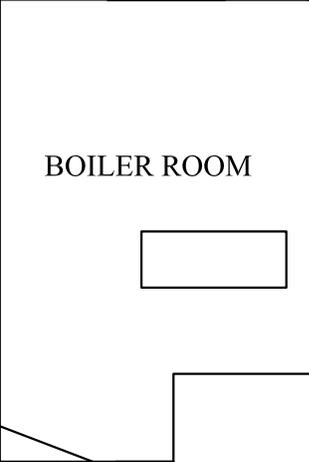
Richard J. Wozmak, P.E., P.H., LSP, LEP  
Principal

Attachments: Floor Plan Figures  
Photographic Log

\\SERVER\Business\EndPoint Projects\2475-001 Levi Brookline\Brookline Baldwin AHERA\Asbestos Survey Report (02-17-17).docx



ELECTRICAL ROOM

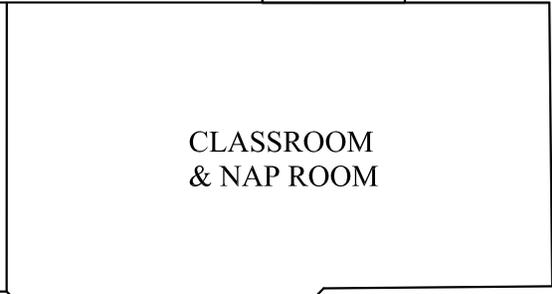
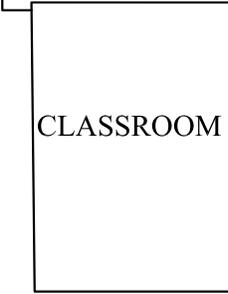


ART CLOSET



BATHROOM

STAIRS



Legend



CLIENT:  
Jonathan Levi Architects

25 Buttrick Road, Unit D2  
Londonderry, NH 03053

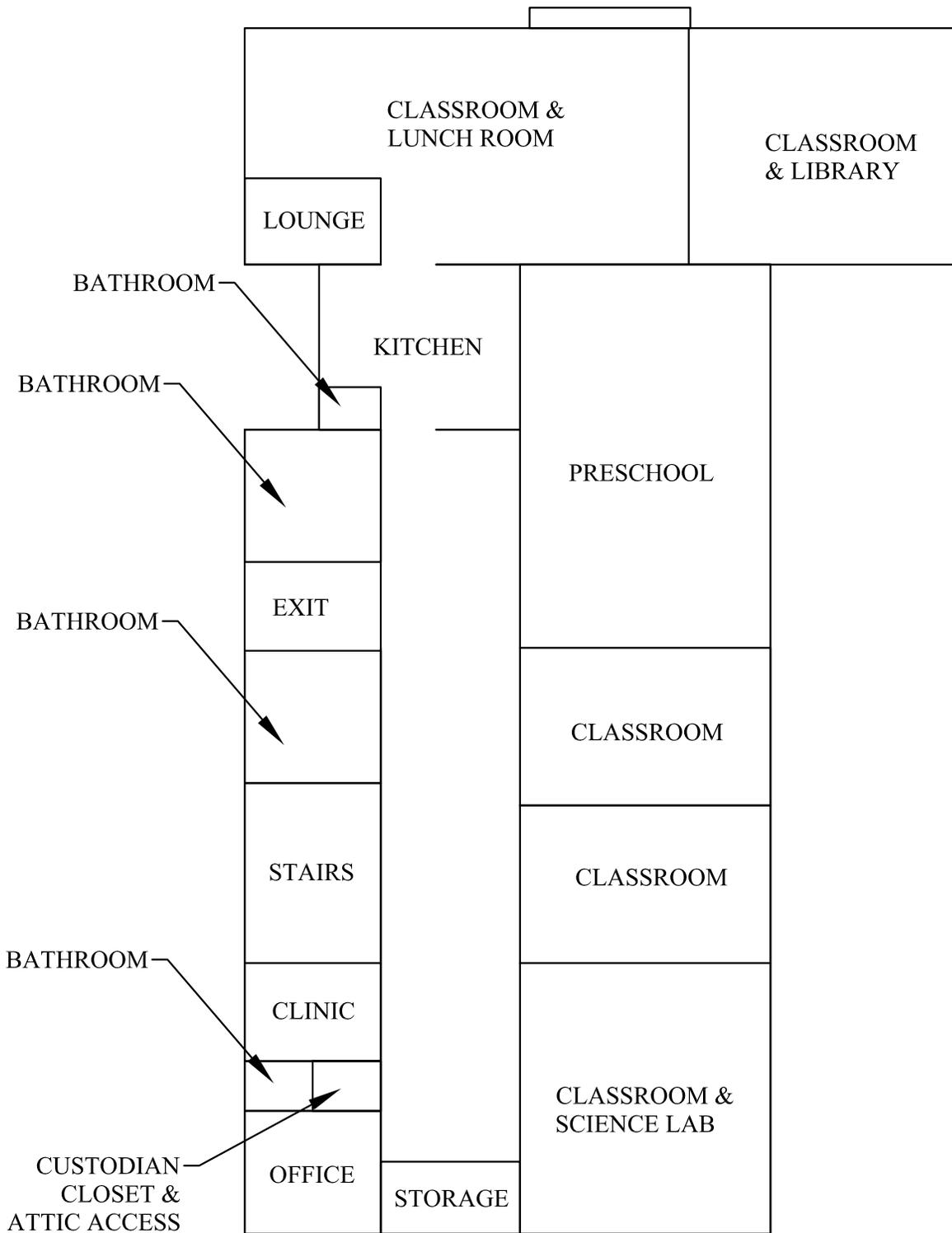
PROJECT:  
Baldwin School &  
Soule Recreation Center

TITLE: **Baldwin School Floor Plan - Basement**

DESIGNED: KLS	DRAWN: KLS	CHECKED: KLS	APPROVED: RJW	FIGURE NO.:
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SCALE: Not to Scale	DATE: 12/28/2016	FILE NO.:	PROJECT NO.:	<b>1</b>
		Figure	2475-001	

Note: Site features are approximate and for illustrative purposes only.



Legend



CLIENT:  
Jonathan Levi Architects

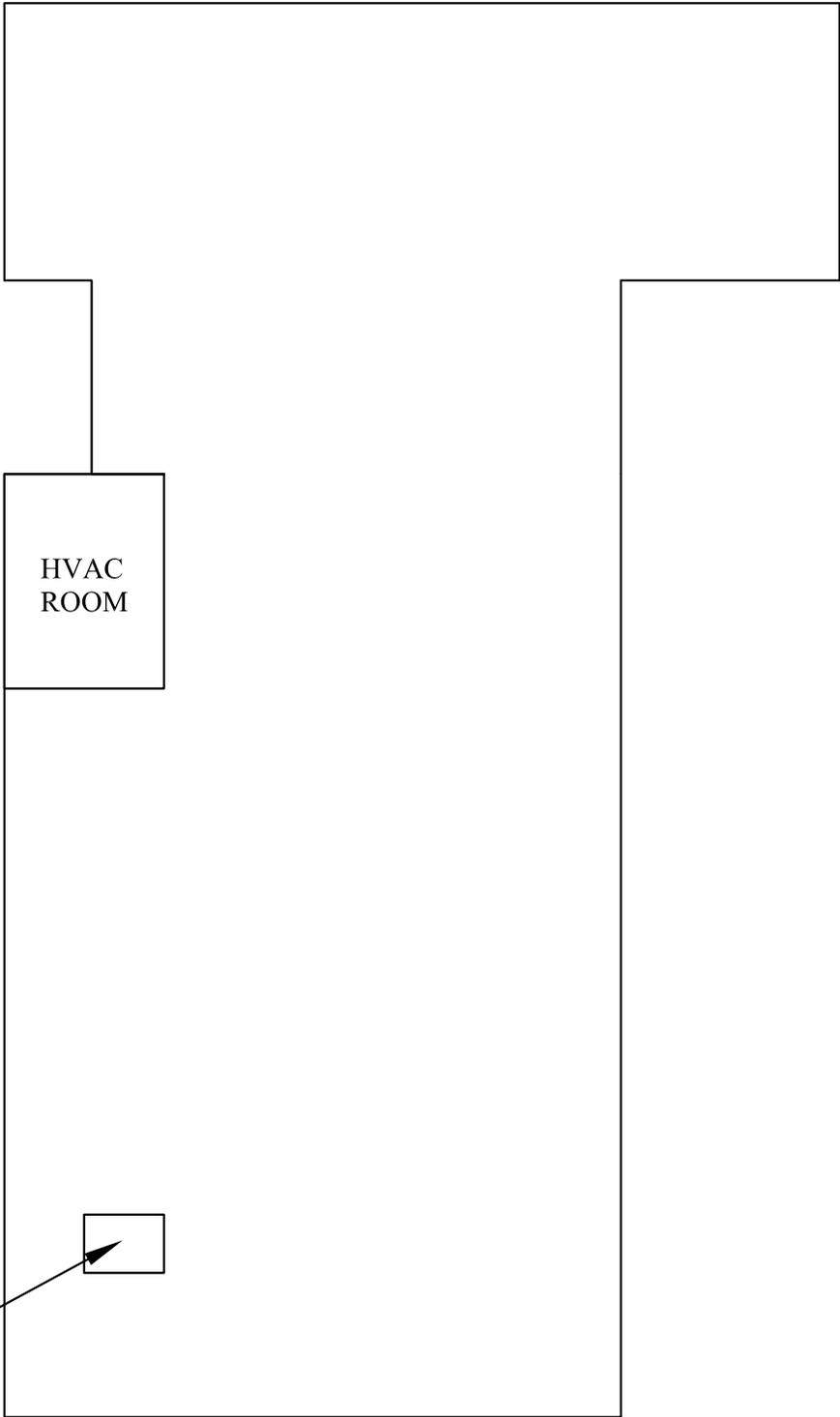
25 Buttrick Road, Unit D2  
Londonderry, NH 03053

PROJECT:  
Baldwin School &  
Soule Recreation Center

TITLE: Baldwin School Floor Plan - First Floor

DESIGNED: KLS	DRAWN: KLS	CHECKED: KLS	APPROVED: RJW	FIGURE NO.:  <b>2</b>
SCALE: Not to Scale	DATE: 12/28/2016	FILE NO.: Figure	PROJECT NO.: 2475-001	

Note: Site features are approximate and for illustrative purposes only.



ACCESS TO  
CUSTODIAN  
CLOSET &  
1ST FLOOR

Legend

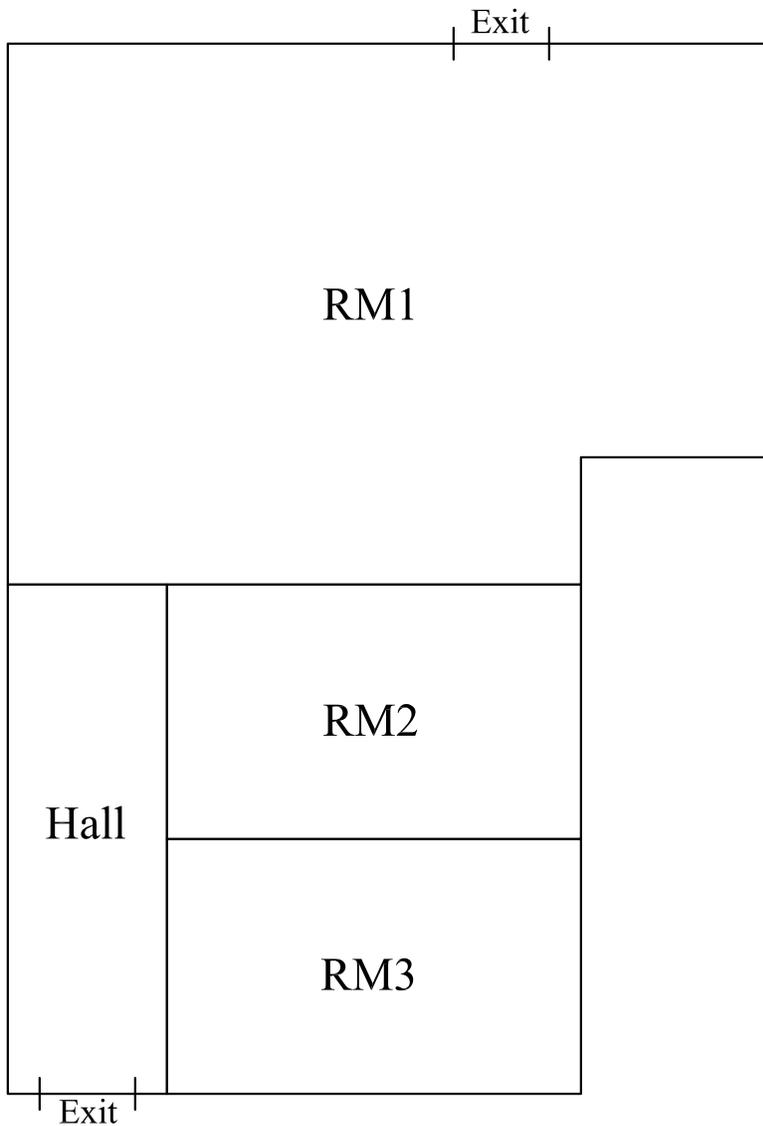
Note: Site features are approximate and for illustrative purposes only.

**EndPoint**  
ENGINEERS & ENVIRONMENTAL PROFESSIONALS  
25 Buttrick Road, Unit D2  
Londonderry, NH 03053

CLIENT:  
Jonathan Levi Architects  
PROJECT:  
Baldwin School &  
Soule Recreation Center

TITLE: Baldwin School Floor Plan - Attic

DESIGNED: KLS	DRAWN: KLS	CHECKED: KLS	APPROVED: RJW	FIGURE NO.: <b>3</b>
SCALE: Not to Scale	DATE: 12/28/2016	FILE NO.: Figure	PROJECT NO.: 2475-001	



Legend



CLIENT:  
Jonathan Levi Architects

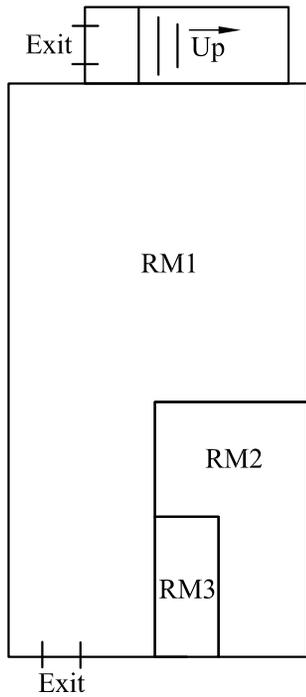
25 Buttrick Road, Unit D2  
 Londonderry, NH 03053

PROJECT:  
Baldwin School &  
Soule Recreation Center

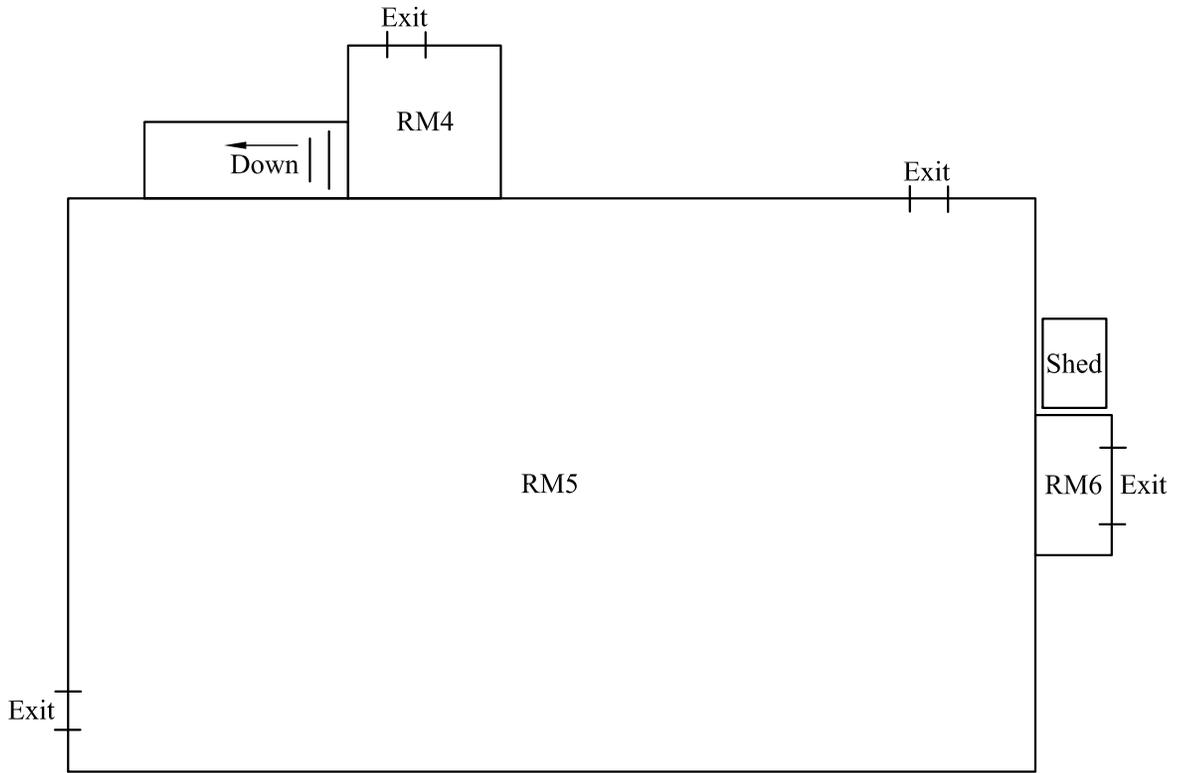
TITLE: Soule Environmental Education Center Floor Plan

DESIGNED: SLK	DRAWN: SLK	CHECKED: KLS	APPROVED: RJW	FIGURE NO.: <b>4</b>
SCALE: Not to Scale	DATE: 12/28/2016	FILE NO.: Figure	PROJECT NO.: 2475-001	

Note: Site features are approximate and for illustrative purposes only.



Basement



First Floor

Legend

 <b>EndPoint</b> <small>ENGINEERS &amp; ENVIRONMENTAL PROFESSIONALS</small>		CLIENT: Jonathan Levi Architects		
		PROJECT: Baldwin School & Soule Recreation Center		
25 Buttrick Road, Unit D2 Londonderry, NH 03053				
TITLE: Soule Gymnasium Floor Plan				
DESIGNED: SLK	DRAWN: SLK	CHECKED: KLS	APPROVED: RJW	FIGURE NO.:
SCALE: Not to Scale	DATE: 12/28/2016	FILE NO.:	PROJECT NO.:	5
		Figure	2475-001	

Note: Site features are approximate and for illustrative purposes only.



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – 484/490 Heath Street



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – Throughout (classrooms, bathrooms, office/storage, and hallways)  
Smooth Plaster on Ceilings and Walls



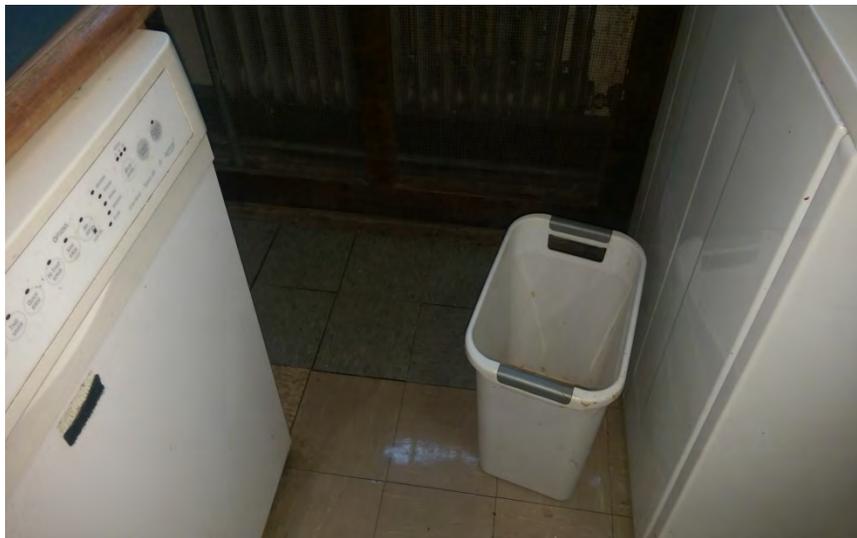
Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – Bathrooms on 1<sup>st</sup> Floor  
½” White Floor Tile w/ Grout & Mastic



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – Bathrooms and Water Fountain Areas on 1<sup>st</sup> Floor  
Wall Tile w/ Grout & Mastic



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – Kitchen, and under carpet in Classroom/Lunchroom, and Lounge  
Tan 9"x9" Floor Tiles w/ Mastic



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – Kitchen  
Green 9"x9" Floor Tiles w/ Mastic



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – Classroom/Lunchroom and Classroom/Library  
Beige 12"x12" Floor Tiles w/ Mastic



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – Front and Side Entrances  
Red/Brown 4"x4" Floor Tiles w/ Grout & Mastic



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – 1<sup>st</sup> Floor Hallway  
Blue Carpet w/ Mastic



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – 1<sup>st</sup> Floor Classrooms and Offices  
Green Carpet w/ Mastic



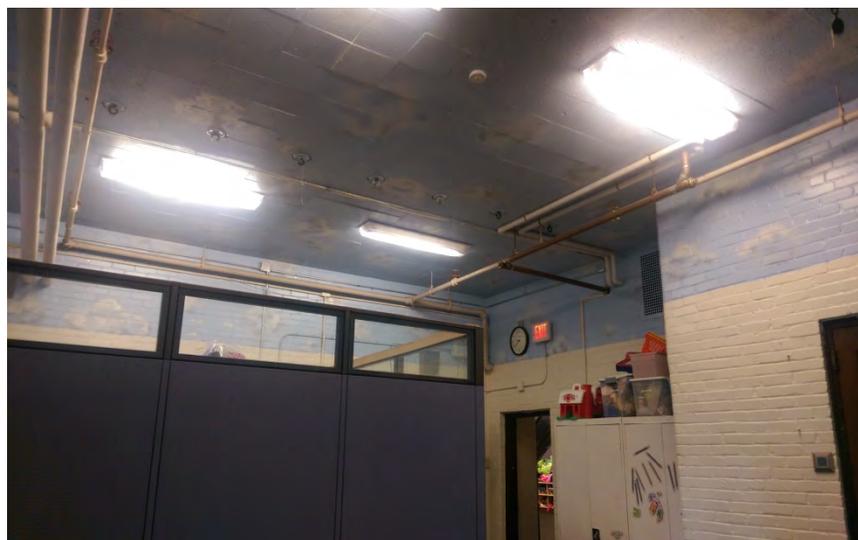
Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – 1<sup>st</sup> Floor Bathroom  
Wainscoting w/ Mastic on Plaster Walls



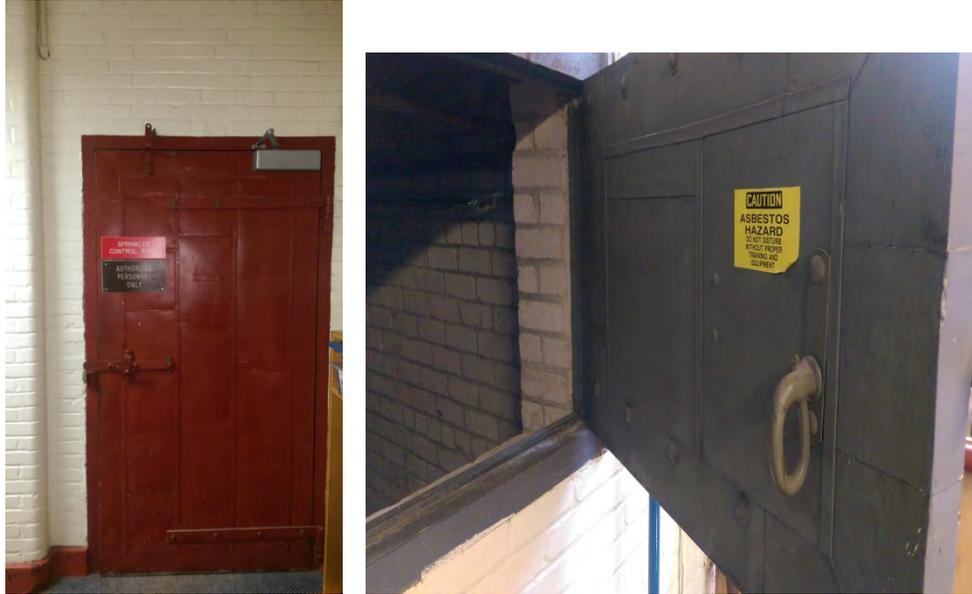
Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – Basement Classrooms, Nap Room, Bathroom, and Hallway  
Tan Flooring w/ Mastic



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – Basement Activity Room, Office, Classrooms, and Hallway  
Blue Carpet w/ Mastic



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – Basement Activity Room  
Textured/Cementitious 12"x12" Ceiling Tiles



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – Boiler Room  
Fire Safe Doors



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – Attic, Boiler Room, and behind Walls/Ceilings  
Pipe Fitting Insulation on Fiberglass-insulated Pipes (joints and elbows)



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – Exterior  
Window Glazing and Caulking (may also contain PCBs)



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – Exterior  
Roofing Material (Adhesive on Clay/Slate Shingles, Tar, Sublayers, etc.)



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – Exterior  
Roofing Materials (Shingles, Tar, Sublayers, etc.)



Baldwin School and Soule Recreation Center, Brookline, MA  
Baldwin School – Exterior Storage Sheds  
Roofing Material (Shingles, Tar, Sublayers, etc.)



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Environmental Education Center – 654 Hammond Street



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Environmental Education Center – RM1  
Tan Flooring and Wallboard & Joint Compound (on ceilings and walls)



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Environmental Education Center – RM1  
Tan Cove Base w/ Mastic, and Black Laboratory Counter Top



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Environmental Education Center – RM1  
White Textured Insulation on Underside of Sink.



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Environmental Education Center – RM2 (left) and RM3 (right)  
Tan Flooring w/ Mastic, Tan Cove Base w/ Mastic, and Light-green Wallboard and Joint Compound.



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Environmental Education Center – Storage Shed  
Roofing Materials (Rolled Roofing, Tar, Sublayers, etc.)



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Environmental Education Center – Exterior  
Roofing Material (Shingles, Tar, Sublayers, etc.)



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Environmental Education Center – Exterior  
Stucco/Cementitious Siding Material



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Gymnasium – 650 Hammond Street



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Gymnasium – Basement Stairwell  
Grout Compound at Wall Intersections (may also contain PCBs)



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Gymnasium – RM1 (Basement)  
Replacement Acoustical Ceiling Panels.



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Gymnasium – RM2 (Basement)  
Blue Wall Tile w/ Grout & Mastic and Black Floor Tile w/ Grout & Mastic



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Gymnasium – RM4  
Black Non-slip Flooring w/ Mastic



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Gymnasium – RM5  
Black Cove Base w/ Mastic and White 2' x4' Acoustical Ceiling Panels



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Gymnasium – Attic, behind Walls/Ceilings  
Pipe Fitting Insulation on Fiberglass-insulated Pipes (joints and elbows)



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Gymnasium – Exterior Storage Shed  
Roofing Materials



Baldwin School and Soule Recreation Center, Brookline, MA  
Soule Gymnasium – Exterior  
Roofing Materials (Shingles, Tar, Sublayers, etc.)





#### 4.5 Engineering Report



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## **Brookline 9th Elementary School**

Prepared For:

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Boston MA 02116

Prepared By:

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Submitted: March 22, 2017

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## INTRODUCTION & PROJECT DESCRIPTION

Howe Engineers has prepared this document for Jonathan Levi Architects for the Brookline 9<sup>th</sup> Elementary School. The project is in the pre-schematic phase and will entail the construction of a new school for Pre-Kindergarten to 9<sup>th</sup> grade with services for students with disabilities. The building will be four stories in height and approximately 142,000 sq. ft in gross area. This narrative addresses requirements contained in the 8th edition of the Massachusetts State Building Code (MSBC), which is an amended version of the 2009 International Building Code (IBC). The purpose of this narrative is to document and provide the code compliance strategy, including the framework for the fire protection and life safety concept, for the Brookline 9<sup>th</sup> Elementary School.

## APPLICABLE CODES AND REQUIREMENTS

The following codes are presently adopted in the State of Massachusetts:

- **Building Code**      Massachusetts State Building Code (MSBC), 9<sup>th</sup> Edition, which is an amended version of the 2015 International Building Code.
- **Electrical**      Massachusetts Electrical Code, 527-CMR, 12.00, which is an amended version of the 2014 National Electrical Code (NFPA 70).
- **Elevators**      Massachusetts Elevator Regulations, 524-CMR.
- **Fire Prevention**      Massachusetts Fire Prevention Regulations (MFPR), 527-CMR.
- **Mechanical**      International Mechanical Code, 2009, as adopted and amended by the MSBC (Chapter 28).
- **Plumbing**      Massachusetts Fuel Gas and Plumbing Codes, 248-CMR.
- **Accessibility**      Massachusetts Architectural Access Board (MAAB), 521-CMR  
ADA Accessibility Guidelines (ADAAG)
- **Other**      National Fire Protection Association (NFPA) Standards, as referenced by the MSBC and the MFPR.

## **OCCUPANCY CLASSIFICATION**

The primary occupancy classification for the building will be Group E, Educational. The Brookline 9<sup>th</sup> Elementary School will contain an auditorium, cafetorium, large gym and a public gym. Traditionally, these spaces are considered Group A assembly occupancies. The International Building Code (IBC) allows assembly occupancies which are ancillary and supportive to the education operation of the building to be considered a part of the Group E occupancy. However, often these school facilities are used for other functions such as a meeting of a community service organization or a community crafts fair. When these spaces are used in this manner, they must be classified as Group A Assembly spaces. The auditorium, cafeteria and gymnasium spaces at The Brookline 9<sup>th</sup> Elementary School will most likely be used by the public and must be classified as Group A Assembly occupancies.

The Brookline 9<sup>th</sup> Elementary School is classified as a Mixed-Use Occupancy with the primary occupancy being Group E Educational.

## **BUILDING CONSTRUCTION**

### **CONSTRUCTION TYPE**

The Brookline 9<sup>th</sup> Elementary School will be four (4) stories in height and 142,000 sq. ft. in gross area. The area of the largest floor will be approximately 50,000 sq. ft. in area. The maximum allowable floor area of an Assembly Group A building constructed of Type IIA construction is 46,500 sq. ft. per floor. Based upon the proposed height and area, the building exceeds the maximum allowable floor area for a fully sprinklered Type IIA building. The maximum allowable area is permitted to be increased to a maximum 58,125 sq. ft. per floor based upon open frontage being provided. As long as a minimum of 25% of the building's perimeter is provided with open frontage of at least 30 feet, the building is permitted to be constructed of Type IIA Construction. Alternatively, if the maximum floor area is limited to 46,500 sq. ft., the building is not required to qualify for open frontage area increases and it is permitted to be constructed of Type IIA construction. For the purposes of this report, it will be assumed that the building will be constructed of Type IIA construction.

Group A-3 occupancies constructed of Type IIA construction are permitted to be 4 stories in height and 46,500 sq. ft. in area per floor for a fully sprinklered building in accordance with 780 CMR Tables 504.4 and 506.2. Based upon increases for open frontage and sprinkler protection, the building will be permitted to be constructed of Type IIA construction. If the building does not qualify for open frontage increases, the building must be constructed of Type IB construction. Further evaluation of the building's height, area and site plan is required to determine the minimum construction type.

<b>Occupancy Group</b>	<b>Construction Type</b>	<b>Height/Stories</b>	<b>Area</b>
A	IIA	4	46,500 sq. ft.

**Fire Resistance Ratings of Structural Elements for Type IIA and IB Construction**

BUILDING STRUCTURAL ELEMENT	FIRE RESISTANCE RATING – TYPE IIA	FIRE RESISTANCE RATING – TYPE IB
Primary Structural Frame <i>Including but not limited to columns, beams, girders, trusses and roof members connected directly to a column &amp; roof members required for structural stability.</i> Supporting more than one floor Supporting only roof	   1-hours 1-hours	   2-hours 1-hours
Bearing Walls Exterior: Interior Walls: Supporting more than one floor Supporting only roof	   1-hours 1-hours 1-hours	   2-hours 2-hours 1-hours
Nonbearing Walls and Partitions Exterior ( <i>not less than fire separation requirements</i> ) Interior ( <i>not less than fire rating requirements of other code sections</i> )	 Table 602 0-hours	 Table 602 0-hours
Roof Construction <i>Including supporting beams and joists:</i> Less than 20' in height to lowest member Greater than 20' in height to lowest member (secondary members only)	  1 -hours 0-hours	  1 -hours 0-hours
Floor Construction Including supporting beams and joists	 1-hours	 2-hours

### **SHAFT ENCLOSURES**

A shaft enclosure is not required for a floor opening or an air transfer openings in Group E Occupancies when is connects not more than two stories and complies with the requirements of 780 CMR Section 712.1.9.

Shaft enclosures are required to have a two-hour fire resistance rating when connecting four stories or more in accordance with 780 CMR 713.4. This includes stair enclosures. The shaft construction as well as the supporting floor structure of the shaft is required to have a two-hour fire resistance rating.

## **MEANS OF EGRESS SYSTEM DESIGN**

### **EXIT ACCESS TRAVEL DISTANCE**

The travel distance for each of the occupancies must in accordance with the requirements contained in MSBC Table 1017.2. Refer to the Table below:

<b>OCCUPANCY</b>	<b>MAXIMUM ALLOWABLE TRAVEL DISTANCE</b>
Assembly	250 feet
Educational	250 feet
Group S-1 Accessory Storage Spaces	250 feet

### **NUMBER OF EXITS**

*Number of Required Exits from Any Story or Space Based on Occupant Load (780 CMR Table 1006.3.1)*

<b>OCCUPANT LOAD</b>	<b>MINIMUM NUMBER OF EXITS</b>
1-500	2
501-1,000	3
More than 1,000	4

*Spaces Permitted with One Means of Egress (MSBC Table 1006.2.1)*

<b>OCCUPANCY</b>	<b>MAXIMUM OCCUPANT LOAD</b>
A, E	49
S	29

### **DEAD END CORRIDOR LIMITS**

*Maximum deadend corridor length (MSBC Section 1020.4)*

<b>OCCUPANCY</b>	<b>Length</b>
A	20
E, S	50

Note: Dead end corridors are not limited where the length is less than 2.5 times the smallest width of the dead end.

### **COMMON PATH OF TRAVEL LIMITS**

*Maximum common path of travel (MSBC Table 1006.2.1)*

<b>OCCUPANCY</b>	<b>Length</b>
A, E	75
B, S	100

### **CORRIDOR WIDTH**

*The minimum corridor width as determine by 780 CMR Table 1020.2*

<b>REQUIRED CAPACITY</b>	<b>Width</b>
Less than 50	36 inches
Greater than 50	44 inches

In Group E Occupancies with a required capacity of 100 or more the minimum required corridor width is 72 inches.

### **EXIT STAIR DISCHARGE**

The means of egress system for this fully sprinklered building is designed to allow exits to discharge directly to the exterior walkways along all sides of the building. It should be noted that the MSBC Section 1028.1 permits up to 50 percent of stairs to discharge to interior lobbies, provided the path to the exterior is clear and obvious.

## **FIRE PROTECTION SYSTEMS**

*The following Fire Protection and Life Safety Features are required to be provided in the building:*

1. Complete automatic sprinkler protection is required to be provided in accordance with 780 CMR Section 903.2.3.
2. A manual fire alarm system that activates the occupant notification system with emergency voice/alarm communication capabilities in accordance with section 907.5 must be installed in Group E Occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors must be connected to the building fire alarm system.
3. Portable fire extinguishers are required in accordance with 780 CMR Section 906.1.

### ACCESSIBILITY

The building is a new construction and is required to fully comply with the requirements of the Massachusetts Architectural Access Board 521 CMR and the 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design. Accessible routes are required to be provided to private and public spaces within the building. In addition, public entrances to the building and restrooms in the building are required to be accessible.

### PLUMBING

Plumbing fixture counts are found in Table 1 of 248 CMR The Massachusetts Plumbing Code. The maximum allowable travel distance to a toilet facility is 300 feet. Staff is permitted to travel up or down one flight of stairs to use a bathroom, while students are not permitted to travel up or down to use a bathroom.

Subcategory	Water closets			Lavatories		Drinking Fountains
	Male	Female	Urinals	Male	Female	
Elementary Students	1 per 60	1 per 30	1 per 60	1 per 60	1 per 60	1 per 75
Elementary Staff	1 per 25	1 per 20	Up to 33%	1 per 40	1 per 40	N/A

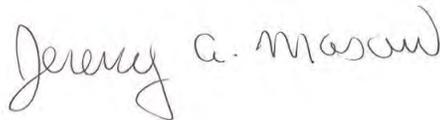
Please contact of our office if you have any questions regarding the items addressed in this letter.

Prepared by,



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#### 4.6 Transportation Impact Assessment

***DRAFT***

**Transportation Impact Assessment**

**Proposed Baldwin Elementary School**

**Brookline, Massachusetts**

*Prepared for:*

**Jonathan Levi Architects  
Boston, Massachusetts**

**February 2017**

# TRANSPORTATION IMPACT ASSESSMENT

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## PROPOSED BALDWIN ELEMENTARY SCHOOL BROOKLINE, MASSACHUSETTS

*Prepared for:*

Jonathan Levi Architects  
Boston, Massachusetts

February 2017

*Prepared by:*

VANASSE & ASSOCIATES, INC.  
Transportation Engineers & Planners  
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## **EXECUTIVE SUMMARY**

---

VAI has completed a detailed assessment of the potential impacts on the transportation infrastructure associated with the proposed Baldwin Elementary School to be located off Heath Street in Brookline, Massachusetts. This assessment has been completed in accordance with State and Town standards and those of the Traffic Engineering and Transportation Planning professions for the preparation of such reports. The following specific areas have been evaluated as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; under existing and future conditions, both with and without the Project. Based on this assessment, we have concluded the following with respect to the Project:

- The Project is expected to generate approximately 776 vehicle trips (437 entering/ 339 exiting) expected during the weekday morning peak-hour and 481 vehicle trips (216 entering/265 exiting) expected during the weekday afternoon peak-hour;
- A review of accident data researched from MassDOT indicates that area intersections (with the exception of the Horace James Circle) experience accident rates below state averages indicating safe operations.
- The proposed driveway off Heath Street has adequate sight distances for safe and efficient operations.
- While the projected pedestrian traffic to the school is expected to be minimal, safe conditions can be achieved with sidewalks, crosswalks and crossing guards at appropriate locations.
- The Project will increase traffic in the morning and afternoon periods with increased delays and queues at locations within the study area. These delays and queues will be confined to limited and distinct periods during the morning drop-off and afternoon pick-up periods (20-25 minutes at peaks) and these periods are non-coincident with the peak periods of the adjacent roadways.

In summary, the proposed site is a good location for a new school and a safe environment can be maintained with traffic conditions maintained at manageable levels. While the school can be safely accommodated and will increase delays and queues during limited period of the day (20-25 minutes at peaks), improvements will be necessary to minimize the impacts and enhance safety conditions.

## **RECOMMENDATIONS**

A detailed transportation improvement program has been developed that is designed to maintain safe and efficient access to the school and address any deficiencies identified at off-site locations evaluated in conjunction with this study. The following improvements have been recommended as a part of this evaluation and will be completed in coordination with the Town.

### **Project Access**

The school driveways were planned such that traffic impacts to the area are minimized and safe and efficient access and egress is provided. While a two-way driveway was considered along Woodland Road and two-way travel on Woodland Road was reviewed, this option was eliminated due to Woodland Road impacts. Based upon the evaluation three driveways are proposed:

- The main driveway off Heath Street is located at the approximately location of the Soule Recreation Center rear access. This driveway will provide two exit lanes and one entering lane.
- A left-turn entering only driveway is proposed off Woodland Road which minimizes the amount of turning traffic onto Heath Street and at the Heath Street main driveway.
- A bus/service driveway is proposed off Heath Street and is designed such that buses can arrive in either direction from Heath Street.

The following recommendations are offered with respect to the design and operation of the Project site driveways:

- The main driveway should have a minimum 20-foot entrance and two 12-foot exit lanes under STOP-control. The intersection should be illustrated.
- Both Entrance-Only drives should be a minimum of 16 feet wide with appropriate DO NOT ENTER signs should be placed internal to the site.
- School Zone signs, pavement markings and traffic control devices (i.e., flashing school speed limit signs) should be provided along Heath Street for and Woodland Road.
- All signs and other pavement markings to be installed within the Project site shall conform to the applicable standards of the current Manual on Uniform Traffic Devices (MUTCD).<sup>1</sup>
- In order to provide the required lines of sight approaching and departing the Project site driveway intersection with Heath Street, the area to the east of the driveway must be regraded for sufficient lines of sight.
- Signs and landscaping adjacent to the Project site driveway intersections should be designed and maintained so as not to restrict lines of sight.

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<sup>1</sup>Ibid 4

### **Pedestrian Improvements**

New crosswalks are proposed along Heath Street, Hammond Street and Woodland Road. Crossing guards should be placed at the Hammond Street crosswalk and at the main Heath Street driveway. Sidewalks entering the site will be provided along the bus/service drive, main Heath Street drive and Woodland Road drive. In addition, all of the existing pedestrian deficiencies should be addressed by the Town to provide the area with continuous ADA-complaint sidewalks.

As part of the Woodland Road traffic calming improvements, the following should be implemented:

- A raised crosswalk at the new School driveway
- Bicycle lane considerations along Woodland Road
- Continuous sidewalk along the north side of Woodland Road.

### **Off-Site**

#### **Hammond Street at Route 9 and Hammond Street at Heath Street**

This intersection should be retimed and coordinated. It is proposed that the Heath Street traffic signal cycle length be one-half of the Route 9 traffic signal cycle such that additional capacity can be allocated to Heath Street to facilitate traffic movements exiting Heath Street.

#### **Heath Street at Woodland Road**

This intersection should be realigned with reduced pavement width to better define traffic flow. Woodland Road should be stripped for a two-lane approach to Heath Street.

### **Bicycle Considerations**

While bicycle usage to the site will be limited, the following should be incorporated.

- Bicycle racks should be provided proximate to the building entrance in a visible location.
- Bicycle consideration by the Town should be reviewed for both Heath Street and Woodland Road.

### **Transit Usage**

While transit usage will be limited to staff, the school should promote staff usage of public transportation to the school.

### **School Drop-Off and Pick-Up Traffic Management Plan**

A central feature of the Project is the implementation of a traffic and parking management plan for school drop-off and pick-up activities. The Project site and the site access and off-site improvements detailed herein have been developed to facilitate access to the school campus for pedestrians, bicyclists, school buses and parents/caregivers in a safe and efficient manner. The

traffic and parking management plan has been designed to build-upon this created infrastructure and will consist of the following major elements, all of which are overseen by school staff:

- Police detail officer should be initially located at the main entrance and exit driveway serving the Project site in order to manage the flow of vehicles and pedestrians entering and exiting the site, and pedestrians crossing Heath Street at the school crossing.
- School staff should be stationed at the drop-off areas to manage traffic within the site and along the driveways, as well as to facilitate the safety of pedestrians and bicyclists.
- A designated drop-off/pick-up area has been designed to facilitate these movements.
- A lane along the entryway will remain unobstructed during student drop-off and pick-up periods for emergency vehicles.
- Parents and caregivers will be given information on school drop-off and pick-up times and procedures at the beginning of the school year, with periodic updates and reminders provided as may be necessary.

The elements of the traffic and parking management plan for school drop-off and pick-up activities will be reviewed and updated as may be necessary in order to ensure the safety of students and to minimize potential impacts to the safe and efficient movement of vehicles, pedestrians and bicyclists.

#### **Construction Management Plan**

A detailed Construction Management Plan should be prepared and reviewed by the Town.

#### **Traffic Monitoring**

Within three months after school opening, a traffic monitoring study should be completed to review traffic counts at the site driveways and evaluate the traffic condition within the area.

Annually, the school should assess conditions and evaluate pedestrian safety, crossing guards, police detail at the main driveway, and evaluate the level of student busing and make adjustments, as necessary.

Overall, a safe environment to the school can be maintained and the increased traffic conditions with respect to delays and queues will be limited to short periods in the morning and afternoon.

## **INTRODUCTION**

---

Vanasse & Associates, Inc. (VAI) has prepared this Transportation Impact Assessment (TIA) in order to identify the potential traffic impacts associated with the proposed Baldwin Elementary School located on the South side of Heath Street, between Hammond Street and Woodland Road in Brookline, Massachusetts. As typical with school traffic, there is a relatively short peak of impacts less than 30 minutes as drop-off and pick-up occur at the school. Generally, the morning peak is more pronounced than the afternoon peak. The focus on this study is to provide a safe environment for the school children, while minimizing the impacts to the surrounding neighborhood. This report identifies and analyzes existing and future traffic conditions both with and without the project and reviews access requirements, potential off-site improvements, and safety considerations.

### **PROJECT DESCRIPTION**

The Baldwin Elementary School will consist of an 800 student elementary school with 125 staff to be located on Heath Street, between Hammond Street and Woodland Road in Brookline, MA. The anticipated school hours will be Monday – Thursday 8:00 AM to 2:30 PM and Friday 8:00 AM to 1:40 PM. Careful consideration has been made with respect to site access and egress. The school will be serviced by two driveways on Heath Street and one driveway on Woodland Road. The primary school driveway is located at the appropriate location of the Soule Recreation Center rear access. This driveway will service both entering and exiting traffic. Located off Heath Street to the west of Dunster Road will be the bus and service driveway. This driveway will be an entrance-only. The third driveway will be located off Woodland Road, which will be a left-turn entrance only driveway. The site will accommodate 130 parking spaces.

### **STUDY METHODOLOGY**

This study was prepared in general accordance with the state and town guidelines for Transportation Impact Assessments (TIA); and was conducted in three distinct stages.

The first stage involved an assessment of existing conditions in the study area and included an inventory of roadway geometrics; observations of traffic flow; and collection of daily and peak period traffic counts.

In the second stage of the study, future traffic conditions were projected and analyzed. Specific travel demand forecasts for the school were assessed along with future traffic demands due to expected traffic growth independent of the project. A seven-year time horizon was selected for analyses consistent with state guidelines for the preparation of TIA. The traffic analysis conducted in stage two identifies existing or projected future roadway capacity, traffic safety, and site access issues.

The third stage of the study presents and evaluates measures to address traffic and safety issues, if any, identified in stage two of the study.

The scope of the Transportation Assessment was review with Town officials and expanded based upon public comments.

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## **EXISTING CONDITIONS**

---

A comprehensive field inventory of traffic conditions on the study area roadways was conducted. The field investigation consisted of an inventory of existing roadway geometrics, traffic volumes, and operating characteristics, as well as posted speed limits and land use information within the study area. The study area for the project was selected to contain the major roadway providing access to the project site, Heath Street, as well as 13 intersections located near the site:

1. Boylston Street at Hammond Street
2. Hammond Street at Heath Street
3. Hammond Street at Soule Recreation Drive and Private Drive
4. Hammond Street at Woodland Road
5. Heath Street at Oak Street
6. Heath Street at Dunster Road
7. Boylston Street at Dunster Road
8. Heath Street at Cary Road
9. Heath Street at Soule Recreation Drive
10. Heath Street at Woodland Road
11. Heath Street at Randolph Road
12. Heath Street at Warren Street
13. Horace James Circle: Newton Street at Hammond Street, Hammond Pond Parkway and LaGrange Street

The following describes the study area roadways and intersections. Figure 1 provides a Study Location Map and Figure 2 depicts the study area intersections.

### **GEOMETRY**

#### **Roadways**

##### **Heath Street**

Heath Street, in the vicinity of the site, is a roadway under local jurisdiction that generally travels in an east/west orientation in Brookline Massachusetts. Heath Street accommodates a two-lane roadway in each direction with travel separated by a double yellow centerline. Concrete sidewalks are generally provided along Heath Street within the study area. Land use along Heath Street consists primarily of residential, school and recreational properties. There is no posted speed limit on Heath Street in the vicinity of the site.

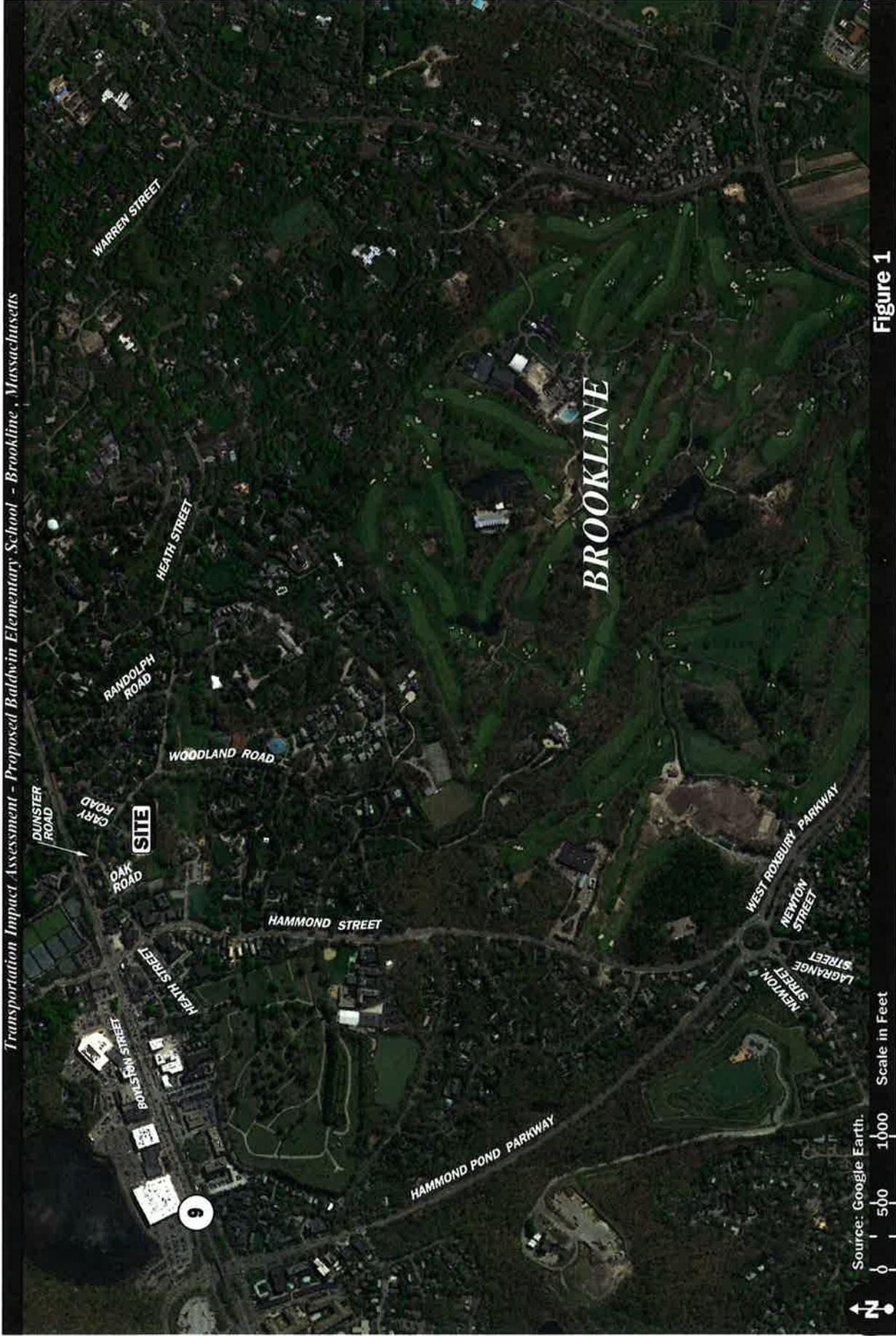


Figure 1

Site Location Map

**DRAFT**

**VAI** Vanasse & Associates, Inc.  
Transportation Engineers & Planners

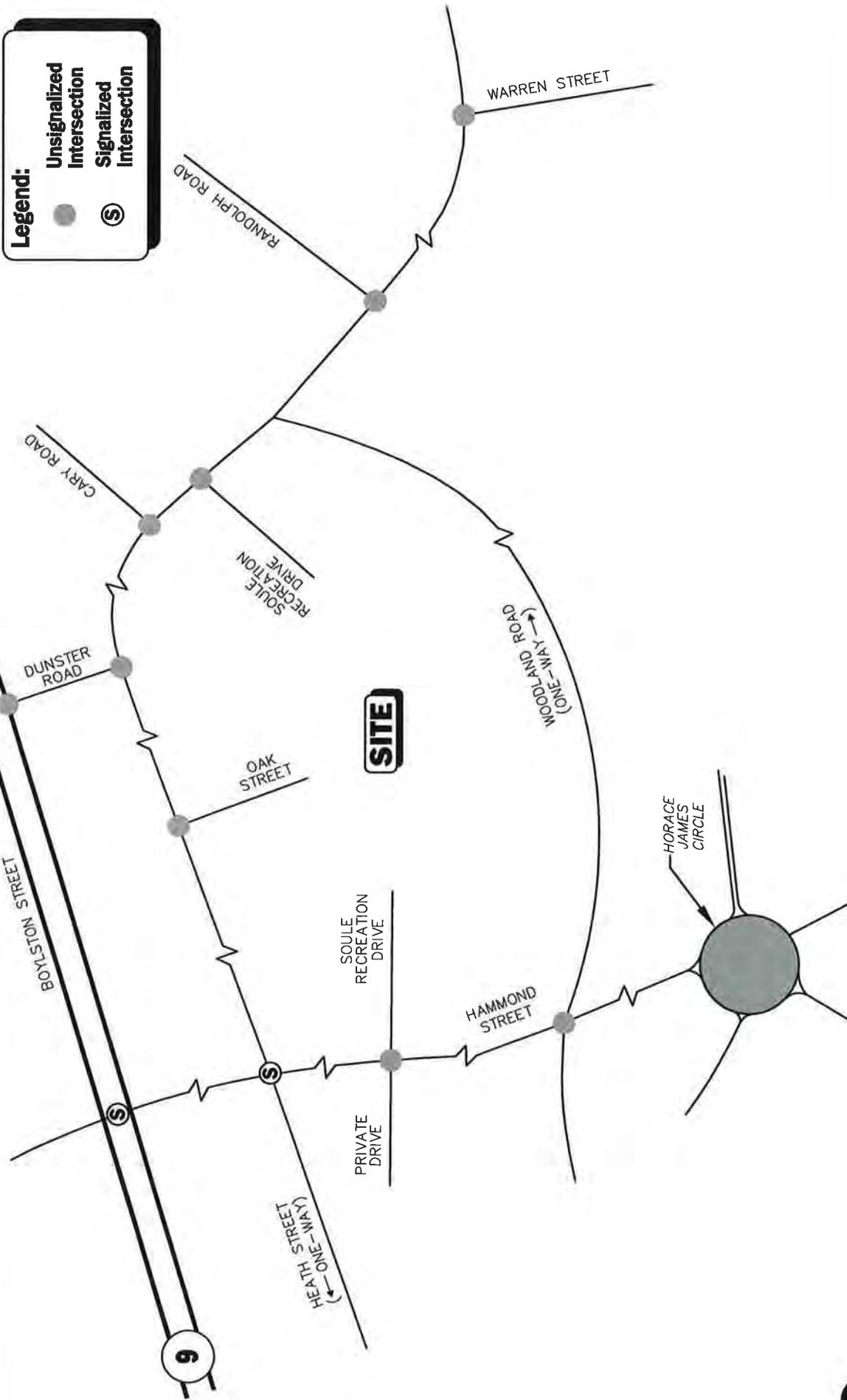


Figure 2

Study Area Intersection

**DRAFT**

Not To Scale

## **Intersections**

Figure 3 summarizes lane use and lane widths at the study area intersections as observed in November 2016.

## **EXISTING TRAFFIC VOLUMES**

In order to determine existing traffic-volume demands and flow patterns within the study area, automatic traffic recorder (ATR) counts, manual turning movement counts (TMCs) and vehicle classification counts were completed in November 2016 and January 2017. The ATR counts were conducted on Heath Street in the vicinity of the Project site in order to record weekday daily traffic conditions over an extended period, with weekday morning (7:00 to 9:00 AM) and weekday afternoon (2:00 to 5:00 PM) peak period manual TMCs performed at the study intersections. These time periods were selected for analysis purposes as they are representative of the peak traffic volume hours for the school.

## **Traffic Volume Adjustments**

In order to evaluate the potential for seasonal fluctuation of traffic volumes within the study area, historical traffic data collected by MassDOT were examined. Based on a review of seasonal adjustment factors collected by MassDOT for urban arterials and collectors, November traffic volumes are typically 3 percent higher than average monthly conditions and, therefore, were not adjusted downward in order to provide a conservative (above-average) analysis condition. The January traffic volumes are typically 3 percent lower than average monthly conditions, and therefore were adjusted upwards in order to represent an average-month analysis condition. The nearest MassDOT permanent count stations in the area are located on the I-90 and I-95, and therefore were not deemed appropriate for use in the seasonal adjustment. A review of traffic counts at the nearby Baker School, indicate that the weekday morning peak hour of the school generally occurs between 7:15 and 8:15 AM while the weekday afternoon peak hour of the school generally occurs between 2:15 and 3:15 PM. In all instances, these peak hours of the school were utilized for analysis purposes. Afternoon traffic, after the identified peak, will be significantly less than the release period and was not further evaluated. The temporal daily distribution of traffic on Heath Street is depicted in Figure 4. As shown, the morning peak hour is 8:00 to 9:00 AM, after the expected school peak, and the afternoon peak hour is after 3:00 PM, which is after the expected school released time. The 2016 Existing traffic volumes are summarized in Table 1 and graphically depicted on Figures 5 and 6, respectively.

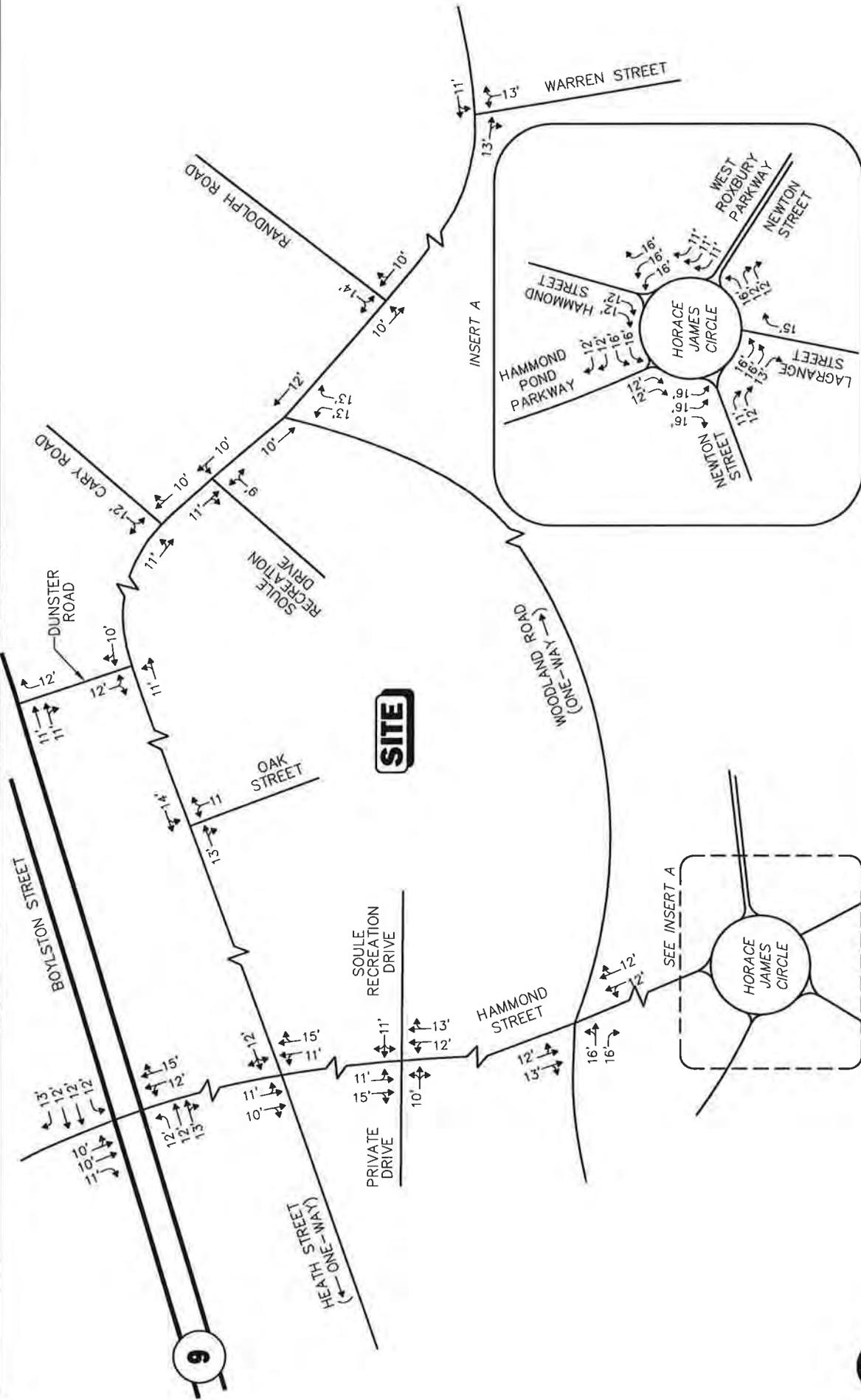


Figure 3

Existing Intersection Lane and Travel Lane Width

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Not To Scale

Heath Street 24 - Hour Volume Two-Way

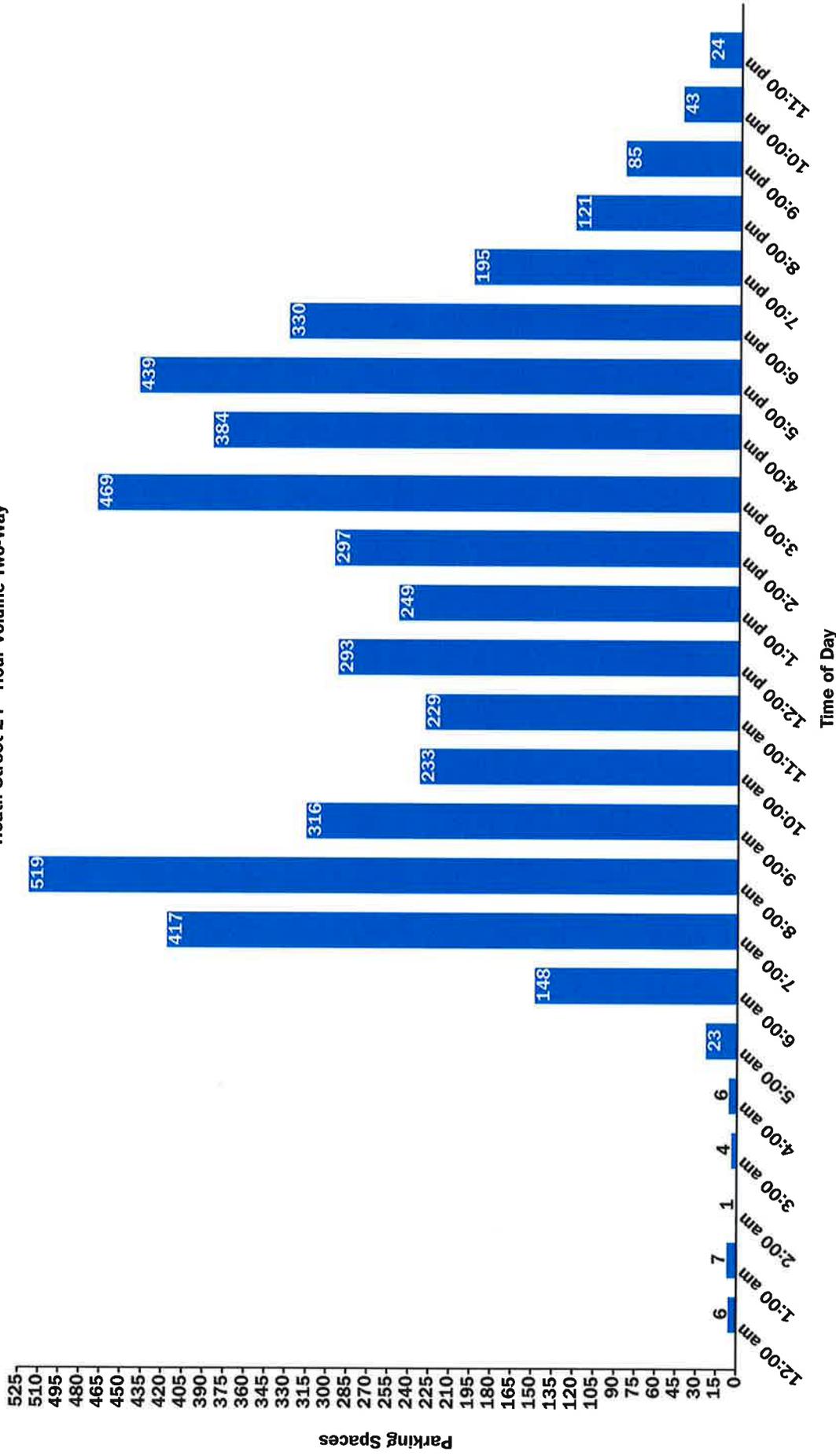
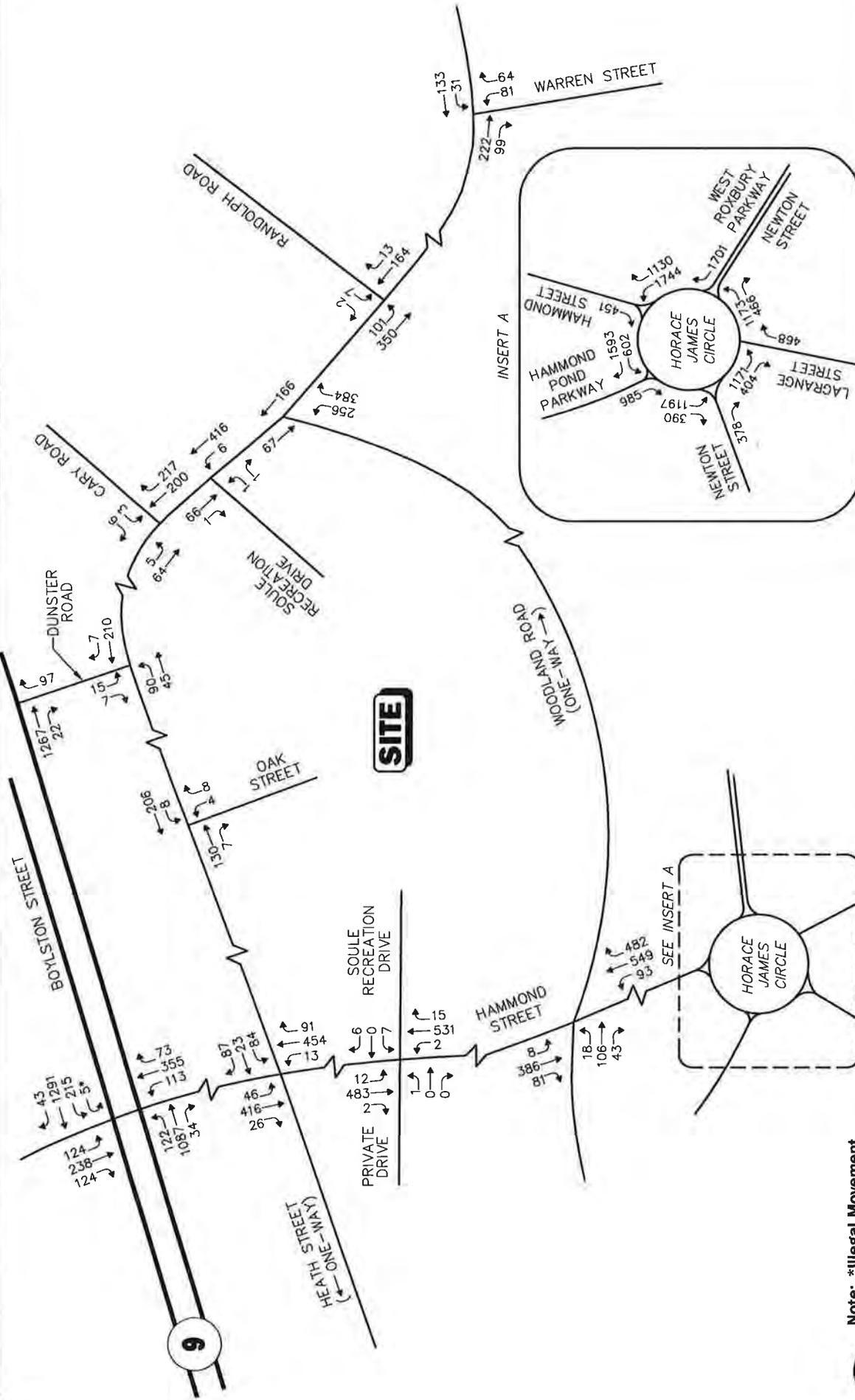


Figure 4

Heath Street ATR Count  
Tuesday, November 11, 2016

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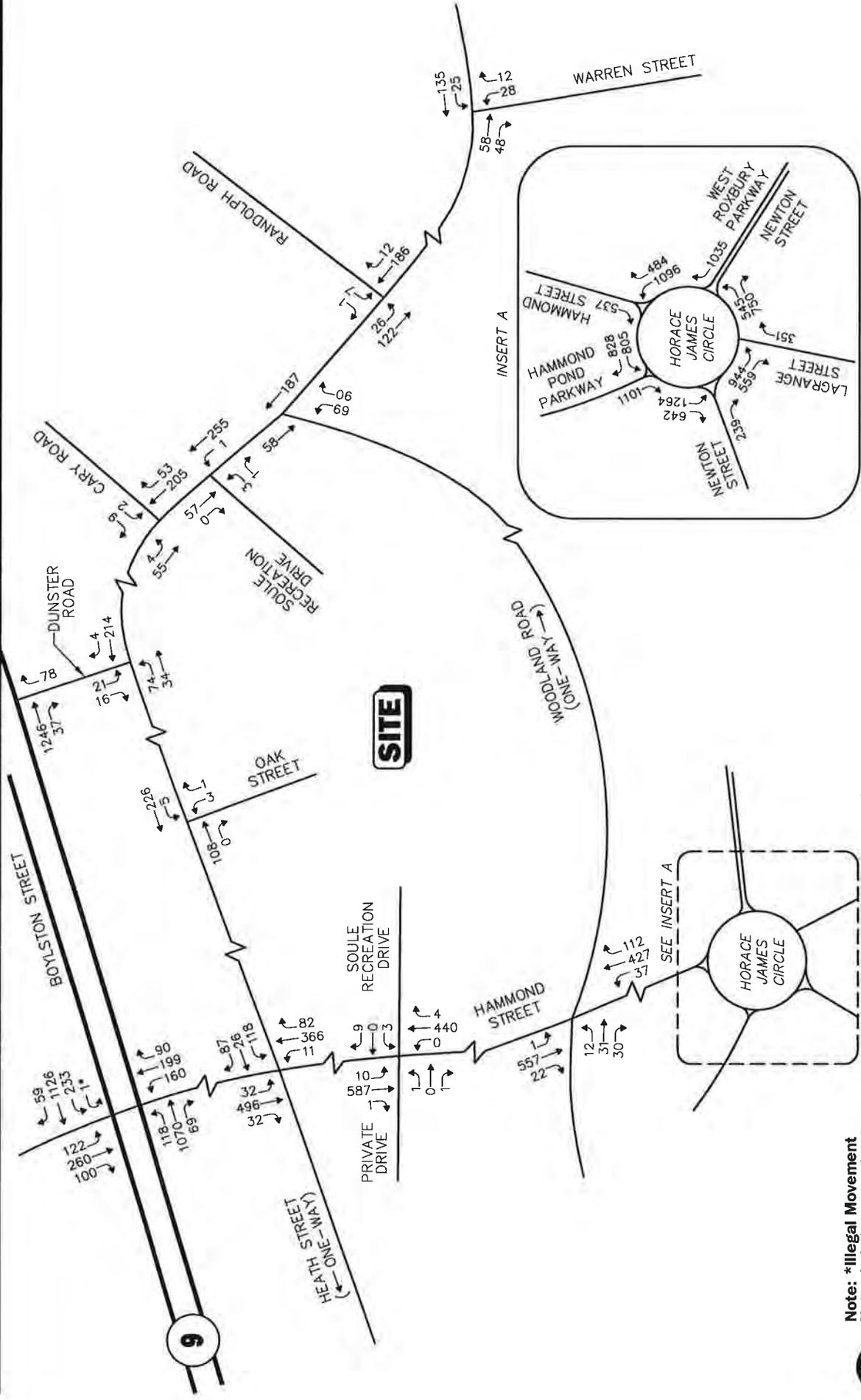


Note: \*Illegal Movement  
 Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.  
 Not To Scale

Figure 5

2016 Existing  
 Weekday Morning  
 School Peak Hour Traffic Volumes  
 (7:15 AM - 8:15 AM)

**DRAFT**



Note: \*Illegal Movement  
 Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

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**Figure 6**  
 2016 Existing  
 Weekday Afternoon  
 School Peak Hour Traffic Volumes  
 (2:15 PM - 3:15 PM)

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**Table 1**  
**EXISTING ROADWAY TRAFFIC-VOLUME SUMMARY**

Location	Daily Volume (vpd) <sup>a</sup>	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
		Volume (vph) <sup>b</sup>	Percent of Daily Traffic <sup>c</sup>	Predominant Flow	Volume (vph)	Percent of Daily Traffic	Predominant Flow
Heath Street, east of Soule Recreation Driveway	4,850	489	10.1	86% WB	314	6.5	82% WB

<sup>a</sup>Two-way daily traffic expressed in vehicles per day; from ATR Counts November 2016.

<sup>b</sup>Manual turning movement counts conducted in November 2016.

<sup>c</sup>The percent of daily traffic that occurs during the peak hour.

WB = westbound

As can be seen in Table 1, Heath Street was found to accommodate approximately 4,850 vehicles per day (vpd) with 489 vehicles per hour (vph) during the weekday morning school peak hour and 314 vph during the weekday afternoon school peak hour. Directional traffic during both the morning and afternoon periods is heavily directional in the westbound direction.

Observation of delays and queues were made in the area to obtain a better understanding of existing conditions. Figure 7 depicts critical areas of existing delay and queues. As shown, the longest delays and queues were noted at the Horace James Circle where 185-second delay and a maximum 24-vehicle queue were noted on LaGrange Street. Hammond Street northbound experienced a 212-second delay and an 18-vehicle queue noted. Less significant were delays and queues were observed on the Heath Street approach to Hammond Street and minimal delays were noted at the Woodland Road approach to Heath Street although this street accommodates heavy cut-through traffic volumes.

### **PEDESTRIAN AND BICYCLE FACILITIES**

A comprehensive field inventory of pedestrian and bicycle facilities within the study area was undertaken in November 2016. The field inventory consisted of a review of the location of sidewalks and pedestrian crossing locations along the study roadways and at the study intersections, as well as the location of bicycle facilities. Sidewalks are provided along the north and south sides of Boylston Street and Heath Street. On Hammond Street sidewalks are generally provided along both the east and west sides of the roadway. Marked crosswalks are provided along each approach to the Boylston Street at Hammond Street intersection, and nearby the Baldwin School on Heath Street and Hammond Street. No bicycle facilities were noted in the area. Figures 8 and 9 graphically depict the pedestrian volumes recorded in the area during the weekday morning and weekday afternoon school peak hours. Figure 10 graphically depicts the existing pedestrian facilities.

Figure 11 depicts existing deficiencies along the pedestrian routes within the study area. Deficiencies included non-ADA compliant ramps, utilities in sidewalks, non-compliant sidewalks and missing crosswalks.

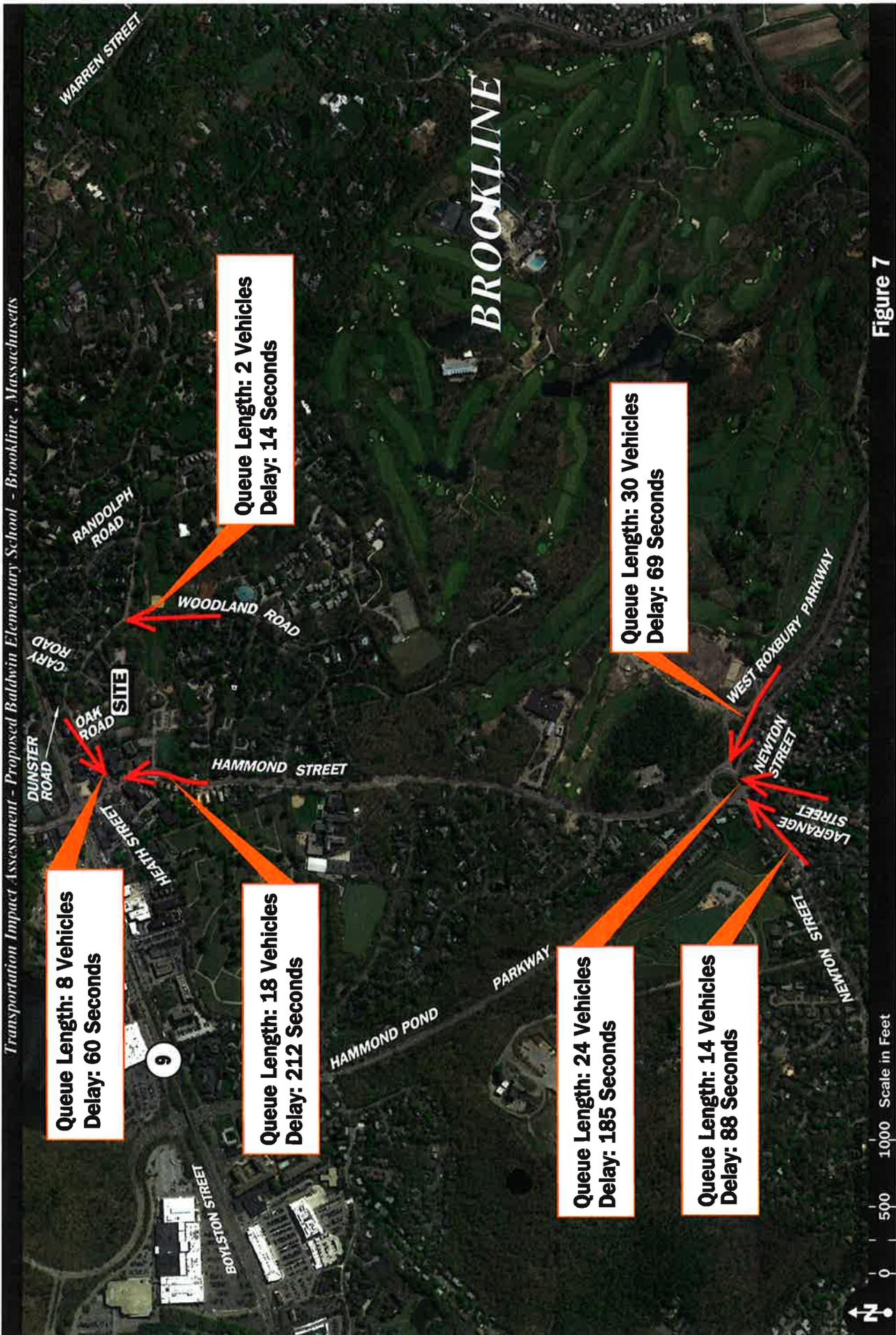


Figure 7

Existing  
Weekday Morning  
Delays and Queue Length

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0 500 1000 Scale in Feet

## **PUBLIC TRANSPORTATION**

Public transportation services are provided within the study area by the Massachusetts Bay Transit Authority (MBTA). The MBTA operates fixed-route bus services in the vicinity. Bus Route 60 – Chestnut Hill – Kenmore Station via Brookline Village and Cypress Street stops at the intersection of Boylston Street at Hammond Street. The MBTA Green Line D Branch Chestnut Hill Station is located off of Hammond Street approximately 0.3 miles north of the Project site, less than a ten minute walk. For purposes of this study, it was assumed no staff-use of public transportation will occur, although some utilization is expected.

## **SPOT SPEED MEASUREMENTS**

Vehicle travel speed measurements were performed on Heath Street in the vicinity of the Project site in conjunction with the ATR counts. Table 2 summarizes the vehicle travel speed measurements.

**Table 2**  
**VEHICLE TRAVEL SPEED MEASUREMENTS**

	Heath Street		Woodland Road
	Eastbound	Westbound	Northbound
Mean Travel Speed (mph)	28	27	30
85 <sup>th</sup> Percentile Speed (mph)	32	30	33
Posted Speed Limit (mph)	N/A	N/A	25

mph = miles per hour.

As can be seen in Table 2, the mean (average) vehicle travel speed along Heath Street in the vicinity of the Project site was found to be approximately 28 mph in the eastbound direction and 27 mph in the westbound direction. The measured 85<sup>th</sup> percentile vehicle travel speed, or the speed at which 85<sup>th</sup> percent of the observed vehicles traveled at or below, was found to be 32 mph in the eastbound direction and 30 mph in the westbound direction. On Woodland Road, where the posted speed limit is 25 mph, the mean speed was observed to be 30 mph and the 85<sup>th</sup> percentile speed was observed at 33 mph. The 85<sup>th</sup> percentile speed is used as the basis of engineering design and in the evaluation of sight distances, and is often used in establishing posted speed limits. There is no posted speed limit on Heath Street in the vicinity of the project site.

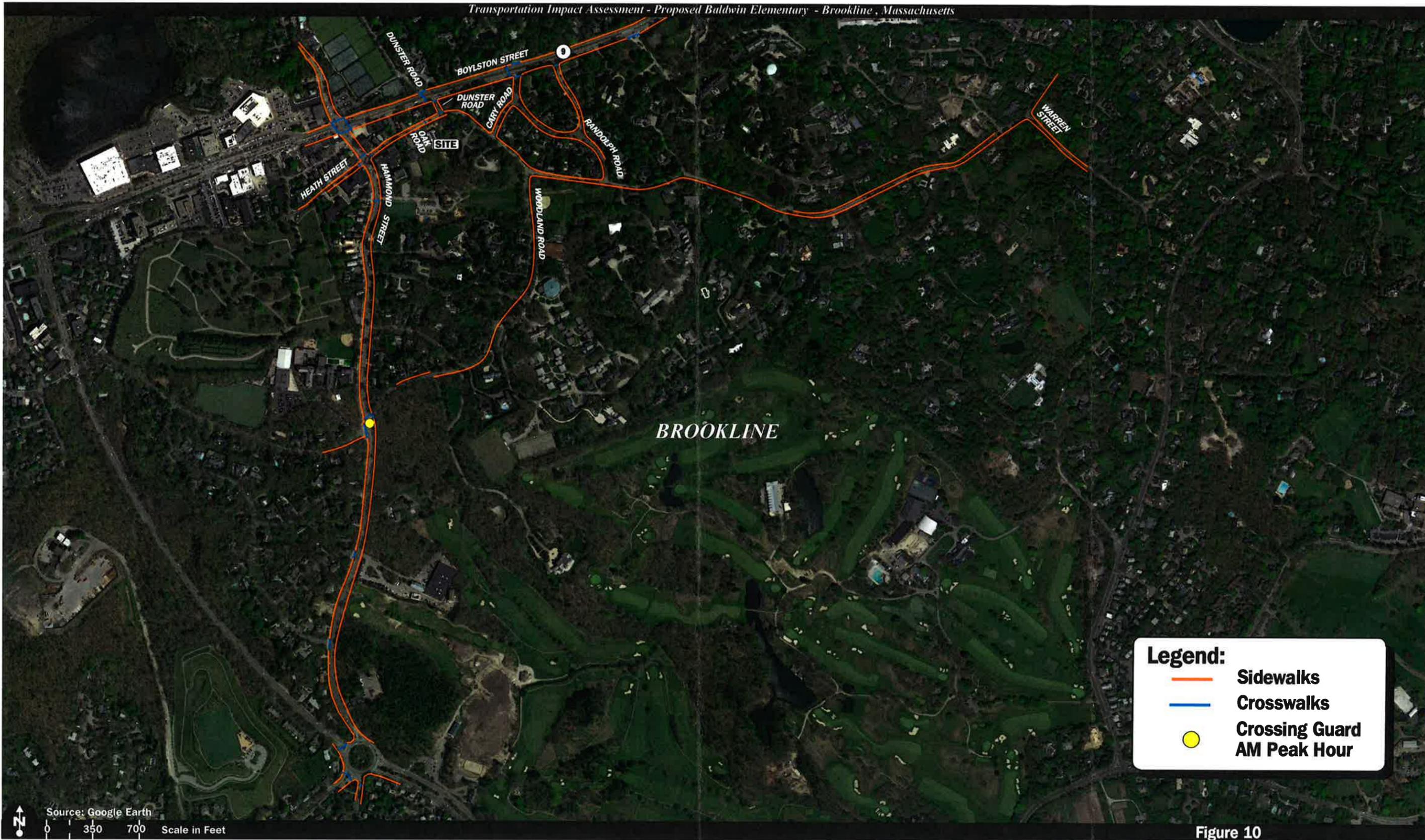
## **SIGHT DISTANCE EVALUATION**

Sight distance measurements were performed at the proposed school driveway intersections with Heath Street in accordance with MassDOT and American Association of State Highway and Transportation Officials (AASHTO)<sup>2</sup> standards. In brief, SSD is the distance required by a vehicle traveling at the design speed of a roadway, on wet pavement, to stop prior to striking an

<sup>2</sup>A *Policy on Geometric Design of Highway and Streets*, 6<sup>th</sup> Edition; American Association of State Highway and Transportation Officials (AASHTO); 2011.







**Legend:**

- Sidewalks
- Crosswalks
- Crossing Guard AM Peak Hour

Source: Google Earth  
 0 350 700 Scale in Feet

**DRAFT**

**Figure 10**  
 Existing Pedestrian and Bicycle Facilities

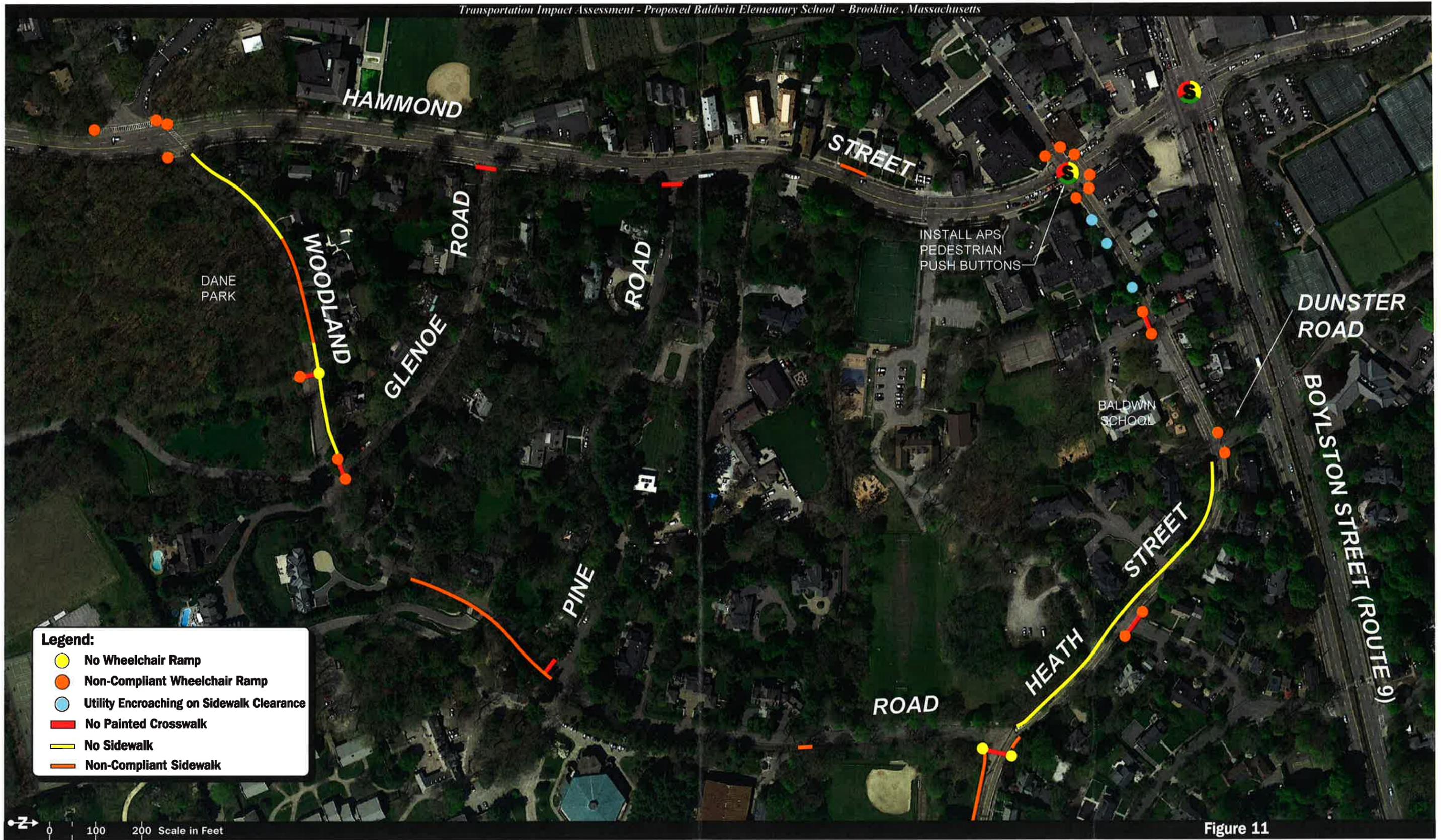


Figure 11  
Pedestrian Facility Deficiencies

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object in its travel path. In accordance with AASHTO and MassDOT standards, at a minimum, sufficient stopping sight distances must be provided at an intersection. Table 3 presents the measured sight distances at the proposed school driveways intersecting with Heath Street.

**Table 3**  
**SIGHT DISTANCE MEASUREMENTS**

Intersection/Sight Distance Measurement	Required Minimum (Feet) <sup>a</sup>			Measured (Feet)
	30 mph	35 mph	40 mph	
<i>Proposed School Drive at Heath Street Exiting Sight Distance:</i>				
Looking to the east from the driveway	200	250	305	375
Looking to the west from the driveway	200	250	305	315

<sup>a</sup>Recommended minimum values obtained from *A Policy on Geometric Design of Highways and Streets*, Fifth Edition; American Association of State Highway and Transportation Officials (AASHTO); 2011.

As shown in Table 3, the proposed school driveway has acceptable sight distances for over 30 mph. It should be noted that the ledge and grade to the east of the driveway will be required for regrading to obtain the required sight distance. Figure 12 depicts the sight distances measured at the driveway.

**MOTOR VEHICLE CRASH DATA**

Motor vehicle crash information for the study area intersections was provided by the MassDOT Safety Management/Traffic Operations Unit for the most recent five-year period available (2010 through 2014) in order to examine motor vehicle crash trends occurring within the study area. The data is summarized by intersection, type, pavement condition and severity in Table 4. Figure 13 graphically depicts the Accident Data at each study area intersection, by number of accidents, accidents per year and crash rate.

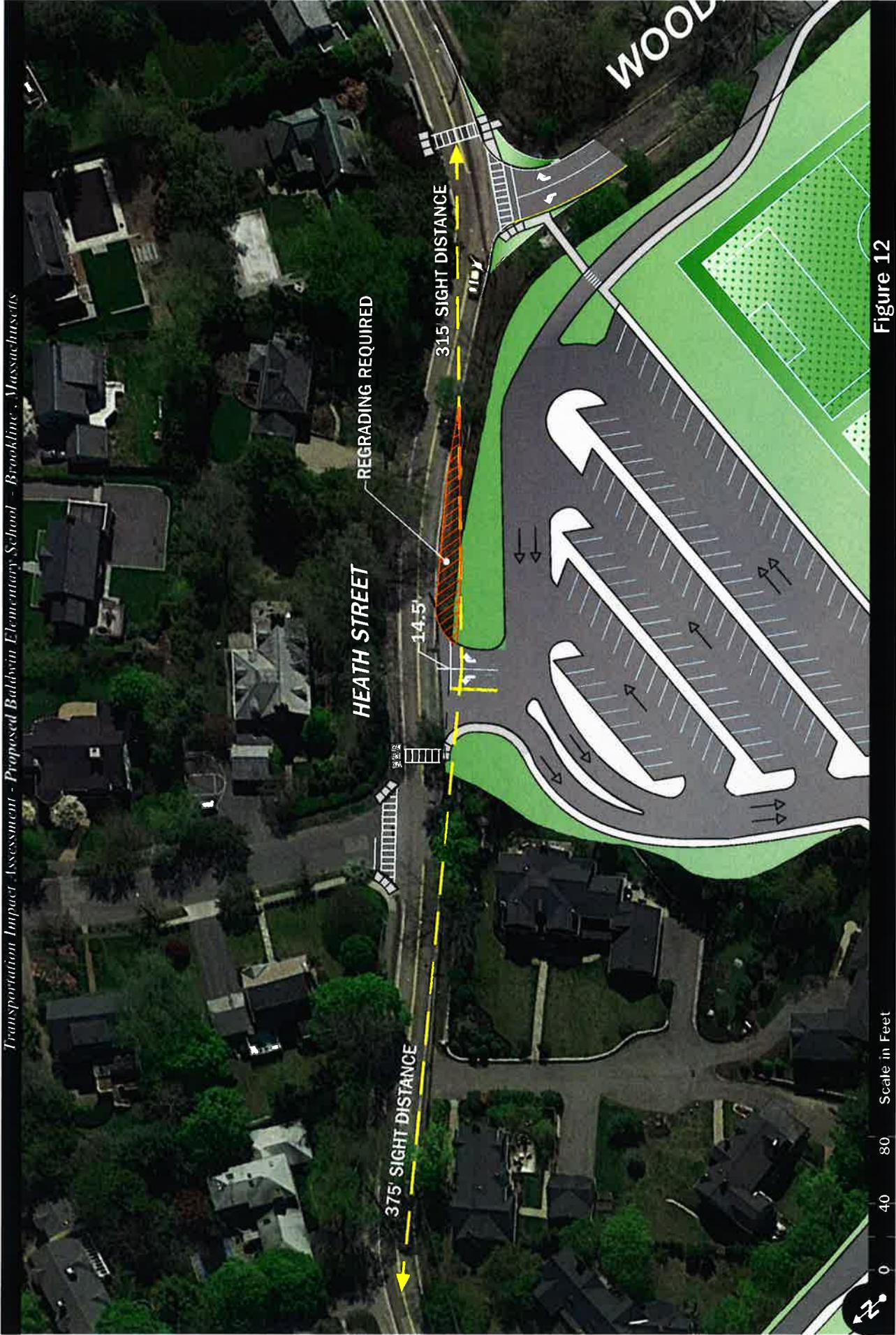


Figure 12

Site Distance Plan

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Transportation Engineers & Planners

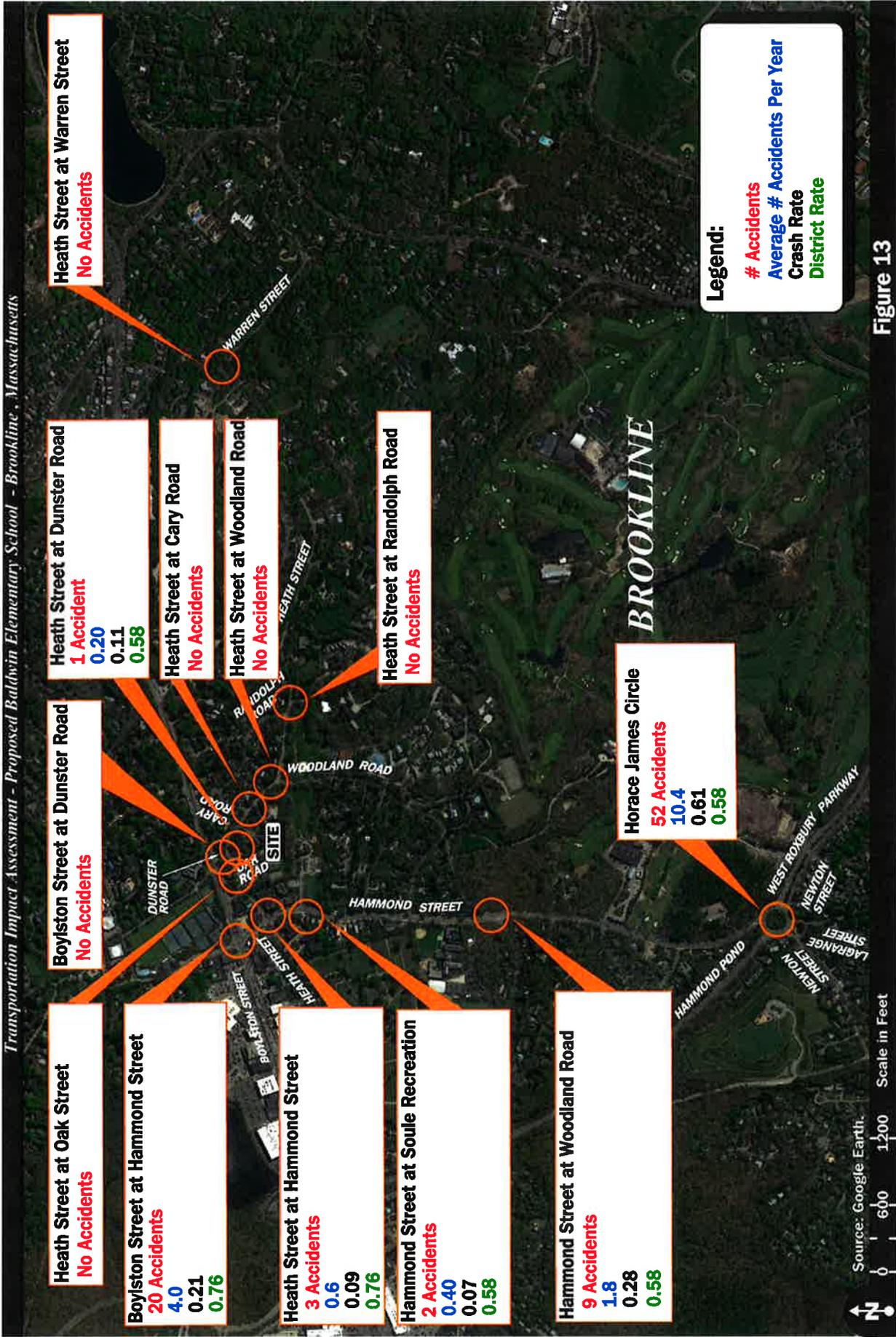


Figure 13

Accident Data

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**Table 4**  
**MOTOR VEHICLE CRASH DATA SUMMARY<sup>a</sup>**

Scenario	Boylston Street at Hammond Street	Hammond Street at Heath Street	Heath Street at Dunster Road	Hammond Street at Soule Rec Drive	Hammond Street at Woodland Road	Horace James Circle
<i>Year:</i>						
2010	1	1	0	0	0	11
2011	7	1	0	0	0	11
2012	6	0	0	0	3	5
2013	3	1	0	0	1	11
2014	<u>3</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>5</u>	<u>14</u>
Total	20	3	1	2	9	52
<i>Average<sup>a</sup></i>						
Average <sup>a</sup>	4.0	0.6	0.2	0.4	1.8	10.4
<i>Crash Rate<sup>b</sup></i>						
Crash Rate <sup>b</sup>	0.21	0.09	0.11	0.07	0.28	0.61
<i>Significant</i>						
Significant	No	No	No	No	No	Yes
<i>Type:</i>						
Angle	6	0	0	1	5	19
Rear-End	10	0	0	0	0	13
Head-On	0	0	0	0	1	0
Sideswipe	2	2	0	0	0	15
Fixed Object	2	1	1	1	3	5
Other	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	20	3	1	2	9	52
<i>Pavement Conditions:</i>						
Dry	16	1	0	1	6	42
Wet	4	1	0	1	3	8
Snow/Ice	0	0	1	0	0	1
Unknown/ Other	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>
Total	20	3	1	2	9	52
<i>Severity:</i>						
Property Damage Only	11	2	1	1	5	37
Personal Injury	9	0	0	1	4	15
Fatality	0	0	0	0	0	0
Unknown	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	20	3	1	2	9	52

<sup>a</sup>Average crash over five-year period.

<sup>b</sup>Crash rate per million entering vehicles (mev).

Source: MassDOT Crash Data, 2010 through 2014.

As can be seen in Table 4, the intersection of Horace James Circle experienced a total of 52 accidents reported at the intersection over the five-year review period, averaging 10.4 accidents per year. All other intersections experienced less than 4 crashes per year. No fatalities were reported at the study area intersections over the five-year review period. All of the study intersections were found to have a motor vehicle crash rate below the MassDOT average for the District 6 (0.76 for signalized intersections and 0.58 for unsignalized intersections), with the exception of Horace James Circle which had a crash rate of 0.61, which is slightly above the District average. This is typical of traffic circles with many conflict points within the circle. Based upon a review of the accident data, it can be concluded that safe conditions currently exist in the area.

## **FUTURE CONDITIONS**

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To determine the impact of school traffic volumes on the roadway network under future conditions, baseline traffic volumes in the study area were projected to the year 2024. Traffic volumes on the roadway network at that time, in the absence of the project (that is, the No-Build condition), would include existing traffic, new traffic due to general background traffic growth, and traffic related to specific development by others expected to be completed by 2024. Inclusion of these factors resulted in the development of 2024 No-Build traffic volumes. Anticipated site-generated traffic volumes were then superimposed upon these No-Build traffic-flow networks to develop the 2024 Build traffic-volume conditions.

### **FUTURE TRAFFIC GROWTH**

Traffic growth on area roadways is a function of the expected land development in the immediate area, as well as the surrounding region. Several methods are used to estimate this growth. A procedure frequently employed estimates an annual percentage increase in traffic growth and applies that percentage to all traffic volumes under study. The drawback to such a procedure is that some turning volumes may actually grow at either a higher or a lower rate at particular intersections.

An alternative procedure identifies the location and type of planned development, estimates the traffic to be generated, and assigns it to the area roadway network. This produces a more realistic estimate of growth for local traffic. However, the drawback of this procedure is that the potential growth in population and development external to the study area would not be accounted for in the traffic projections.

To provide a conservative analysis framework, both procedures were used.

#### **General Background Growth**

Traffic-volume data compiled by MassDOT from permanent count stations and historic traffic counts in the area were reviewed in order to determine general background traffic growth trends. Based on a review of this data and other area traffic studies, a 1.0 percent per year compounded annual background traffic growth rate was used in order to conservatively account for future traffic growth and presently unforeseen development within the study area. This is consistent with previous traffic studies conducted for the area.

### **Specific Development by Others**

The Town of Brookline and the City of Newton were contacted in order to determine if there are any planned or approved specific development projects within the area that would have an impact on future traffic volumes at the study intersections. Based on these discussions five projects were identified:

***1240 Boylston Street.*** No traffic study was required for the project and the 1.0 percent general background growth rate will account for the new trips generated by this project.

***1180 Boylston Street.*** This project consists of the development of 45 age-restricted (55+) apartments and 7,000 sf of retail. The Site Generated volumes from the traffic study were added to the No-Build volumes.

***Chestnut Hill Square.*** This mixed-use project has yet to construct 91 residential units. The Residential Phase from the traffic study was added to the No-Build volumes.

***Kessler Woods.*** This project consists of the development of 88 apartment units off of LaGrange Street in Newton. The Site Generated volumes from the traffic study were added to the No-Build volumes.

***Former Atrium Mall Building.*** This project is a 260,500 sf reuse to consist of a health club, office, and medical office. Traffic volumes were estimated and incorporated, as no traffic study has been completed.

No other background developments were identified within the study area.

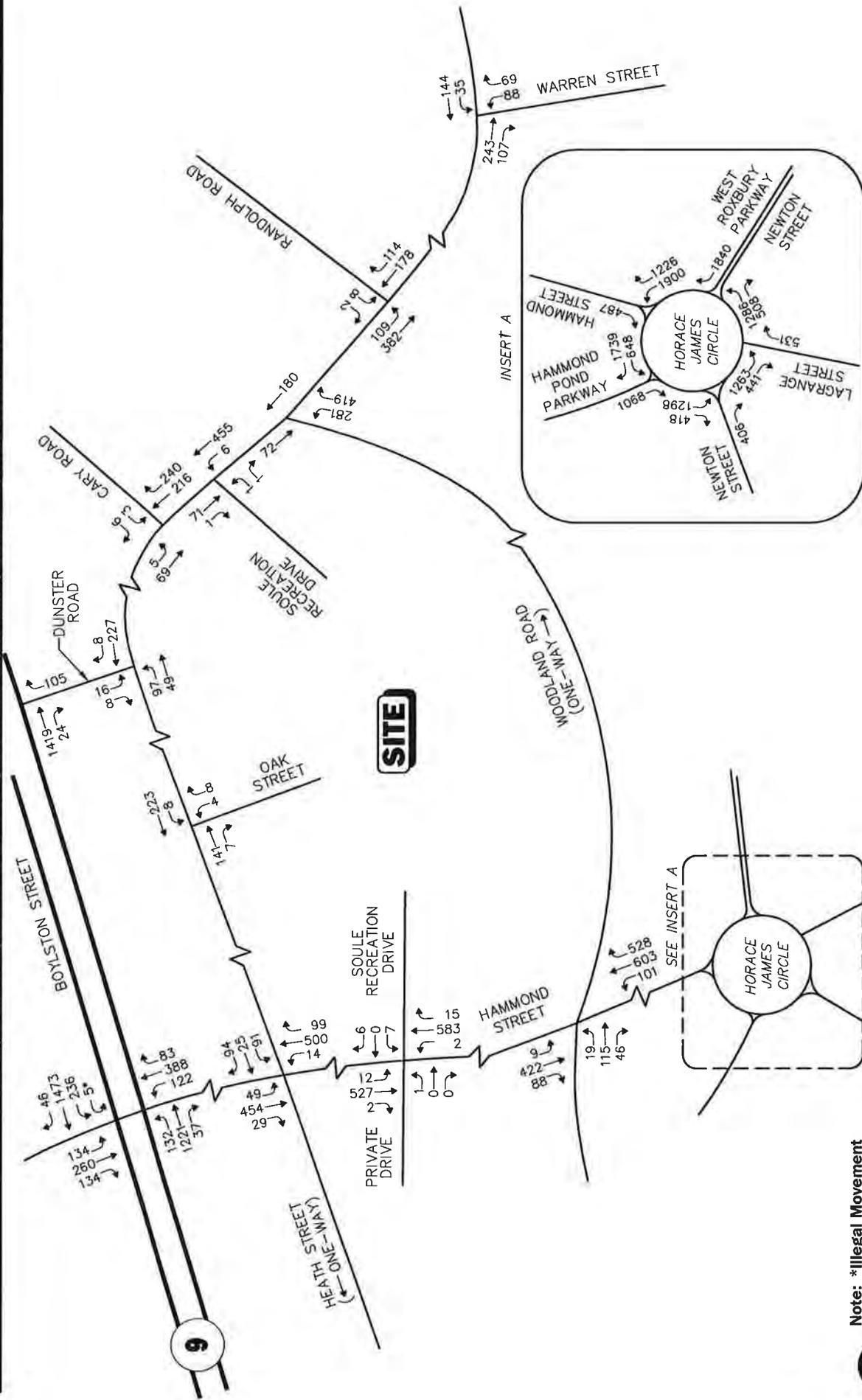
### **Planned Roadway Improvements**

The Town of Brookline was contacted in order to determine if there are any planned roadway improvement projects expected to be completed within the study area. Based on these discussions, two projects were identified:

- ***Hammond Street at Woodland Road Intersection Improvement Study.*** Intersection alternatives have been evaluated by the team and their consultant. The preferred alternative is traffic signalization.
- ***Woodland Road Traffic Calming Study.*** The Town is currently assessing traffic calming measures for Woodland Road.

### **No-Build Traffic Volumes**

The 2024 No-Build peak-hour traffic-volume networks for weekday morning and weekday afternoon were developed by applying the 1.0 percent per year compounded annual background traffic growth rate to the Existing peak-hour traffic volumes. The resulting 2024 No-Build weekday morning and weekday afternoon peak-hour traffic volume networks are shown on Figures 14 and 15.



Note: \*Illegal Movement  
 Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

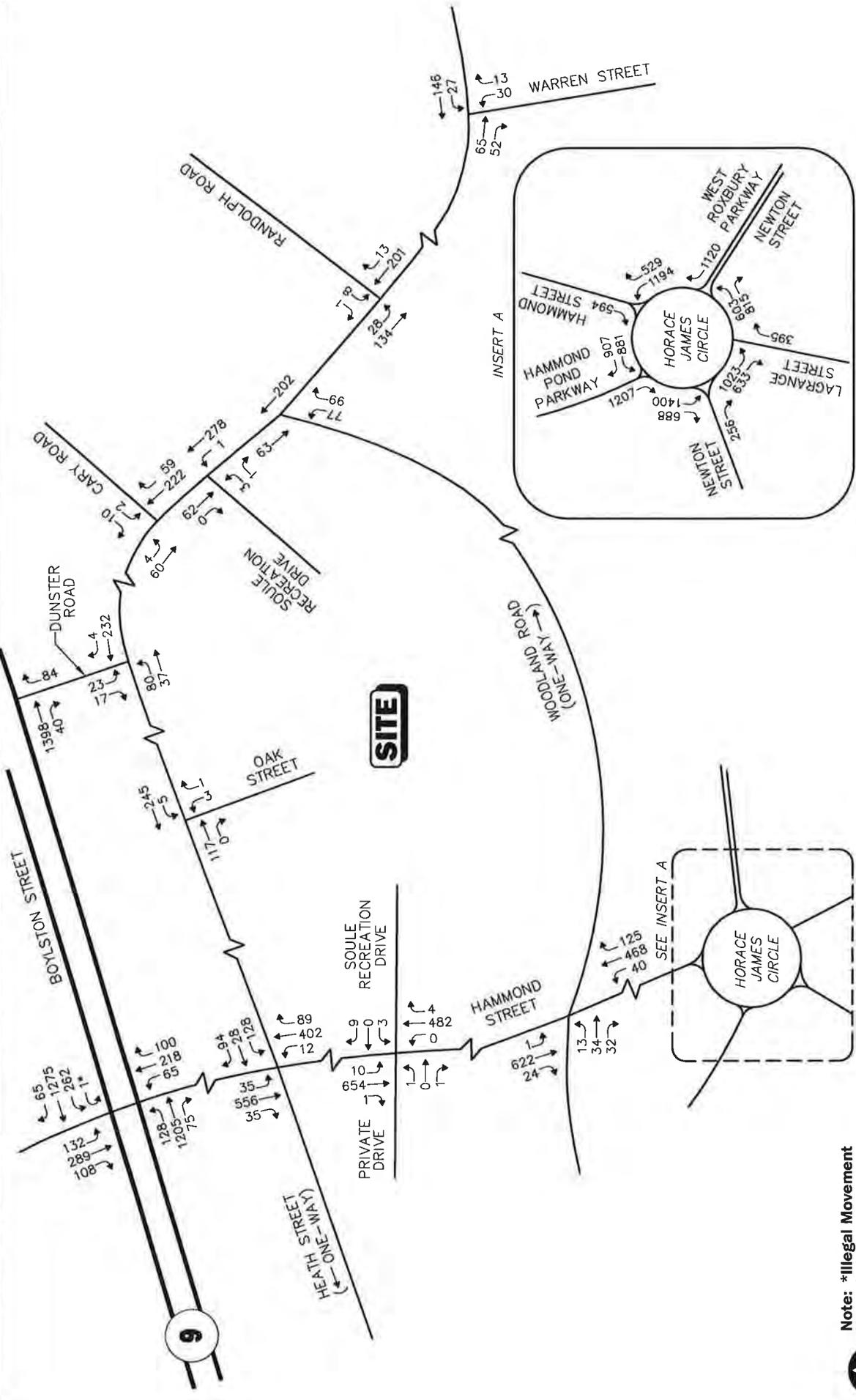


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Figure 14

2024 No-Build  
 Weekday Morning  
 Peak Hour Traffic Volumes

**DRAFT**



Note: \*Illegal Movement  
 Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

Figure 15

2024 No-Build  
 Weekday Afternoon  
 Peak Hour Traffic Volumes

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**PROJECT-GENERATED TRAFFIC**

Design year (2024 Build) traffic volumes for the study area roadways were determined by estimating Project-generated traffic volumes and assigning these volumes on the study roadways. The following describes the methodology used to establish the traffic characteristics of the Project. As proposed, the Project will entail the construction of an 800-student elementary school. Teacher and staff levels are estimated at 125.

In order to develop the traffic characteristics of the Project, trip-generation statistics published by the ITE<sup>3</sup> for similar land uses as those proposed were used. ITE Land Use Code (LUC) 520, *Elementary School*, with the independent variable of “Number of Students” equal to 800. It should be noted that the trip-generation statistics published by the ITE for the aforementioned land uses reflect the common modes of transportation for schools and include buses, vans/carpools, as well as students that may walk or bicycle to school. Table 5 summarizes the anticipated characteristics of the Project based upon Industry Standards.

**Table 5  
BALDWIN ELEMENTARY SCHOOL  
TRIP GENERATION SUMMARY<sup>a</sup>**

Time Period/Direction	Vehicle Trips <sup>a</sup> Elementary School (800 Students) <sup>a</sup>
<i>Average Weekday Daily:</i>	
Entering	516
<u>Exiting</u>	<u>516</u>
Total	1,032
<i>Weekday Morning Peak Hour:</i>	
Entering	198
<u>Exiting</u>	<u>162</u>
Total	360
<i>Weekday Afternoon Peak Hour:</i>	
Entering	101
<u>Exiting</u>	<u>123</u>
Total	224

<sup>a</sup>Based on ITE LUC 520, *Elementary School*.

<sup>3</sup>Ibid 2.

Overall, the above ITE estimates appear low and may not be reflective of actual Brookline conditions. As such, an alternative approach was developed based upon the following assumption provided to VAI.

- 800 Students
- 4% Daily absenteeism
- 15 Students carpool with staff
- 25 students bus with METCO
- 50 students walk
- 200 students bus
- Student car occupancy of 1.45 student/car

Afternoon traffic volumes were estimated based upon the reduced traffic percentage from the ITE data.

A summary of expected vehicle trip generation is summarized in Table 6 based upon the above assumptions.

**Table 6  
TRIP GENERATION SUMMARY**

Time Period	Staff	Buses	Drop-off/ Pick-up	Total Trips
<i>Weekday Morning</i>				
<i>Peak Hour:</i>				
Entering	98	9	330	437
Exiting	0	9	330	339
Total	98	18	660	776
<i>Weekday Afternoon</i>				
<i>Peak Hour:</i>				
Entering	0	9	207	216
Exiting	0	9	256	265
Total	0	18	463	481

As can be seen in Table 6, the Project is expected to generate approximately 776 vehicle trips (437 vehicles entering and 339 exiting) expected during the weekday morning peak-hour. During the weekday afternoon peak hour the Project is expected to generate approximately 481 vehicle trips (216 vehicles entering and 265 exiting). The above estimates were utilized for analysis purposes in assessing the overall impacts.

Alternative Trip Generation scenarios were developed but were not included as part of the detailed analysis. Trip generation estimates were provided for the following three alternate scenarios.

1. 800-student school – only METCO – 25 students bused
2. 600-student school – only METCO – 25 students bused
3. 600-student school – METCO – 25 students bused plus 150 additional bused students

These trip estimates are provided in Tables 7-9.

**Table 7**  
**TRIP GENERATION SUMMARY: ALTERNATE SCENARIO #1**  
**800 STUDENTS/25 BUSED**

Time Period	Staff	Buses	Drop-off/ Pick-up	Total Trips
<i>Weekday Morning</i>				
<i>Peak Hour:</i>				
Entering	98	1	468	567
Exiting	<u>0</u>	<u>1</u>	<u>468</u>	<u>469</u>
Total	98	2	936	1,036
<i>Weekday Afternoon</i>				
<i>Peak Hour:</i>				
Entering	0	1	288	289
Exiting	<u>0</u>	<u>1</u>	<u>352</u>	<u>353</u>
Total	0	2	640	642

**Table 8**  
**TRIP GENERATION SUMMARY: ALTERNATE SCENARIO #2**  
**600 STUDENTS/25 BUSED**

Time Period	Staff	Buses	Drop-off/ Pick-up	Total Trips
<i>Weekday Morning</i>				
<i>Peak Hour:</i>				
Entering	74	1	335	410
Exiting	<u>0</u>	<u>1</u>	<u>335</u>	<u>336</u>
Total	74	2	670	746
<i>Weekday Afternoon</i>				
<i>Peak Hour:</i>				
Entering	0	1	214	208
Exiting	<u>0</u>	<u>1</u>	<u>261</u>	<u>254</u>
Total	0	2	475	462

**Table 9**  
**TRIP GENERATION SUMMARY: ALTERNATE SCENARIO #2**  
**600 STUDENTS/150 BUSED**

Time Period	Staff	Buses	Drop-off/ Pick-up	Total Trips
<i>Weekday Morning</i>				
<i>Peak Hour:</i>				
Entering	74	7	232	313
<u>Exiting</u>	<u>0</u>	<u>7</u>	<u>232</u>	<u>239</u>
Total	74	14	464	552
<i>Weekday Afternoon</i>				
<i>Peak Hour:</i>				
Entering	0	7	147	154
<u>Exiting</u>	<u>0</u>	<u>7</u>	<u>181</u>	<u>188</u>
Total	0	14	328	342

As shown, at 800 students and no busing in the morning peak hour traffic generation increases to 1,036 vehicle trips (567 entering/469 exiting). Overall, this emphasizes that busing is an important element to reducing the overall impacts. In addition, the 600-student alternatives show the small school reduced traffic generation.

### **TRIP DISTRIBUTION AND ASSIGNMENT**

Separate trip distributions were developed for staff and students. The directional distribution of the site-generated trips to the proposed development by the staff was determined based on a review of origin to workplace data for Brookline. The directional distribution for the drop-offs and pick-ups was based on existing travel patterns at the study area intersections, directional data provided by the architect and it was further assumed that 30 percent of parents dropping-off students would be traveling on to work. The weekday morning trip distribution for staff is depicted on Figure 16 and the drop-off (morning) and pick-up (afternoon) patterns are depicted in Figures 17 and 18. The weekday morning and weekday afternoon peak-hour traffic volumes expected to be generated by the school are shown on Figures 19 and 20.

### **FUTURE TRAFFIC VOLUMES – BUILD CONDITION**

The 2024 Build condition networks consist of the 2024 No-Build traffic volumes with the anticipated site-generated traffic added to them. The 2024 Build weekday morning and weekday afternoon traffic-volume networks are graphically depicted on Figures 21 and 22.

A summary of peak-hour projected traffic-volume increases external to the study area that is the subject of this assessment is shown in Table 10. These volumes are based on the expected increases from the project.

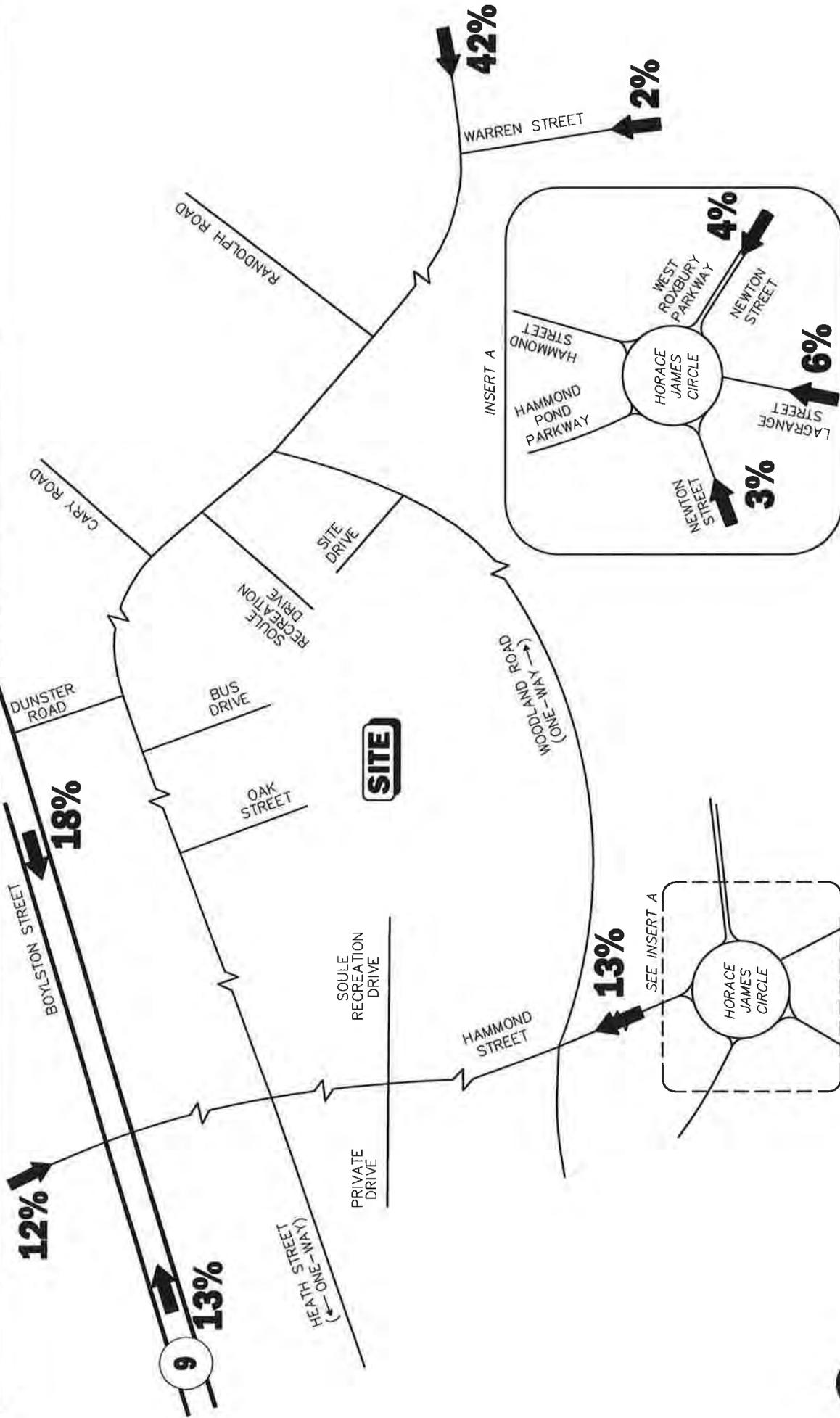


Figure 16  
Trip Distribution Staff  
Weekday Morning

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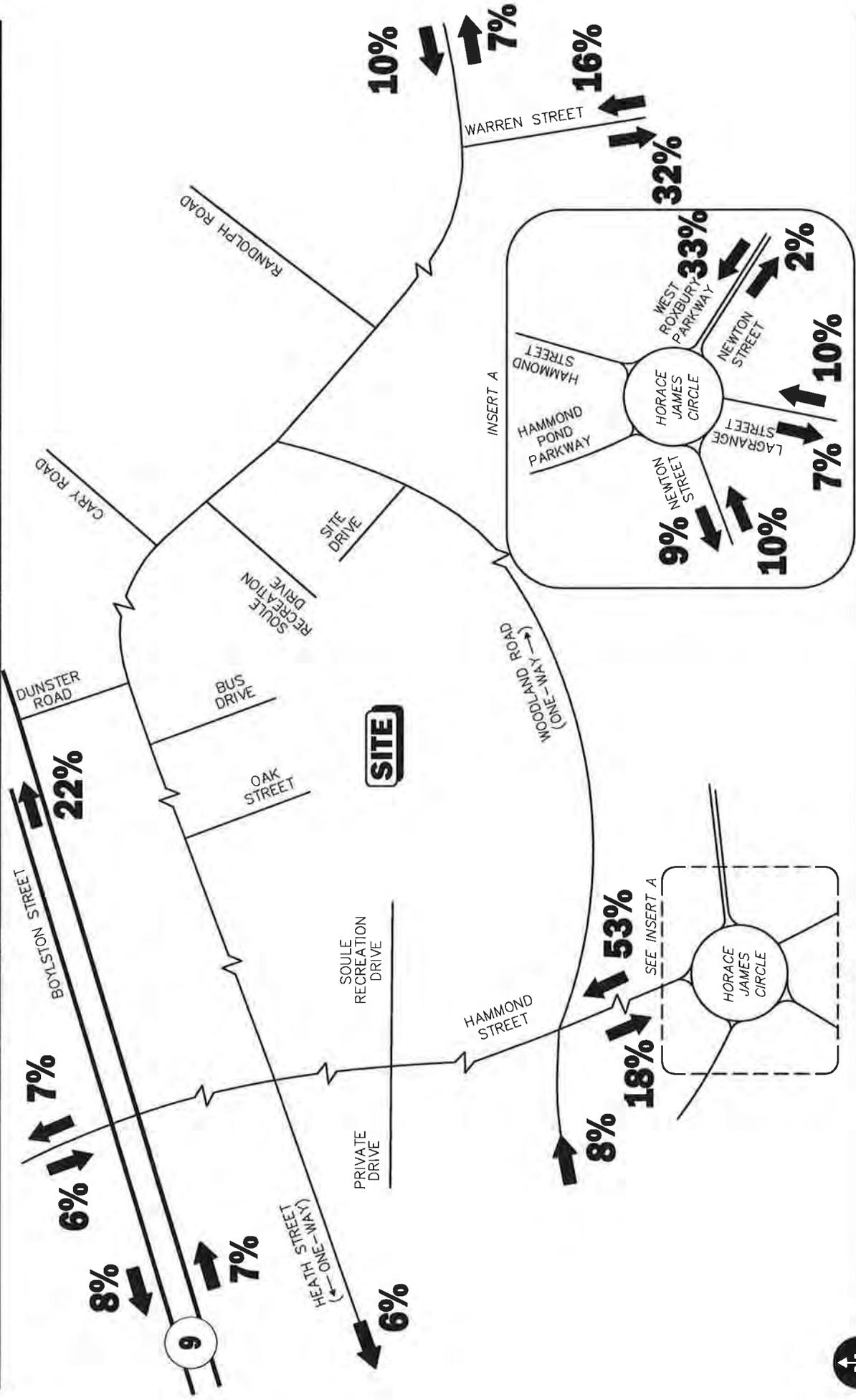


Figure 17

Trip Distribution  
Student Drop-off  
Weekday Morning

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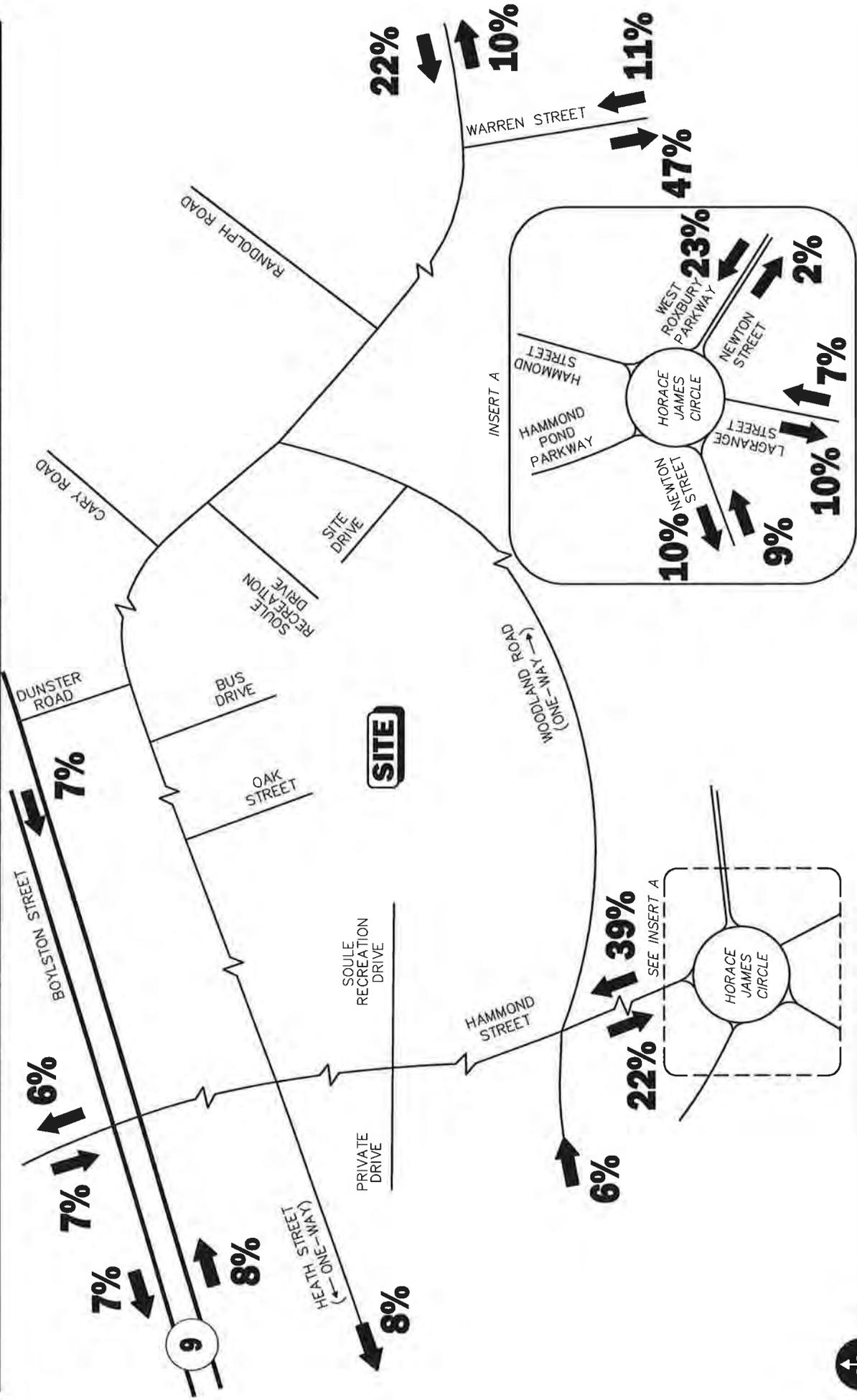


Figure 18

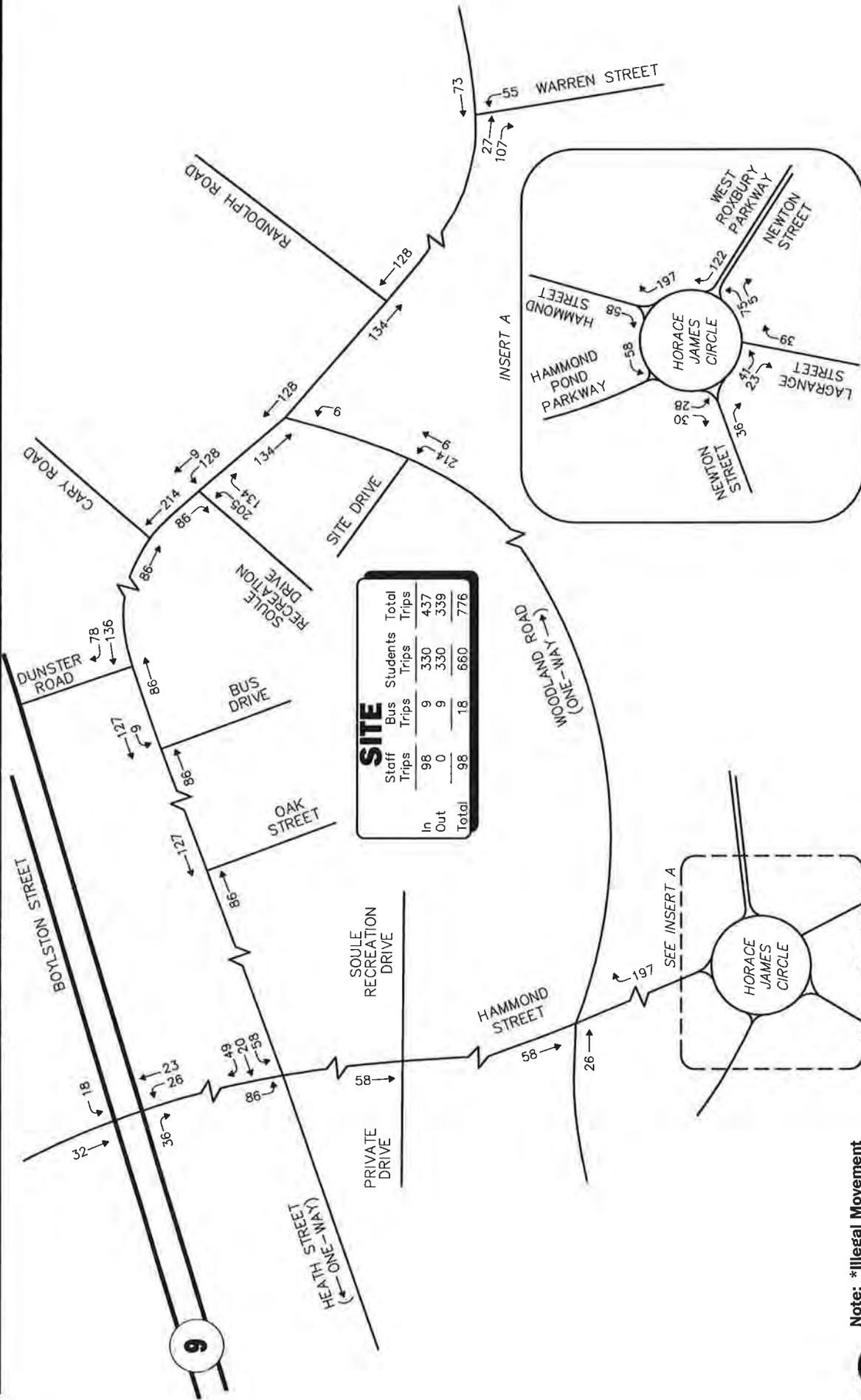
Trip Distribution  
Student Pick-up  
Weekday Evening

**DRAFT**

Vanasse & Associates, Inc.  
TRANSPORTATION ENGINEERS & PLANNERS



Not To Scale



Note: \*Illegal Movement  
 Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

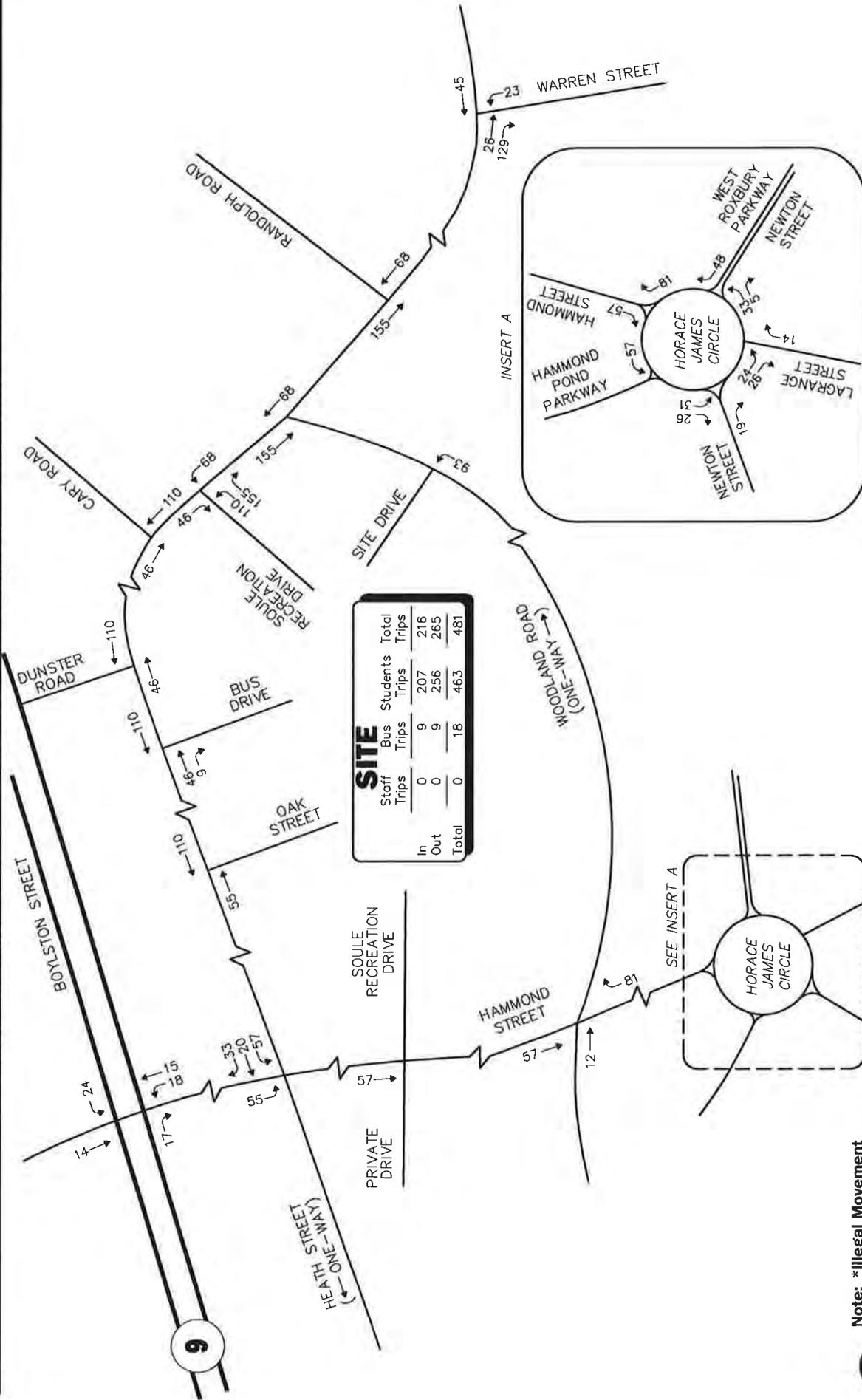
Not To Scale

Figure 19

Site Generated  
 Weekday Morning  
 Peak Hour Traffic Volumes

**VAI** Vanasse & Associates, Inc.  
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**DRAFT**



Note: \*Illegal Movement  
 Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

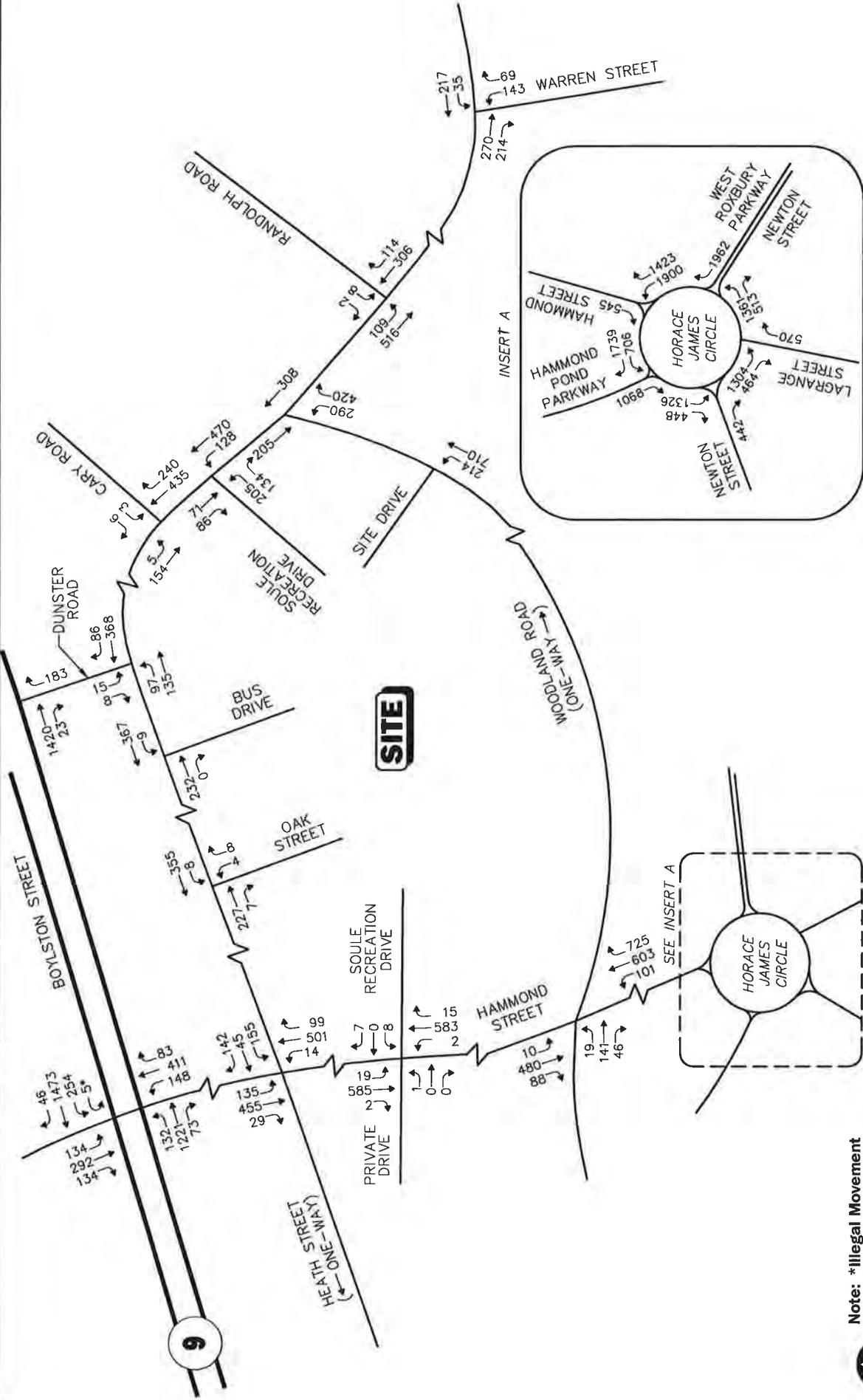
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Figure 20

Site Generated  
 Weekday Afternoon  
 Peak Hour Traffic Volumes

**DRAFT**



Note: \*Illegal Movement  
 Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

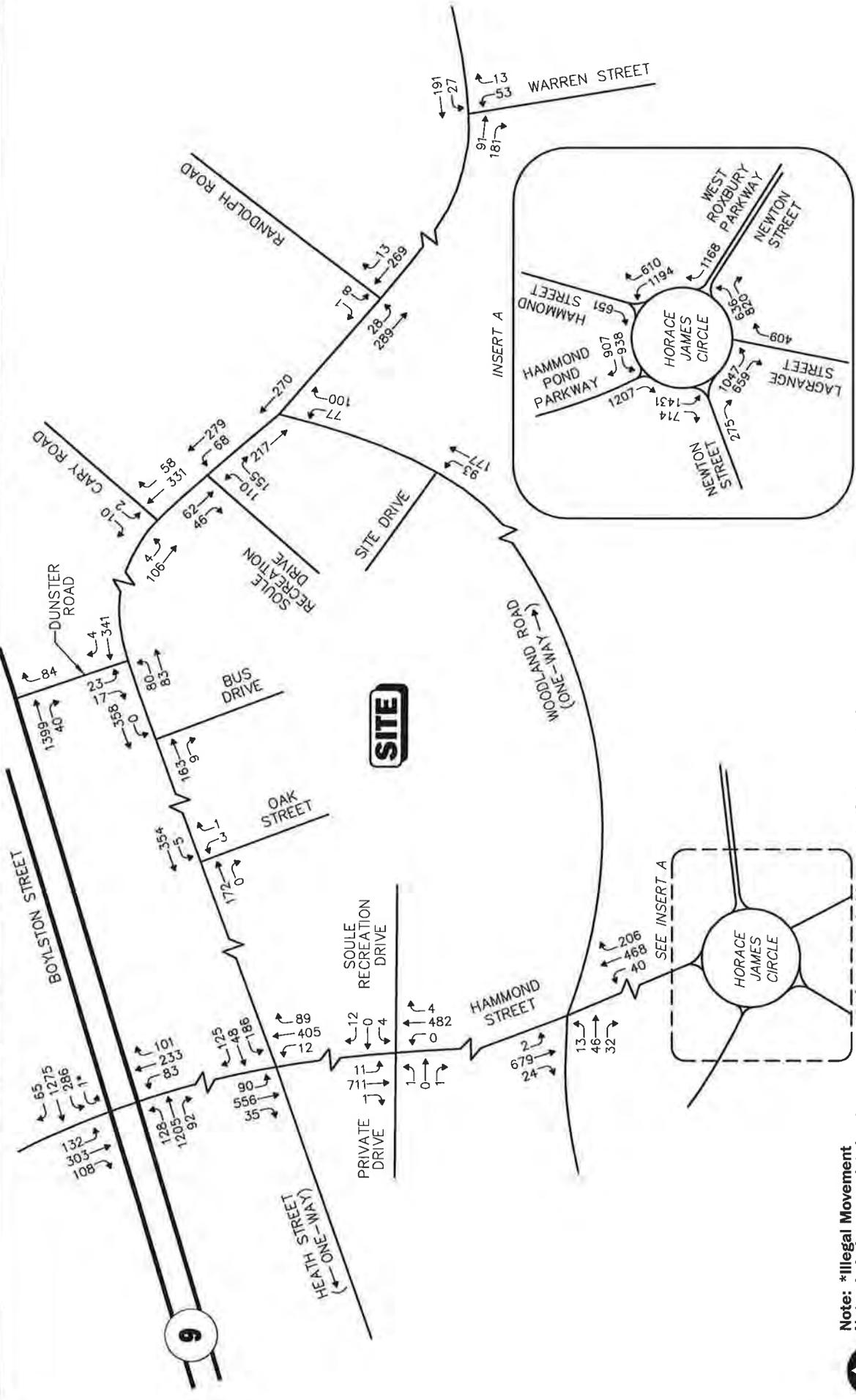
Not To Scale

Figure 21

2024 Build  
 Weekday Morning  
 Peak Hour Traffic Volumes

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Note: \*Illegal Movement  
 Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

Figure 22

2024 Build  
 Weekday Afternoon  
 Peak Hour Traffic Volumes

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**Table 10**  
**PEAK-HOUR TRAFFIC-VOLUME INCREASES**

Location/Peak Hour	2024 No-Build	2024 Build	Traffic Volume Increase Over No-Build	Percent Increase Over No-Build
<i>Heath Street, east of Warren Street:</i>				
Weekday Morning	671	933	262	39.0
Weekday Afternoon	364	587	223	61.3
<i>Boylston Street, west of Hammond Street:</i>				
Weekday Morning	3,119	3,181	62	2.0
Weekday Afternoon	2,856	2,891	35	1.2
<i>Heath Street, east of Hammond Street:</i>				
Weekday Morning	358	576	218	60.9
Weekday Afternoon	374	538	164	43.9
<i>Woodland Road, east of Hammond Street:</i>				
Weekday Morning	652	876	224	34.4
Weekday Afternoon	160	254	94	58.8

As shown in Table 10, project-related traffic-volume increases external to the study area relative to 2024 No-Build conditions are anticipated to range from 1.2 to 61.3 percent during the peak periods.

# **TRAFFIC OPERATIONS ANALYSIS**

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Measuring existing and future traffic volumes quantifies traffic flow within the study area. To assess quality of flow, roadway capacity and vehicle queue analyses were conducted under Existing, No-Build, and Build traffic-volume conditions. Capacity analyses provide an indication of how well the roadway facilities serve the traffic demands placed upon them, with vehicle queue analyses providing a secondary measure of the operational characteristics of an intersection or section of roadway under study.

## **METHODOLOGY**

### **Levels of Service**

A primary result of capacity analyses is the assignment of level of service to traffic facilities under various traffic-flow conditions.<sup>4</sup> The concept of level of service is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six levels of service are defined for each type of facility. They are given letter designations from A to F, with level-of-service (LOS) A representing the best operating conditions and LOS F representing congested or constrained operating conditions.

Since the level of service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of levels of service, depending on the time of day, day of week, or period of year.

### **Unsignalized Intersections**

The six levels of service for unsignalized intersections may be described as follows:

- *LOS A* represents a condition with little or no control delay to minor street traffic.

---

<sup>4</sup>The capacity analysis methodology is based on the concepts and procedures presented in the *Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010.

- *LOS B* represents a condition with short control delays to minor street traffic.
- *LOS C* represents a condition with average control delays to minor street traffic.
- *LOS D* represents a condition with long control delays to minor street traffic.
- *LOS E* represents operating conditions at or near capacity level, with very long control delays to minor street traffic.
- *LOS F* represents a condition where minor street demand volume exceeds capacity of an approach lane, with extreme control delays resulting.

The levels of service of unsignalized intersections are determined by application of a procedure described in the 2010 *Highway Capacity Manual*.<sup>5</sup> Level of service is measured in terms of average control delay. Mathematically, control delay is a function of the capacity and degree of saturation of the lane group and/or approach under study and is a quantification of motorist delay associated with traffic control devices such as traffic signals and STOP signs. Control delay includes the effects of initial deceleration delay approaching a STOP sign, stopped delay, queue move-up time, and final acceleration delay from a stopped condition. Definitions for level of service at unsignalized intersections are also given in the 2010 *Highway Capacity Manual*. Table 11 summarizes the relationship between level of service and average control delay for two way stop controlled and all-way stop controlled intersections.

**Table 11**  
**LEVEL-OF-SERVICE CRITERIA FOR**  
**UNSIGNALIZED INTERSECTIONS<sup>a</sup>**

Level-Of-Service by Volume-to-Capacity Ratio		Average Control Delay (Seconds Per Vehicle)
$v/c \leq 1.0$	$v/c > 1.0$	
A	F	$\leq 10.0$
B	F	10.1 to 15.0
C	F	15.1 to 25.0
D	F	25.1 to 35.0
E	F	35.1 to 50.0
F	F	$> 50.0$

<sup>a</sup>Source: *Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010; page 19-2.

<sup>5</sup>*Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010.

## Signalized Intersections

The six levels of service for signalized intersections may be described as follows:

- *LOS A* describes operations with very low control delay; most vehicles do not stop at all.
- *LOS B* describes operations with relatively low control delay. However, more vehicles stop than *LOS A*.
- *LOS C* describes operations with higher control delays. Individual cycle failures may begin to appear. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
- *LOS D* describes operations with control delay in the range where the influence of congestion becomes more noticeable. Many vehicles stop and individual cycle failures are noticeable.
- *LOS E* describes operations with high control delay values. Individual cycle failures are frequent occurrences.
- *LOS F* describes operations with high control delay values that often occur with over-saturation. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Levels of service for signalized intersections are calculated using the operational analysis methodology of the 2010 *Highway Capacity Manual*. This method assesses the effects of signal type, timing, phasing, and progression; vehicle mix; and geometrics on delay. Level-of-service designations are based on the criterion of control or signal delay per vehicle. Control or signal delay is a measure of driver discomfort, frustration, and fuel consumption, and includes initial deceleration delay approaching the traffic signal, queue move-up time, stopped delay and final acceleration delay. Table 12 summarizes the relationship between level of service and control delay. The tabulated control delay criterion may be applied in assigning level-of-service designations to individual lane groups, to individual intersection approaches, or to entire intersections.

**Table 12**  
**LEVEL-OF-SERVICE CRITERIA**  
**FOR SIGNALIZED INTERSECTIONS<sup>a</sup>**

Level-Of-Service by Volume-to-Capacity Ratio		Average Control Delay (Seconds Per Vehicle)
$v/c \leq 1.0$	$v/c > 1.0$	
A	F	$\leq 10.0$
B	F	10.1 to 20.0
C	F	20.1 to 35.0
D	F	35.1 to 55.0
E	F	55.1 to 80.0
F	F	$> 80.0$

<sup>a</sup>Source: *Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010; page 18-6.

## **Roundabouts**

The roundabout capacity analysis is based on the procedures described in the *Traffic Signalized and Unsignalized Intersection Design and Research Aid (SIDRA) Intersection*.<sup>6</sup> The main features of the *SIDRA Intersection* method for roundabout capacity estimation are the dependence of gap acceptance parameters on rotary geometry, circulating flows and entry lane flows, and the designation of approach lanes as controlling and otherwise that have different capacity characteristics. Provision of two-lane approaches tend to substantially increase roundabout capacity. As a general rule, individual approach volumes exceeding 85 percent of the calculated capacity of that approach are considered over-saturated and indicate areas of concern.

The SIDRA analytical model calculates several components of delay. One of these, the average total delay component, produces level-of-service results based on the concepts described in the HCM. The delay ranges that define levels of service for roundabouts are shown in Table 13.

**Table 13**  
**LEVEL-OF-SERVICE CRITERIA FOR ROUNDABOUTS<sup>a</sup>**

Level-Of-Service by Volume-to-Capacity Ratio		Control Delay Per Vehicle (Seconds)
v/c ≤ 1.0	v/c > 1.0	
A	F	≤10.0
B	F	10.1 to 15.0
C	F	15.1 to 25.0
D	F	25.1 to 35.0
E	F	35.1 to 50.0
F	F	>50.0

<sup>a</sup>Source: *SIDRA Intersection User Guide*; Akcelik & Associates Pty Ltd; Greythorn, Victoria 3104, Australia; November 2012.

## **ANALYSIS RESULTS**

Level-of-service analyses were conducted for Baseline, 2024 No-Build, and 2024 Build conditions for the study area intersections. The results of the intersection capacity analysis within the study area are described below, with a tabular summary provided in Tables 14 and 15. The results of the SIDRA Rotary Capacity Analysis are summarized in Table 16.

### **Unsignalized Intersection Analysis Results**

#### **Hammond Street at Soule Recreation Drive**

Under the all conditions, the Soule Recreation Drive operates at LOS C during the weekday morning peak hour and LOS B during the weekday afternoon peak hour.

<sup>6</sup>Traffic Signalized and Unsignalized Intersection Design and Research Aid, *SIDRA Intersection User Guide*; Akcelik & Associates Pty Ltd; Greythorn, Victoria 3104, Australia; November 2012.

### **Hammond Street at Woodland Road**

Under Existing conditions, Woodland Road operates at LOS F during the weekday morning peak hour and LOS D during the weekday afternoon peak hour. Under No-Build and Build conditions, Woodland Road operates at LOS F during the weekday morning peak hour and LOS E during the weekday afternoon peak hour. This intersection is expected to be signalized under future conditions.

### **Heath Street at Oak Street**

Under all conditions, Oak Street operates at LOS B or higher during both the weekday morning and weekday afternoon peak hours.

### **Heath Street at Dunster Road**

Under Existing and No-Build conditions, Dunster Road operates at LOS B during the weekday morning and weekday afternoon peak hours. Under Build conditions, Dunster Road operates at LOS D during the weekday morning peak hour and LOS B during the weekday afternoon peak hour.

### **Heath Street at Cary Road**

Under Existing and No-Build conditions, Cary Road operates at LOS B during the weekday morning and weekday afternoon peak hours. Under Build conditions, Cary Road operates at LOS C during the weekday morning peak hour and LOS B during the weekday afternoon peak hour.

### **Heath Street at Soule Recreation Drive/Site Drive**

Under Existing and No-Build conditions, the Soule Recreation Drive operates at LOS B during the weekday morning and weekday afternoon peak hours. Under Build conditions, left-turns from the Site Drive operates at LOS F during the weekday morning peak hour and LOS C during the weekday afternoon peak hour. Under Build conditions, right-turns from the Site Drive operates at LOS B during both the weekday morning and weekday afternoon peak hours. During the morning peak period, officer control is expected to control operations.

### **Heath Street at Woodland Road**

During the weekday morning hour, the Woodland Road left-turn operates at LOS B under Existing conditions, at LOS C under No-Build conditions and at LOS F under Build conditions. During the morning peak period, delay increases of slightly over 100 seconds are expected. During the weekday morning hour, the Woodland Road right-turn operates at LOS B under Existing and No-Build conditions, and at LOS D under Build conditions.

During the weekday afternoon peak hour, the Woodland Road left-turn operates at LOS B and the Woodland Road right-turn operates at LOS A, under all conditions.

### **Heath Street at Randolph Road**

Under Existing and No-Build conditions, Dunster Road operates at LOS C during the weekday morning peak hour and at LOS B during the weekday afternoon peak hour. Under Build conditions, Dunster Road operates at LOS F during the weekday morning peak hour and LOS C

during the weekday afternoon peak hour. During the weekday morning peak period, delay increases of 34 seconds are expected.

#### **Heath Street at Warren Street**

During the weekday morning peak hour, Warren Street operates at LOS B under Existing conditions, at LOS C under No-Build conditions and at LOS F under Build conditions. Delay increases of up to 90 seconds are expected during the morning peak period. During the weekday afternoon peak hour, Warren Street operates at LOS B under all conditions.

#### **James Horace Circle**

Under all conditions, James Horace Circle operates at LOS F, during both the weekday morning and weekday evening peak hours. Delays increases of up to one minute can be expected during the critical morning period.

#### **Boylston Street at Dunster Road**

During the both the weekday morning and weekday evening hours, Dunster Road operates at LOS C under Existing and No-Build conditions. Under Build conditions, Dunster Road operates at LOS F during the weekday morning hour and at LOS C during the weekday evening peak hour.

#### **Signalized Intersection Analysis Result**

##### **Boylston Street at Hammond Street**

Under Existing conditions, this intersection operates at an overall LOS E during both the weekday morning and weekday afternoon peak hours. Under No-Build conditions, this intersection operates at an overall LOS F during both the weekday morning and weekday afternoon peak hours. Under Build conditions with mitigated timings, this intersection operates at an overall LOS F during the weekday morning peak hour and at LOS E during the weekday afternoon peak hour. It should be noted that the overall delay at this intersection decreases with signal optimization from the project.

##### **Hammond Street at Heath Street**

Under Existing conditions, this intersection operates at an overall LOS D during the weekday morning peak hour and at LOS C during the weekday afternoon peak hour. Under No-Build conditions, this intersection operates at an overall LOS D during both the weekday morning and weekday afternoon peak hours. Under Build conditions, this intersection operates at an overall LOS B during both the weekday morning and weekday afternoon peak hours. It should be noted that the overall delay at this intersection decreases with signal optimization from the project and the modified shorter cycle length.

##### **Hammond Street at Woodland Road**

The Town has created a concept plan for the signalization of Hammond Street at Woodland Road. The Town's concept plan was analyzed, with the addition of an exclusive right-turn lane on the Hammond Street northbound approach, in order to accommodate the proposed school. Under all conditions, this signalized intersection operates at LOS B or better, during both the weekday morning and weekday afternoon peak hours.

**Table 14**  
**UNSIGNALIZED INTERSECTION CAPACITY ANALYSIS SUMMARY**

Unsignalized Intersection Movements	2016 Existing				2024 No-Build				2024 Build			
	Demand <sup>a</sup>	Delay <sup>b</sup>	LOS <sup>c</sup>	Queue <sup>d</sup>	Demand	Delay	LOS	Queue	Demand	Delay	LOS	Queue
<b>Hammond Street at Soule Recreation Drive and Private Drive</b>												
<i>Weekday Morning:</i>												
Private Drive EB LT/TH/RT	1	22.2	C	0	1	25.0	D	0	1	32.3	D	0
Soule Rec Drive WB LT/TH/RT	13	17.6	C	0	13	19.5	C	0	15	22.3	C	0
<i>Weekday Afternoon:</i>												
Private Drive EB LT/TH/RT	2	16.0	C	0	2	17.7	C	0	2	18.1	C	0
Soule Rec Drive WB LT/TH/RT	12	12.5	B	0	12	13.3	B	0	16	13.5	B	0
<b>Hammond Street at Woodland Road</b>												
<i>Weekday Morning:</i>												
Woodland Road EB LT/TH	124	>50.0	F	14	134	>50.0	F	20	160	>50.0	F	22
Woodland Road EB RT	43	10.7	B	0	46	11.0	B	0	46	11.8	B	0
Hammond Street SB LT	8	10.9	B	0	9	11.5	B	0	10	13.7	B	0
<i>Weekday Afternoon:</i>												
Woodland Road EB LT/TH	43	27.8	D	1	47	35.2	E	1	59	42.6	E	2
Woodland Road EB RT	30	10.6	B	0	32	11.0	B	0	32	11.2	B	0
Hammond Street SB LT	1	8.8	A	0	1	9.0	A	0	2	9.2	A	0
<b>Heath Street at Oak Street</b>												
<i>Weekday Morning:</i>												
Heath Street WB LT	8	7.5	A	0	8	7.6	A	0	8	8.0	A	0
Oak Street NB LT/RT	12	9.8	A	0	12	9.9	A	0	12	12.8	B	0
<i>Weekday Afternoon:</i>												
Heath Street WB LT	5	7.4	A	0	5	7.5	A	0	5	7.6	A	0
Oak Street NB LT/RT	4	10.6	B	0	4	10.9	B	0	4	11.8	B	0
<b>Heath Street at Dunster Road</b>												
<i>Weekday Morning:</i>												
Heath Street EB LT	90	7.9	A	0	97	8.0	A	0	97	10.2	B	1
Dunster Road SB LT/RT	22	12.0	B	0	24	12.4	B	0	23	26.2	D	1
<i>Weekday Afternoon:</i>												
Heath Street EB LT	74	8.0	A	0	80	8.0	A	0	80	8.3	A	0
Dunster Road SB LT/RT	37	11.5	B	0	40	12.0	B	0	40	13.4	B	0
<b>Heath Street at Cary Road</b>												
<i>Weekday Morning:</i>												
Cary Road SB LT/TH/RT	9	10.7	B	0	9	11.0	B	0	9	17.8	C	0
<i>Weekday Afternoon:</i>												
Cary Road SB LT/TH/RT	11	10.0	B	0	12	10.2	B	0	12	11.3	B	0

See notes at end of table.

**Table 14 (Continued)**  
**UNSIGNALIZED INTERSECTION CAPACITY ANALYSIS SUMMARY**

Unsignalized Intersection Movements	2016 Existing				2024 No-Build				2024 Build			
	Demand <sup>a</sup>	Delay <sup>b</sup>	LOS <sup>c</sup>	Queue <sup>d</sup>	Demand	Delay	LOS	Queue	Demand	Delay	LOS	Queue
<b>Heath Street at Site Drive</b>												
<i>Weekday Morning :</i>												
Soule Rec. Drive NB LT/TH/RT	2	10.6	B	0	2	10.9	B	0	--	>50.0	F	--
Site Drive NB LT*	--	--	--	--	--	--	--	--	205	11.6	B	44
Site Drive NB RT*	--	--	--	--	--	--	--	--	134	--	B	2
<i>Weekday Afternoon:</i>												
Soule Rec. Drive NB LT/TH/RT	4	10.3	B	0	4	10.5	B	0	--	--	--	--
Site Drive NB LT*	--	--	--	--	--	--	--	--	110	19.4	C	2
Site Drive NB RT*	--	--	--	--	--	--	--	--	155	10.6	B	1
<b>Heath Street at Woodland Road</b>												
<i>Weekday Morning :</i>												
Woodland Road NB LT	256	14.1	B	2	281	15.4	C	3	290	>50.0	F	14
Woodland Road NB RT	384	12.4	B	3	419	13.3	B	3	420	29.9	D	8
<i>Weekday Afternoon:</i>												
Woodland Road NB LT	69	10.7	B	0	77	11.0	B	0	77	12.9	B	1
Woodland Road NB RT	90	8.9	A	0	99	9.0	A	0	100	9.9	A	0
<b>Heath Street at Randolph Road</b>												
<i>Weekday Morning :</i>												
Heath Street EB LT	101	7.9	A	0	109	8.3	A	0	109	9.5	A	1
Randolph Road SB LT/RT	9	16.5	C	0	10	19.6	C	0	10	>50.0	F	1
<i>Weekday Afternoon:</i>												
Heath Street EB LT	26	7.9	A	0	28	8.0	A	0	28	8.1	A	0
Randolph Road SB LT/RT	8	11.6	B	0	9	12.0	B	0	9	15.6	C	0
<b>Heath Street at Warren Street</b>												
<i>Weekday Morning :</i>												
Heath Street WB LT	31	8.1	A	0	35	8.2	A	0	35	9.4	A	0
Warren Street NB LT/RT	145	14.9	B	2	157	16.6	C	2	212	>50.0	F	13
<i>Weekday Afternoon:</i>												
Heath Street WB LT	25	7.6	A	0	27	7.6	A	0	27	8.3	A	0
Warren Street NB LT/RT	40	10.3	B	0	43	10.5	B	0	66	12.9	B	0
<b>Boylston Street at Dunster Street</b>												
<i>Weekday Morning :</i>												
Dunster Street NB RT	97	18.7	C	1	105	22.2	C	2	183	>50.0	F	10
<i>Weekday Afternoon:</i>												
Dunster Street NB RT	78	16.9	C	1	84	19.4	C	1	84	19.4	C	1

<sup>a</sup>Demand in vehicles per hour <sup>b</sup>Delay in seconds per vehicle. <sup>c</sup>Level of service. <sup>d</sup>Queue Length in Vehicles.  
<sup>e</sup>Geometry only existing under Build conditions with construction of Site Driveway. NB = northbound, WB = westbound, LT = left-turning movements, RT = right-turning movements

**Table 15  
SIGNALIZED INTERSECTION CAPACITY ANALYSIS SUMMARY**

Signalized Intersection Movements	2016 Existing				2024 No-Build				2024 Build			
	V/C <sup>a</sup>	Delay <sup>b</sup>	LOS <sup>c</sup>	Queue	V/C	Delay	LOS	Queue	V/C	Delay	LOS	Queue
<b>Boylston Street at Hammond Street</b>												
<i>Weekday Morning:</i>												
Boylston Street EB LT	0.72	59.7	E	110/202	0.74	63.8	E	120/226	0.89	>80.0	F	145/288
Boylston Street EB TH/RT	0.94	58.8	E	604/746	1.08	>80.0	F	747/889	1.08	>80.0	F	844/987
Boylston Street WB LT	1.05	>80.0	F	214/405	1.19	>80.0	F	259/449	1.02	>80.0	F	293/479
Boylston Street WB TH	0.98	56.1	E	700/839	1.18	>80.0	F	877/1017	1.00	65.6	F	813/975
Boylston Street WB RT	0.05	12.6	B	0/4	0.06	13.7	B	0/4	0.05	12.1	B	0/6
Hammond Street NB LT/TH/RT	0.79	49.5	D	52/102	0.83	51.4	D	56/106	1.04	>80.0	F	382/498
Hammond Street SB LT/TH	0.72	51.2	D	167/217	0.75	54.0	D	184/237	0.84	77.1	E	253/302
Hammond Street SB RT	0.33	34.8	C	0/43	0.34	34.8	C	7/52	0.38	45.0	D	30/78
<b>Overall</b>	--	<b>58.1</b>	<b>E</b>	--	--	<b>&gt;80.0</b>	<b>F</b>	--	--	<b>&gt;80.0</b>	<b>F</b>	--
<i>Weekday Afternoon:</i>												
Boylston Street EB LT	0.74	57.4	E	104/164	0.76	56.6	E	113/176	0.91	>80.0	F	139/286
Boylston Street EB TH/RT	1.08	>80.0	F	680/822	1.20	>80.0	F	824/966	1.07	>80.0	F	855/998
Boylston Street WB LT	0.84	62.8	E	223/372	0.92	75.8	E	251/435	1.03	>80.0	F	385/526
Boylston Street WB TH	0.91	42.8	D	627/811	1.03	66.7	F	770/973	0.91	44.3	D	748/766
Boylston Street WB RT	0.07	11.3	B	0/9	0.08	10.6	B	0/11	0.08	10.1	B	4/14
Hammond Street NB LT/TH/RT	0.76	48.5	D	48/114	0.72	47.5	D	64/101	0.79	66.0	E	174/239
Hammond Street SB LT/TH	0.73	50.3	D	178/230	0.75	50.5	D	196/253	0.82	70.6	E	240/314
Hammond Street SB RT	0.27	34.7	C	0/37	0.27	32.9	C	4/40	0.30	43.8	D	3/52
<b>Overall</b>	--	<b>62.7</b>	<b>E</b>	--	--	<b>&gt;80.0</b>	<b>F</b>	--	--	<b>73.9</b>	<b>E</b>	--
<b>Hammond Street at Heath Street</b>												
<i>Weekday Morning:</i>												
Heath Street WB LT/TH/RT	0.82	60.8	E	161/225	0.84	63.3	E	176/245	0.89	30.7	C	197/159
Hammond Street NB LT/TH/RT	0.83	56.2	E	251/325	0.87	62.7	E	284/387	0.41	10.7	B	142/195
Hammond Street SB LT/TH/RT	0.41	5.1	A	11/14	0.45	5.7	A	12/14	0.67	13.2	B	192/198
<b>Overall</b>	--	<b>36.1</b>	<b>D</b>	--	--	<b>39.5</b>	<b>D</b>	--	--	<b>16.1</b>	<b>B</b>	--
<i>Weekday Afternoon:</i>												
Heath Street WB LT/TH/RT	0.86	58.6	E	211/258	0.87	61.3	E	230/282	0.85	34.1	C	158/232
Hammond Street NB LT/TH/RT	0.80	52.8	D	225/256	0.84	58.6	E	244/285	0.32	7.4	A	103/128
Hammond Street SB LT/TH/RT	0.45	6.9	A	33/83	0.51	8.2	E	39/92	0.63	10.3	B	165/149
<b>Overall</b>	--	<b>34.9</b>	<b>C</b>	--	--	<b>37.8</b>	<b>D</b>	--	--	<b>14.5</b>	<b>B</b>	--

See notes at end of table.

**Table 15 (Continued)**  
**SIGNALIZED INTERSECTION CAPACITY ANALYSIS SUMMARY**

Signalized Intersection Movements	2016 Existing				2024 No-Build				2024 Build			
	V/C <sup>a</sup>	Delay <sup>b</sup>	LOS <sup>c</sup>	Queue <sup>d</sup>	V/C	Delay	LOS	Queue	V/C	Delay	LOS	Queue
<b>Hammond Street at Woodland Road</b>												
<i>Weekday Morning:</i>												
Woodland Road EB LT/TH/RT	--	--	--	--	0.86	27.0	C	80/134	0.91	38.0	D	138/157
Hammond Street NB LT	--	--	--	--	0.22	9.4	A	16/60	0.30	15.9	B	25/81
Hammond Street NB TH	--	--	--	--	0.55	5.6	A	121/314	0.57	7.2	A	175/340
Hammond Street NB RT*	--	--	--	--	0.56	5.8	A	13/65	0.80	12.5	B	122/308
Hammond Street SB TH/RT	--	--	--	--	0.54	5.5	A	108/248	0.64	8.1	A	199/309
<b>Overall</b>	--	--	--	--	--	<b>8.7</b>	<b>A</b>	--	--	<b>13.4</b>	<b>B</b>	--
<i>Weekday Afternoon:</i>												
Woodland Road EB LT/TH/RT	--	--	--	--	0.82	27.6	C	17/41	0.80	26.5	C	22/53
Hammond Street NB LT	--	--	--	--	0.08	4.6	A	3/14	0.08	5.0	A	4/15
Hammond Street NB TH	--	--	--	--	0.43	2.5	A	53/113	0.41	2.5	A	55/122
Hammond Street NB RT	--	--	--	--	0.13	1.8	A	0/12	0.21	2.0	A	0/16
Hammond Street SB TH/RT	--	--	--	--	0.56	3.0	A	77/184	0.58	3.2	A	91/216
<b>Overall</b>	--	--	--	--	--	<b>4.4</b>	<b>A</b>	--	--	<b>4.4</b>	<b>A</b>	--

<sup>a</sup>Volume to Capacity

<sup>b</sup>Delay in seconds per vehicle.

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

<sup>d</sup>Queue Length in Feet (50<sup>th</sup>/95<sup>th</sup> percentile)

NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

\* Assume Concept Plan has Northbound Right Turn Lane on Hammond Street

**Table 16**  
**SIDRA ROTARY CAPACITY ANALYSIS SUMMARY**

Critical Movement/Peak Hour	2016 Existing				2024 No-Build				2024 Build			
	Demand <sup>a</sup>	Delay <sup>b</sup>	LOS <sup>c</sup>	Queue <sup>d</sup>	Demand	Delay	LOS	Queue	Demand	Delay	LOS	Queue
<b>James Horace Circle</b>												
<i>Weekday Morning:</i>												
Hammond Street SWB	451	33.9	D	113	487	41.9	E	152	545	81.1	F	568
Hammond Pond Parkway SEB	985	15.9	C	123	1068	19.8	C	164	1068	23.5	C	188
Newton Street EB	378	26.4	D	91	406	38.5	E	127	442	60.9	F	236
LaGrange Street NB	468	214.5	F	1453	531	354.9	F	2311	570	420.2	F	2573
Newton Street NB	1701	135.5	F	1647	1840	172.9	F	2167	1962	197.5	F	2641
<b>Overall</b>	--	<b>95.6</b>	<b>F</b>	--	--	<b>133.8</b>	<b>F</b>	--	--	<b>159.9</b>	<b>F</b>	--
<i>Weekday Afternoon:</i>												
Hammond Street SWB	537	211.1	F	77	594	309.2	F	2777	651	325.0	F	2961
Hammond Pond Parkway SEB	1101	82.6	F	25	1207	118.0	F	1070	1207	119.3	F	1082
Newton Street EB	239	15.0	B	1	256	15.8	C	35	275	16.8	C	40
LaGrange Street NB	351	122.4	F	682	395	188.3	F	1172	409	232.3	F	1472
Newton Street NB	1035	15.3	C	96	1120	17.7	C	117	1168	17.0	C	115
<b>Overall</b>	--	<b>89.7</b>	<b>F</b>	--	--	<b>130.7</b>	<b>F</b>	--	--	<b>139.8</b>	<b>F</b>	--

<sup>a</sup>Demand in Vehicles per Hour.

<sup>b</sup>Delay in seconds per vehicle.

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

<sup>d</sup>Queue Length in Feet.

NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

\* Assume Concept Plan has Northbound Right Turn Lane on Hammond Street

## **CONCLUSIONS AND RECOMMENDATIONS**

---

### **CONCLUSIONS**

VAI has completed a detailed assessment of the potential impacts on the transportation infrastructure associated with the proposed Baldwin Elementary School to be located off Heath Street in Brookline, Massachusetts. This assessment has been completed in accordance with State and Town standards and those of the Traffic Engineering and Transportation Planning professions for the preparation of such reports. The following specific areas have been evaluated as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; under existing and future conditions, both with and without the Project. Based on this assessment, we have concluded the following with respect to the Project:

- The Project is expected to generate approximately 776 vehicle trips (437 entering/339 exiting) expected during the weekday morning peak-hour and 481 vehicle trips (216 entering/265 exiting) expected during the weekday afternoon peak-hour;
- A review of accident data researched from MassDOT indicates that area intersections (with the exception of the Horace James Circle) experience accident rates below state averages indicating safe operations.
- The proposed driveway off Heath Street has adequate sight distances for safe and efficient operations.
- While the projected pedestrian traffic to the school is expected to be minimal, safe conditions can be achieved with sidewalks, crosswalks and crossing guards at appropriate locations.
- The Project will increase traffic in the morning and afternoon periods with increased delays and queues at locations within the study area. These delays and queues will be confined to limited and distinct periods during the morning drop-off and afternoon pick-up periods (20-25 minutes at peaks) and these periods are non-coincident with the peak periods of the adjacent roadways.

In summary, the proposed site is a good location for a new school and a safe environment can be maintained with traffic conditions maintained at manageable levels. While the school can be safely accommodated and will increase delays and queues during limited period of the day

(20-25 minutes at peaks), improvements will be necessary to minimize the impacts and enhance safety conditions.

## **RECOMMENDATIONS**

A detailed transportation improvement program has been developed that is designed to maintain safe and efficient access to the school and address any deficiencies identified at off-site locations evaluated in conjunction with this study. The following improvements have been recommended as a part of this evaluation and will be completed in coordination with the Town.

### **Project Access**

The school driveways were planned such that traffic impacts to the area are minimized and safe and efficient access and egress is provided. While a two-way driveway was considered along Woodland Road and two-way travel on Woodland Road was reviewed, this option was eliminated due to Woodland Road impacts. Based upon the evaluation three driveways are proposed:

- The main driveway off Heath Street is located at the approximately location of the Soule Recreation Center rear access. This driveway will provide two exit lanes and one entering lane.
- A left-turn entering only driveway is proposed off Woodland Road which minimizes the amount of turning traffic onto Heath Street and at the Heath Street main driveway.
- A bus/service driveway is proposed off Heath Street and is designed such that buses can arrive in either direction from Heath Street.

The following recommendations are offered with respect to the design and operation of the Project site driveways:

- The main driveway should have a minimum 20-foot entrance and two 12-foot exit lanes under STOP-control. The intersection should be illustrated.
- Both Entrance-Only drives should be a minimum of 16 feet wide with appropriate DO NOT ENTER signs should be placed internal to the site.
- School Zone signs, pavement markings and traffic control devices (i.e., flashing school speed limit signs) should be provided along Heath Street for and Woodland Road.
- All signs and other pavement markings to be installed within the Project site shall conform to the applicable standards of the current Manual on Uniform Traffic Devices (MUTCD).<sup>7</sup>
- In order to provide the required lines of sight approaching and departing the Project site driveway intersection with Heath Street, the area to the east of the driveway must be regraded for sufficient lines of sight.
- Signs and landscaping adjacent to the Project site driveway intersections should be designed and maintained so as not to restrict lines of sight.

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<sup>7</sup>Ibid 4

The driveway and signage are depicted in Figure 23

### **Pedestrian Improvements**

As depicted in Figure 12, new crosswalks are proposed along Heath Street, Hammond Street and Woodland Road. Crossing guards should be placed at the Hammond Street crosswalk and at the main Heath Street driveway. Sidewalks entering the site will be provided along the bus/service drive, main Heath Street drive and Woodland Road drive. In addition, all of the existing deficiencies depicted in Figure 11 should be addressed by the Town to provide the area with continuous ADA-complaint sidewalks.

As part of the Woodland Road traffic calming improvements, the following should be implemented:

- A raised crosswalk at the new School driveway
- Bicycle lane considerations along Woodland Road
- Continuous sidewalk along the north side of Woodland Road.

### **Off-Site**

#### **Hammond Street at Route 9 and Hammond Street at Heath Street**

This intersection should be retimed and coordinated. It is proposed that the Heath Street traffic signal cycle length be one-half of the Route 9 traffic signal cycle such that additional capacity can be allocated to Heath Street to facilitate traffic movements exiting Heath Street.

#### **Heath Street at Woodland Road**

This intersection should be realigned with reduced pavement width to better define traffic flow. Woodland Road should be stripped for a two-lane approach to Heath Street.

### **Bicycle Considerations**

While bicycle usage to the site will be limited, the following should be incorporated.

- Bicycle racks should be provided proximate to the building entrance in a visible location.
- Bicycle consideration by the Town should be reviewed for both Heath Street and Woodland Road.

### **Transit Usage**

While transit usage will be limited to staff, the school should promote staff usage of public transportation to the school.



SIGN LEGEND			
R1-1		S5-2	
R3-7RL		W11-2	
R5-1		W13-1P	
S1-1		W16-7P(Y)	
		W16-7P(G)	
S4-3		W17-1	

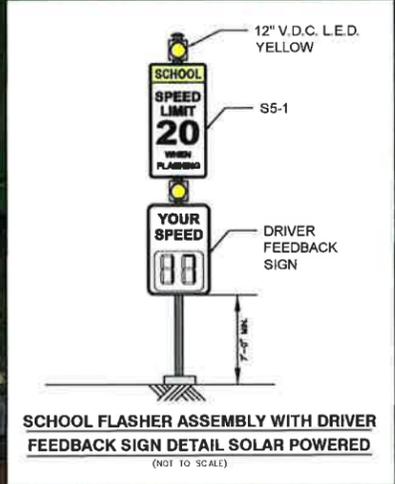


Figure 23  
Summary of Improvements

**DRAFT**

### **School Drop-Off and Pick-Up Traffic Management Plan**

A central feature of the Project is the implementation of a traffic and parking management plan for school drop-off and pick-up activities. The Project site and the site access and off-site improvements detailed herein have been developed to facilitate access to the school campus for pedestrians, bicyclists, school buses and parents/caregivers in a safe and efficient manner. The traffic and parking management plan has been designed to build-upon this created infrastructure and will consist of the following major elements, all of which are overseen by school staff:

- Police detail officer should be initially located at the main entrance and exit driveway serving the Project site in order to manage the flow of vehicles and pedestrians entering and exiting the site, and pedestrians crossing Heath Street at the school crossing.
- School staff should be stationed at the drop-off areas to manage traffic within the site and along the driveways, as well as to facilitate the safety of pedestrians and bicyclists.
- A designated drop-off/pick-up area has been designed to facilitate these movements.
- A lane along the entryway will remain unobstructed during student drop-off and pick-up periods for emergency vehicles.
- Parents and caregivers will be given information on school drop-off and pick-up times and procedures at the beginning of the school year, with periodic updates and reminders provided as may be necessary.

The elements of the traffic and parking management plan for school drop-off and pick-up activities will be reviewed and updated as may be necessary in order to ensure the safety of students and to minimize potential impacts to the safe and efficient movement of vehicles, pedestrians and bicyclists.

### **Construction Management Plan**

A detailed Construction Management Plan should be prepared and reviewed by the Town.

### **Traffic Monitoring**

Within three months after school opening, a traffic monitoring study should be completed to review traffic counts at the site driveways and evaluate the traffic condition within the area.

Annually, the school should assess conditions and evaluate pedestrian safety, crossing guards, police detail at the main driveway, and evaluate the level of student busing and make adjustments, as necessary.

Overall, a safe environment to the school can be maintained and the increased traffic conditions with respect to delays and queues will be limited to short periods in the morning and afternoon.





#### 4.7 Traffic Study

## APPENDIX

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TURNING MOVEMENT COUNTS  
AUTOMATIC TRAFFIC RECORDER COUNTS  
SEASONAL ADJUSTMENTS  
SPEEDS  
TRANSIT INFORMATION  
CRASH DATA  
BACKGROUND DEVELOPMENT  
VEHICLE OCCUPANY RATIO  
TRIP GENERATION  
CAPACITY ANALYSIS

TURNING MOVEMENT COUNTS

---

**Accurate Counts**  
978-664-2565

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 1

Groups Printed- Cars - Trucks

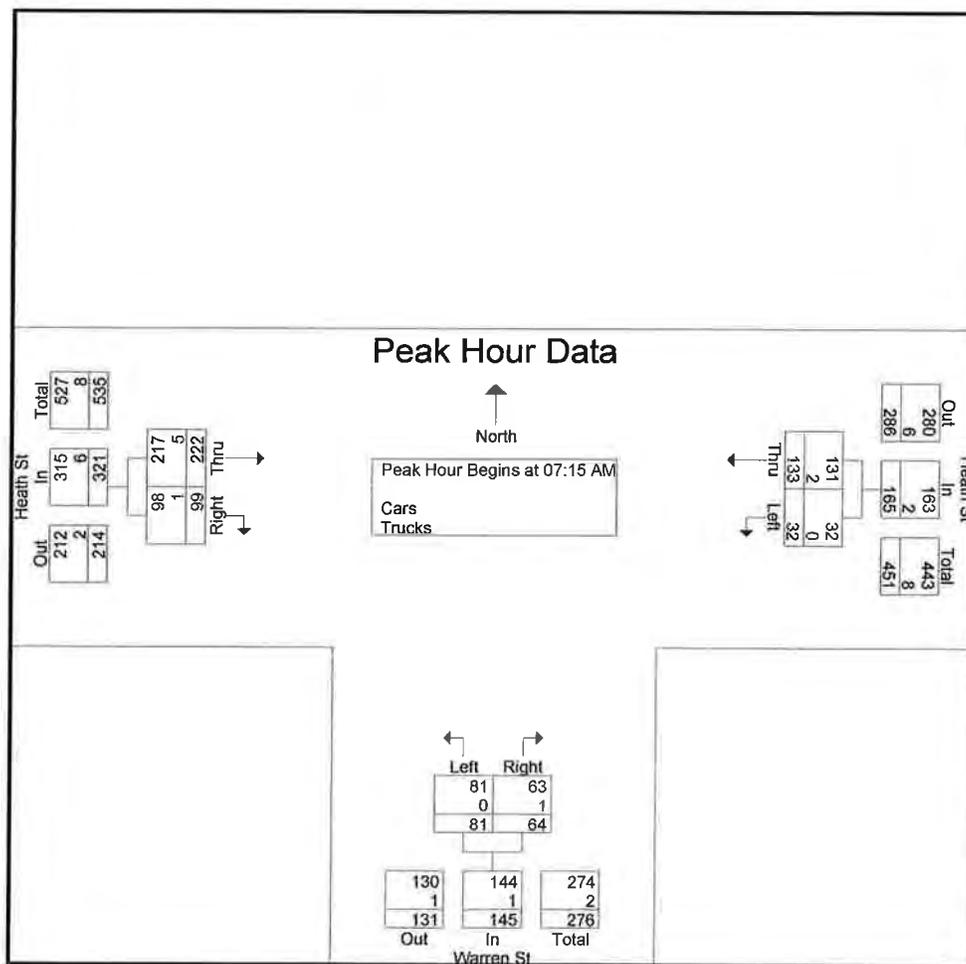
Start Time	Heath St From East		Warren St From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	15	11	4	30	16	76
07:15 AM	6	36	16	8	50	27	143
07:30 AM	5	26	19	21	57	16	144
07:45 AM	12	29	26	24	62	33	186
<b>Total</b>	<b>23</b>	<b>106</b>	<b>72</b>	<b>57</b>	<b>199</b>	<b>92</b>	<b>549</b>
08:00 AM	9	42	20	11	53	23	158
08:15 AM	5	39	18	16	42	18	138
08:30 AM	3	19	20	10	47	20	119
08:45 AM	4	30	15	6	36	16	107
<b>Total</b>	<b>21</b>	<b>130</b>	<b>73</b>	<b>43</b>	<b>178</b>	<b>77</b>	<b>522</b>
09:00 AM	3	18	10	5	28	16	80
09:15 AM	4	17	5	3	16	10	55
<b>Grand Total</b>	<b>51</b>	<b>271</b>	<b>160</b>	<b>108</b>	<b>421</b>	<b>195</b>	<b>1206</b>
<b>Apprch %</b>	<b>15.8</b>	<b>84.2</b>	<b>59.7</b>	<b>40.3</b>	<b>68.3</b>	<b>31.7</b>	
<b>Total %</b>	<b>4.2</b>	<b>22.5</b>	<b>13.3</b>	<b>9</b>	<b>34.9</b>	<b>16.2</b>	
<b>Cars</b>	<b>51</b>	<b>266</b>	<b>159</b>	<b>106</b>	<b>414</b>	<b>194</b>	<b>1190</b>
<b>% Cars</b>	<b>100</b>	<b>98.2</b>	<b>99.4</b>	<b>98.1</b>	<b>98.3</b>	<b>99.5</b>	<b>98.7</b>
<b>Trucks</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>7</b>	<b>1</b>	<b>16</b>
<b>% Trucks</b>	<b>0</b>	<b>1.8</b>	<b>0.6</b>	<b>1.9</b>	<b>1.7</b>	<b>0.5</b>	<b>1.3</b>

**Accurate Counts**  
978-664-2565

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 2

Start Time	Heath St From East			Warren St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	6	36	42	16	8	24	50	27	77	143
07:30 AM	5	26	31	19	21	40	57	16	73	144
07:45 AM	12	29	41	26	24	50	62	33	95	186
08:00 AM	9	42	51	20	11	31	53	23	76	158
Total Volume	32	133	165	81	64	145	222	99	321	631
% App. Total	19.4	80.6		55.9	44.1		69.2	30.8		
PHF	.667	.792	.809	.779	.667	.725	.895	.750	.845	.848
Cars	32	131	163	81	63	144	217	98	315	622
% Cars	100	98.5	98.8	100	98.4	99.3	97.7	99.0	98.1	98.6
Trucks	0	2	2	0	1	1	5	1	6	9
% Trucks	0	1.5	1.2	0	1.6	0.7	2.3	1.0	1.9	1.4



N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

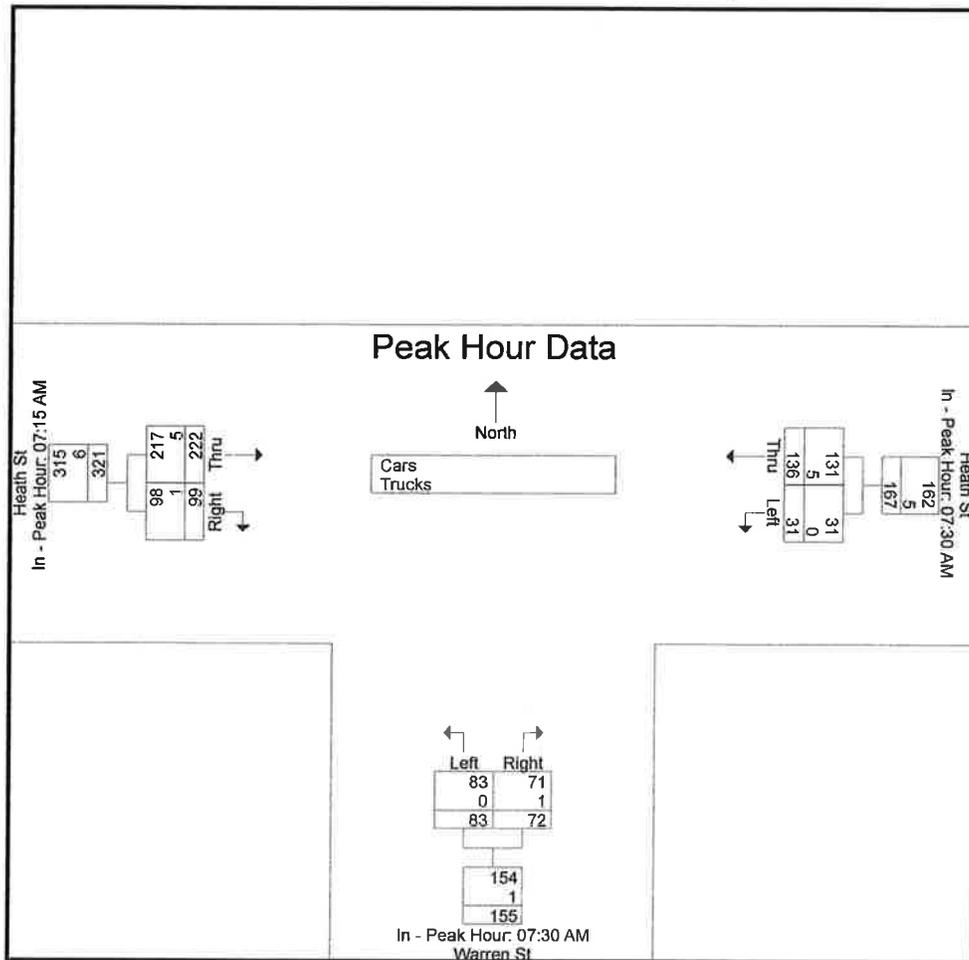
File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 3

Start Time	Heath St From East			Warren St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:15 AM		
+0 mins.	5	26	31	19	21	40	50	27	77
+15 mins.	12	29	41	26	24	50	57	16	73
+30 mins.	9	42	51	20	11	31	62	33	95
+45 mins.	5	39	44	18	16	34	53	23	76
Total Volume	31	136	167	83	72	155	222	99	321
% App. Total	18.6	81.4		53.5	46.5		69.2	30.8	
PHF	.646	.810	.819	.798	.750	.775	.895	.750	.845
Cars	31	131	162	83	71	154	217	98	315
% Cars	100	96.3	97	100	98.6	99.4	97.7	99	98.1
Trucks	0	5	5	0	1	1	5	1	6
% Trucks	0	3.7	3	0	1.4	0.6	2.3	1	1.9



**Accurate Counts**  
978-664-2565

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 4

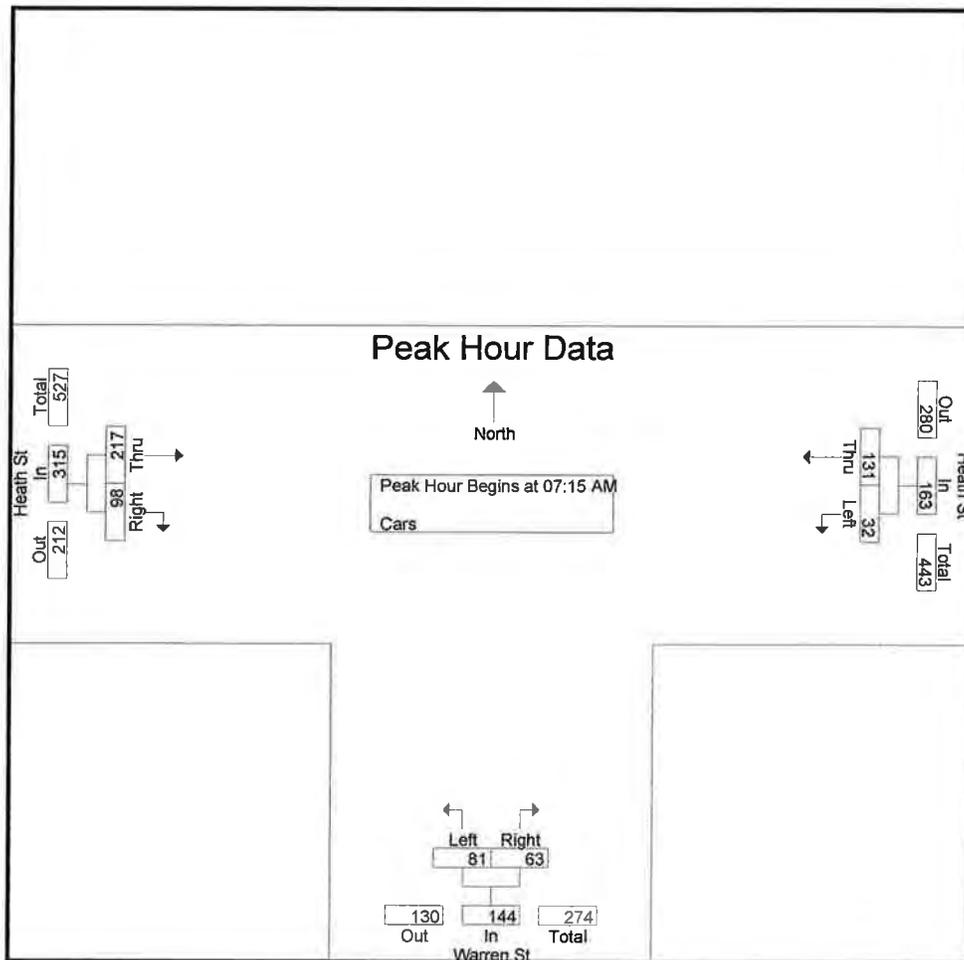
Groups Printed- Cars

Start Time	Heath St From East		Warren St From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	15	11	4	30	16	76
07:15 AM	6	36	16	8	46	27	139
07:30 AM	5	25	19	21	57	16	143
07:45 AM	12	29	26	23	62	32	184
<b>Total</b>	<b>23</b>	<b>105</b>	<b>72</b>	<b>56</b>	<b>195</b>	<b>91</b>	<b>542</b>
08:00 AM	9	41	20	11	52	23	156
08:15 AM	5	36	18	16	42	18	135
08:30 AM	3	19	20	10	45	20	117
08:45 AM	4	30	14	6	36	16	106
<b>Total</b>	<b>21</b>	<b>126</b>	<b>72</b>	<b>43</b>	<b>175</b>	<b>77</b>	<b>514</b>
09:00 AM	3	18	10	5	28	16	80
09:15 AM	4	17	5	2	16	10	54
<b>Grand Total</b>	<b>51</b>	<b>266</b>	<b>159</b>	<b>106</b>	<b>414</b>	<b>194</b>	<b>1190</b>
<b>Apprch %</b>	<b>16.1</b>	<b>83.9</b>	<b>60</b>	<b>40</b>	<b>68.1</b>	<b>31.9</b>	
<b>Total %</b>	<b>4.3</b>	<b>22.4</b>	<b>13.4</b>	<b>8.9</b>	<b>34.8</b>	<b>16.3</b>	

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 5

Start Time	Heath St From East			Warren St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	6	36	42	16	8	24	46	27	73	139
07:30 AM	5	25	30	19	21	40	57	16	73	143
07:45 AM	12	29	41	26	23	49	62	32	94	184
08:00 AM	9	41	50	20	11	31	52	23	75	156
Total Volume	32	131	163	81	63	144	217	98	315	622
% App. Total	19.6	80.4		56.2	43.8		68.9	31.1		
PHF	.667	.799	.815	.779	.685	.735	.875	.766	.838	.845



N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

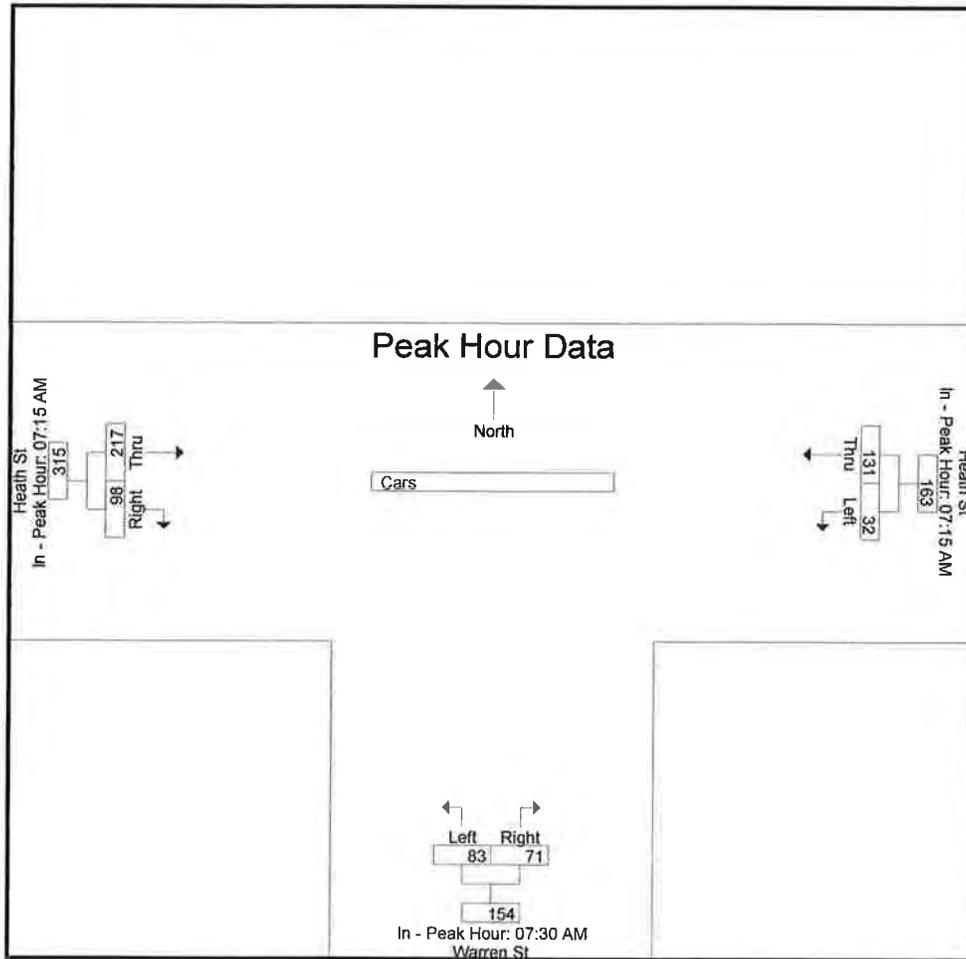
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Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 6

Start Time	Heath St From East			Warren St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM			07:30 AM			07:15 AM		
+0 mins.	6	36	42	19	21	40	46	27	73
+15 mins.	5	25	30	26	23	49	57	16	73
+30 mins.	12	29	41	20	11	31	62	32	94
+45 mins.	9	41	50	18	16	34	52	23	75
<b>Total Volume</b>	<b>32</b>	<b>131</b>	<b>163</b>	<b>83</b>	<b>71</b>	<b>154</b>	<b>217</b>	<b>98</b>	<b>315</b>
<b>% App. Total</b>	<b>19.6</b>	<b>80.4</b>		<b>53.9</b>	<b>46.1</b>		<b>68.9</b>	<b>31.1</b>	
PHF	.667	.799	.815	.798	.772	.786	.875	.766	.838



**Accurate Counts**  
978-664-2565

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 7

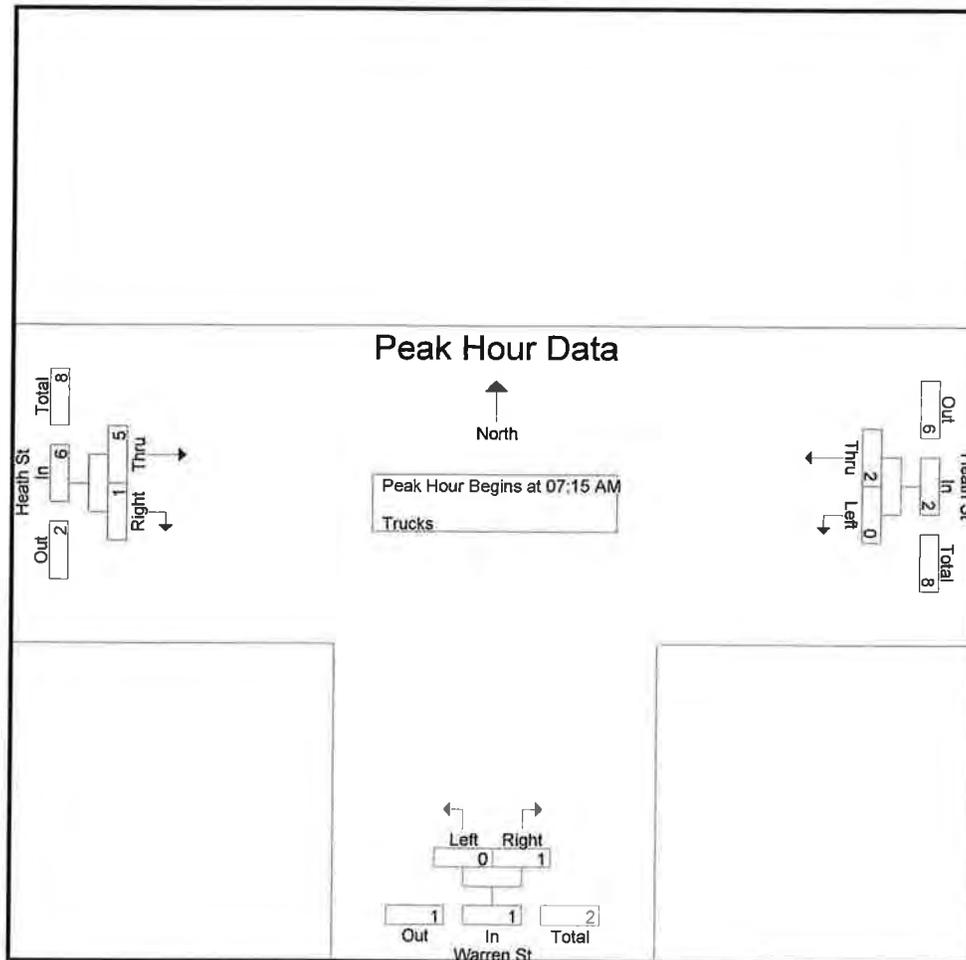
Groups Printed- Trucks

Start Time	Heath St From East		Warren St From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	4	0	4
07:30 AM	0	1	0	0	0	0	1
07:45 AM	0	0	0	1	0	1	2
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>7</b>
08:00 AM	0	1	0	0	1	0	2
08:15 AM	0	3	0	0	0	0	3
08:30 AM	0	0	0	0	2	0	2
08:45 AM	0	0	1	0	0	0	1
<b>Total</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>8</b>
09:00 AM	0	0	0	0	0	0	0
09:15 AM	0	0	0	1	0	0	1
<b>Grand Total</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>7</b>	<b>1</b>	<b>16</b>
Apprch %	0	100	33.3	66.7	87.5	12.5	
Total %	0	31.2	6.2	12.5	43.8	6.2	

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 8

Start Time	Heath St From East			Warren St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	0	0	0	4	0	4	4
07:30 AM	0	1	1	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	1	1	0	1	1	2
08:00 AM	0	1	1	0	0	0	1	0	1	2
Total Volume	0	2	2	0	1	1	5	1	6	9
% App. Total	0	100		0	100		83.3	16.7		
PHF	.000	.500	.500	.000	.250	.250	.313	.250	.375	.563



N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

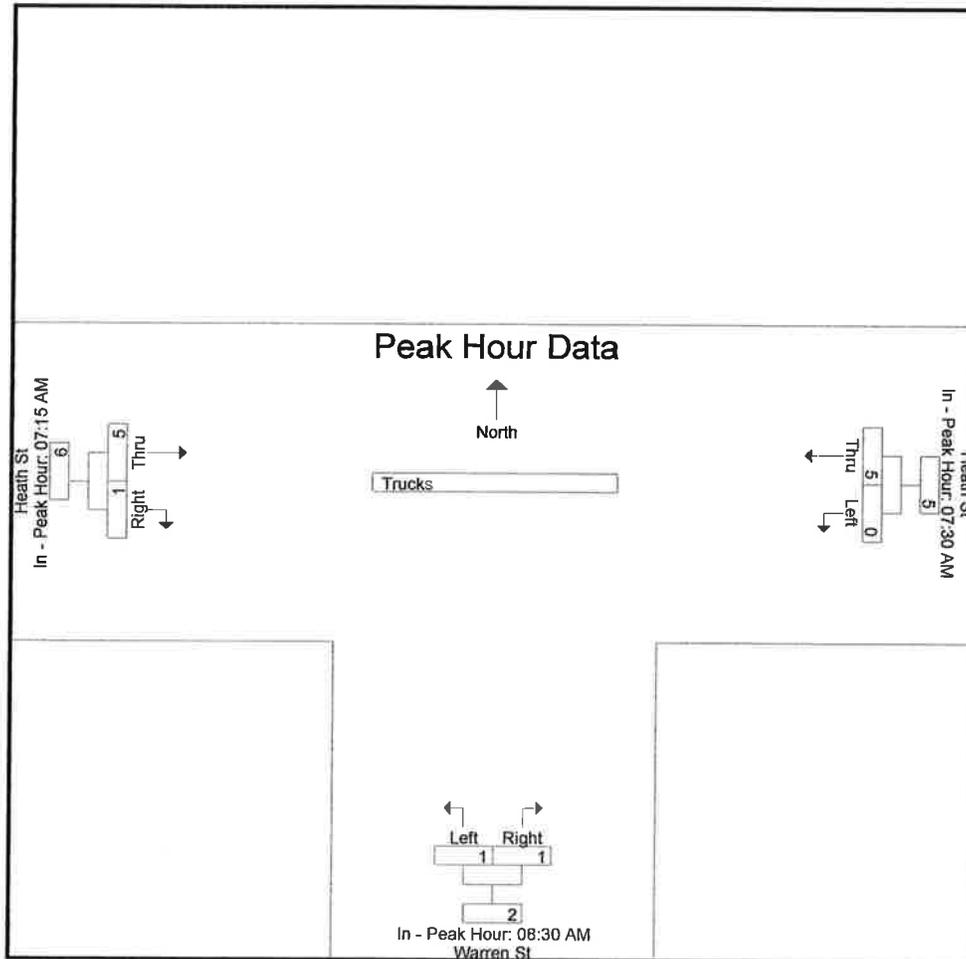
File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 9

Start Time	Heath St From East			Warren St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM			08:30 AM			07:15 AM		
+0 mins.	0	1	1	0	0	0	4	0	4
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	1	1	0	0	0	0	1	1
+45 mins.	0	3	3	0	1	1	1	0	1
Total Volume	0	5	5	1	1	2	5	1	6
% App. Total	0	100		50	50		83.3	16.7	
PHF	.000	.417	.417	.250	.250	.500	.313	.250	.375



**Accurate Counts**  
978-664-2565

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 10

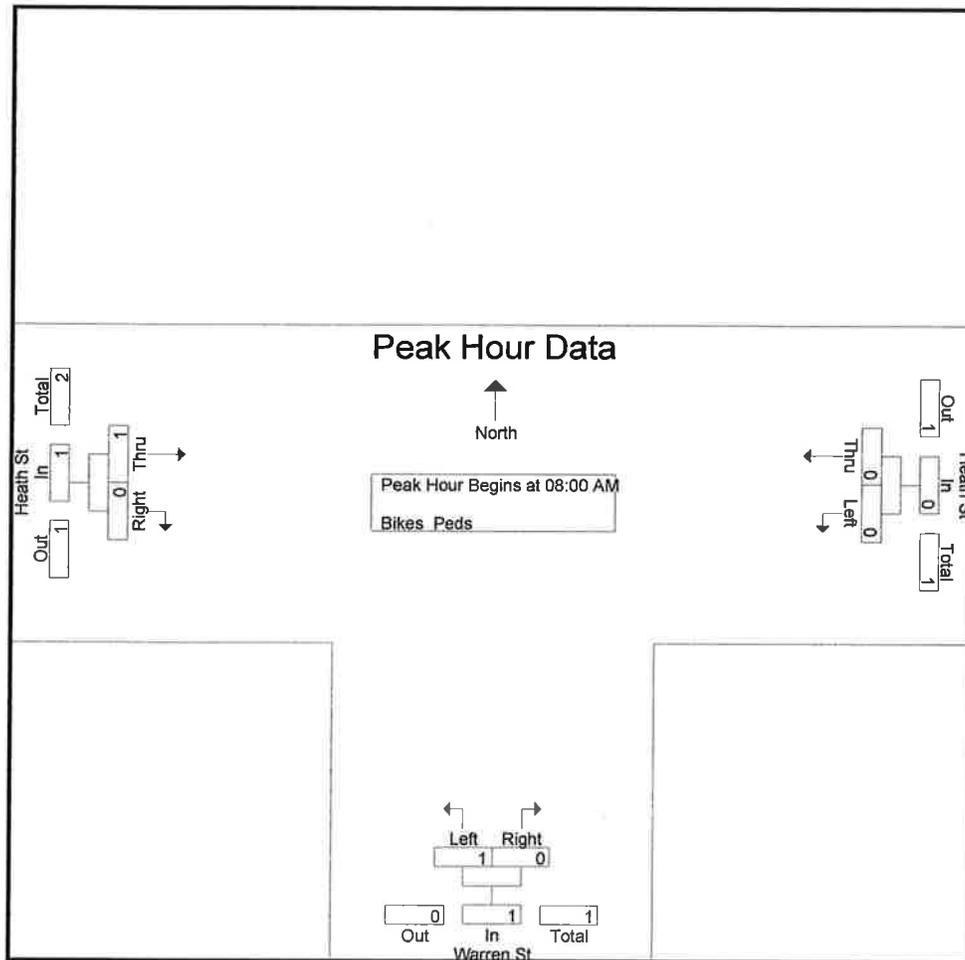
Groups Printed- Bikes Peds

Start Time	Heath St From East			Warren St From South			Heath St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	0	0	1	0	1
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>
08:00 AM	0	0	0	0	0	1	0	0	0	1	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	1	1	0	1
08:45 AM	0	0	0	1	0	0	1	0	0	0	2	2
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>4</b>
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Grand Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>6</b>
Apprch %	0	100		100	0		100	0				
Total %	0	33.3		33.3	0		33.3	0		50	50	

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 11

Start Time	Heath St From East			Warren St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 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
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	1	0	1	1	0	1	2
Total Volume	0	0	0	1	0	1	1	0	1	2
% App. Total	0	0		100	0		100	0		
PHF	.000	.000	.000	.250	.000	.250	.250	.000	.250	.250



N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

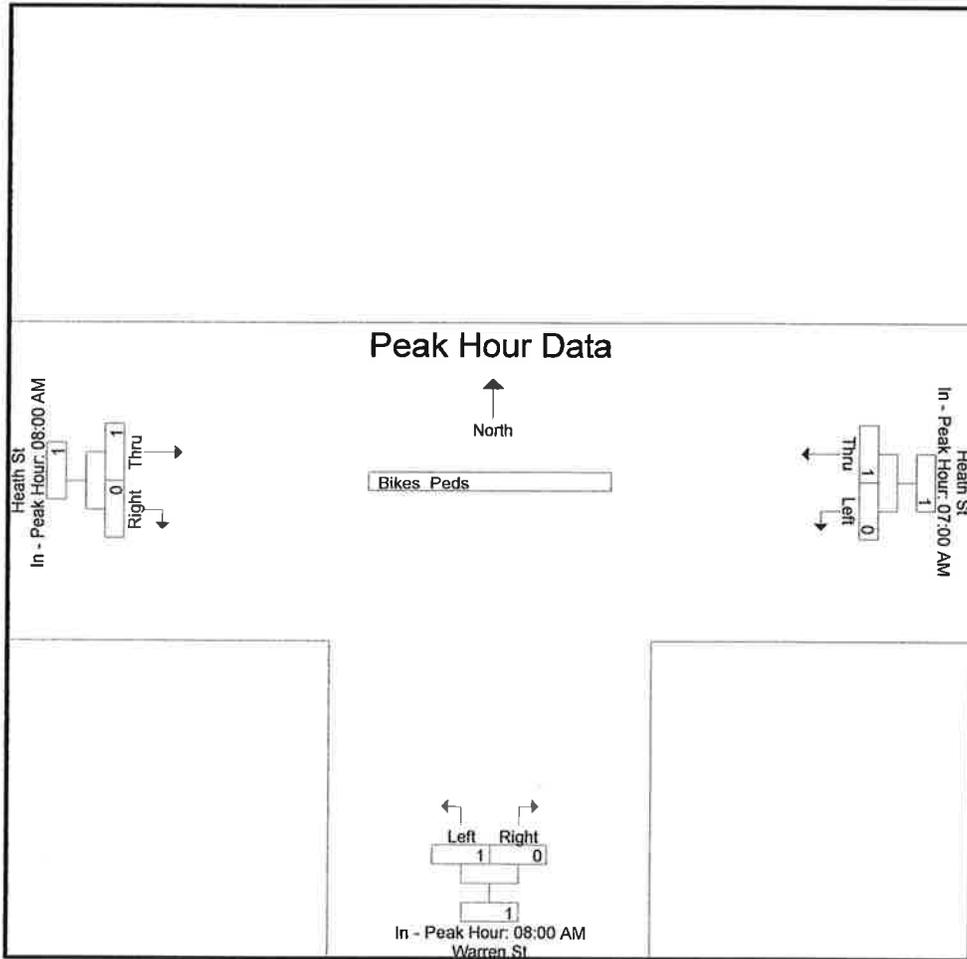
File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 12

Start Time	Heath St From East			Warren St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			08:00 AM			08:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	1	1	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	1	0	1	1	0	1
Total Volume	0	1	1	1	0	1	1	0	1
% App. Total	0	100		100	0		100	0	
PHF	.000	.250	.250	.250	.000	.250	.250	.000	.250



**Accurate Counts**  
978-664-2565

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 1

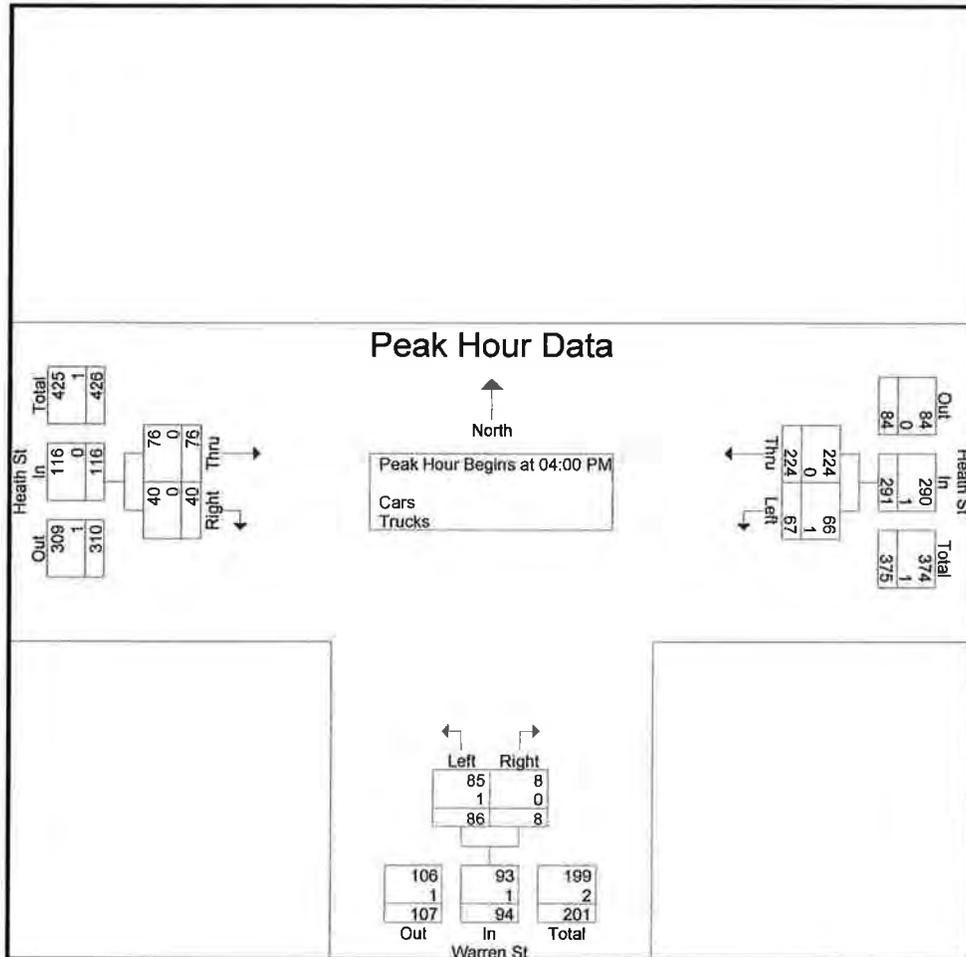
Groups Printed- Cars - Trucks

Start Time	Heath St From East		Warren St From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:00 PM	4	35	4	1	12	6	62
02:15 PM	3	25	5	4	15	12	64
02:30 PM	7	36	6	2	13	11	75
02:45 PM	7	37	7	2	17	12	82
<b>Total</b>	<b>21</b>	<b>133</b>	<b>22</b>	<b>9</b>	<b>57</b>	<b>41</b>	<b>283</b>
03:00 PM	8	37	10	4	13	13	85
03:15 PM	6	55	14	4	25	23	127
03:30 PM	3	45	18	4	18	11	99
03:45 PM	9	37	25	3	18	13	105
<b>Total</b>	<b>26</b>	<b>174</b>	<b>67</b>	<b>15</b>	<b>74</b>	<b>60</b>	<b>416</b>
04:00 PM	12	59	16	2	18	14	121
04:15 PM	20	56	22	2	17	11	128
04:30 PM	16	48	23	3	16	8	114
04:45 PM	19	61	25	1	25	7	138
<b>Total</b>	<b>67</b>	<b>224</b>	<b>86</b>	<b>8</b>	<b>76</b>	<b>40</b>	<b>501</b>
<b>Grand Total</b>	<b>114</b>	<b>531</b>	<b>175</b>	<b>32</b>	<b>207</b>	<b>141</b>	<b>1200</b>
Apprch %	17.7	82.3	84.5	15.5	59.5	40.5	
Total %	9.5	44.2	14.6	2.7	17.2	11.8	
Cars	110	529	172	30	205	141	1187
% Cars	96.5	99.6	98.3	93.8	99	100	98.9
Trucks	4	2	3	2	2	0	13
% Trucks	3.5	0.4	1.7	6.2	1	0	1.1

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 2

Start Time	Heath St From East			Warren St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	12	59	71	16	2	18	18	14	32	121
04:15 PM	20	56	76	22	2	24	17	11	28	128
04:30 PM	16	48	64	23	3	26	16	8	24	114
04:45 PM	19	61	80	25	1	26	25	7	32	138
Total Volume	67	224	291	86	8	94	76	40	116	501
% App. Total	23	77		91.5	8.5		65.5	34.5		
PHF	.838	.918	.909	.860	.667	.904	.760	.714	.906	.908
Cars	66	224	290	85	8	93	76	40	116	499
% Cars	98.5	100	99.7	98.8	100	98.9	100	100	100	99.6
Trucks	1	0	1	1	0	1	0	0	0	2
% Trucks	1.5	0	0.3	1.2	0	1.1	0	0	0	0.4



**Accurate Counts**  
978-664-2565

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

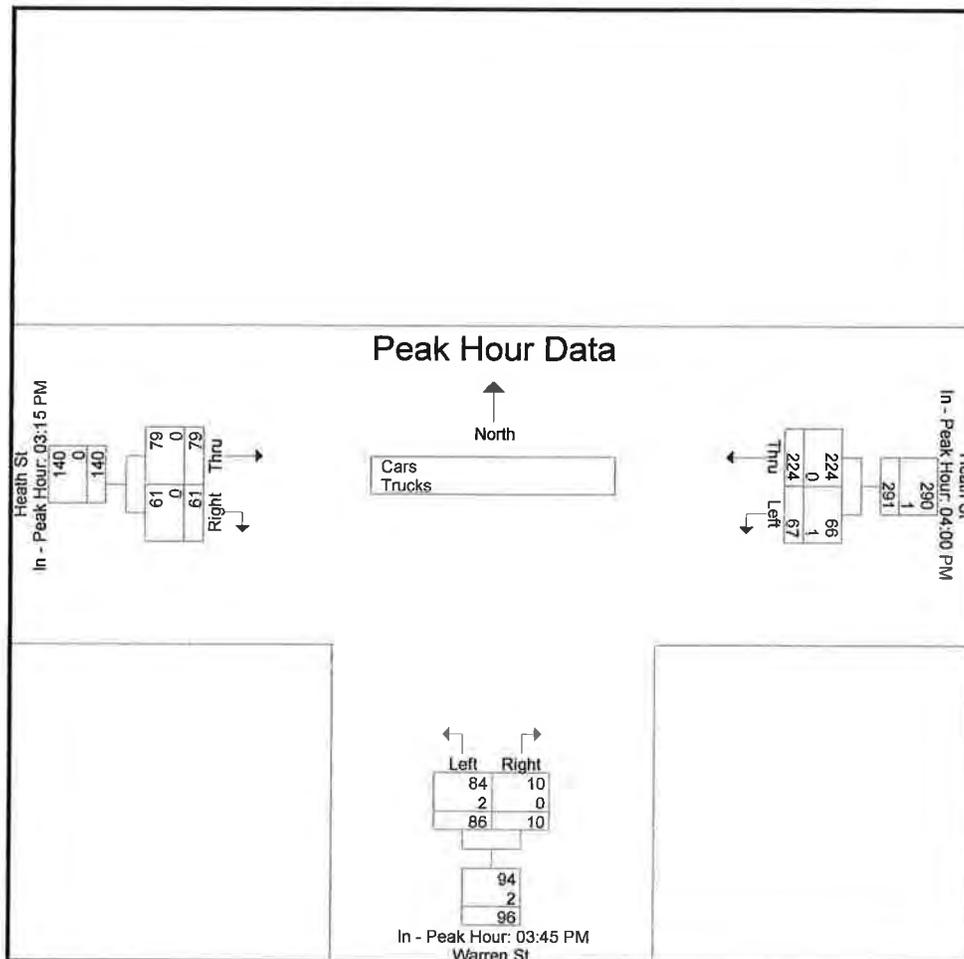
File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 3

Start Time	Heath St From East			Warren St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			03:45 PM			03:15 PM		
+0 mins.	12	59	71	25	3	28	25	23	48
+15 mins.	20	56	76	16	2	18	18	11	29
+30 mins.	16	48	64	22	2	24	18	13	31
+45 mins.	19	61	80	23	3	26	18	14	32
Total Volume	67	224	291	86	10	96	79	61	140
% App. Total	23	77		89.6	10.4		56.4	43.6	
PHF	.838	.918	.909	.860	.833	.857	.790	.663	.729
Cars	66	224	290	84	10	94	79	61	140
% Cars	98.5	100	99.7	97.7	100	97.9	100	100	100
Trucks	1	0	1	2	0	2	0	0	0
% Trucks	1.5	0	0.3	2.3	0	2.1	0	0	0



**Accurate Counts**  
978-664-2565

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 4

Groups Printed- Cars

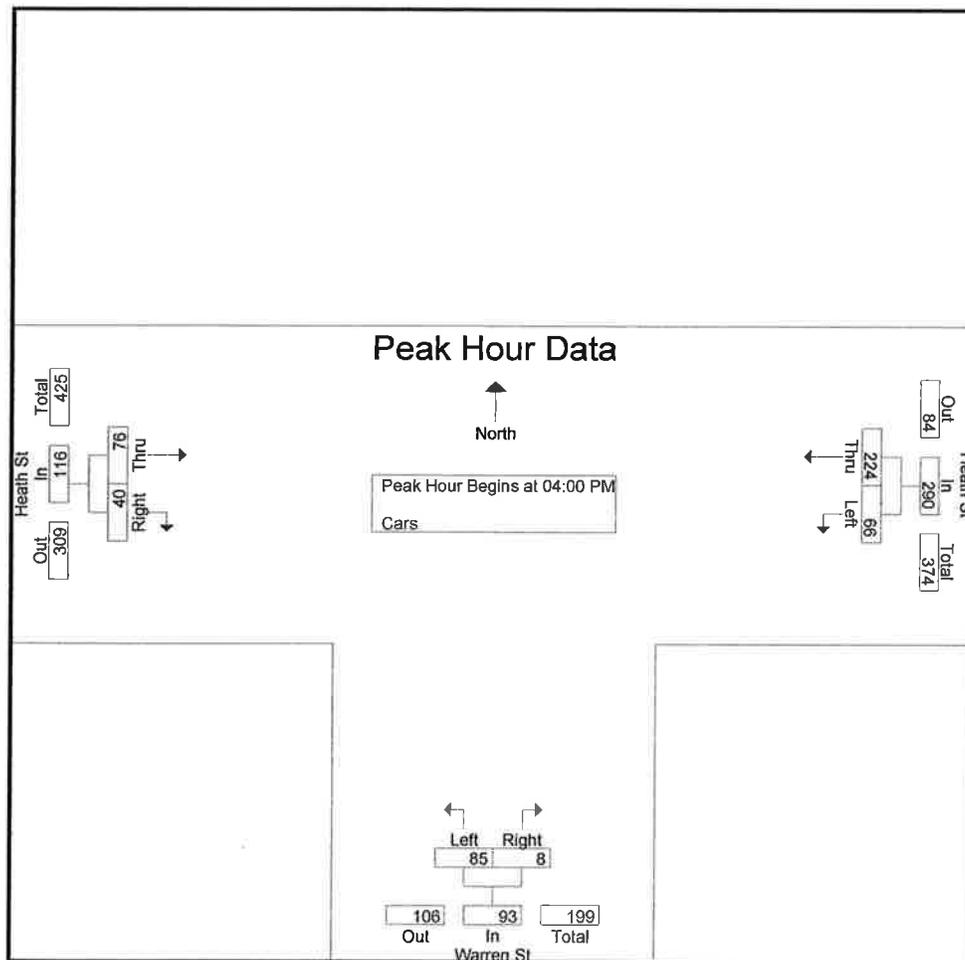
Start Time	Heath St From East		Warren St From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:00 PM	3	35	4	0	11	6	59
02:15 PM	2	25	4	3	15	12	61
02:30 PM	7	36	6	2	13	11	75
02:45 PM	6	37	7	2	17	12	81
<b>Total</b>	<b>18</b>	<b>133</b>	<b>21</b>	<b>7</b>	<b>56</b>	<b>41</b>	<b>276</b>
03:00 PM	8	37	10	4	12	13	84
03:15 PM	6	55	14	4	25	23	127
03:30 PM	3	44	18	4	18	11	98
03:45 PM	9	36	24	3	18	13	103
<b>Total</b>	<b>26</b>	<b>172</b>	<b>66</b>	<b>15</b>	<b>73</b>	<b>60</b>	<b>412</b>
04:00 PM	12	59	15	2	18	14	120
04:15 PM	19	56	22	2	17	11	127
04:30 PM	16	48	23	3	16	8	114
04:45 PM	19	61	25	1	25	7	138
<b>Total</b>	<b>66</b>	<b>224</b>	<b>85</b>	<b>8</b>	<b>76</b>	<b>40</b>	<b>499</b>
<b>Grand Total</b>	<b>110</b>	<b>529</b>	<b>172</b>	<b>30</b>	<b>205</b>	<b>141</b>	<b>1187</b>
Apprch %	17.2	82.8	85.1	14.9	59.2	40.8	
Total %	9.3	44.6	14.5	2.5	17.3	11.9	

**Accurate Counts**  
978-664-2565

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 5

Start Time	Heath St From East			Warren St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	12	59	71	15	2	17	18	14	32	120
04:15 PM	19	56	75	22	2	24	17	11	28	127
04:30 PM	16	48	64	23	3	26	16	8	24	114
04:45 PM	19	61	80	25	1	26	25	7	32	138
Total Volume	66	224	290	85	8	93	76	40	116	499
% App. Total	22.8	77.2		91.4	8.6		65.5	34.5		
PHF	.868	.918	.906	.850	.667	.894	.760	.714	.906	.904



**Accurate Counts**  
978-664-2565

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

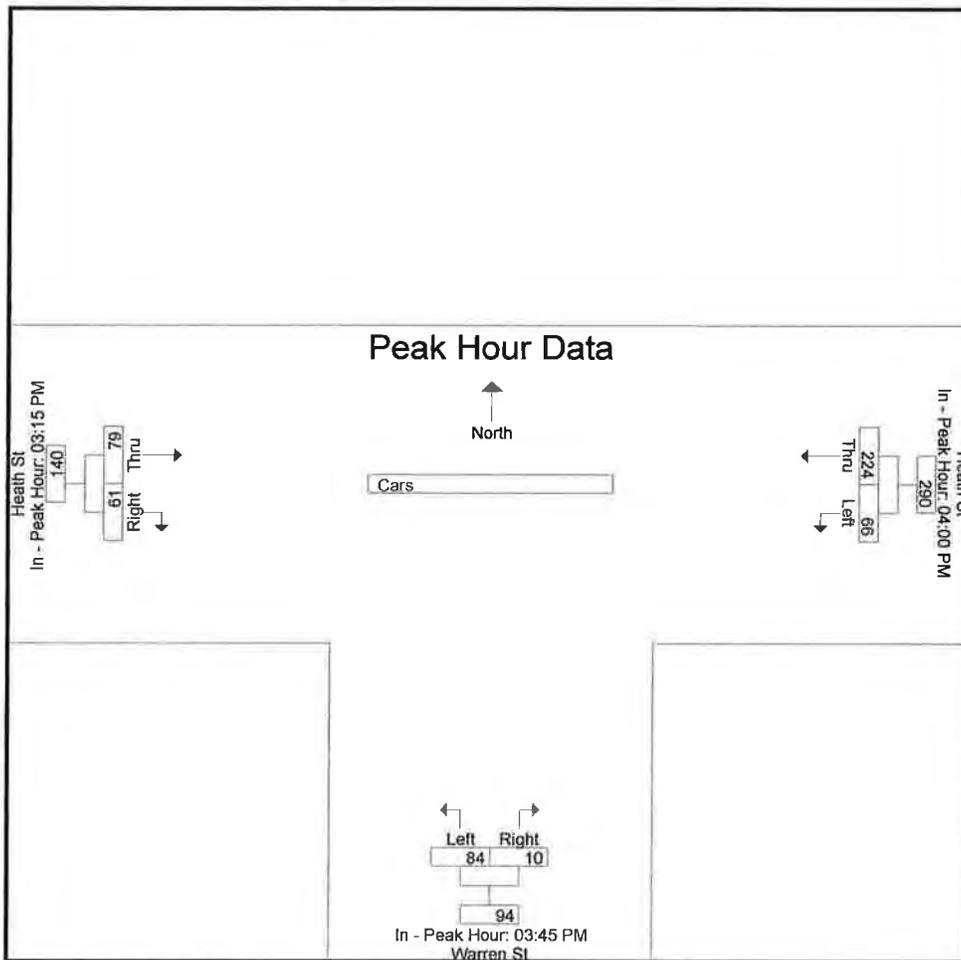
File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 6

Start Time	Heath St From East			Warren St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			03:45 PM			03:15 PM		
+0 mins.	12	59	71	24	3	27	25	23	48
+15 mins.	19	56	75	15	2	17	18	11	29
+30 mins.	16	48	64	22	2	24	18	13	31
+45 mins.	19	61	80	23	3	26	18	14	32
Total Volume	66	224	290	84	10	94	79	61	140
% App. Total	22.8	77.2		89.4	10.6		56.4	43.6	
PHF	.868	.918	.906	.875	.833	.870	.790	.663	.729



**Accurate Counts**  
978-664-2565

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
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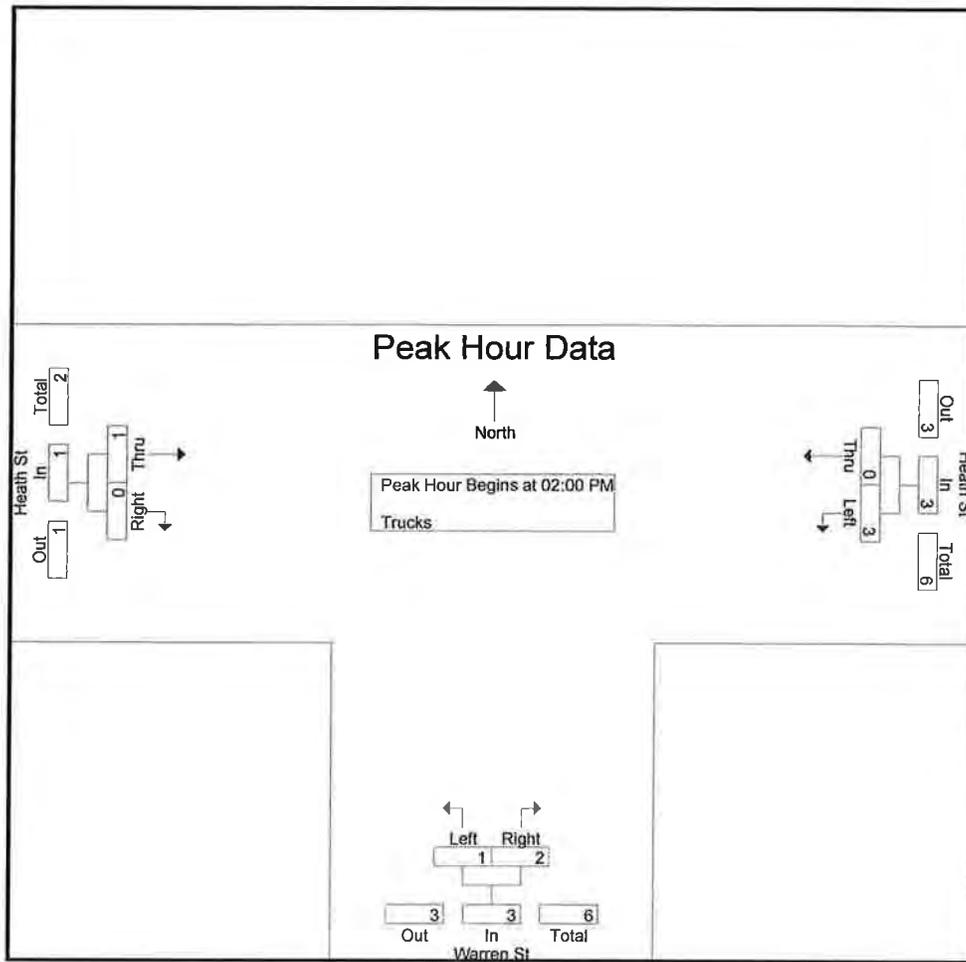
Groups Printed- Trucks

Start Time	Heath St From East		Warren St From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:00 PM	1	0	0	1	1	0	3
02:15 PM	1	0	1	1	0	0	3
02:30 PM	0	0	0	0	0	0	0
02:45 PM	1	0	0	0	0	0	1
<b>Total</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>7</b>
03:00 PM	0	0	0	0	1	0	1
03:15 PM	0	0	0	0	0	0	0
03:30 PM	0	1	0	0	0	0	1
03:45 PM	0	1	1	0	0	0	2
<b>Total</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>4</b>
04:00 PM	0	0	1	0	0	0	1
04:15 PM	1	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0
<b>Total</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>
<b>Grand Total</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>13</b>
Apprch %	66.7	33.3	60	40	100	0	
Total %	30.8	15.4	23.1	15.4	15.4	0	

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 8

Start Time	Heath St From East			Warren St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	1	0	1	0	1	1	1	0	1	3
02:15 PM	1	0	1	1	1	2	0	0	0	3
02:30 PM	0	0	0	0	0	0	0	0	0	0
02:45 PM	1	0	1	0	0	0	0	0	0	1
Total Volume	3	0	3	1	2	3	1	0	1	7
% App. Total	100	0		33.3	66.7		100	0		
PHF	.750	.000	.750	.250	.500	.375	.250	.000	.250	.583



N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

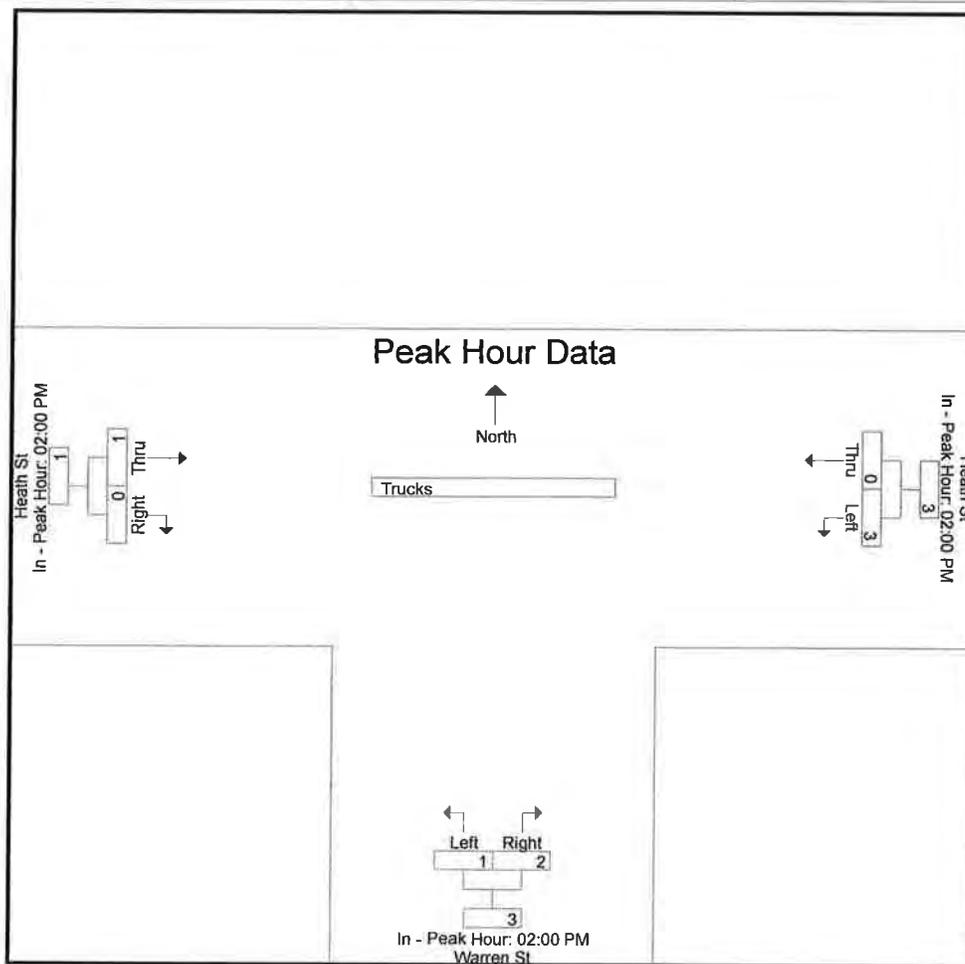
File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 9

Start Time	Heath St From East			Warren St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:00 PM			02:00 PM		
+0 mins.	1	0	1	0	1	1	1	0	1
+15 mins.	1	0	1	1	1	2	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	1	0	1	0	0	0	0	0	0
Total Volume	3	0	3	1	2	3	1	0	1
% App. Total	100	0		33.3	66.7		100	0	
PHF	.750	.000	.750	.250	.500	.375	.250	.000	.250



**Accurate Counts**  
978-664-2565

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 10

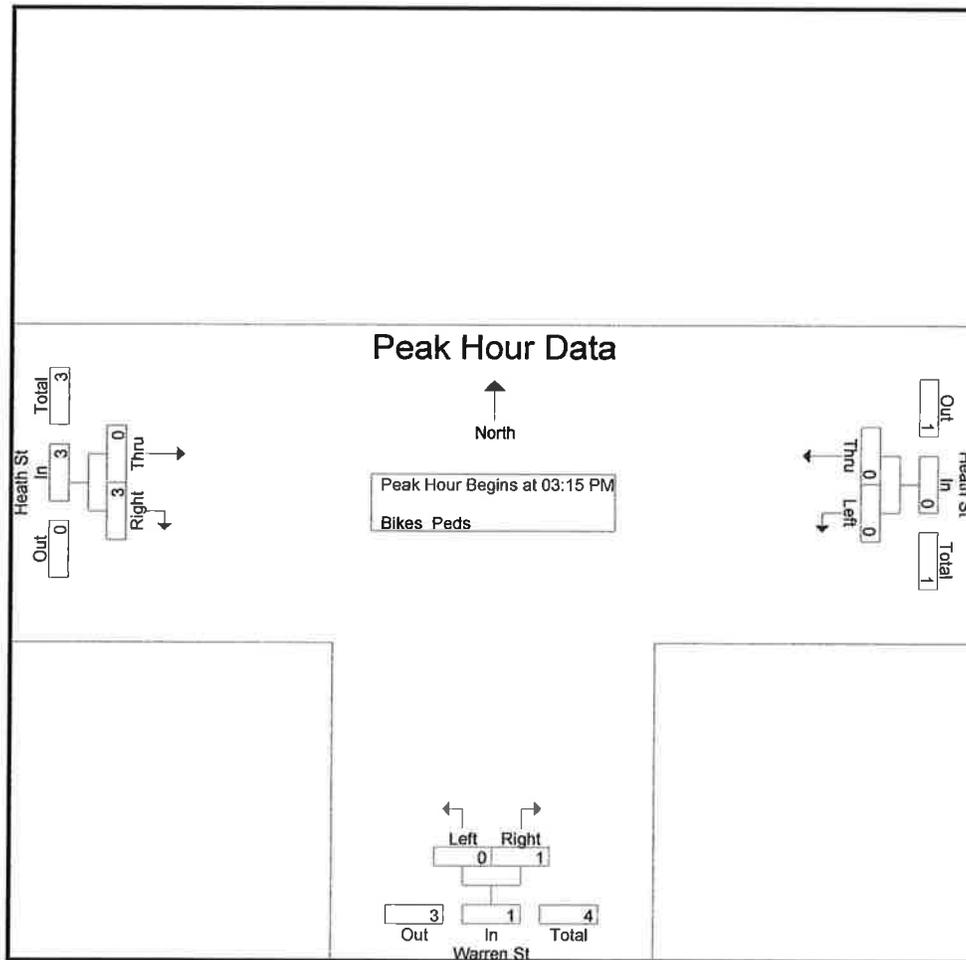
Groups Printed- Bikes Peds

Start Time	Heath St From East			Warren St From South			Heath St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
02:00 PM	0	0	0	0	0	1	0	0	0	1	0	1
02:15 PM	0	0	0	0	0	0	0	0	1	1	0	1
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	1	0	0	0	0	0	0	1	1
<b>Total</b>	0	0	0	1	0	1	0	0	1	2	1	3
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	1	0	0	1	0	0	2	2
03:45 PM	0	0	0	0	0	1	0	0	0	1	0	1
<b>Total</b>	0	0	0	0	1	1	0	1	0	1	2	3
04:00 PM	0	0	0	0	0	1	0	2	0	1	2	3
04:15 PM	0	0	2	0	0	1	0	0	0	3	0	3
04:30 PM	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
<b>Total</b>	0	0	2	0	0	2	0	2	0	4	2	6
<b>Grand Total</b>	0	0	2	1	1	4	0	3	1	7	5	12
Apprch %	0	0		50	50		0	100				
Total %	0	0		20	20		0	60		58.3	41.7	

N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N010  
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Start Date : 11/17/2016  
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Start Time	Heath St From East			Warren St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:15 PM										
03:15 PM	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	1	1	0	1	1	2
03:45 PM	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	2	2	2
Total Volume	0	0	0	0	1	1	0	3	3	4
% App. Total	0	0		0	100		0	100		
PHF	.000	.000	.000	.000	.250	.250	.000	.375	.375	.500



N/S Street : Warren Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

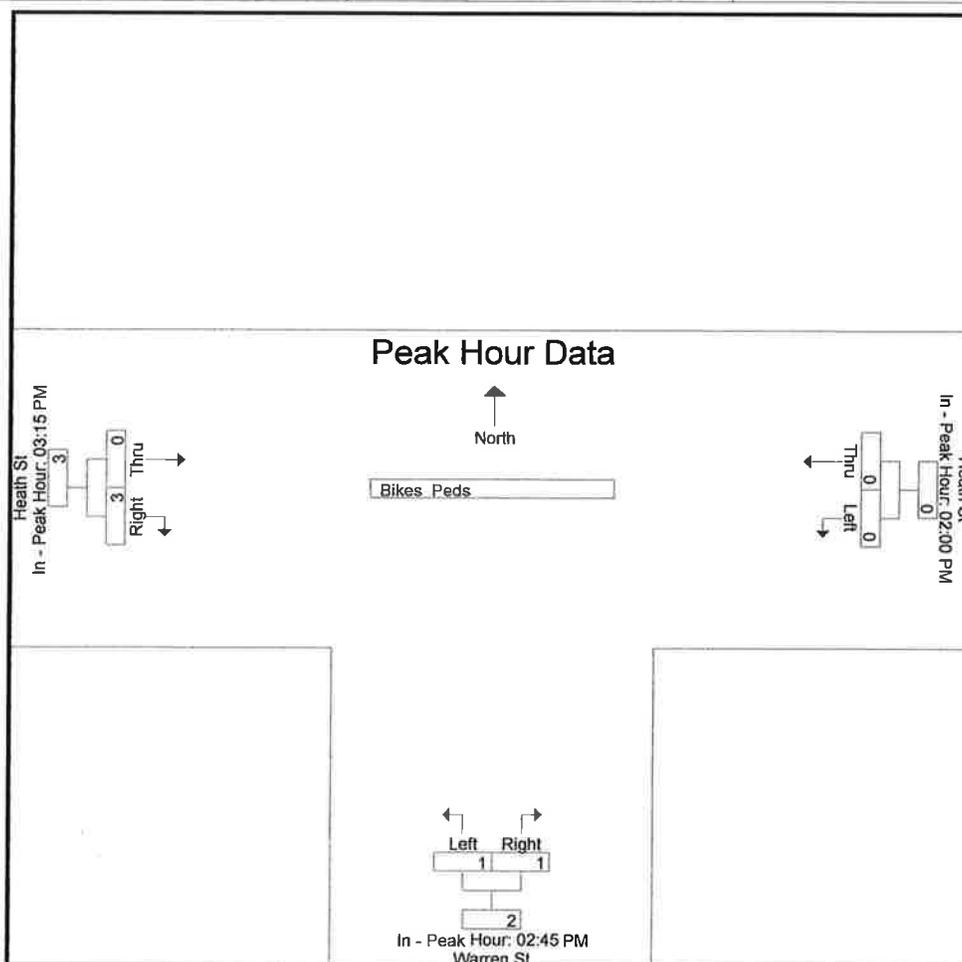
File Name : 7382N010  
Site Code : 73820010  
Start Date : 11/17/2016  
Page No : 12

Start Time	Heath St From East			Warren St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:45 PM			03:15 PM		
+0 mins.	0	0	0	1	0	1	0	0	0
+15 mins.	0	0	0	0	0	0	0	1	1
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	1	1	0	2	2
Total Volume	0	0	0	1	1	2	0	3	3
% App. Total	0	0		50	50		0	100	
PHF	.000	.000	.000	.250	.250	.500	.000	.375	.375



**Accurate Counts**  
978-664-2565

N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 1

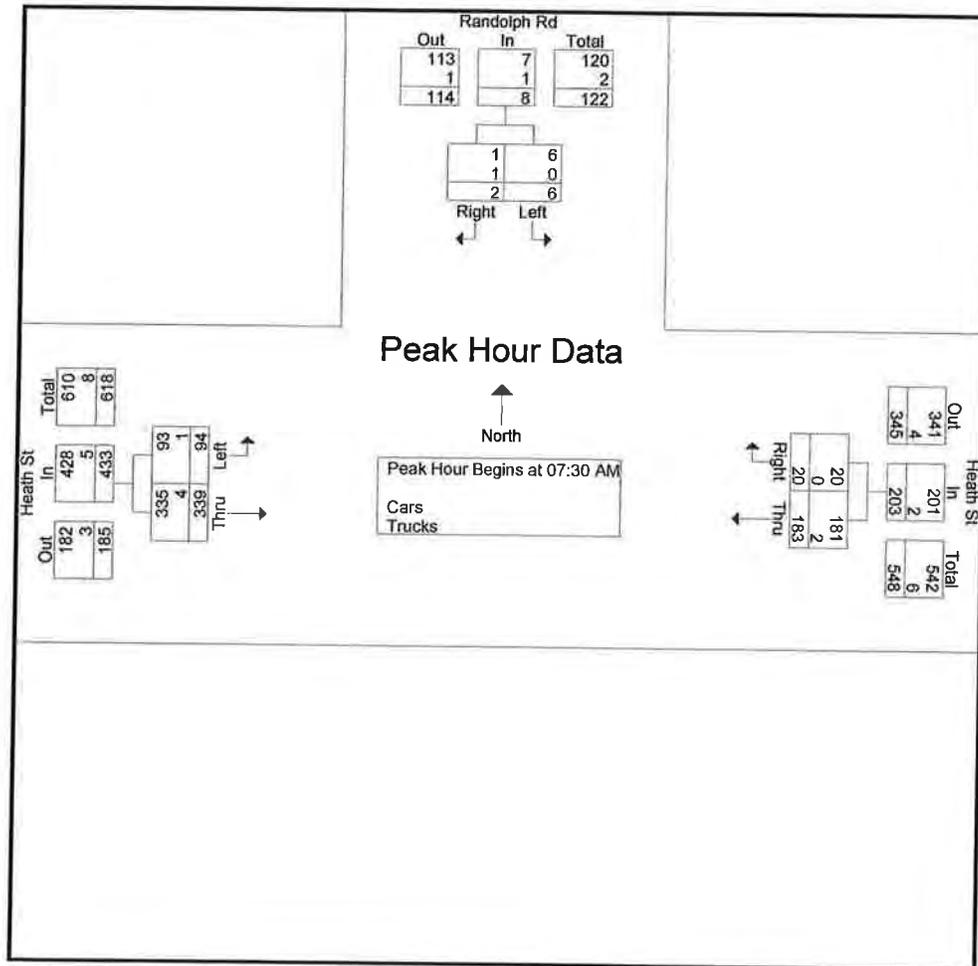
Groups Printed- Cars - Trucks

Start Time	Randolph Rd From North		Heath St From East		Heath St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	2	0	18	1	22	54	97
07:15 AM	2	0	37	3	22	79	143
07:30 AM	0	0	40	4	22	79	145
07:45 AM	3	0	43	2	35	106	189
<b>Total</b>	<b>7</b>	<b>0</b>	<b>138</b>	<b>10</b>	<b>101</b>	<b>318</b>	<b>574</b>
08:00 AM	2	2	44	4	22	86	160
08:15 AM	1	0	56	10	15	68	150
08:30 AM	0	1	43	6	15	74	139
08:45 AM	2	2	38	3	18	61	124
<b>Total</b>	<b>5</b>	<b>5</b>	<b>181</b>	<b>23</b>	<b>70</b>	<b>289</b>	<b>573</b>
09:00 AM	1	0	37	7	21	64	130
09:15 AM	0	1	27	6	19	32	85
<b>Grand Total</b>	<b>13</b>	<b>6</b>	<b>383</b>	<b>46</b>	<b>211</b>	<b>703</b>	<b>1362</b>
<b>Apprch %</b>	<b>68.4</b>	<b>31.6</b>	<b>89.3</b>	<b>10.7</b>	<b>23.1</b>	<b>76.9</b>	
<b>Total %</b>	<b>1</b>	<b>0.4</b>	<b>28.1</b>	<b>3.4</b>	<b>15.5</b>	<b>51.6</b>	
<b>Cars</b>	<b>13</b>	<b>5</b>	<b>376</b>	<b>46</b>	<b>209</b>	<b>691</b>	<b>1340</b>
<b>% Cars</b>	<b>100</b>	<b>83.3</b>	<b>98.2</b>	<b>100</b>	<b>99.1</b>	<b>98.3</b>	<b>98.4</b>
<b>Trucks</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>0</b>	<b>2</b>	<b>12</b>	<b>22</b>
<b>% Trucks</b>	<b>0</b>	<b>16.7</b>	<b>1.8</b>	<b>0</b>	<b>0.9</b>	<b>1.7</b>	<b>1.6</b>

N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
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Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	0	0	40	4	44	22	79	101	145
07:45 AM	3	0	3	43	2	45	35	106	141	189
08:00 AM	2	2	4	44	4	48	22	86	108	160
08:15 AM	1	0	1	56	10	66	15	68	83	150
<b>Total Volume</b>	6	2	8	183	20	203	94	339	433	644
% App. Total	75	25		90.1	9.9		21.7	78.3		
PHF	.500	.250	.500	.817	.500	.769	.671	.800	.768	.852
Cars	6	1	7	181	20	201	93	335	428	636
% Cars	100	50.0	87.5	98.9	100	99.0	98.9	98.8	98.8	98.8
Trucks	0	1	1	2	0	2	1	4	5	8
% Trucks	0	50.0	12.5	1.1	0	1.0	1.1	1.2	1.2	1.2



N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

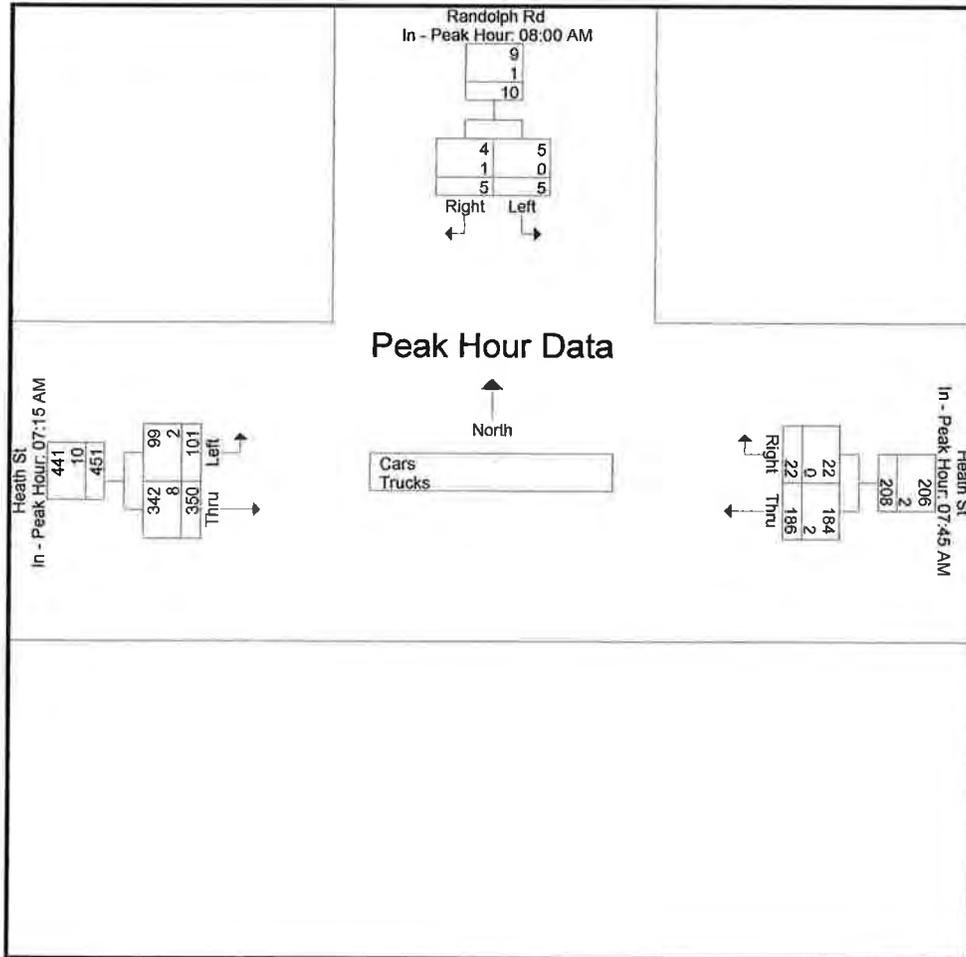
File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 3

Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM			07:45 AM			07:15 AM		
+0 mins.	2	2	4	43	2	45	22	79	101
+15 mins.	1	0	1	44	4	48	22	79	101
+30 mins.	0	1	1	56	10	66	35	106	141
+45 mins.	2	2	4	43	6	49	22	86	108
Total Volume	5	5	10	186	22	208	101	350	451
% App. Total	50	50		89.4	10.6		22.4	77.6	
PHF	.625	.625	.625	.830	.550	.788	.721	.825	.800
Cars	5	4	9	184	22	206	99	342	441
% Cars	100	80	90	98.9	100	99	98	97.7	97.8
Trucks	0	1	1	2	0	2	2	8	10
% Trucks	0	20	10	1.1	0	1	2	2.3	2.2



**Accurate Counts**  
978-664-2565

N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 4

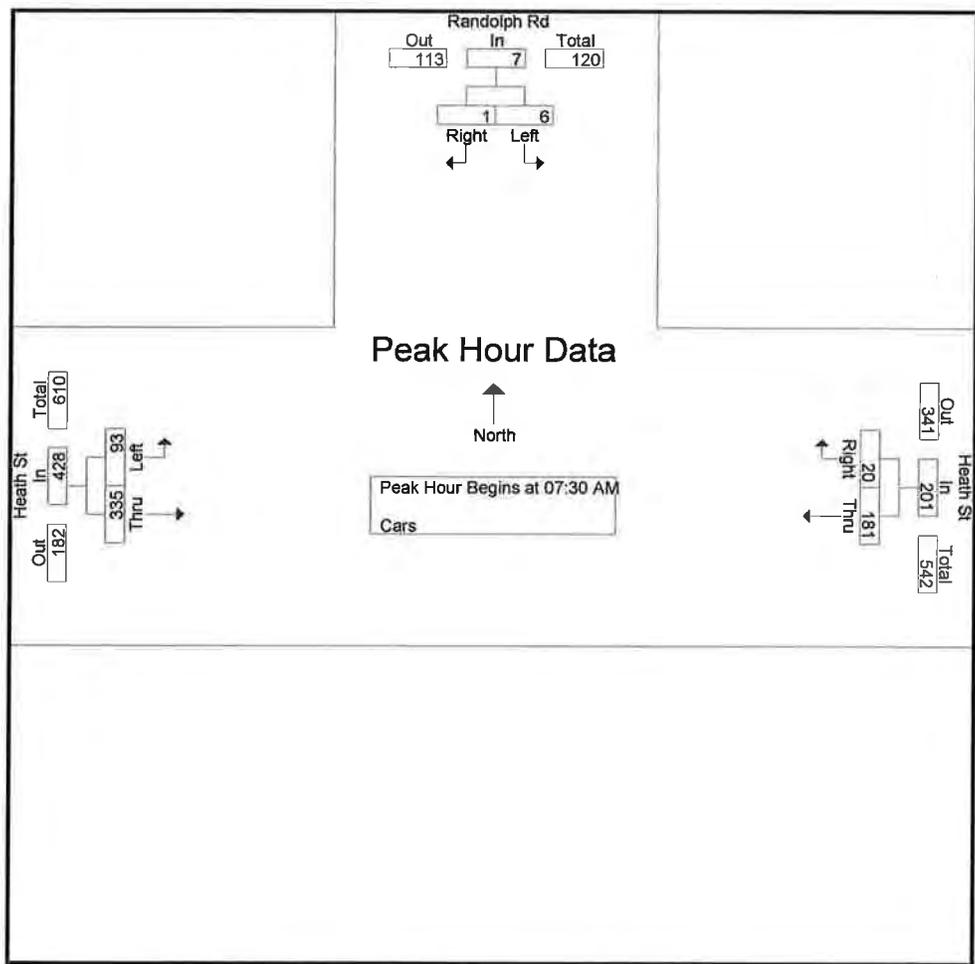
Groups Printed- Cars

Start Time	Randolph Rd From North		Heath St From East		Heath St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	2	0	18	1	22	54	97
07:15 AM	2	0	37	3	21	74	137
07:30 AM	0	0	40	4	21	79	144
07:45 AM	3	0	43	2	35	104	187
<b>Total</b>	<b>7</b>	<b>0</b>	<b>138</b>	<b>10</b>	<b>99</b>	<b>311</b>	<b>565</b>
08:00 AM	2	1	44	4	22	85	158
08:15 AM	1	0	54	10	15	67	147
08:30 AM	0	1	43	6	15	73	138
08:45 AM	2	2	35	3	18	61	121
<b>Total</b>	<b>5</b>	<b>4</b>	<b>176</b>	<b>23</b>	<b>70</b>	<b>286</b>	<b>564</b>
09:00 AM	1	0	36	7	21	62	127
09:15 AM	0	1	26	6	19	32	84
<b>Grand Total</b>	<b>13</b>	<b>5</b>	<b>376</b>	<b>46</b>	<b>209</b>	<b>691</b>	<b>1340</b>
<b>Apprch %</b>	<b>72.2</b>	<b>27.8</b>	<b>89.1</b>	<b>10.9</b>	<b>23.2</b>	<b>76.8</b>	
<b>Total %</b>	<b>1</b>	<b>0.4</b>	<b>28.1</b>	<b>3.4</b>	<b>15.6</b>	<b>51.6</b>	

N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
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Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	0	0	40	4	44	21	79	100	144
07:45 AM	3	0	3	43	2	45	35	104	139	187
08:00 AM	2	1	3	44	4	48	22	85	107	158
08:15 AM	1	0	1	54	10	64	15	67	82	147
<b>Total Volume</b>	<b>6</b>	<b>1</b>	<b>7</b>	<b>181</b>	<b>20</b>	<b>201</b>	<b>93</b>	<b>335</b>	<b>428</b>	<b>636</b>
<b>% App. Total</b>	<b>85.7</b>	<b>14.3</b>		<b>90</b>	<b>10</b>		<b>21.7</b>	<b>78.3</b>		
<b>PHF</b>	<b>.500</b>	<b>.250</b>	<b>.583</b>	<b>.838</b>	<b>.500</b>	<b>.785</b>	<b>.664</b>	<b>.805</b>	<b>.770</b>	<b>.850</b>



N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

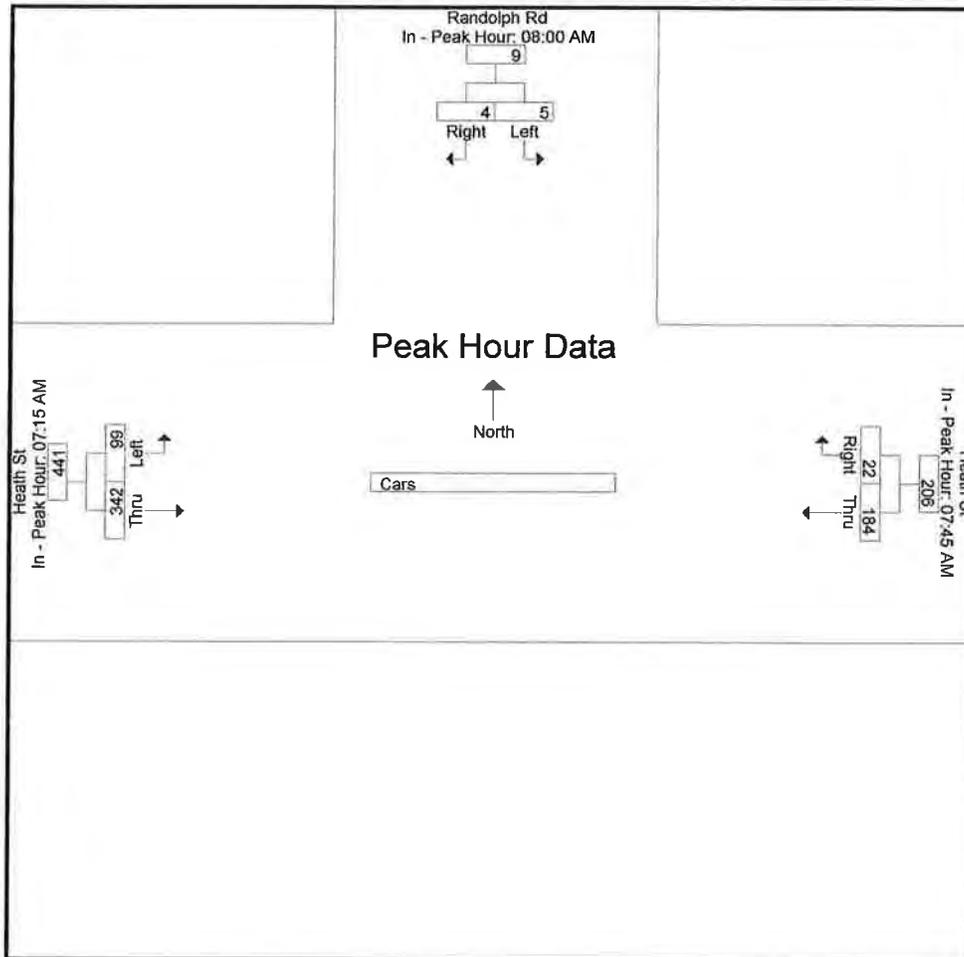
File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 6

Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM			07:45 AM			07:15 AM		
+0 mins.	2	1	3	43	2	45	21	74	95
+15 mins.	1	0	1	44	4	48	21	79	100
+30 mins.	0	1	1	54	10	64	35	104	139
+45 mins.	2	2	4	43	6	49	22	85	107
Total Volume	5	4	9	184	22	206	99	342	441
% App. Total	55.6	44.4		89.3	10.7		22.4	77.6	
PHF	.625	.500	.563	.852	.550	.805	.707	.822	.793



**Accurate Counts**  
978-664-2565

N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
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Groups Printed- Trucks

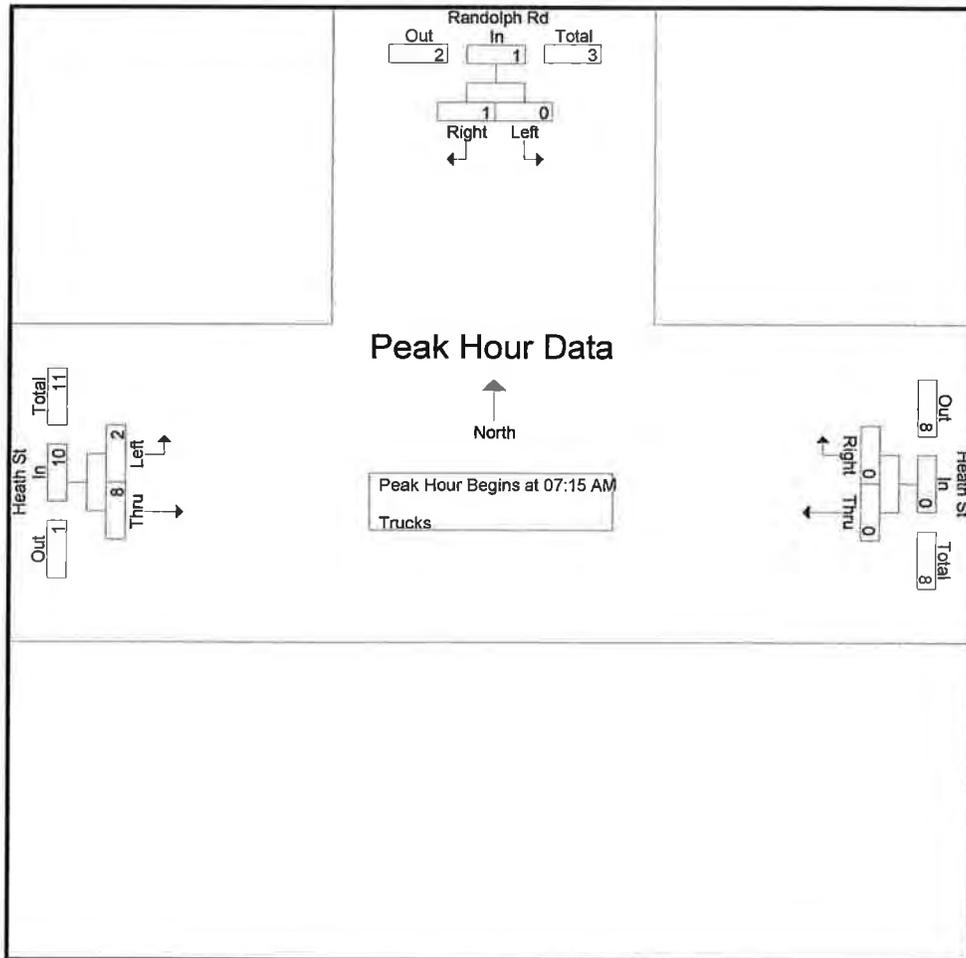
Start Time	Randolph Rd From North		Heath St From East		Heath St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	1	5	6
07:30 AM	0	0	0	0	1	0	1
07:45 AM	0	0	0	0	0	2	2
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>7</b>	<b>9</b>
08:00 AM	0	1	0	0	0	1	2
08:15 AM	0	0	2	0	0	1	3
08:30 AM	0	0	0	0	0	1	1
08:45 AM	0	0	3	0	0	0	3
<b>Total</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>9</b>
09:00 AM	0	0	1	0	0	2	3
09:15 AM	0	0	1	0	0	0	1
<b>Grand Total</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>0</b>	<b>2</b>	<b>12</b>	<b>22</b>
<b>Apprch %</b>	<b>0</b>	<b>100</b>	<b>100</b>	<b>0</b>	<b>14.3</b>	<b>85.7</b>	
<b>Total %</b>	<b>0</b>	<b>4.5</b>	<b>31.8</b>	<b>0</b>	<b>9.1</b>	<b>54.5</b>	

**Accurate Counts**  
978-664-2565

N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 8

Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	0	0	0	1	5	6	6
07:30 AM	0	0	0	0	0	0	1	0	1	1
07:45 AM	0	0	0	0	0	0	0	2	2	2
08:00 AM	0	1	1	0	0	0	0	1	1	2
Total Volume	0	1	1	0	0	0	2	8	10	11
% App. Total	0	100		0	0		20	80		
PHF	.000	.250	.250	.000	.000	.000	.500	.400	.417	.458



N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

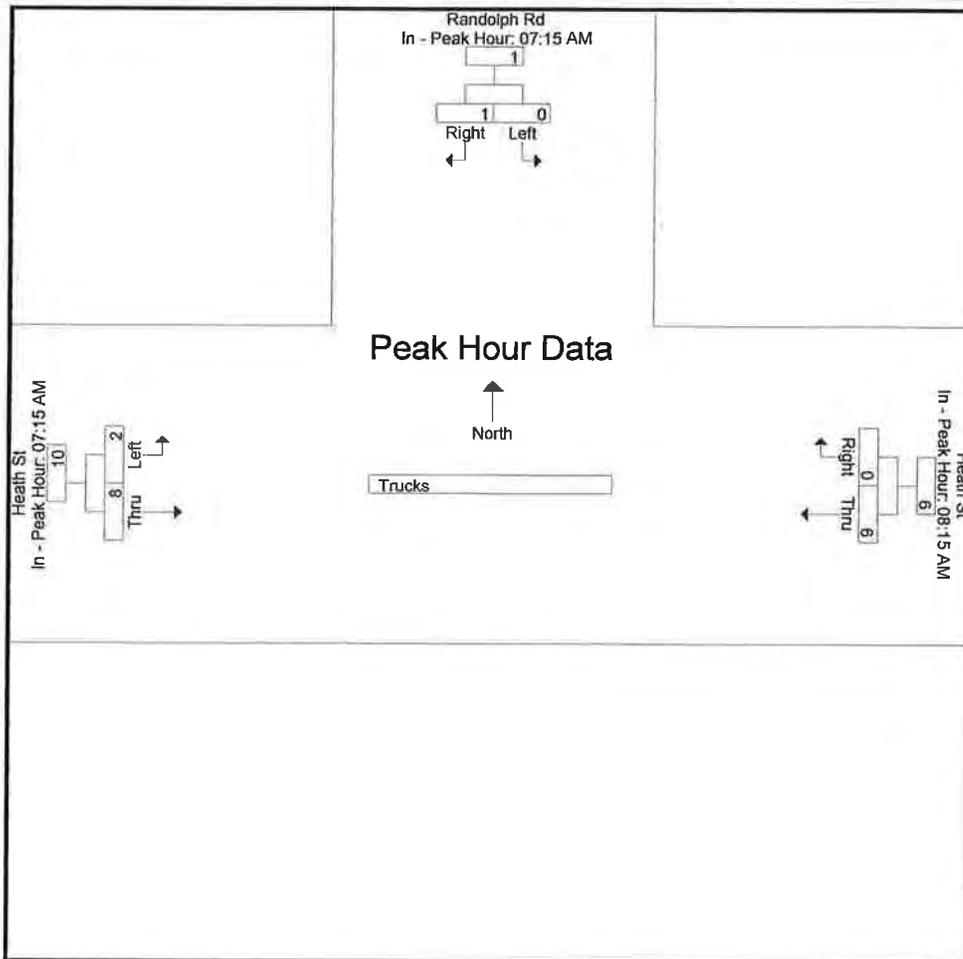
File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
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Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM			08:15 AM			07:15 AM		
+0 mins.	0	0	0	2	0	2	1	5	6
+15 mins.	0	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	3	0	3	0	2	2
+45 mins.	0	1	1	1	0	1	0	1	1
Total Volume	0	1	1	6	0	6	2	8	10
% App. Total	0	100		100	0		20	80	
PHF	.000	.250	.250	.500	.000	.500	.500	.400	.417



**Accurate Counts**  
978-664-2565

N/S Street : Randolph Road  
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Weather : Clear

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Groups Printed- Bikes Peds

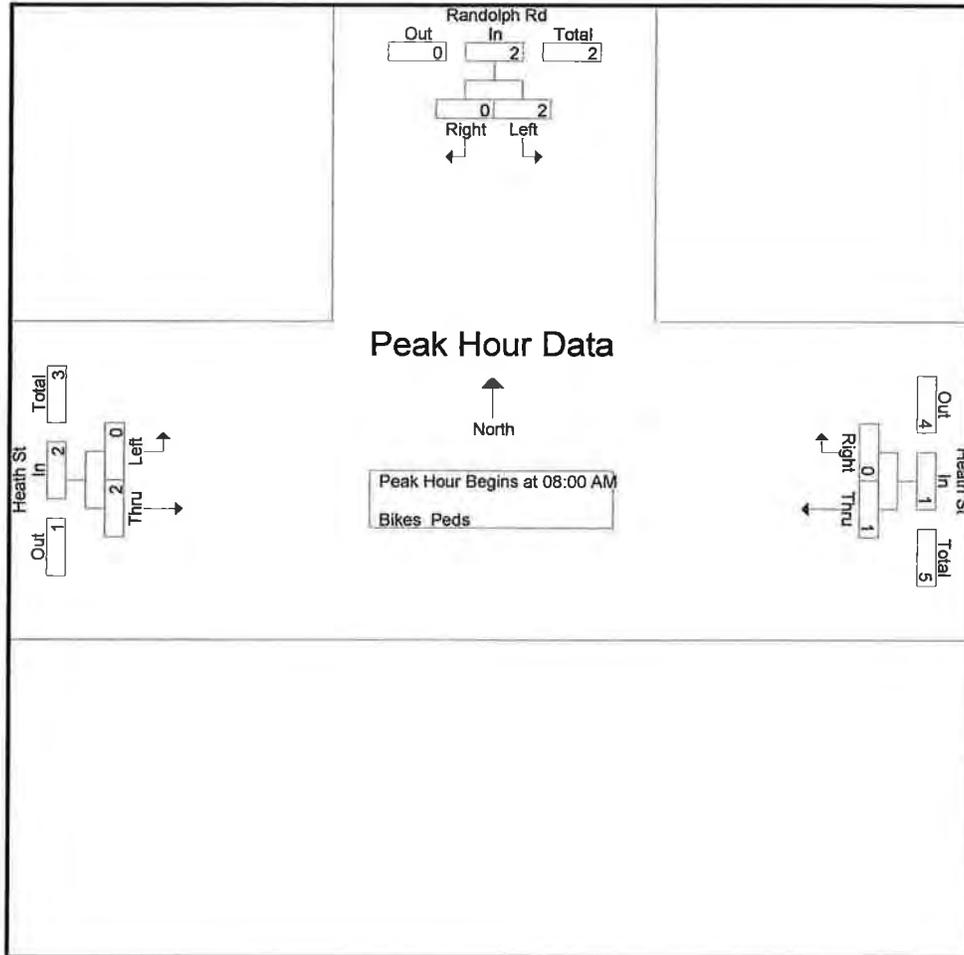
Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	1	1	0	0	0	0	1	2	1	3
07:30 AM	0	0	0	0	0	2	0	0	0	2	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>5</b>
08:00 AM	0	0	2	0	0	0	0	0	0	2	0	2
08:15 AM	2	0	0	0	0	1	0	1	0	1	3	4
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	1	0	1	0	1	1	2	2	4
<b>Total</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>5</b>	<b>5</b>	<b>10</b>
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Grand Total</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>9</b>	<b>6</b>	<b>15</b>
Apprch %	100	0		100	0		0	100				
Total %	33.3	0		33.3	0		0	33.3		60	40	

**Accurate Counts**  
978-664-2565

N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N011  
Site Code : 73820011  
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Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 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
08:15 AM	2	0	2	0	0	0	0	1	1	3
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	1	0	1	0	1	1	2
Total Volume	2	0	2	1	0	1	0	2	2	5
% App. Total	100	0		100	0		0	100		
PHF	.250	.000	.250	.250	.000	.250	.000	.500	.500	.417



N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

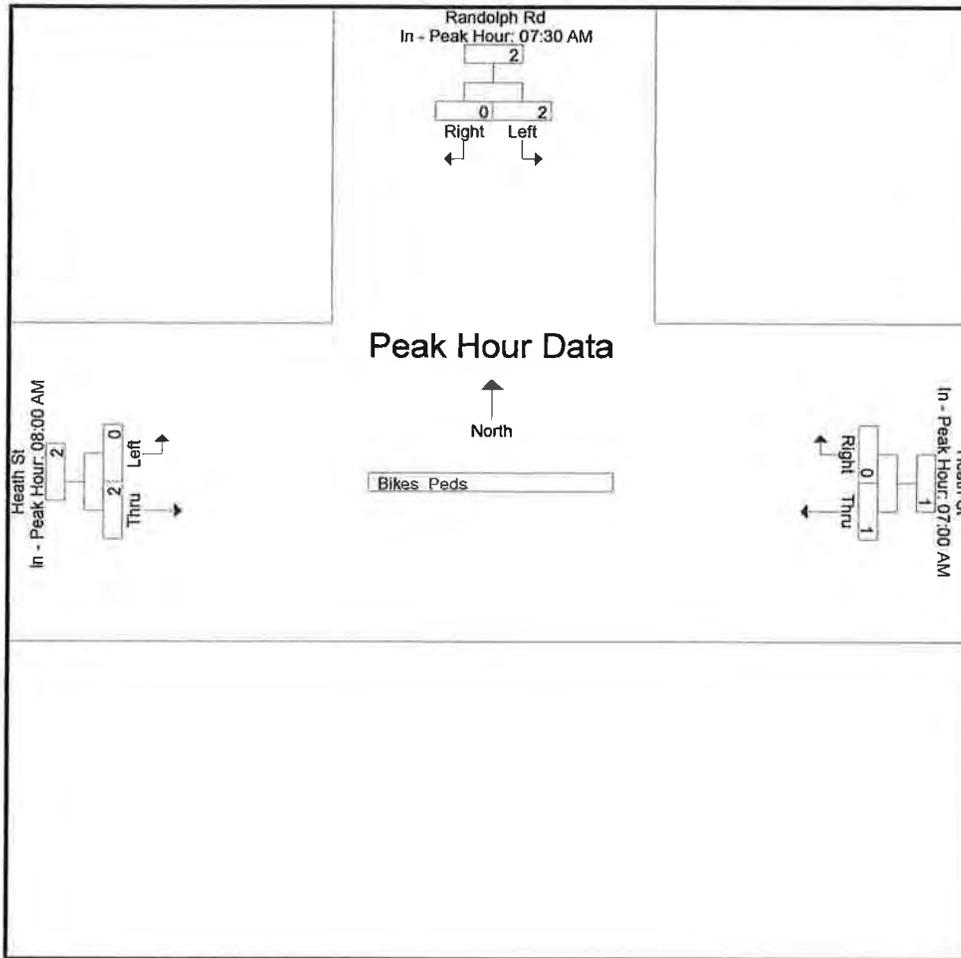
File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 12

Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM			07:00 AM			08:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	1	0	1	0	1	1
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	2	0	2	0	0	0	0	1	1
Total Volume	2	0	2	1	0	1	0	2	2
% App. Total	100	0		100	0		0	100	
PHF	.250	.000	.250	.250	.000	.250	.000	.500	.500



**Accurate Counts**  
978-664-2565

N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 1

Groups Printed- Cars - Trucks

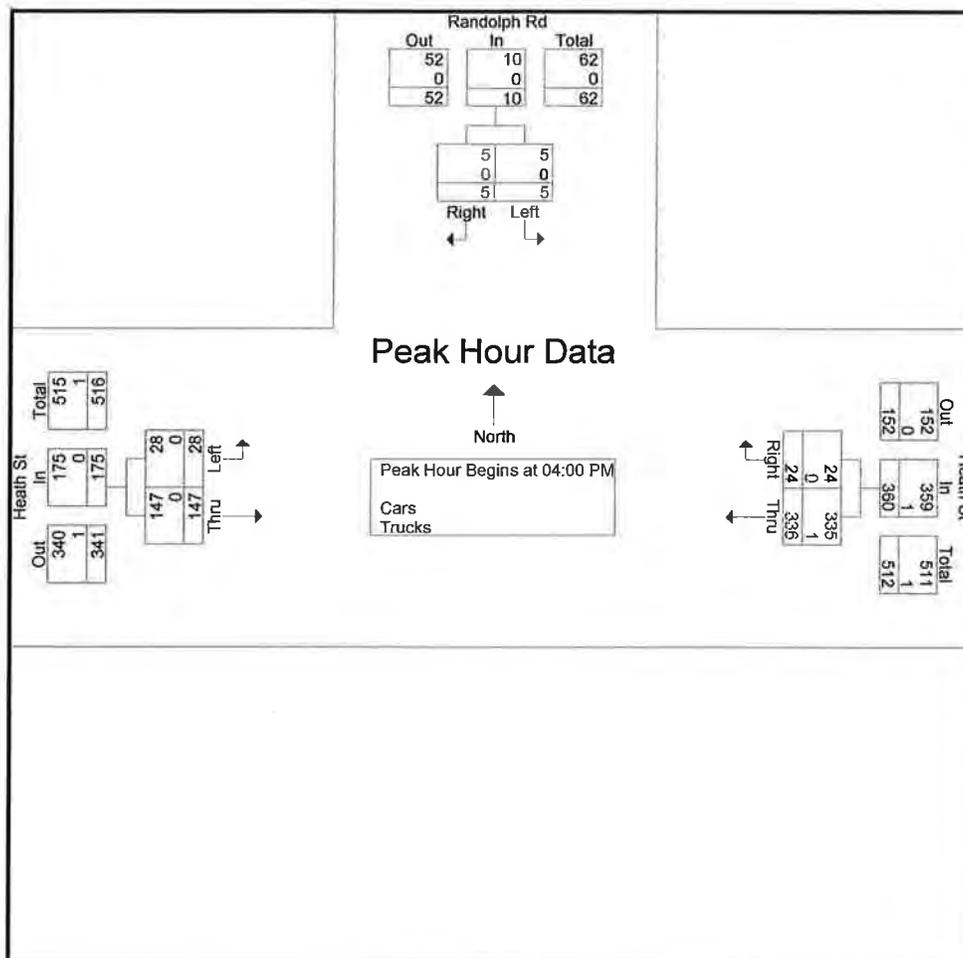
Start Time	Randolph Rd From North		Heath St From East		Heath St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
02:00 PM	3	0	55	5	8	23	94
02:15 PM	1	1	35	5	10	30	82
02:30 PM	1	0	39	2	5	26	73
02:45 PM	3	0	51	1	8	38	101
<b>Total</b>	<b>8</b>	<b>1</b>	<b>180</b>	<b>13</b>	<b>31</b>	<b>117</b>	<b>350</b>
03:00 PM	2	0	61	4	3	28	98
03:15 PM	5	0	71	6	5	44	131
03:30 PM	2	1	63	6	6	34	112
03:45 PM	3	3	66	2	7	27	108
<b>Total</b>	<b>12</b>	<b>4</b>	<b>261</b>	<b>18</b>	<b>21</b>	<b>133</b>	<b>449</b>
04:00 PM	1	2	74	9	9	39	134
04:15 PM	1	3	80	4	6	32	126
04:30 PM	1	0	84	5	6	36	132
04:45 PM	2	0	98	6	7	40	153
<b>Total</b>	<b>5</b>	<b>5</b>	<b>336</b>	<b>24</b>	<b>28</b>	<b>147</b>	<b>545</b>
<b>Grand Total</b>	<b>25</b>	<b>10</b>	<b>777</b>	<b>55</b>	<b>80</b>	<b>397</b>	<b>1344</b>
Apprch %	71.4	28.6	93.4	6.6	16.8	83.2	
Total %	1.9	0.7	57.8	4.1	6	29.5	
<b>Cars</b>	<b>25</b>	<b>10</b>	<b>769</b>	<b>55</b>	<b>78</b>	<b>393</b>	<b>1330</b>
% Cars	100	100	99	100	97.5	99	99
<b>Trucks</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>14</b>
% Trucks	0	0	1	0	2.5	1	1

**Accurate Counts**  
978-664-2565

N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 2

Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	1	2	3	74	9	83	9	39	48	134
04:15 PM	1	3	4	80	4	84	6	32	38	126
04:30 PM	1	0	1	84	5	89	6	36	42	132
04:45 PM	2	0	2	98	6	104	7	40	47	153
Total Volume	5	5	10	336	24	360	28	147	175	545
% App. Total	50	50		93.3	6.7		16	84		
PHF	.625	.417	.625	.857	.667	.865	.778	.919	.911	.891
Cars	5	5	10	335	24	359	28	147	175	544
% Cars	100	100	100	99.7	100	99.7	100	100	100	99.8
Trucks	0	0	0	1	0	1	0	0	0	1
% Trucks	0	0	0	0.3	0	0.3	0	0	0	0.2



**Accurate Counts**  
978-664-2565

N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

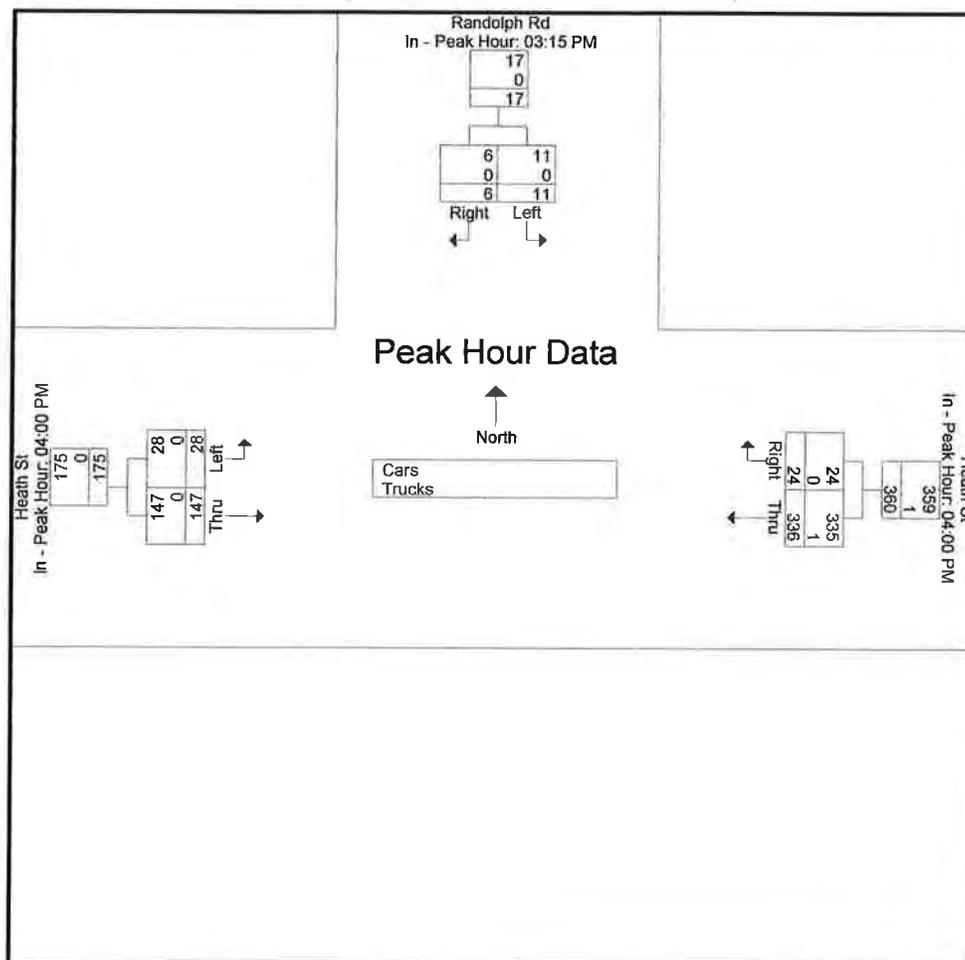
File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 3

Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:15 PM			04:00 PM			04:00 PM		
+0 mins.	5	0	5	74	9	83	9	39	48
+15 mins.	2	1	3	80	4	84	6	32	38
+30 mins.	3	3	6	84	5	89	6	36	42
+45 mins.	1	2	3	98	6	104	7	40	47
Total Volume	11	6	17	336	24	360	28	147	175
% App. Total	64.7	35.3		93.3	6.7		16	84	
PHF	.550	.500	.708	.857	.667	.865	.778	.919	.911
Cars	11	6	17	335	24	359	28	147	175
% Cars	100	100	100	99.7	100	99.7	100	100	100
Trucks	0	0	0	1	0	1	0	0	0
% Trucks	0	0	0	0.3	0	0.3	0	0	0



**Accurate Counts**  
978-664-2565

N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 4

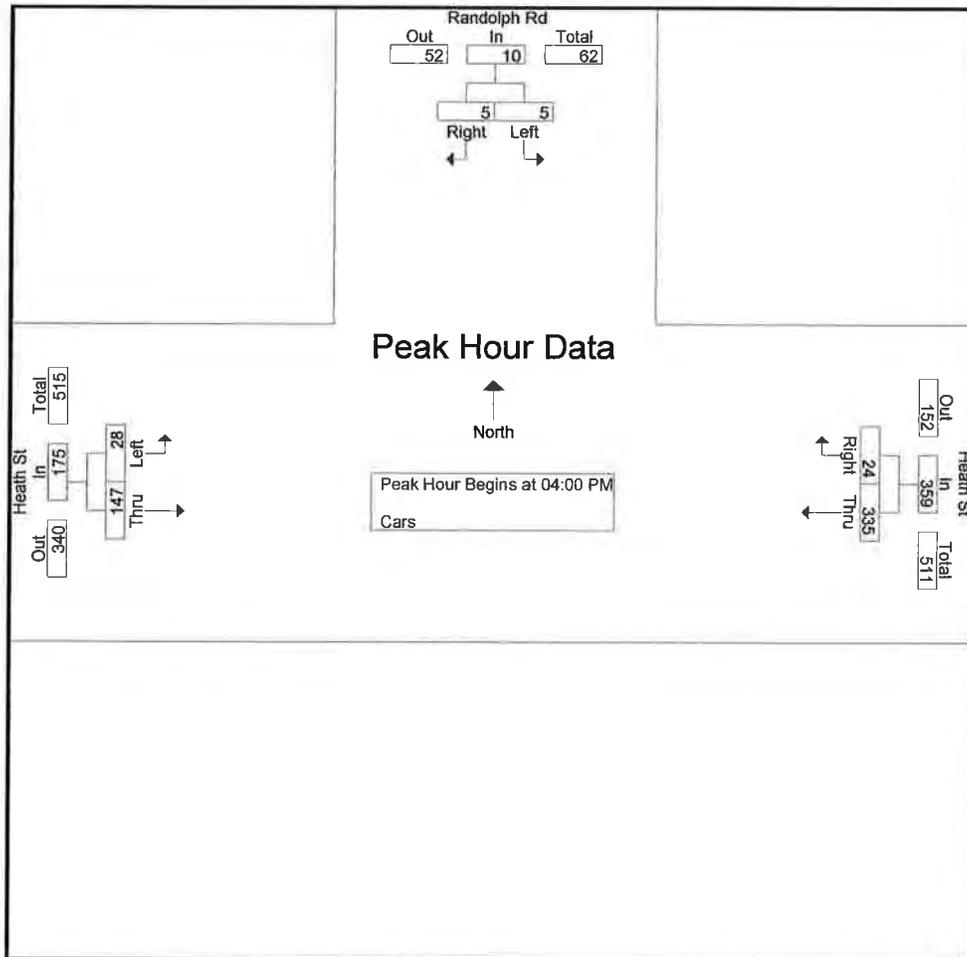
Groups Printed- Cars

Start Time	Randolph Rd From North		Heath St From East		Heath St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
02:00 PM	3	0	54	5	8	22	92
02:15 PM	1	1	35	5	9	30	81
02:30 PM	1	0	37	2	5	26	71
02:45 PM	3	0	51	1	7	38	100
<b>Total</b>	<b>8</b>	<b>1</b>	<b>177</b>	<b>13</b>	<b>29</b>	<b>116</b>	<b>344</b>
03:00 PM	2	0	61	4	3	26	96
03:15 PM	5	0	70	6	5	44	130
03:30 PM	2	1	62	6	6	33	110
03:45 PM	3	3	64	2	7	27	106
<b>Total</b>	<b>12</b>	<b>4</b>	<b>257</b>	<b>18</b>	<b>21</b>	<b>130</b>	<b>442</b>
04:00 PM	1	2	73	9	9	39	133
04:15 PM	1	3	80	4	6	32	126
04:30 PM	1	0	84	5	6	36	132
04:45 PM	2	0	98	6	7	40	153
<b>Total</b>	<b>5</b>	<b>5</b>	<b>335</b>	<b>24</b>	<b>28</b>	<b>147</b>	<b>544</b>
<b>Grand Total</b>	<b>25</b>	<b>10</b>	<b>769</b>	<b>55</b>	<b>78</b>	<b>393</b>	<b>1330</b>
Apprch %	71.4	28.6	93.3	6.7	16.6	83.4	
Total %	1.9	0.8	57.8	4.1	5.9	29.5	

N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 5

Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	1	2	3	73	9	82	9	39	48	133
04:15 PM	1	3	4	80	4	84	6	32	38	126
04:30 PM	1	0	1	84	5	89	6	36	42	132
04:45 PM	2	0	2	98	6	104	7	40	47	153
Total Volume	5	5	10	335	24	359	28	147	175	544
% App. Total	50	50		93.3	6.7		16	84		
PHF	.625	.417	.625	.855	.667	.863	.778	.919	.911	.889



N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

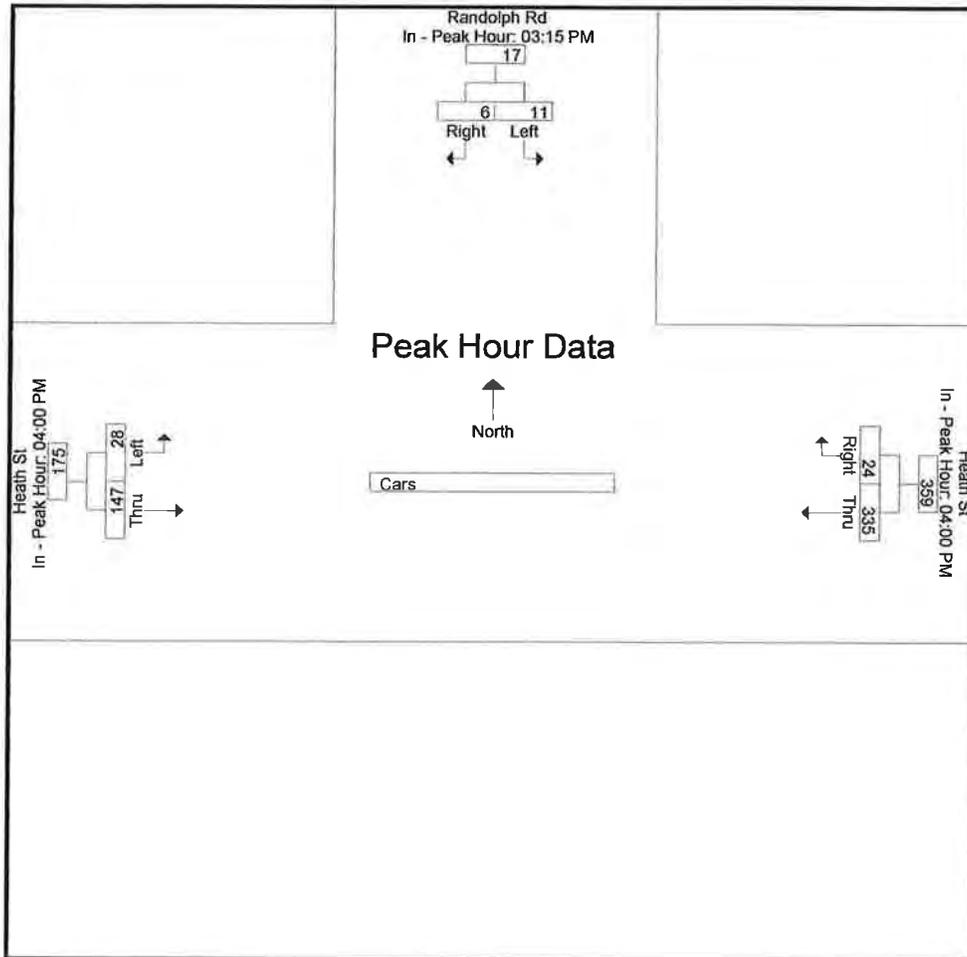
File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 6

Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:15 PM			04:00 PM			04:00 PM		
+0 mins.	5	0	5	73	9	82	9	39	48
+15 mins.	2	1	3	80	4	84	6	32	38
+30 mins.	3	3	6	84	5	89	6	36	42
+45 mins.	1	2	3	98	6	104	7	40	47
Total Volume	11	6	17	335	24	359	28	147	175
% App. Total	64.7	35.3		93.3	6.7		16	84	
PHF	.550	.500	.708	.855	.667	.863	.778	.919	.911



**Accurate Counts**  
978-664-2565

N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 7

Groups Printed- Trucks

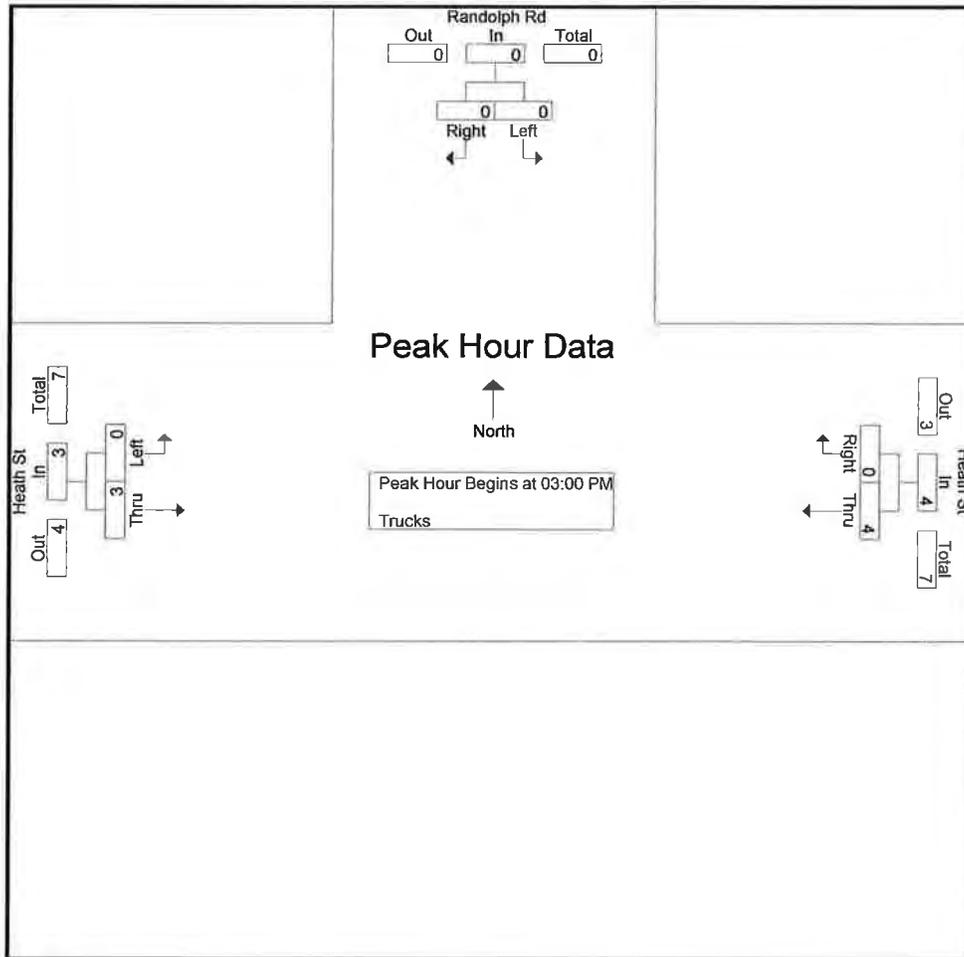
Start Time	Randolph Rd From North		Heath St From East		Heath St From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
02:00 PM	0	0	1	0	0	1	2
02:15 PM	0	0	0	0	1	0	1
02:30 PM	0	0	2	0	0	0	2
02:45 PM	0	0	0	0	1	0	1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>6</b>
03:00 PM	0	0	0	0	0	2	2
03:15 PM	0	0	1	0	0	0	1
03:30 PM	0	0	1	0	0	1	2
03:45 PM	0	0	2	0	0	0	2
<b>Total</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>7</b>
04:00 PM	0	0	1	0	0	0	1
04:15 PM	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>14</b>
Apprch %	0	0	100	0	33.3	66.7	
Total %	0	0	57.1	0	14.3	28.6	

**Accurate Counts**  
978-664-2565

N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 8

Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:00 PM										
03:00 PM	0	0	0	0	0	0	0	2	2	2
03:15 PM	0	0	0	1	0	1	0	0	0	1
03:30 PM	0	0	0	1	0	1	0	1	1	2
03:45 PM	0	0	0	2	0	2	0	0	0	2
Total Volume	0	0	0	4	0	4	0	3	3	7
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.500	.000	.500	.000	.375	.375	.875



N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

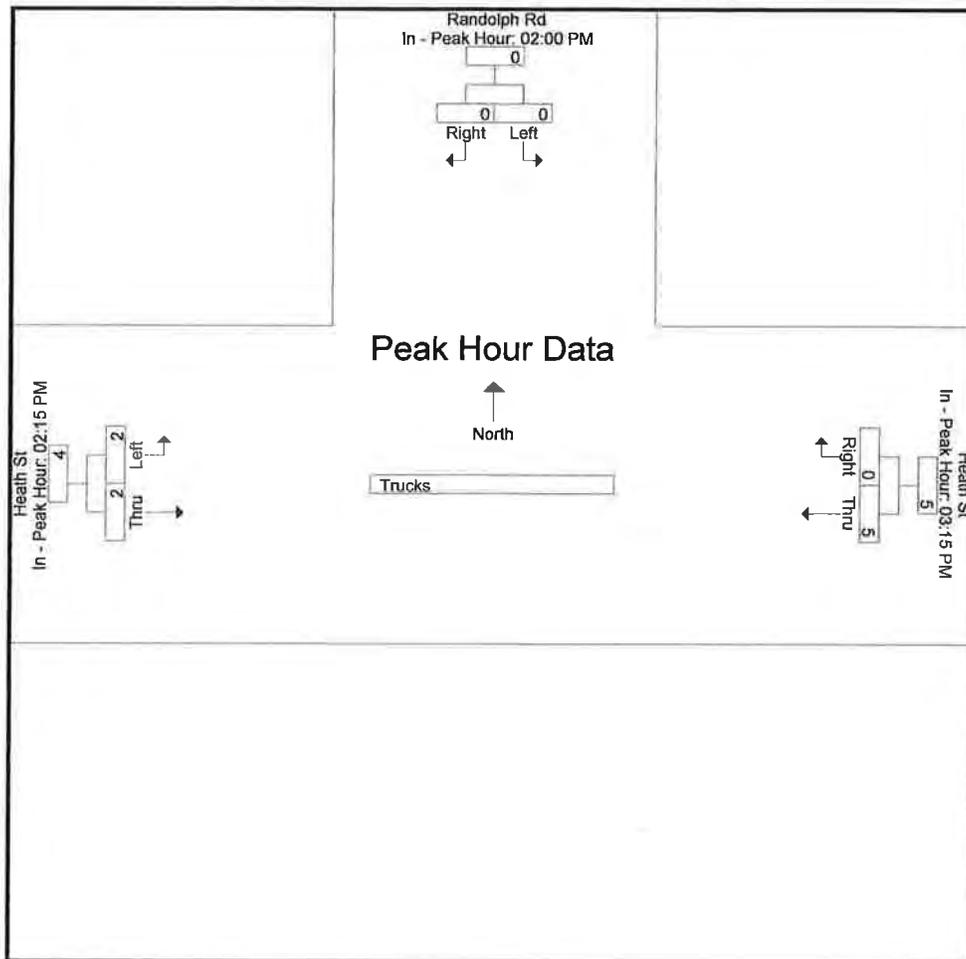
File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 9

Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			03:15 PM			02:15 PM		
+0 mins.	0	0	0	1	0	1	1	0	1
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	0	0	2	0	2	1	0	1
+45 mins.	0	0	0	1	0	1	0	2	2
Total Volume	0	0	0	5	0	5	2	2	4
% App. Total	0	0		100	0		50	50	
PHF	.000	.000	.000	.625	.000	.625	.500	.250	.500



**Accurate Counts**  
978-664-2565

N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 10

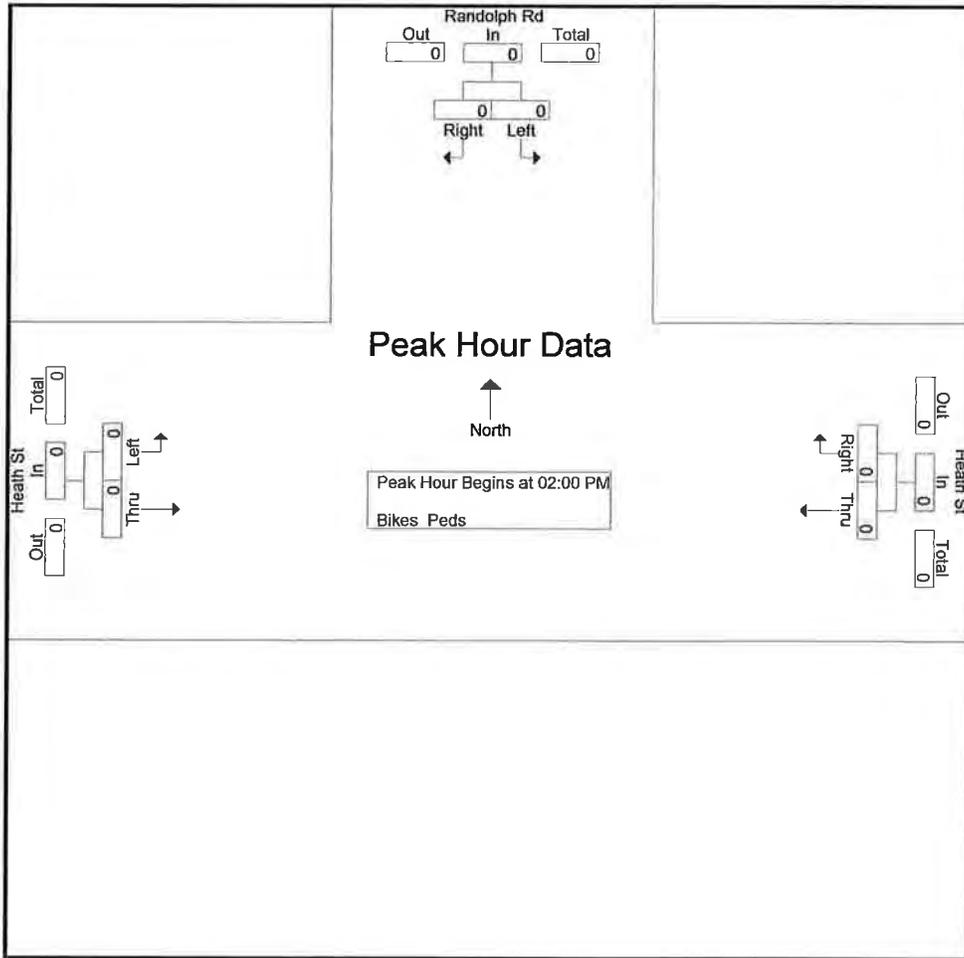
Groups Printed- Bikes Peds

Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	1	0	0	0	1	0	1
02:30 PM	0	0	0	0	0	1	0	0	1	2	0	2
02:45 PM	0	0	0	0	0	0	0	0	1	1	0	1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>4</b>
03:00 PM	0	0	0	0	0	1	0	0	1	2	0	2
03:15 PM	0	0	0	0	0	0	0	0	1	1	0	1
03:30 PM	0	0	0	0	0	0	0	0	1	1	0	1
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>0</b>	<b>4</b>
04:00 PM	0	0	0	0	0	0	0	0	1	1	0	1
04:15 PM	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
04:45 PM	0	0	0	0	0	0	0	0	1	1	0	1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>2</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>10</b>	<b>0</b>	<b>10</b>
Apprch %	0	0		0	0		0	0				
Total %										100	0	

N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 11

Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



N/S Street : Randolph Road  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

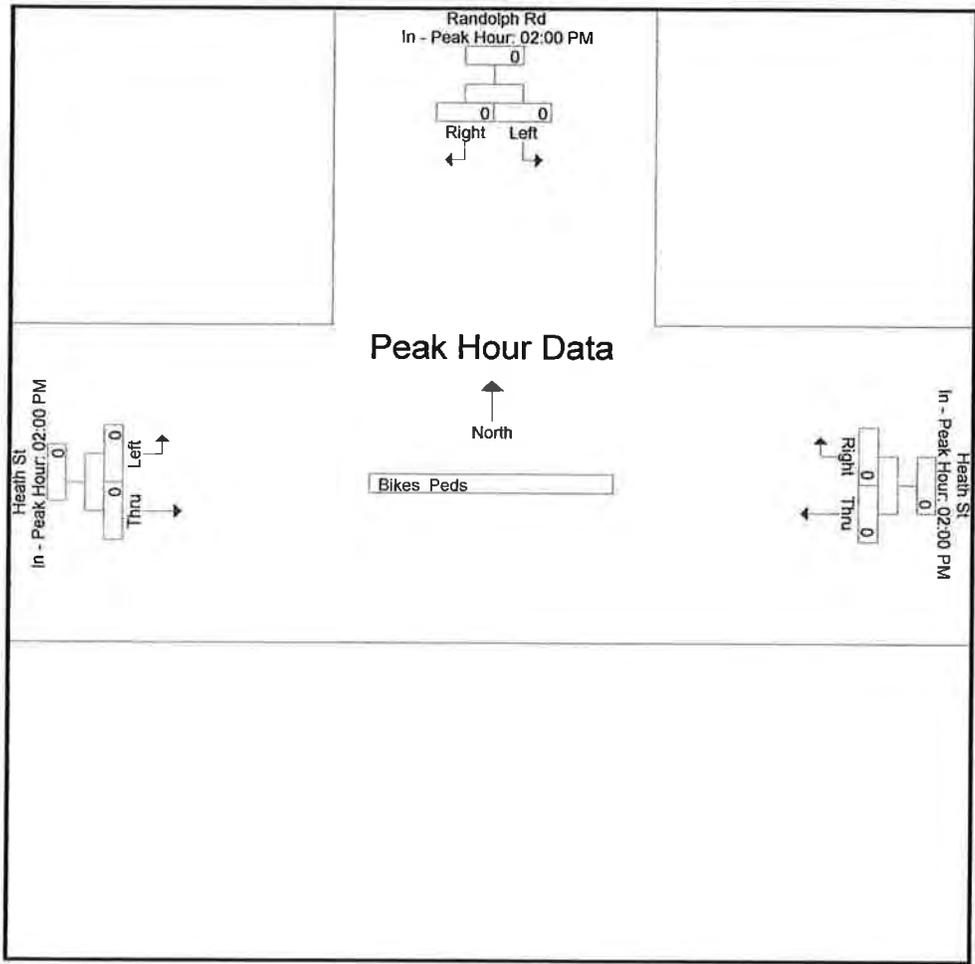
File Name : 7382N011  
Site Code : 73820011  
Start Date : 11/17/2016  
Page No : 12

Start Time	Randolph Rd From North			Heath St From East			Heath St From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:00 PM			02:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
 E/W Street : Route 9  
 City/State : Brookline, MA  
 Weather : Cloudy

File Name : 7382N001  
 Site Code : 73820001  
 Start Date : 11/16/2016  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Hammond St From North			Route 9 From East				Hammond St From South			Route 9 From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	U-TR	Left	Thru	Right	Left	Thru	Right	
07:00 AM	11	36	16	36	342	11	0	24	68	17	38	304	7	910
07:15 AM	20	51	30	48	311	11	2	21	87	23	30	275	10	919
07:30 AM	32	55	30	51	345	10	2	26	91	23	40	299	5	1009
07:45 AM	38	68	30	60	314	14	1	31	89	9	24	259	6	943
<b>Total</b>	<b>101</b>	<b>210</b>	<b>106</b>	<b>195</b>	<b>1312</b>	<b>46</b>	<b>5</b>	<b>102</b>	<b>335</b>	<b>72</b>	<b>132</b>	<b>1137</b>	<b>28</b>	<b>3781</b>
08:00 AM	34	64	34	56	321	8	0	35	88	18	28	254	13	953
08:15 AM	26	44	32	53	304	11	1	24	78	20	36	285	14	928
08:30 AM	28	53	25	66	297	6	1	33	61	26	32	269	8	905
08:45 AM	33	39	24	51	249	9	0	34	84	26	36	279	7	871
<b>Total</b>	<b>121</b>	<b>200</b>	<b>115</b>	<b>226</b>	<b>1171</b>	<b>34</b>	<b>2</b>	<b>126</b>	<b>311</b>	<b>90</b>	<b>132</b>	<b>1087</b>	<b>42</b>	<b>3657</b>
09:00 AM	25	39	19	37	279	9	0	32	68	28	34	282	17	869
09:15 AM	30	25	23	55	272	8	1	38	67	29	40	276	10	874
<b>Grand Total</b>	<b>277</b>	<b>474</b>	<b>263</b>	<b>513</b>	<b>3034</b>	<b>97</b>	<b>8</b>	<b>298</b>	<b>781</b>	<b>219</b>	<b>338</b>	<b>2782</b>	<b>97</b>	<b>9181</b>
Apprch %	27.3	46.7	25.9	14	83.1	2.7	0.2	23	60.2	16.9	10.5	86.5	3	
Total %	3	5.2	2.9	5.6	33	1.1	0.1	3.2	8.5	2.4	3.7	30.3	1.1	
<b>Cars</b>	<b>276</b>	<b>467</b>	<b>257</b>	<b>489</b>	<b>2979</b>	<b>97</b>	<b>8</b>	<b>283</b>	<b>776</b>	<b>194</b>	<b>327</b>	<b>2705</b>	<b>85</b>	<b>8943</b>
<b>% Cars</b>	<b>99.6</b>	<b>98.5</b>	<b>97.7</b>	<b>95.3</b>	<b>98.2</b>	<b>100</b>	<b>100</b>	<b>95</b>	<b>99.4</b>	<b>88.6</b>	<b>96.7</b>	<b>97.2</b>	<b>87.6</b>	<b>97.4</b>
<b>Trucks</b>	<b>1</b>	<b>7</b>	<b>6</b>	<b>24</b>	<b>55</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>5</b>	<b>25</b>	<b>11</b>	<b>77</b>	<b>12</b>	<b>238</b>
<b>% Trucks</b>	<b>0.4</b>	<b>1.5</b>	<b>2.3</b>	<b>4.7</b>	<b>1.8</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0.6</b>	<b>11.4</b>	<b>3.3</b>	<b>2.8</b>	<b>12.4</b>	<b>2.6</b>

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

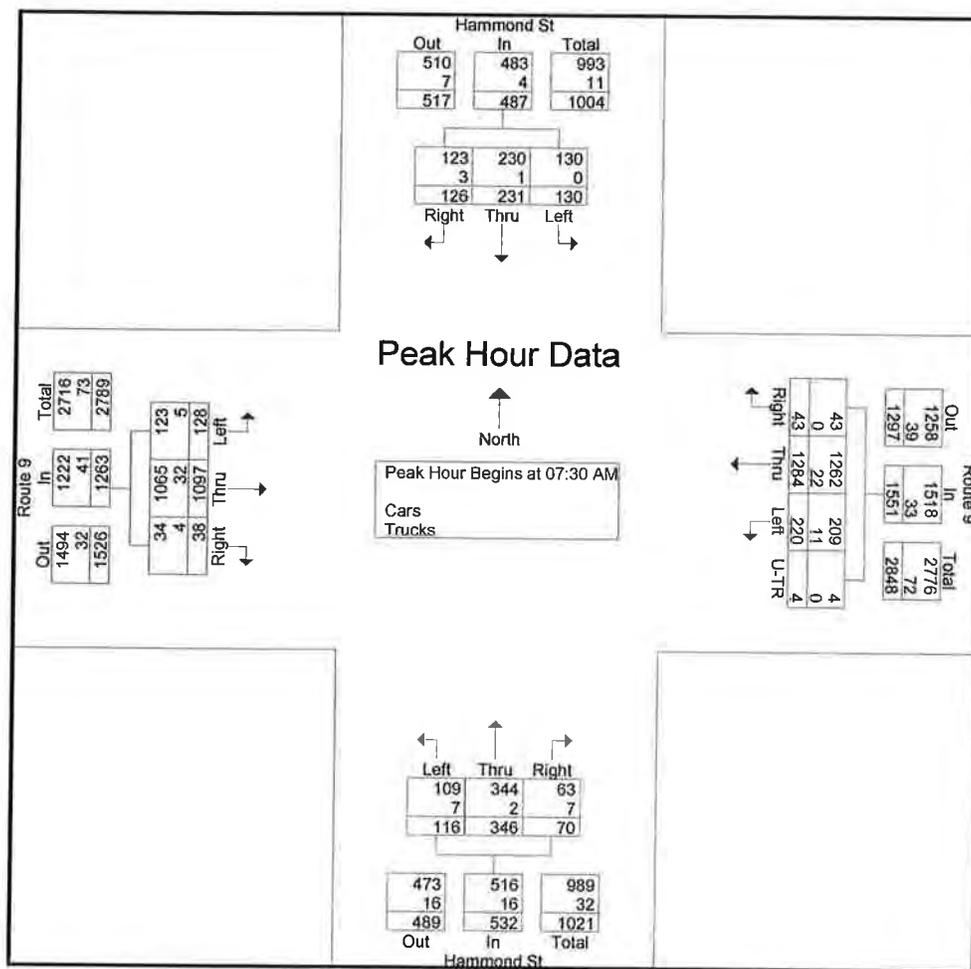
File Name : 7382N001  
Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 2

Start Time	Hammond St From North				Route 9 From East					Hammond St From South				Route 9 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	U-TR	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:30 AM

07:30 AM	32	55	30	117	51	345	10	2	408	26	91	23	140	40	299	5	344	1009
07:45 AM	38	68	30	136	60	314	14	1	389	31	89	9	129	24	259	6	289	943
08:00 AM	34	64	34	132	56	321	8	0	385	35	88	18	141	28	254	13	295	953
08:15 AM	26	44	32	102	53	304	11	1	369	24	78	20	122	36	285	14	335	928
<b>Total Volume</b>	130	231	126	487	220	1284	43	4	1551	116	346	70	532	128	1097	38	1263	3833
<b>% App. Total</b>	26.7	47.4	25.9		14.2	82.8	2.8	0.3		21.8	65	13.2		10.1	86.9	3		
PHF	.855	.849	.926	.895	.917	.930	.768	.500	.950	.829	.951	.761	.943	.800	.917	.679	.918	.950
Cars	130	230	123	483	209	1262	43	4	1518	109	344	63	516	123	1065	34	1222	3739
% Cars	100	99.6	97.6	99.2	95.0	98.3	100	100	97.9	94.0	99.4	90.0	97.0	96.1	97.1	89.5	96.8	97.5
Trucks	0	1	3	4	11	22	0	0	33	7	2	7	16	5	32	4	41	94
% Trucks	0	0.4	2.4	0.8	5.0	1.7	0	0	2.1	6.0	0.6	10.0	3.0	3.9	2.9	10.5	3.2	2.5



N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

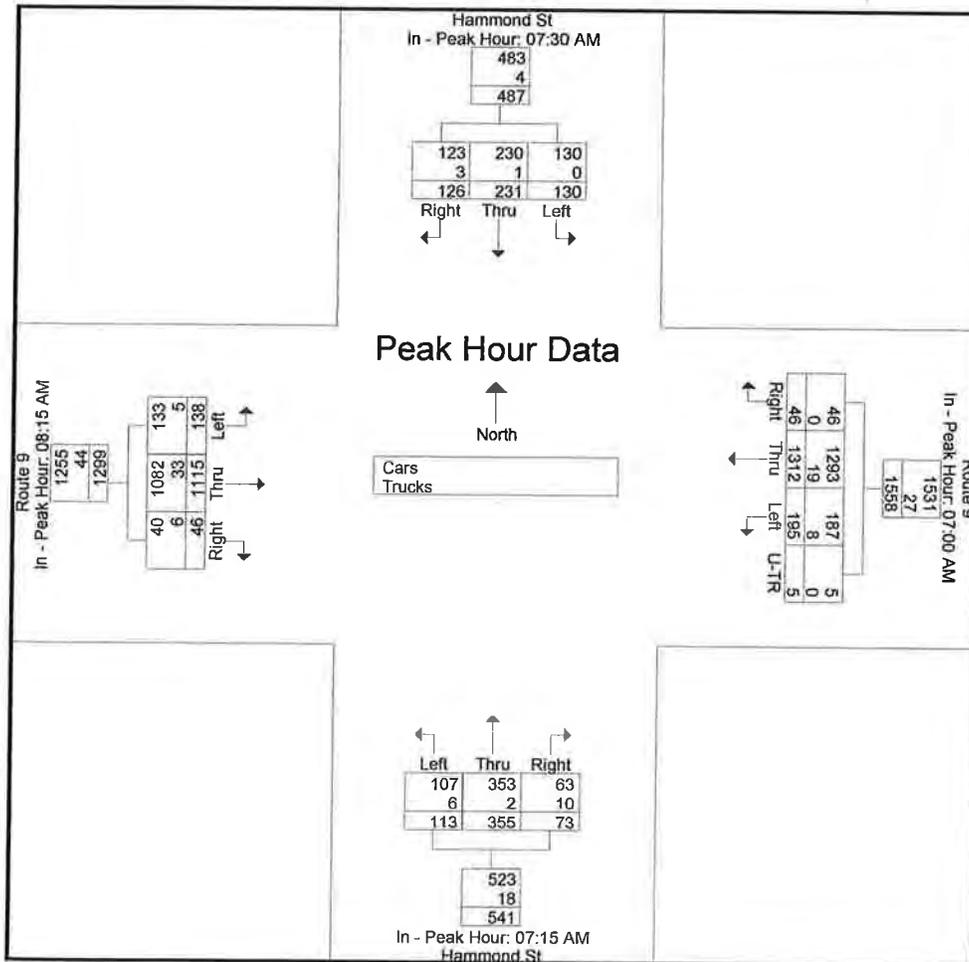
File Name : 7382N001  
Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 3

Start Time	Hammond St From North				Route 9 From East					Hammond St From South				Route 9 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	U-TR	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM				07:00 AM					07:15 AM				08:15 AM			
+0 mins.	32	55	30	117	36	342	11	0	389	21	87	23	131	36	285	14	335
+15 mins.	38	68	30	136	48	311	11	2	372	26	91	23	140	32	269	8	309
+30 mins.	34	64	34	132	51	345	10	2	408	31	89	9	129	36	279	7	322
+45 mins.	26	44	32	102	60	314	14	1	389	35	88	18	141	34	282	17	333
Total Volume	130	231	126	487	195	1312	46	5	1558	113	355	73	541	138	1115	46	1299
% App. Total	26.7	47.4	25.9		12.5	84.2	3	0.3		20.9	65.6	13.5		10.6	85.8	3.5	
PHF	.855	.849	.926	.895	.813	.951	.821	.625	.955	.807	.975	.793	.959	.958	.978	.676	.969
Cars	130	230	123	483	187	1293	46	5	1531	107	353	63	523	133	1082	40	1255
% Cars	100	99.6	97.6	99.2	95.9	98.6	100	100	98.3	94.7	99.4	86.3	96.7	96.4	97	87	96.6
Trucks	0	1	3	4	8	19	0	0	27	6	2	10	18	5	33	6	44
% Trucks	0	0.4	2.4	0.8	4.1	1.4	0	0	1.7	5.3	0.6	13.7	3.3	3.6	3	13	3.4



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

File Name : 7382N001  
Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 1

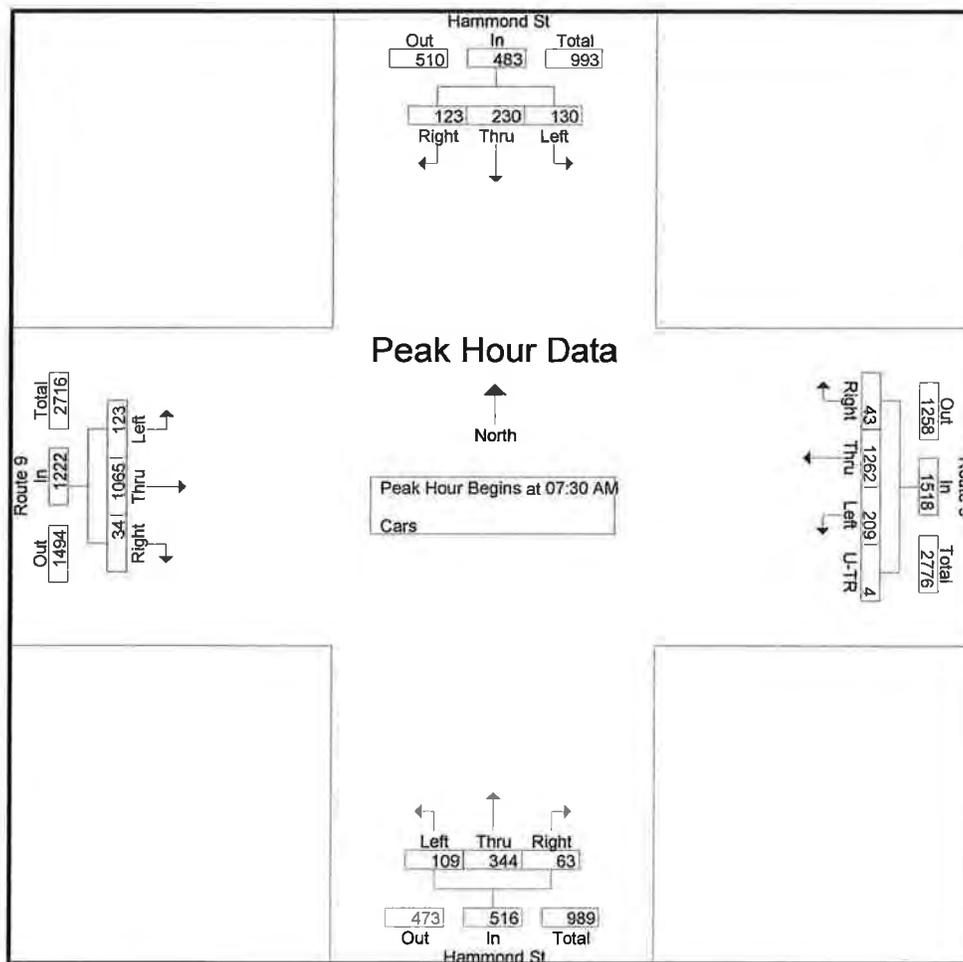
Groups Printed- Cars

Start Time	Hammond St From North			Route 9 From East				Hammond St From South			Route 9 From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	U-TR	Left	Thru	Right	Left	Thru	Right	
07:00 AM	11	36	15	35	340	11	0	24	68	17	36	298	5	896
07:15 AM	20	48	28	47	306	11	2	21	86	19	29	270	9	896
07:30 AM	32	55	30	47	339	10	2	25	90	19	39	289	5	982
07:45 AM	38	67	28	58	308	14	1	28	89	9	23	250	5	918
Total	101	206	101	187	1293	46	5	98	333	64	127	1107	24	3692
08:00 AM	34	64	33	55	317	8	0	33	88	16	27	249	11	935
08:15 AM	26	44	32	49	298	11	1	23	77	19	34	277	13	904
08:30 AM	27	51	25	64	291	6	1	33	61	25	31	254	6	875
08:45 AM	33	39	24	48	241	9	0	32	83	24	35	274	5	847
Total	120	198	114	216	1147	34	2	121	309	84	127	1054	35	3561
09:00 AM	25	38	19	34	274	9	0	29	67	23	33	277	16	844
09:15 AM	30	25	23	52	265	8	1	35	67	23	40	267	10	846
Grand Total	276	467	257	489	2979	97	8	283	776	194	327	2705	85	8943
Apprch %	27.6	46.7	25.7	13.7	83.4	2.7	0.2	22.6	61.9	15.5	10.5	86.8	2.7	
Total %	3.1	5.2	2.9	5.5	33.3	1.1	0.1	3.2	8.7	2.2	3.7	30.2	1	

N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

File Name : 7382N001  
Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 2

Start Time	Hammond St From North				Route 9 From East					Hammond St From South				Route 9 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	U-TR	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:30 AM																		
07:30 AM	32	55	30	117	47	339	10	2	398	25	90	19	134	39	289	5	333	982
07:45 AM	38	67	28	133	58	308	14	1	381	28	89	9	126	23	250	5	278	918
08:00 AM	34	64	33	131	55	317	8	0	380	33	88	16	137	27	249	11	287	935
08:15 AM	26	44	32	102	49	298	11	1	359	23	77	19	119	34	277	13	324	904
<b>Total Volume</b>	130	230	123	483	209	1262	43	4	1518	109	344	63	516	123	1065	34	1222	3739
<b>% App. Total</b>	26.9	47.6	25.5		13.8	83.1	2.8	0.3		21.1	66.7	12.2		10.1	87.2	2.8		
PHF	.855	.858	.932	.908	.901	.931	.768	.500	.954	.826	.956	.829	.942	.788	.921	.654	.917	.952



N/S Street : Hammond Street  
 E/W Street : Route 9  
 City/State : Brookline, MA  
 Weather : Cloudy

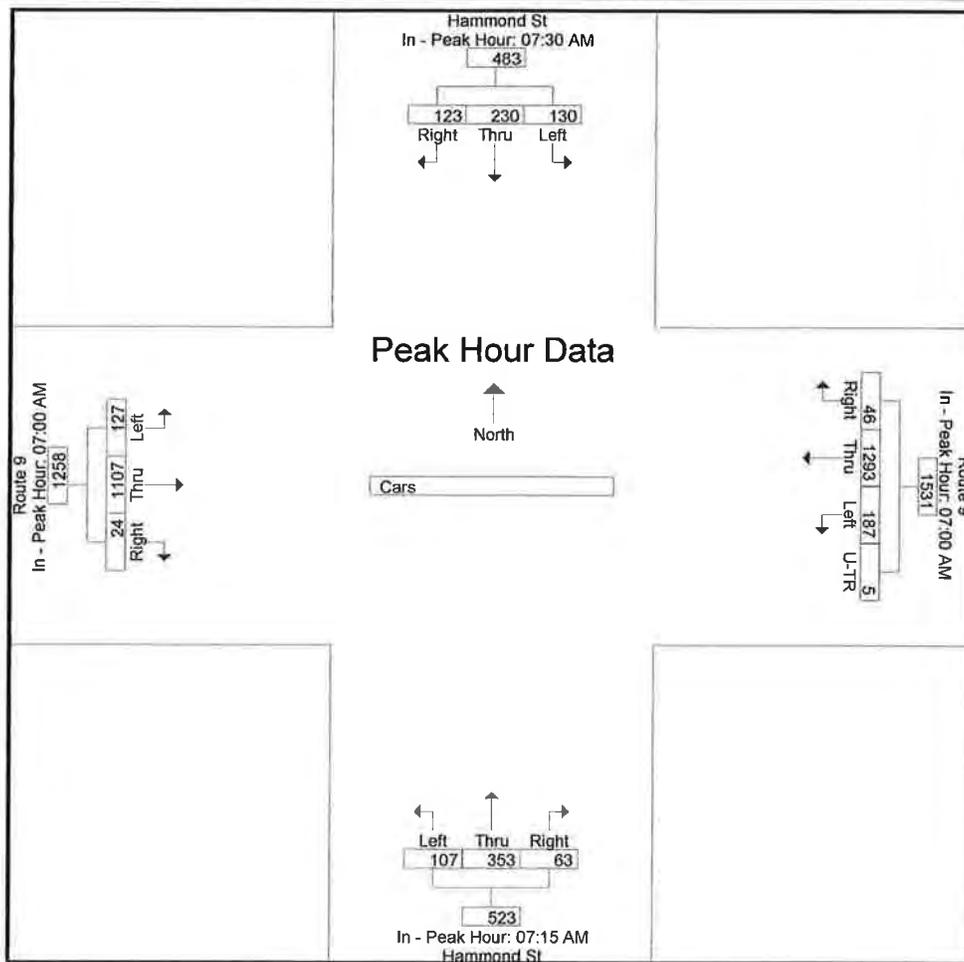
File Name : 7382N001  
 Site Code : 73820001  
 Start Date : 11/16/2016  
 Page No : 3

Start Time	Hammond St From North				Route 9 From East					Hammond St From South				Route 9 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	U-TR	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM				07:00 AM					07:15 AM				07:00 AM			
+0 mins.	32	55	30	117	35	340	11	0	386	21	86	19	126	36	298	5	339
+15 mins.	38	67	28	133	47	306	11	2	366	25	90	19	134	29	270	9	308
+30 mins.	34	64	33	131	47	339	10	2	398	28	89	9	126	39	289	5	333
+45 mins.	26	44	32	102	58	308	14	1	381	33	88	16	137	23	250	5	278
Total Volume	130	230	123	483	187	1293	46	5	1531	107	353	63	523	127	1107	24	1258
% App. Total	26.9	47.6	25.5		12.2	84.5	3	0.3		20.5	67.5	12		10.1	88	1.9	
PHF	.855	.858	.932	.908	.806	.951	.821	.625	.962	.811	.981	.829	.954	.814	.929	.667	.928



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

File Name : 7382N001  
Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 1

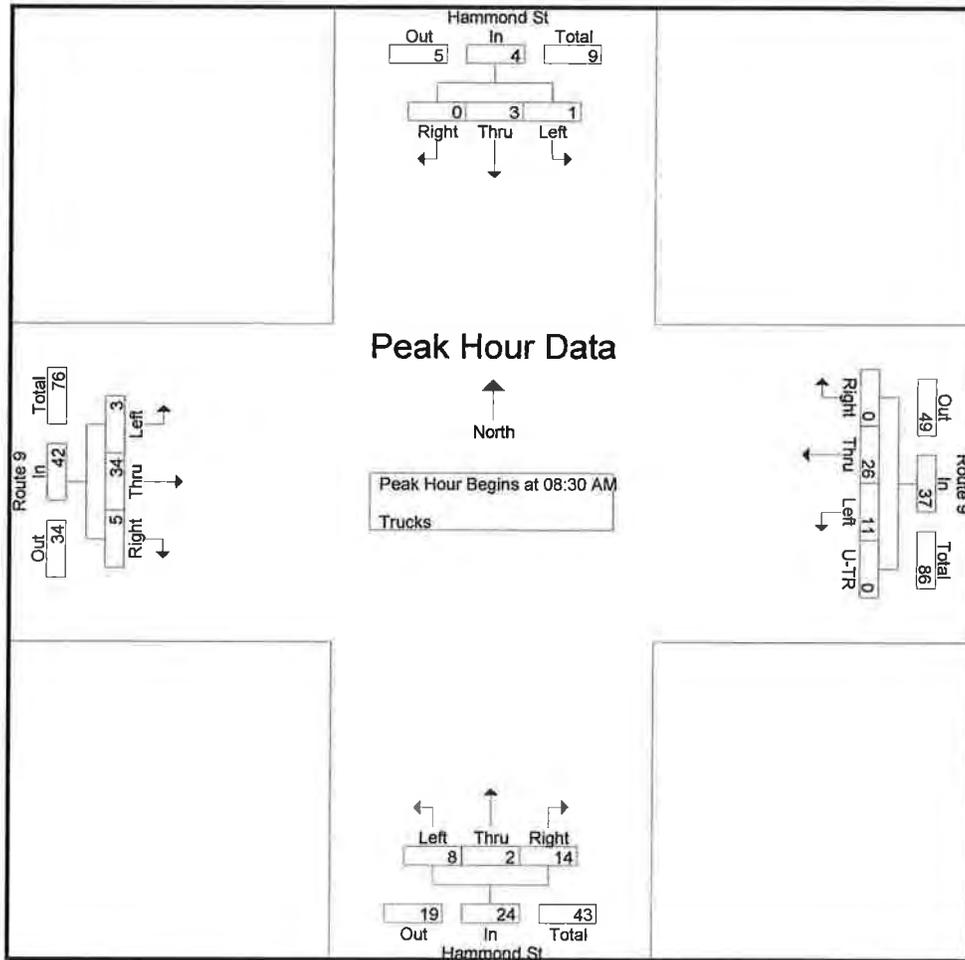
Groups Printed- Trucks

Start Time	Hammond St From North			Route 9 From East				Hammond St From South			Route 9 From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	U-TR	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	1	1	2	0	0	0	0	0	2	6	2	14
07:15 AM	0	3	2	1	5	0	0	0	1	4	1	5	1	23
07:30 AM	0	0	0	4	6	0	0	1	1	4	1	10	0	27
07:45 AM	0	1	2	2	6	0	0	3	0	0	1	9	1	25
<b>Total</b>	<b>0</b>	<b>4</b>	<b>5</b>	<b>8</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>8</b>	<b>5</b>	<b>30</b>	<b>4</b>	<b>89</b>
08:00 AM	0	0	1	1	4	0	0	2	0	2	1	5	2	18
08:15 AM	0	0	0	4	6	0	0	1	1	1	2	8	1	24
08:30 AM	1	2	0	2	6	0	0	0	0	1	1	15	2	30
08:45 AM	0	0	0	3	8	0	0	2	1	2	1	5	2	24
<b>Total</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>10</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>6</b>	<b>5</b>	<b>33</b>	<b>7</b>	<b>96</b>
09:00 AM	0	1	0	3	5	0	0	3	1	5	1	5	1	25
09:15 AM	0	0	0	3	7	0	0	3	0	6	0	9	0	28
<b>Grand Total</b>	<b>1</b>	<b>7</b>	<b>6</b>	<b>24</b>	<b>55</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>5</b>	<b>25</b>	<b>11</b>	<b>77</b>	<b>12</b>	<b>238</b>
Apprch %	7.1	50	42.9	30.4	69.6	0	0	33.3	11.1	55.6	11	77	12	
Total %	0.4	2.9	2.5	10.1	23.1	0	0	6.3	2.1	10.5	4.6	32.4	5	

N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

File Name : 7382N001  
Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 2

Start Time	Hammond St From North				Route 9 From East					Hammond St From South				Route 9 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	U-TR	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 08:30 AM																		
08:30 AM	1	2	0	3	2	6	0	0	8	0	0	1	1	1	15	2	18	30
08:45 AM	0	0	0	0	3	8	0	0	11	2	1	2	5	1	5	2	8	24
09:00 AM	0	1	0	1	3	5	0	0	8	3	1	5	9	1	5	1	7	25
09:15 AM	0	0	0	0	3	7	0	0	10	3	0	6	9	0	9	0	9	28
Total Volume	1	3	0	4	11	26	0	0	37	8	2	14	24	3	34	5	42	107
% App. Total	25	75	0		29.7	70.3	0	0		33.3	8.3	58.3		7.1	81	11.9		
PHF	.250	.375	.000	.333	.917	.813	.000	.000	.841	.667	.500	.583	.667	.750	.567	.625	.583	.892



N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

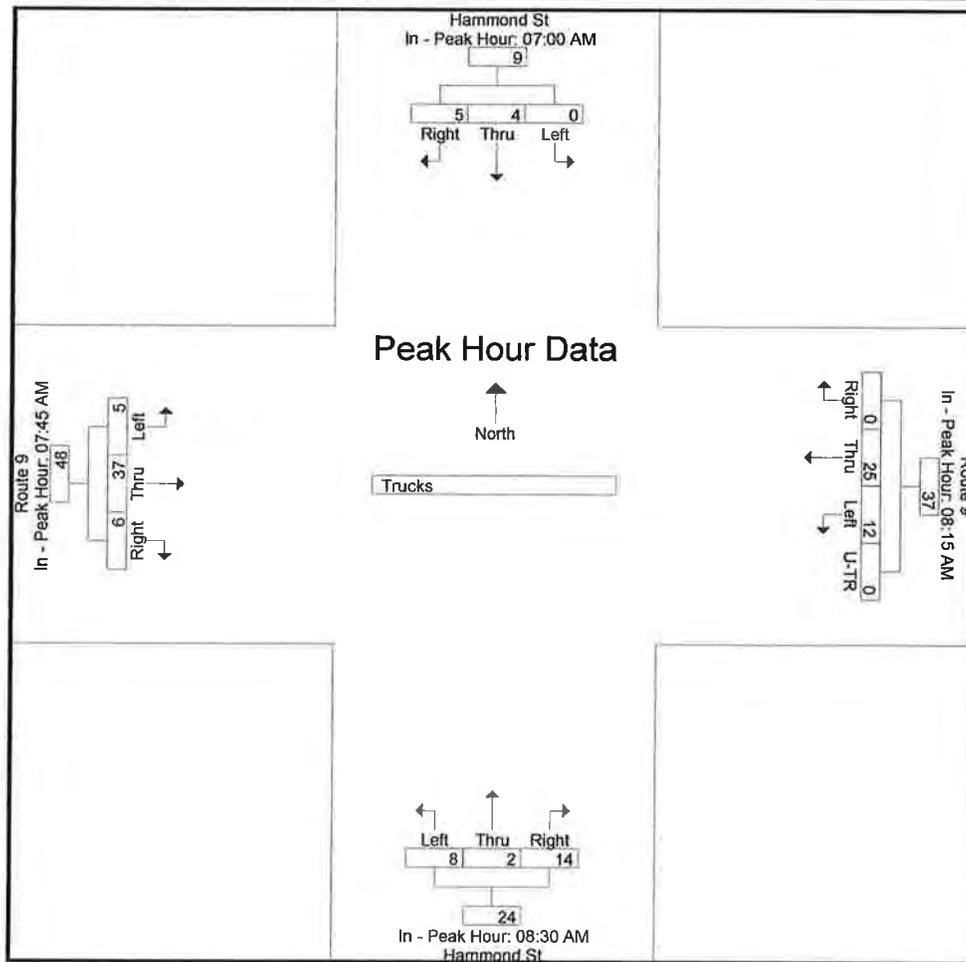
File Name : 7382N001  
Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 3

Start Time	Hammond St From North				Route 9 From East					Hammond St From South				Route 9 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	U-TR	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				08:15 AM					08:30 AM				07:45 AM			
+0 mins.	0	0	1	1	4	6	0	0	10	0	0	1	1	1	9	1	11
+15 mins.	0	3	2	5	2	6	0	0	8	2	1	2	5	1	5	2	8
+30 mins.	0	0	0	0	3	8	0	0	11	3	1	5	9	2	8	1	11
+45 mins.	0	1	2	3	3	5	0	0	8	3	0	6	9	1	15	2	18
Total Volume	0	4	5	9	12	25	0	0	37	8	2	14	24	5	37	6	48
% App. Total	0	44.4	55.6		32.4	67.6	0	0		33.3	8.3	58.3		10.4	77.1	12.5	
PHF	.000	.333	.625	.450	.750	.781	.000	.000	.841	.667	.500	.583	.667	.625	.617	.750	.667



N/S Street : Hammond Street  
 E/W Street : Route 9  
 City/State : Brookline, MA  
 Weather : Cloudy

File Name : 7382N001  
 Site Code : 73820001  
 Start Date : 11/16/2016  
 Page No : 1

Groups Printed- Bikes Peds

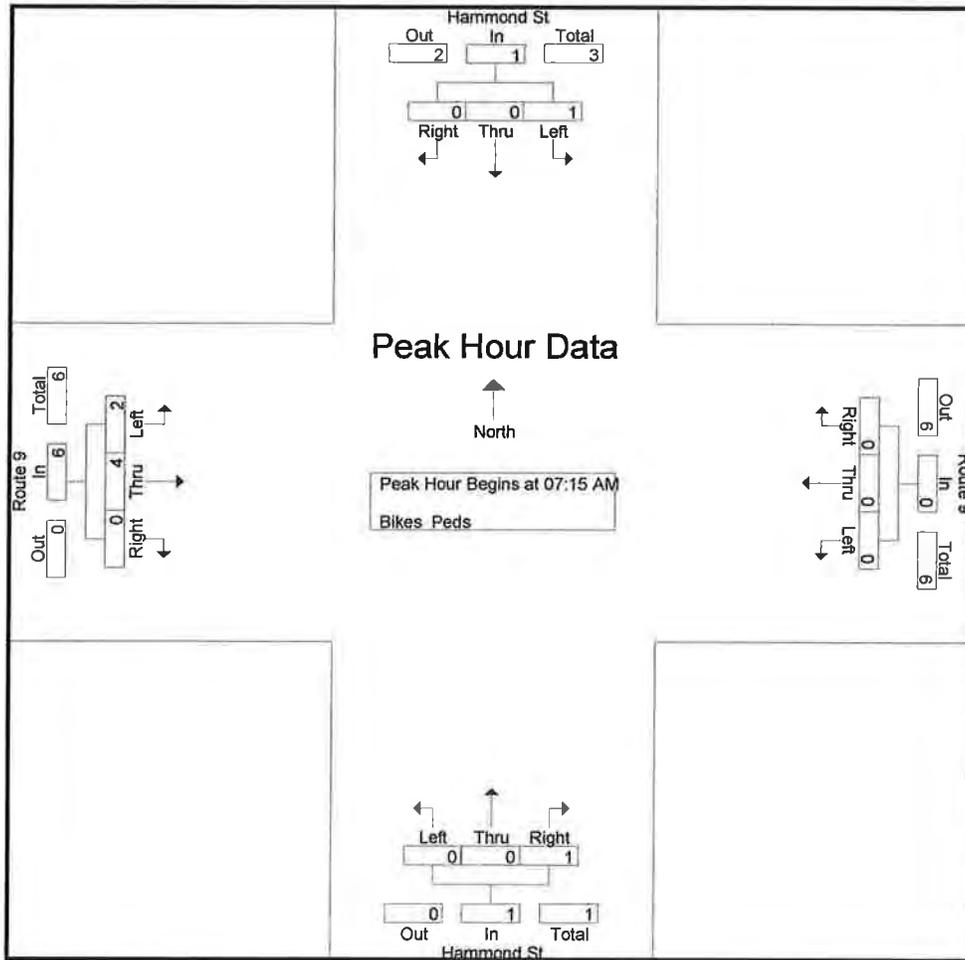
Start Time	Hammond St From North				Route 9 From East				Hammond St From South				Route 9 From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	7	0	7
07:15 AM	1	0	0	1	0	0	0	1	0	0	1	3	0	1	0	6	11	3	14
07:30 AM	0	0	0	1	0	0	0	2	0	0	0	2	2	2	0	4	9	4	13
07:45 AM	0	0	0	0	0	0	0	9	0	0	0	5	0	0	0	4	18	0	18
Total	1	0	0	2	0	0	0	12	0	0	1	13	2	3	0	18	45	7	52
08:00 AM	0	0	0	1	0	0	0	8	0	0	0	3	0	1	0	5	17	1	18
08:15 AM	0	0	0	1	0	0	0	10	2	1	0	7	0	0	0	9	27	3	30
08:30 AM	0	0	0	0	0	0	0	7	0	1	0	1	0	0	0	9	17	1	18
08:45 AM	1	1	0	2	0	1	0	4	0	0	0	0	0	0	0	7	13	3	16
Total	1	1	0	4	0	1	0	29	2	2	0	11	0	1	0	30	74	8	82
09:00 AM	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0	7	11	0	11
09:15 AM	0	0	0	0	0	0	0	2	0	0	0	3	0	0	0	2	7	0	7
Grand Total	2	1	0	7	0	1	0	45	2	2	1	28	2	4	0	57	137	15	152
Apprch %	66.7	33.3	0		0	100	0		40	40	20		33.3	66.7	0				
Total %	13.3	6.7	0		0	6.7	0		13.3	13.3	6.7		13.3	26.7	0		90.1	9.9	

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

File Name : 7382N001  
Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 2

Start Time	Hammond St From North				Route 9 From East				Hammond St From South				Route 9 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	0	0	1	0	0	0	0	0	0	1	1	0	1	0	1	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	4
07:45 AM	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	1	0	1	1
<b>Total Volume</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>6</b>	<b>8</b>
<b>% App. Total</b>	<b>100</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>100</b>		<b>33.3</b>	<b>66.7</b>	<b>0</b>		
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.250	.250	.250	.500	.000	.375	.500



N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

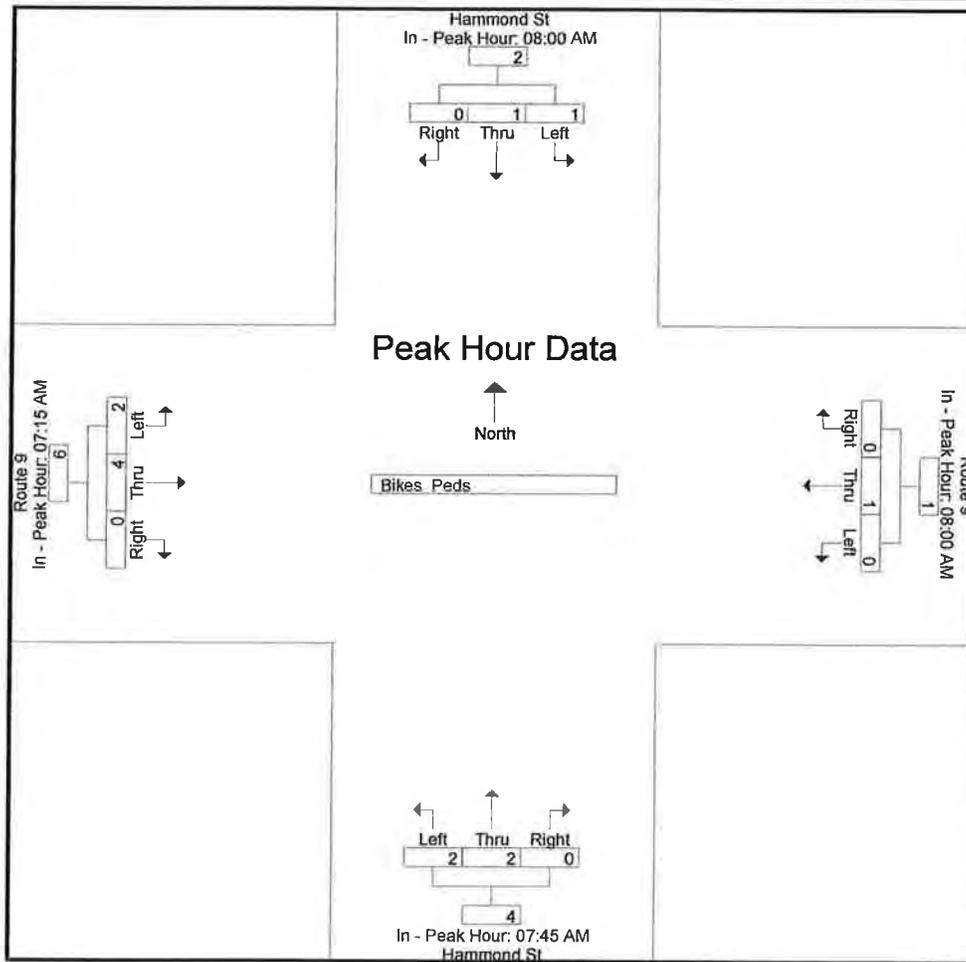
File Name : 7382N001  
Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 3

Start Time	Hammond St From North				Route 9 From East				Hammond St From South				Route 9 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				07:45 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4
+30 mins.	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0
+45 mins.	1	1	0	2	0	1	0	1	0	1	0	1	0	1	0	1
Total Volume	1	1	0	2	0	1	0	1	2	2	0	4	2	4	0	6
% App. Total	50	50	0		0	100	0		50	50	0		33.3	66.7	0	
PHF	.250	.250	.000	.250	.000	.250	.000	.250	.250	.500	.000	.333	.250	.500	.000	.375



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

File Name : 7382N001  
Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Hammond St From North			Route 9 From East				Hammond St From South			Route 9 From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	U-TR	Left	Thru	Right	Left	Thru	Right	
02:00 PM	44	64	23	48	288	17	0	51	36	18	37	234	22	882
02:15 PM	31	50	23	57	347	14	0	43	50	21	19	312	10	977
02:30 PM	29	68	18	60	284	15	1	30	38	22	32	259	22	878
02:45 PM	28	68	31	58	309	10	0	40	55	28	34	239	19	919
<b>Total</b>	<b>132</b>	<b>250</b>	<b>95</b>	<b>223</b>	<b>1228</b>	<b>56</b>	<b>1</b>	<b>164</b>	<b>179</b>	<b>89</b>	<b>122</b>	<b>1044</b>	<b>73</b>	<b>3656</b>
03:00 PM	34	74	28	58	286	20	0	47	56	19	33	260	18	933
03:15 PM	34	74	21	72	316	11	0	44	51	21	33	250	13	940
03:30 PM	43	96	28	76	320	19	1	51	55	18	35	249	5	996
03:45 PM	25	67	25	60	279	18	1	44	46	22	52	288	17	944
<b>Total</b>	<b>136</b>	<b>311</b>	<b>102</b>	<b>266</b>	<b>1201</b>	<b>68</b>	<b>2</b>	<b>186</b>	<b>208</b>	<b>80</b>	<b>153</b>	<b>1047</b>	<b>53</b>	<b>3813</b>
04:00 PM	26	71	16	51	367	11	0	48	59	18	30	268	16	981
04:15 PM	28	90	19	54	316	16	1	50	52	15	40	236	13	930
04:30 PM	26	81	19	62	291	14	1	42	60	21	37	264	14	932
04:45 PM	38	108	18	61	291	6	0	44	59	15	39	262	12	953
<b>Total</b>	<b>118</b>	<b>350</b>	<b>72</b>	<b>228</b>	<b>1265</b>	<b>47</b>	<b>2</b>	<b>184</b>	<b>230</b>	<b>69</b>	<b>146</b>	<b>1030</b>	<b>55</b>	<b>3796</b>
<b>Grand Total</b>	<b>386</b>	<b>911</b>	<b>269</b>	<b>717</b>	<b>3694</b>	<b>171</b>	<b>5</b>	<b>534</b>	<b>617</b>	<b>238</b>	<b>421</b>	<b>3121</b>	<b>181</b>	<b>11265</b>
<b>Apprch %</b>	<b>24.6</b>	<b>58.2</b>	<b>17.2</b>	<b>15.6</b>	<b>80.5</b>	<b>3.7</b>	<b>0.1</b>	<b>38.4</b>	<b>44.4</b>	<b>17.1</b>	<b>11.3</b>	<b>83.8</b>	<b>4.9</b>	
<b>Total %</b>	<b>3.4</b>	<b>8.1</b>	<b>2.4</b>	<b>6.4</b>	<b>32.8</b>	<b>1.5</b>	<b>0</b>	<b>4.7</b>	<b>5.5</b>	<b>2.1</b>	<b>3.7</b>	<b>27.7</b>	<b>1.6</b>	
<b>Cars</b>	<b>382</b>	<b>904</b>	<b>266</b>	<b>707</b>	<b>3636</b>	<b>169</b>	<b>5</b>	<b>523</b>	<b>613</b>	<b>228</b>	<b>418</b>	<b>3083</b>	<b>177</b>	<b>11111</b>
<b>% Cars</b>	<b>99</b>	<b>99.2</b>	<b>98.9</b>	<b>98.6</b>	<b>98.4</b>	<b>98.8</b>	<b>100</b>	<b>97.9</b>	<b>99.4</b>	<b>95.8</b>	<b>99.3</b>	<b>98.8</b>	<b>97.8</b>	<b>98.6</b>
<b>Trucks</b>	<b>4</b>	<b>7</b>	<b>3</b>	<b>10</b>	<b>58</b>	<b>2</b>	<b>0</b>	<b>11</b>	<b>4</b>	<b>10</b>	<b>3</b>	<b>38</b>	<b>4</b>	<b>154</b>
<b>% Trucks</b>	<b>1</b>	<b>0.8</b>	<b>1.1</b>	<b>1.4</b>	<b>1.6</b>	<b>1.2</b>	<b>0</b>	<b>2.1</b>	<b>0.6</b>	<b>4.2</b>	<b>0.7</b>	<b>1.2</b>	<b>2.2</b>	<b>1.4</b>

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

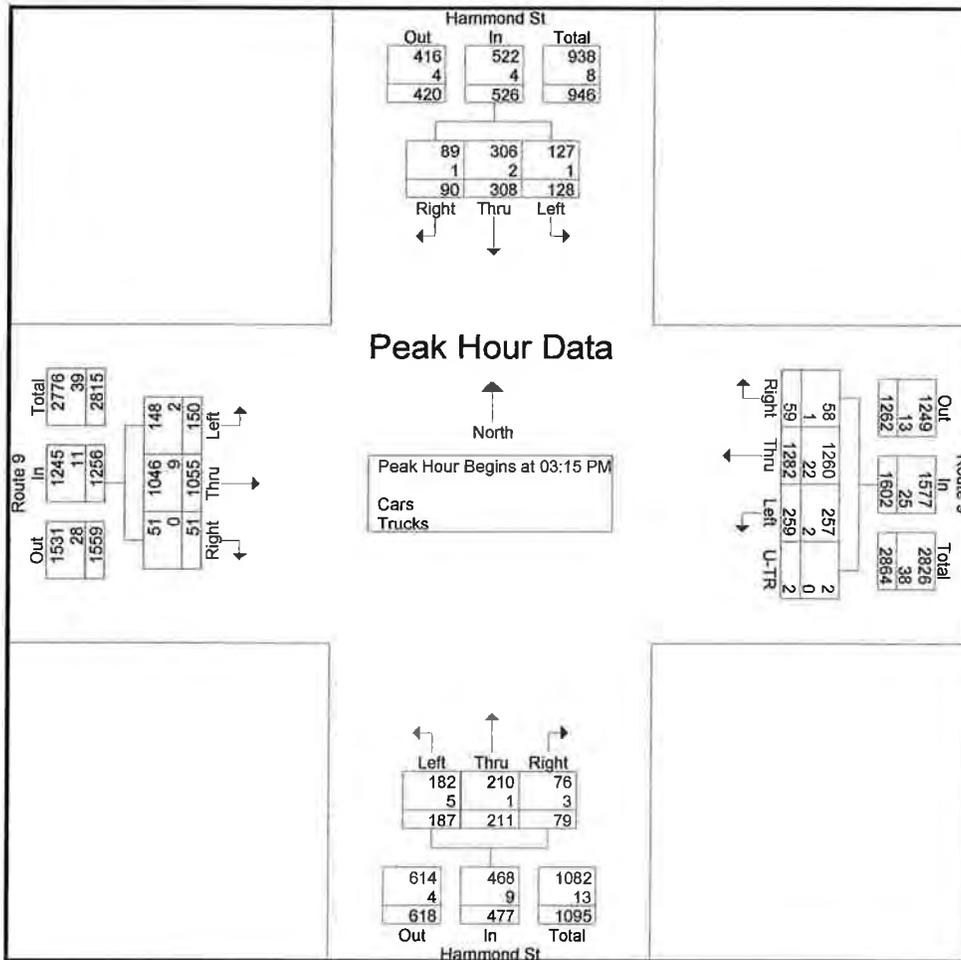
File Name : 7382N001  
Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 2

Start Time	Hammond St From North				Route 9 From East					Hammond St From South				Route 9 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	U-TR	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 03:15 PM

03:15 PM	34	74	21	129	72	316	11	0	399	44	51	21	116	33	250	13	296	940
03:30 PM	43	96	28	167	76	320	19	1	416	51	55	18	124	35	249	5	289	996
03:45 PM	25	67	25	117	60	279	18	1	358	44	46	22	112	52	288	17	357	944
04:00 PM	26	71	16	113	51	367	11	0	429	48	59	18	125	30	268	16	314	981
Total Volume	128	308	90	526	259	1282	59	2	1602	187	211	79	477	150	1055	51	1256	3861
% App. Total	24.3	58.6	17.1		16.2	80	3.7	0.1		39.2	44.2	16.6		11.9	84	4.1		
PHF	.744	.802	.804	.787	.852	.873	.776	.500	.934	.917	.894	.898	.954	.721	.916	.750	.880	.969
Cars	127	306	89	522	257	1260	58	2	1577	182	210	76	468	148	1046	51	1245	3812
% Cars	99.2	99.4	98.9	99.2	99.2	98.3	98.3	100	98.4	97.3	99.5	96.2	98.1	98.7	99.1	100	99.1	98.7
Trucks	1	2	1	4	2	22	1	0	25	5	1	3	9	2	9	0	11	49
% Trucks	0.8	0.6	1.1	0.8	0.8	1.7	1.7	0	1.6	2.7	0.5	3.8	1.9	1.3	0.9	0	0.9	1.3



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

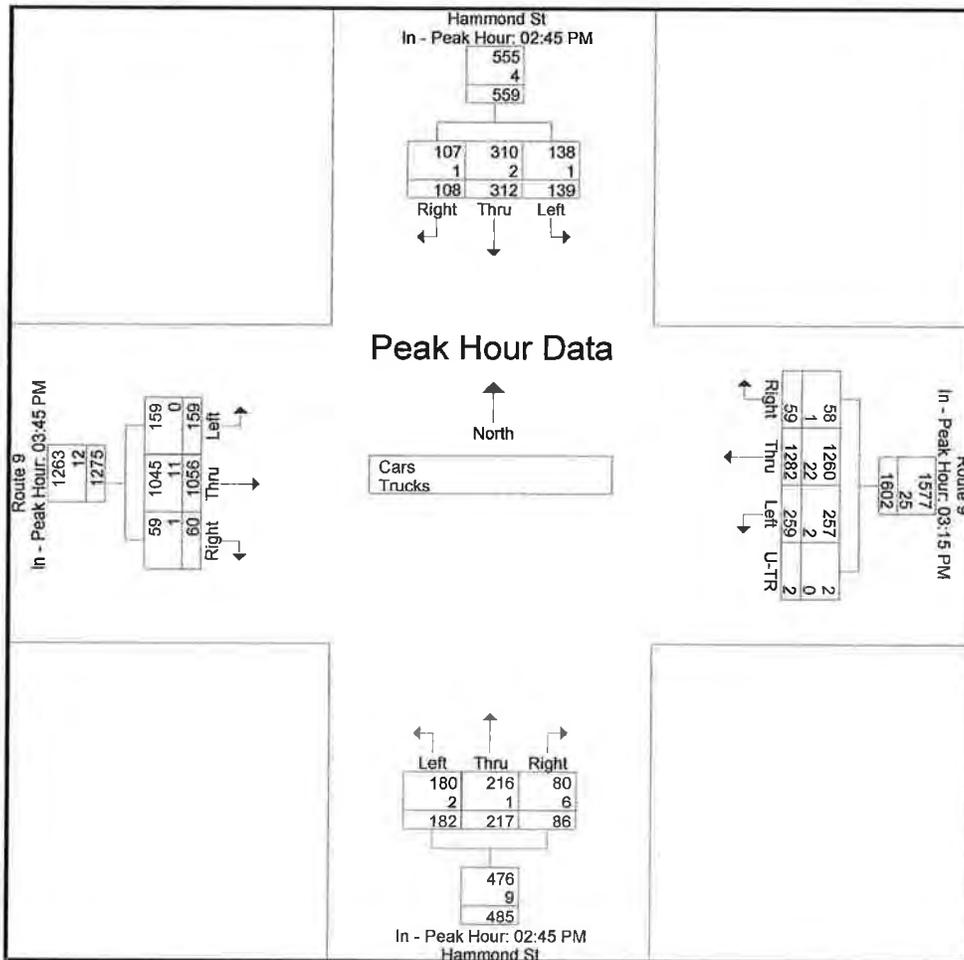
File Name : 7382N001  
Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 3

Start Time	Hammond St From North				Route 9 From East					Hammond St From South				Route 9 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	U-TR	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:45 PM				03:15 PM					02:45 PM				03:45 PM			
+0 mins.	28	68	31	127	72	316	11	0	399	40	55	28	123	52	288	17	357
+15 mins.	34	74	28	136	76	320	19	1	416	47	56	19	122	30	268	16	314
+30 mins.	34	74	21	129	60	279	18	1	358	44	51	21	116	40	236	13	289
+45 mins.	43	96	28	167	51	367	11	0	429	51	55	18	124	37	264	14	315
Total Volume	139	312	108	559	259	1282	59	2	1602	182	217	86	485	159	1056	60	1275
% App. Total	24.9	55.8	19.3		16.2	80	3.7	0.1		37.5	44.7	17.7		12.5	82.8	4.7	
PHF	.808	.813	.871	.837	.852	.873	.776	.500	.934	.892	.969	.768	.978	.764	.917	.882	.893
Cars	138	310	107	555	257	1260	58	2	1577	180	216	80	476	159	1045	59	1263
% Cars	99.3	99.4	99.1	99.3	99.2	98.3	98.3	100	98.4	98.9	99.5	93	98.1	100	99	98.3	99.1
Trucks	1	2	1	4	2	22	1	0	25	2	1	6	9	0	11	1	12
% Trucks	0.7	0.6	0.9	0.7	0.8	1.7	1.7	0	1.6	1.1	0.5	7	1.9	0	1	1.7	0.9



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

File Name : 7382N001  
Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 1

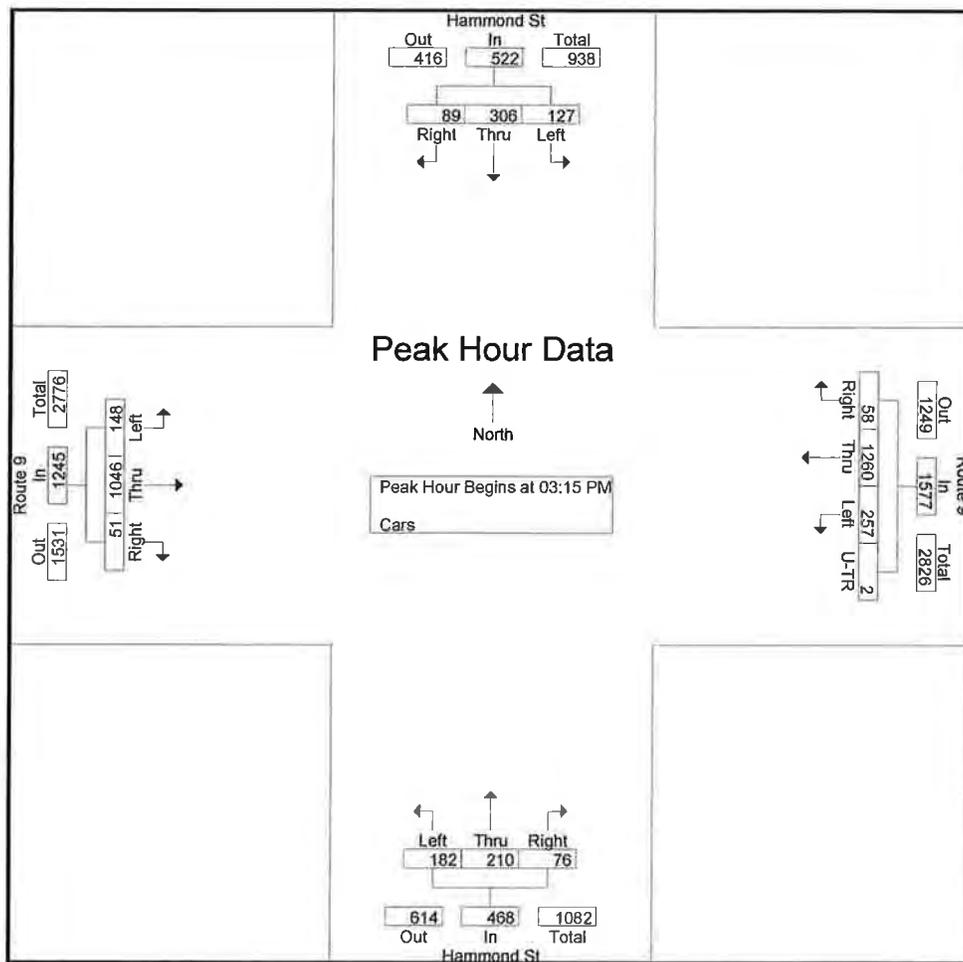
Groups Printed- Cars

Start Time	Hammond St From North			Route 9 From East				Hammond St From South			Route 9 From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	U-TR	Left	Thru	Right	Left	Thru	Right	
02:00 PM	44	63	21	47	282	16	0	51	36	18	36	232	20	866
02:15 PM	30	49	23	55	341	14	0	40	49	18	19	306	10	954
02:30 PM	29	67	18	58	275	15	1	30	38	21	32	255	22	861
02:45 PM	27	67	31	57	303	10	0	40	54	26	34	233	18	900
<b>Total</b>	<b>130</b>	<b>246</b>	<b>93</b>	<b>217</b>	<b>1201</b>	<b>55</b>	<b>1</b>	<b>161</b>	<b>177</b>	<b>83</b>	<b>121</b>	<b>1026</b>	<b>70</b>	<b>3581</b>
03:00 PM	34	74	28	56	282	20	0	46	56	18	33	258	18	923
03:15 PM	34	74	20	72	309	11	0	43	51	20	32	248	13	927
03:30 PM	43	95	28	74	313	19	1	51	55	16	34	247	5	981
03:45 PM	25	67	25	60	275	17	1	41	45	22	52	286	17	933
<b>Total</b>	<b>136</b>	<b>310</b>	<b>101</b>	<b>262</b>	<b>1179</b>	<b>67</b>	<b>2</b>	<b>181</b>	<b>207</b>	<b>76</b>	<b>151</b>	<b>1039</b>	<b>53</b>	<b>3764</b>
04:00 PM	25	70	16	51	363	11	0	47	59	18	30	265	16	971
04:15 PM	27	90	19	54	314	16	1	49	51	15	40	231	13	920
04:30 PM	26	80	19	62	289	14	1	42	60	21	37	263	13	927
04:45 PM	38	108	18	61	290	6	0	43	59	15	39	259	12	948
<b>Total</b>	<b>116</b>	<b>348</b>	<b>72</b>	<b>228</b>	<b>1256</b>	<b>47</b>	<b>2</b>	<b>181</b>	<b>229</b>	<b>69</b>	<b>146</b>	<b>1018</b>	<b>54</b>	<b>3766</b>
<b>Grand Total</b>	<b>382</b>	<b>904</b>	<b>266</b>	<b>707</b>	<b>3636</b>	<b>169</b>	<b>5</b>	<b>523</b>	<b>613</b>	<b>228</b>	<b>418</b>	<b>3083</b>	<b>177</b>	<b>11111</b>
Apprch %	24.6	58.2	17.1	15.7	80.5	3.7	0.1	38.3	44.9	16.7	11.4	83.8	4.8	
Total %	3.4	8.1	2.4	6.4	32.7	1.5	0	4.7	5.5	2.1	3.8	27.7	1.6	

N/S Street : Hammond Street  
 E/W Street : Route 9  
 City/State : Brookline, MA  
 Weather : Cloudy

File Name : 7382N001  
 Site Code : 73820001  
 Start Date : 11/16/2016  
 Page No : 2

Start Time	Hammond St From North				Route 9 From East					Hammond St From South				Route 9 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	U-TR	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 03:15 PM																		
03:15 PM	34	74	20	128	72	309	11	0	392	43	51	20	114	32	248	13	293	927
03:30 PM	43	95	28	166	74	313	19	1	407	51	55	16	122	34	247	5	286	981
03:45 PM	25	67	25	117	60	275	17	1	353	41	45	22	108	52	286	17	355	933
04:00 PM	25	70	16	111	51	363	11	0	425	47	59	18	124	30	265	16	311	971
Total Volume	127	306	89	522	257	1260	58	2	1577	182	210	76	468	148	1046	51	1245	3812
% App. Total	24.3	58.6	17		16.3	79.9	3.7	0.1		38.9	44.9	16.2		11.9	84	4.1		
PHF	.738	.805	.795	.786	.868	.868	.763	.500	.928	.892	.890	.864	.944	.712	.914	.750	.877	.971



N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

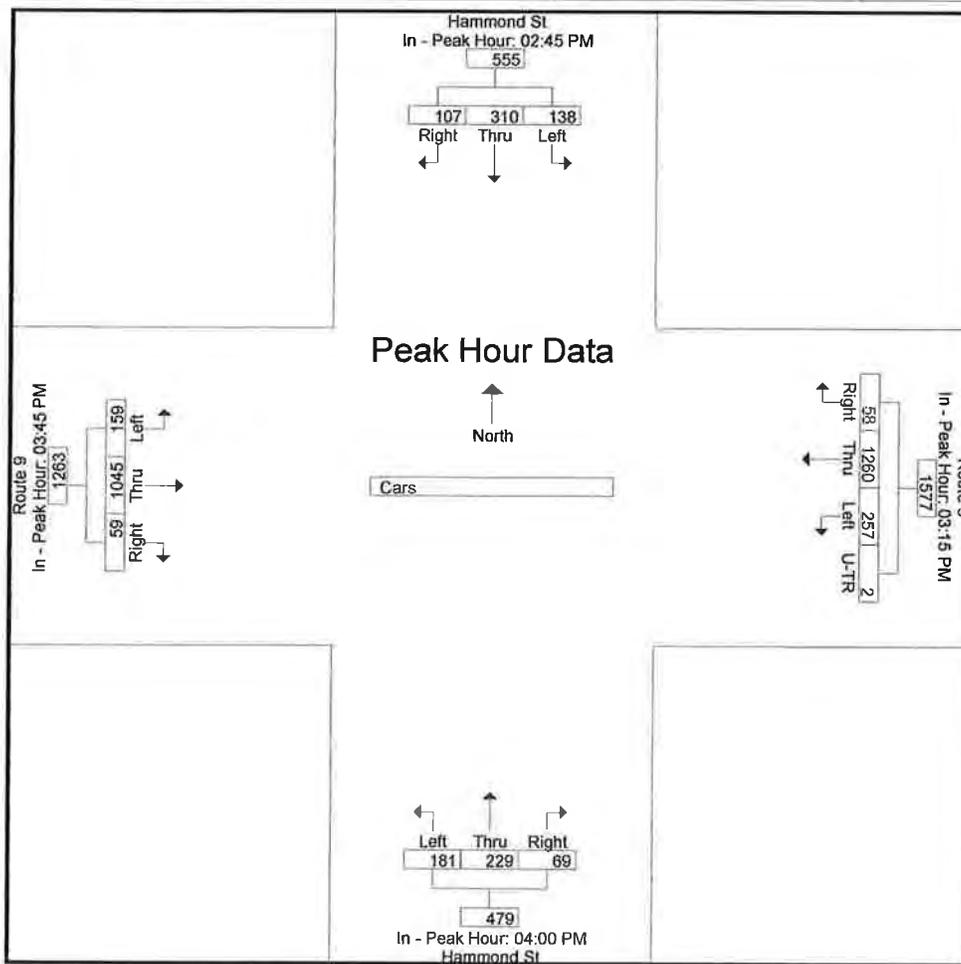
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Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 3

Start Time	Hammond St From North				Route 9 From East					Hammond St From South				Route 9 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	U-TR	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:45 PM				03:15 PM					04:00 PM				03:45 PM			
+0 mins.	27	67	31	125	72	309	11	0	392	47	59	18	124	52	286	17	355
+15 mins.	34	74	28	136	74	313	19	1	407	49	51	15	115	30	265	16	311
+30 mins.	34	74	20	128	60	275	17	1	353	42	60	21	123	40	231	13	284
+45 mins.	43	95	28	166	51	363	11	0	425	43	59	15	117	37	263	13	313
Total Volume	138	310	107	555	257	1260	58	2	1577	181	229	69	479	159	1045	59	1263
% App. Total	24.9	55.9	19.3		16.3	79.9	3.7	0.1		37.8	47.8	14.4		12.6	82.7	4.7	
PHF	.802	.816	.863	.836	.868	.868	.763	.500	.928	.923	.954	.821	.966	.764	.913	.868	.889



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

File Name : 7382N001  
Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 1

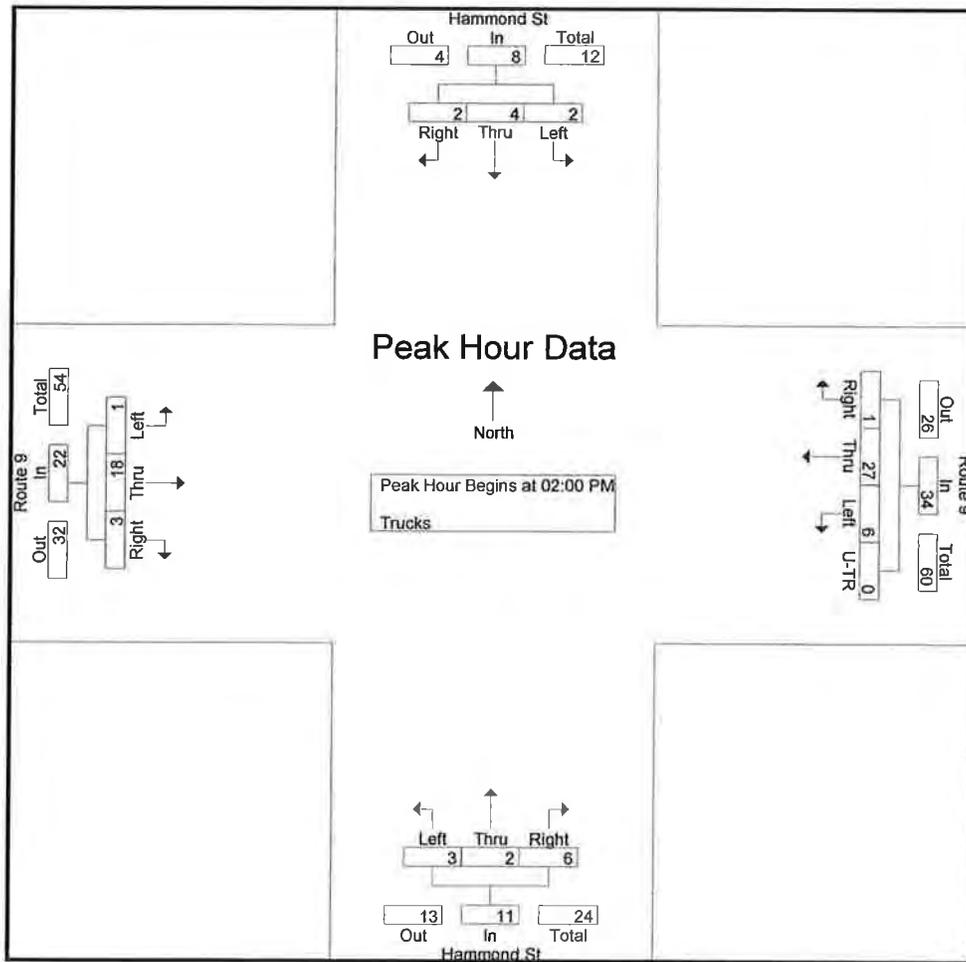
Groups Printed- Trucks

Start Time	Hammond St From North			Route 9 From East				Hammond St From South			Route 9 From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	U-TR	Left	Thru	Right	Left	Thru	Right	
02:00 PM	0	1	2	1	6	1	0	0	0	0	1	2	2	16
02:15 PM	1	1	0	2	6	0	0	3	1	3	0	6	0	23
02:30 PM	0	1	0	2	9	0	0	0	0	1	0	4	0	17
02:45 PM	1	1	0	1	6	0	0	0	1	2	0	6	1	19
<b>Total</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>6</b>	<b>27</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>6</b>	<b>1</b>	<b>18</b>	<b>3</b>	<b>75</b>
03:00 PM	0	0	0	2	4	0	0	1	0	1	0	2	0	10
03:15 PM	0	0	1	0	7	0	0	1	0	1	1	2	0	13
03:30 PM	0	1	0	2	7	0	0	0	0	2	1	2	0	15
03:45 PM	0	0	0	0	4	1	0	3	1	0	0	2	0	11
<b>Total</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>22</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>8</b>	<b>0</b>	<b>49</b>
04:00 PM	1	1	0	0	4	0	0	1	0	0	0	3	0	10
04:15 PM	1	0	0	0	2	0	0	1	1	0	0	5	0	10
04:30 PM	0	1	0	0	2	0	0	0	0	0	0	1	1	5
04:45 PM	0	0	0	0	1	0	0	1	0	0	0	3	0	5
<b>Total</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>1</b>	<b>30</b>
<b>Grand Total</b>	<b>4</b>	<b>7</b>	<b>3</b>	<b>10</b>	<b>58</b>	<b>2</b>	<b>0</b>	<b>11</b>	<b>4</b>	<b>10</b>	<b>3</b>	<b>38</b>	<b>4</b>	<b>154</b>
Apprch %	28.6	50	21.4	14.3	82.9	2.9	0	44	16	40	6.7	84.4	8.9	
Total %	2.6	4.5	1.9	6.5	37.7	1.3	0	7.1	2.6	6.5	1.9	24.7	2.6	

N/S Street : Hammond Street  
 E/W Street : Route 9  
 City/State : Brookline, MA  
 Weather : Cloudy

File Name : 7382N001  
 Site Code : 73820001  
 Start Date : 11/16/2016  
 Page No : 2

Start Time	Hammond St From North				Route 9 From East					Hammond St From South				Route 9 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	U-TR	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 02:00 PM																		
02:00 PM	0	1	2	3	1	6	1	0	8	0	0	0	0	1	2	2	5	16
02:15 PM	1	1	0	2	2	6	0	0	8	3	1	3	7	0	6	0	6	23
02:30 PM	0	1	0	1	2	9	0	0	11	0	0	1	1	0	4	0	4	17
02:45 PM	1	1	0	2	1	6	0	0	7	0	1	2	3	0	6	1	7	19
Total Volume	2	4	2	8	6	27	1	0	34	3	2	6	11	1	18	3	22	75
% App. Total	25	50	25		17.6	79.4	2.9	0		27.3	18.2	54.5		4.5	81.8	13.6		
PHF	.500	1.00	.250	.667	.750	.750	.250	.000	.773	.250	.500	.500	.393	.250	.750	.375	.786	.815



N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

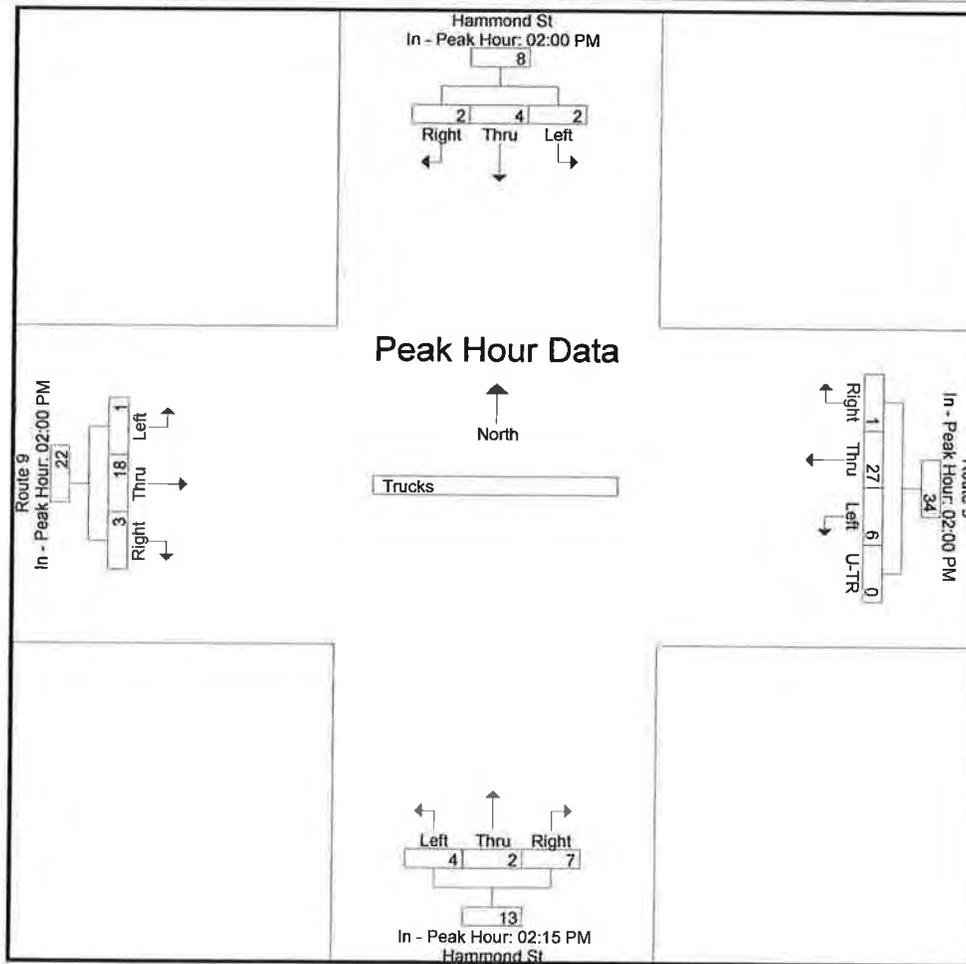
File Name : 7382N001  
Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 3

Start Time	Hammond St From North				Route 9 From East					Hammond St From South				Route 9 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	U-TR	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM				02:00 PM					02:15 PM				02:00 PM			
+0 mins.	0	1	2	3	1	6	1	0	8	3	1	3	7	1	2	2	5
+15 mins.	1	1	0	2	2	6	0	0	8	0	0	1	1	0	6	0	6
+30 mins.	0	1	0	1	2	9	0	0	11	0	1	2	3	0	4	0	4
+45 mins.	1	1	0	2	1	6	0	0	7	1	0	1	2	0	6	1	7
Total Volume	2	4	2	8	6	27	1	0	34	4	2	7	13	1	18	3	22
% App. Total	25	50	25		17.6	79.4	2.9	0		30.8	15.4	53.8		4.5	81.8	13.6	
PHF	.500	1.000	.250	.667	.750	.750	.250	.000	.773	.333	.500	.583	.464	.250	.750	.375	.786



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Route 9  
City/State : Brookline, MA  
Weather : Cloudy

File Name : 7382N001  
Site Code : 73820001  
Start Date : 11/16/2016  
Page No : 1

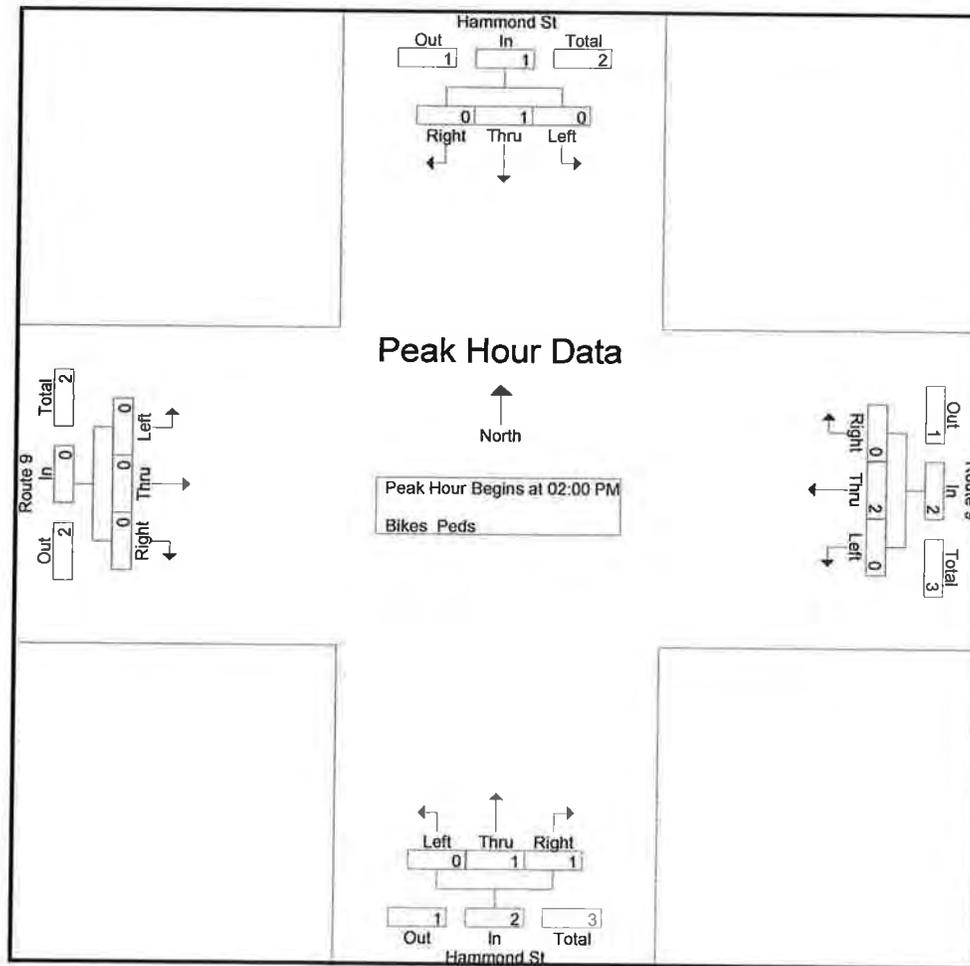
Groups Printed- Bikes Peds

Start Time	Hammond St From North				Route 9 From East				Hammond St From South				Route 9 From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2
02:15 PM	0	0	0	0	0	0	0	3	0	1	0	4	0	0	0	3	10	1	11
02:30 PM	0	0	0	5	0	1	0	6	0	0	1	1	0	0	0	4	16	2	18
02:45 PM	0	1	0	1	0	1	0	3	0	0	0	4	0	0	0	9	17	2	19
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>45</b>	<b>5</b>	<b>50</b>
03:00 PM	0	0	0	1	0	0	0	7	0	0	0	2	0	0	0	5	15	0	15
03:15 PM	0	0	0	6	0	0	0	9	0	0	0	5	0	0	0	4	24	0	24
03:30 PM	0	0	0	0	0	0	0	3	0	1	0	4	0	0	0	7	14	1	15
03:45 PM	0	0	0	2	0	0	0	5	0	0	0	1	0	0	0	3	11	0	11
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>64</b>	<b>1</b>	<b>65</b>
04:00 PM	0	1	0	1	0	0	0	9	0	0	1	3	0	1	0	3	16	3	19
04:15 PM	0	0	0	1	0	0	0	13	0	0	0	7	0	0	0	0	21	0	21
04:30 PM	0	1	0	2	0	1	0	7	0	0	0	5	0	0	0	4	18	2	20
04:45 PM	0	0	0	2	0	0	0	3	0	0	0	3	0	0	0	5	13	0	13
<b>Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>18</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>12</b>	<b>68</b>	<b>5</b>	<b>73</b>
<b>Grand Total</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>68</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>39</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>49</b>	<b>177</b>	<b>11</b>	<b>188</b>
Apprch %	0	100	0		0	100	0		0	50	50		0	100	0				
Total %	0	27.3	0		0	27.3	0		0	18.2	18.2		0	9.1	0		94.1	5.9	

N/S Street : Hammond Street  
 E/W Street : Route 9  
 City/State : Brookline, MA  
 Weather : Cloudy

File Name : 7382N001  
 Site Code : 73820001  
 Start Date : 11/16/2016  
 Page No : 2

Start Time	Hammond St From North				Route 9 From East				Hammond St From South				Route 9 From West				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 02:00 PM																		
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
02:30 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	0	2
02:45 PM	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	2
<b>Total Volume</b>	0	1	0	1	0	2	0	2	0	1	1	2	0	0	0	0	0	5
<b>% App. Total</b>	0	100	0		0	100	0		0	50	50		0	0	0			
<b>PHF</b>	.000	.250	.000	.250	.000	.500	.000	.500	.000	.250	.250	.500	.000	.000	.000	.000		.625



N/S Street : Hammond Street  
 E/W Street : Route 9  
 City/State : Brookline, MA  
 Weather : Cloudy

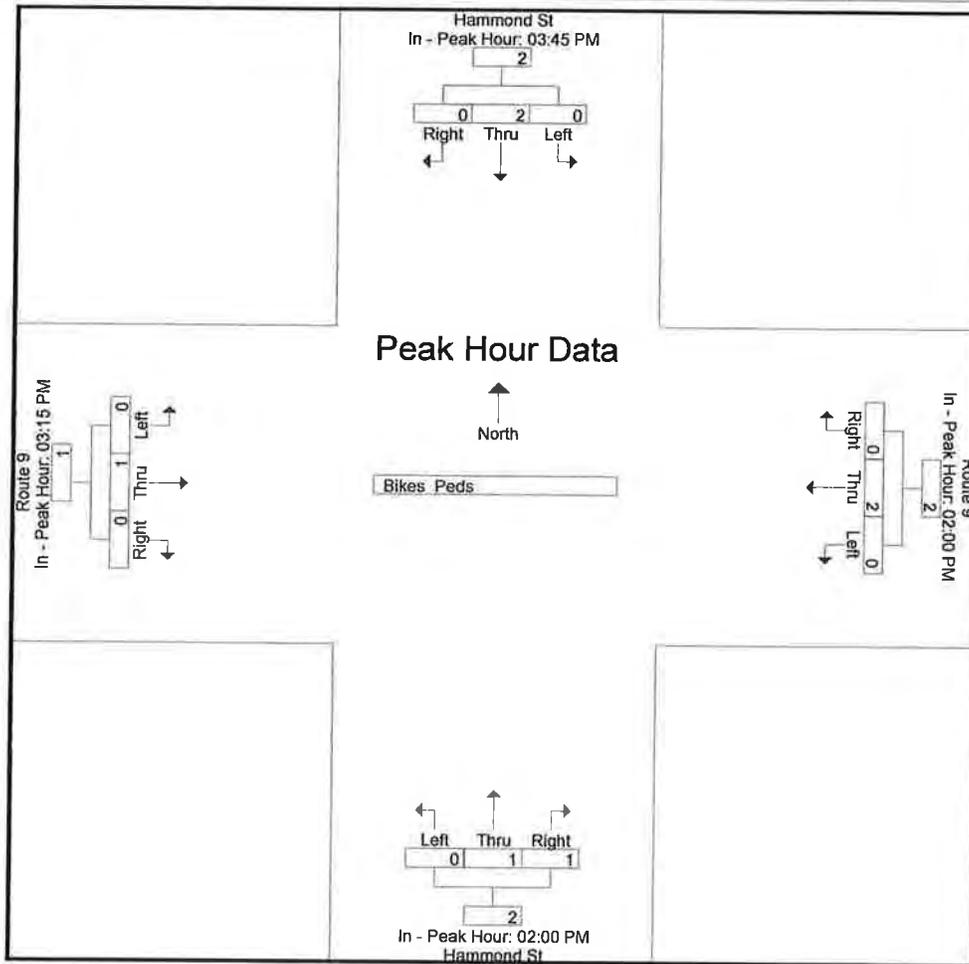
File Name : 7382N001  
 Site Code : 73820001  
 Start Date : 11/16/2016  
 Page No : 3

Start Time	Hammond St From North				Route 9 From East				Hammond St From South				Route 9 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:45 PM				02:00 PM				02:00 PM				03:15 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0
+45 mins.	0	1	0	1	0	1	0	1	0	0	0	0	0	1	0	1
Total Volume	0	2	0	2	0	2	0	2	0	1	1	2	0	1	0	1
% App. Total	0	100	0		0	100	0		0	50	50		0	100	0	
PHF	.000	.500	.000	.500	.000	.500	.000	.500	.000	.250	.250	.500	.000	.250	.000	.250



**Accurate Counts**  
978-664-2565

N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Dunster From North			Heath St From East			Drwy From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	3	0	1	0	27	1	0	0	0	30	8	0	70
07:15 AM	1	0	0	0	43	1	0	0	0	29	8	0	82
07:30 AM	3	0	3	0	55	6	0	0	0	21	12	0	100
07:45 AM	5	0	1	0	60	0	0	0	0	29	11	0	106
<b>Total</b>	<b>12</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>185</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>109</b>	<b>39</b>	<b>0</b>	<b>358</b>
08:00 AM	6	0	3	0	52	0	0	0	0	11	14	0	86
08:15 AM	5	0	2	1	63	1	0	0	0	19	8	0	99
08:30 AM	8	0	4	0	50	1	0	0	0	21	22	0	106
08:45 AM	6	0	1	0	51	4	0	0	0	19	11	0	92
<b>Total</b>	<b>25</b>	<b>0</b>	<b>10</b>	<b>1</b>	<b>216</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>70</b>	<b>55</b>	<b>0</b>	<b>383</b>
09:00 AM	7	0	0	0	41	1	0	0	0	27	10	0	86
09:15 AM	6	0	4	0	31	0	0	0	0	32	2	0	75
<b>Grand Total</b>	<b>50</b>	<b>0</b>	<b>19</b>	<b>1</b>	<b>473</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>238</b>	<b>106</b>	<b>0</b>	<b>902</b>
<b>Apprch %</b>	<b>72.5</b>	<b>0</b>	<b>27.5</b>	<b>0.2</b>	<b>96.7</b>	<b>3.1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>69.2</b>	<b>30.8</b>	<b>0</b>	
<b>Total %</b>	<b>5.5</b>	<b>0</b>	<b>2.1</b>	<b>0.1</b>	<b>52.4</b>	<b>1.7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26.4</b>	<b>11.8</b>	<b>0</b>	
<b>Cars</b>	<b>50</b>	<b>0</b>	<b>19</b>	<b>1</b>	<b>463</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>237</b>	<b>103</b>	<b>0</b>	<b>888</b>
<b>% Cars</b>	<b>100</b>	<b>0</b>	<b>100</b>	<b>100</b>	<b>97.9</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>99.6</b>	<b>97.2</b>	<b>0</b>	<b>98.4</b>
<b>Trucks</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>14</b>
<b>% Trucks</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2.1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.4</b>	<b>2.8</b>	<b>0</b>	<b>1.6</b>

N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

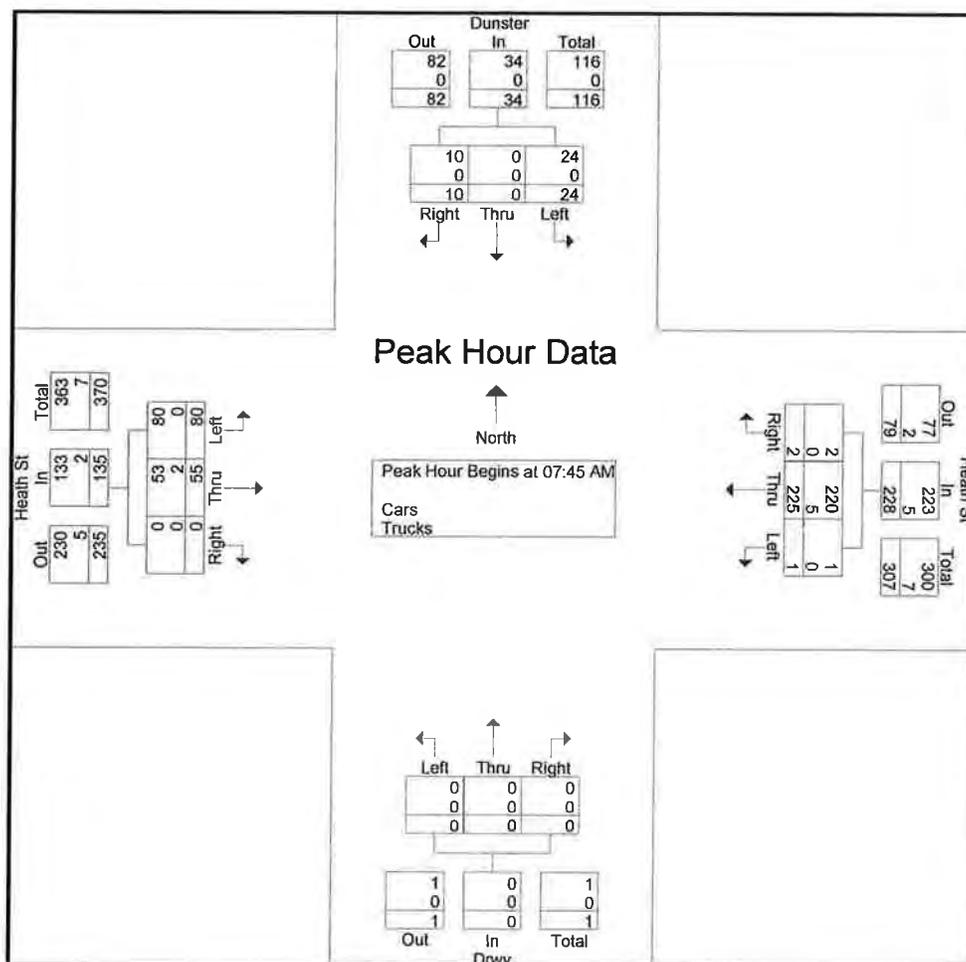
File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 2

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45 AM

07:45 AM	5	0	1	6	0	60	0	60	0	0	0	0	29	11	0	40	106
08:00 AM	6	0	3	9	0	52	0	52	0	0	0	0	11	14	0	25	86
08:15 AM	5	0	2	7	1	63	1	65	0	0	0	0	19	8	0	27	99
08:30 AM	8	0	4	12	0	50	1	51	0	0	0	0	21	22	0	43	106
Total Volume	24	0	10	34	1	225	2	228	0	0	0	0	80	55	0	135	397
% App. Total	70.6	0	29.4		0.4	98.7	0.9		0	0	0		59.3	40.7	0		
PHF	.750	.000	.625	.708	.250	.893	.500	.877	.000	.000	.000	.000	.690	.625	.000	.785	.936
Cars	24	0	10	34	1	220	2	223	0	0	0	0	80	53	0	133	390
% Cars	100	0	100	100	100	97.8	100	97.8	0	0	0	0	100	96.4	0	98.5	98.2
Trucks	0	0	0	0	0	5	0	5	0	0	0	0	0	2	0	2	7
% Trucks	0	0	0	0	0	2.2	0	2.2	0	0	0	0	0	3.6	0	1.5	1.8



N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

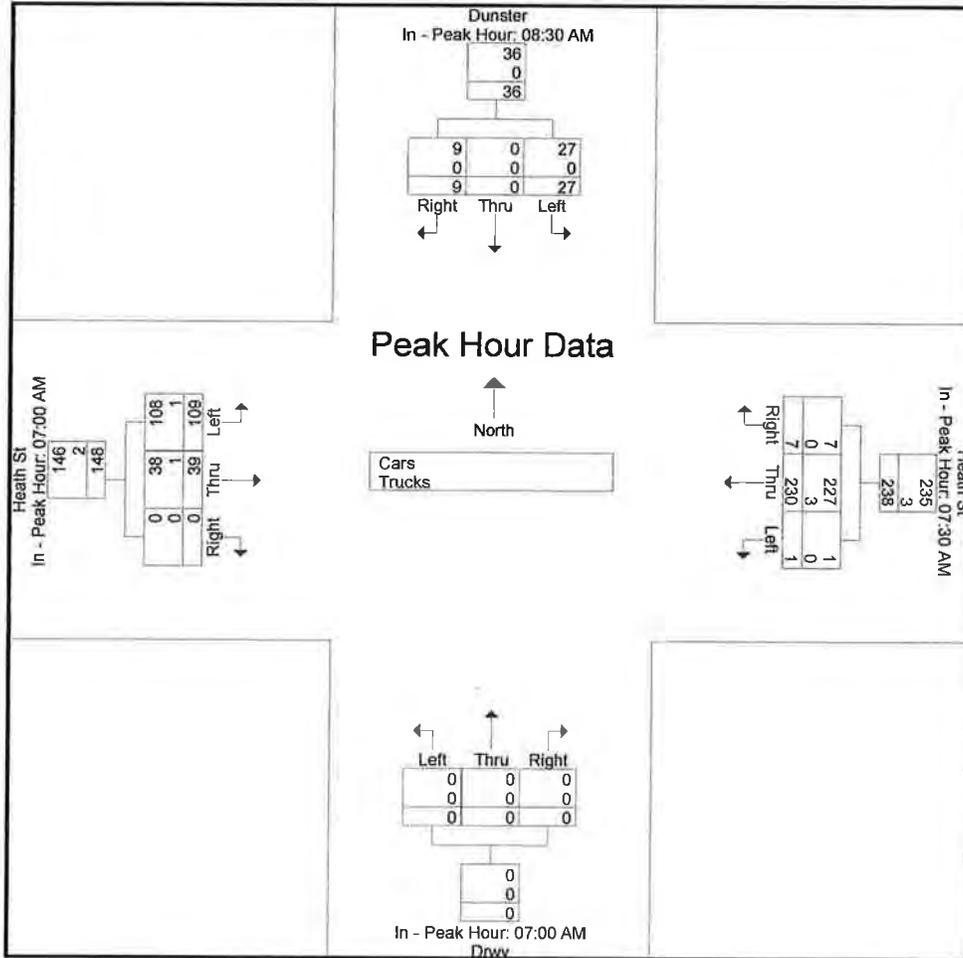
File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 3

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Int Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:30 AM				07:30 AM				07:00 AM				07:00 AM			
+0 mins.	8	0	4	12	0	55	6	61	0	0	0	0	30	8	0	38
+15 mins.	6	0	1	7	0	60	0	60	0	0	0	0	29	8	0	37
+30 mins.	7	0	0	7	0	52	0	52	0	0	0	0	21	12	0	33
+45 mins.	6	0	4	10	1	63	1	65	0	0	0	0	29	11	0	40
Total Volume	27	0	9	36	1	230	7	238	0	0	0	0	109	39	0	148
% App. Total	75	0	25		0.4	96.6	2.9		0	0	0		73.6	26.4	0	
PHF	.844	.000	.563	.750	.250	.913	.292	.915	.000	.000	.000	.000	.908	.813	.000	.925
Cars	27	0	9	36	1	227	7	235	0	0	0	0	108	38	0	146
% Cars	100	0	100	100	100	98.7	100	98.7	0	0	0	0	99.1	97.4	0	98.6
Trucks	0	0	0	0	0	3	0	3	0	0	0	0	1	1	0	2
% Trucks	0	0	0	0	0	1.3	0	1.3	0	0	0	0	0.9	2.6	0	1.4



**Accurate Counts**  
978-664-2565

N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 4

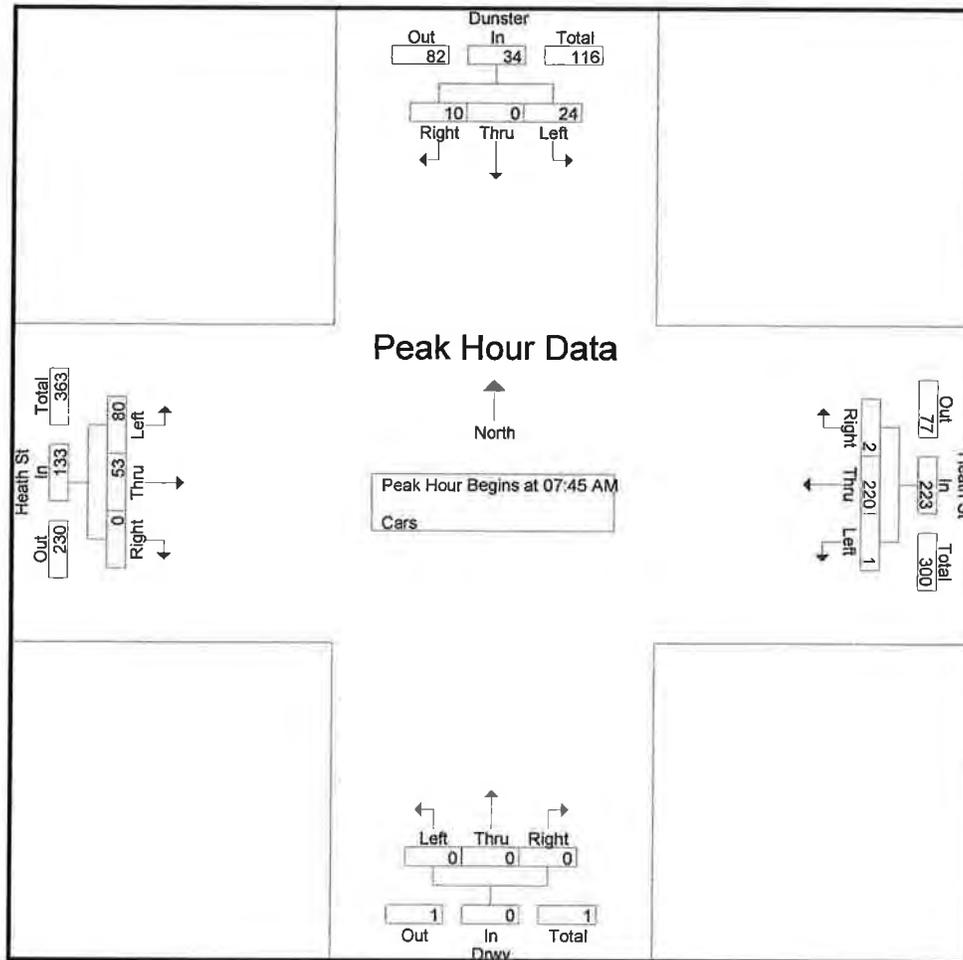
Groups Printed- Cars

Start Time	Dunster From North			Heath St From East			Drwy From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	3	0	1	0	27	1	0	0	0	29	8	0	69
07:15 AM	1	0	0	0	42	1	0	0	0	29	7	0	80
07:30 AM	3	0	3	0	55	6	0	0	0	21	12	0	100
07:45 AM	5	0	1	0	60	0	0	0	0	29	11	0	106
<b>Total</b>	<b>12</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>184</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>108</b>	<b>38</b>	<b>0</b>	<b>355</b>
08:00 AM	6	0	3	0	51	0	0	0	0	11	13	0	84
08:15 AM	5	0	2	1	61	1	0	0	0	19	8	0	97
08:30 AM	8	0	4	0	48	1	0	0	0	21	21	0	103
08:45 AM	6	0	1	0	49	4	0	0	0	19	11	0	90
<b>Total</b>	<b>25</b>	<b>0</b>	<b>10</b>	<b>1</b>	<b>209</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>70</b>	<b>53</b>	<b>0</b>	<b>374</b>
09:00 AM	7	0	0	0	40	1	0	0	0	27	10	0	85
09:15 AM	6	0	4	0	30	0	0	0	0	32	2	0	74
<b>Grand Total</b>	<b>50</b>	<b>0</b>	<b>19</b>	<b>1</b>	<b>463</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>237</b>	<b>103</b>	<b>0</b>	<b>888</b>
<b>Apprch %</b>	<b>72.5</b>	<b>0</b>	<b>27.5</b>	<b>0.2</b>	<b>96.7</b>	<b>3.1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>69.7</b>	<b>30.3</b>	<b>0</b>	
<b>Total %</b>	<b>5.6</b>	<b>0</b>	<b>2.1</b>	<b>0.1</b>	<b>52.1</b>	<b>1.7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26.7</b>	<b>11.6</b>	<b>0</b>	

N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 5

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	5	0	1	6	0	60	0	60	0	0	0	0	29	11	0	40	106
08:00 AM	6	0	3	9	0	51	0	51	0	0	0	0	11	13	0	24	84
08:15 AM	5	0	2	7	1	61	1	63	0	0	0	0	19	8	0	27	97
08:30 AM	8	0	4	12	0	48	1	49	0	0	0	0	21	21	0	42	103
Total Volume	24	0	10	34	1	220	2	223	0	0	0	0	80	53	0	133	390
% App. Total	70.6	0	29.4		0.4	98.7	0.9		0	0	0		60.2	39.8	0		
PHF	.750	.000	.625	.708	.250	.902	.500	.885	.000	.000	.000	.000	.690	.631	.000	.792	.920



**Accurate Counts**  
978-664-2565

N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

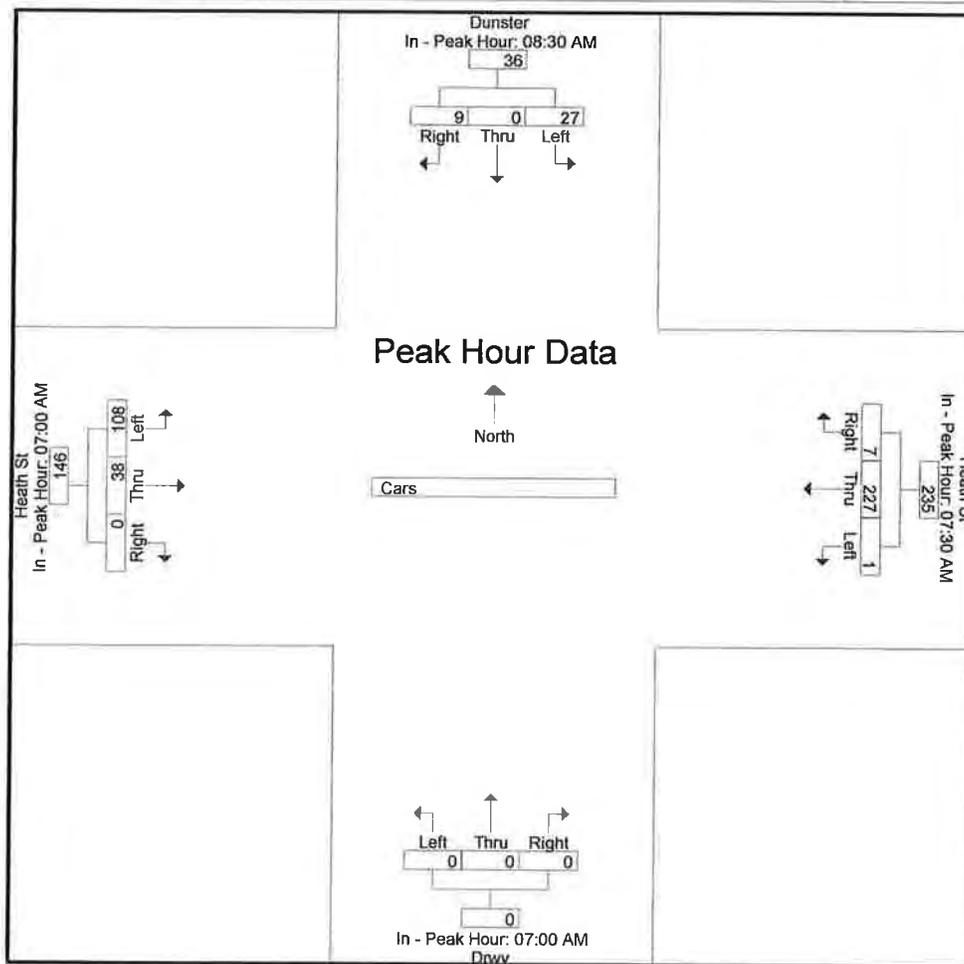
File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 6

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:30 AM				07:30 AM				07:00 AM				07:00 AM			
+0 mins.	8	0	4	12	0	55	6	61	0	0	0	0	29	8	0	37
+15 mins.	6	0	1	7	0	60	0	60	0	0	0	0	29	7	0	36
+30 mins.	7	0	0	7	0	51	0	51	0	0	0	0	21	12	0	33
+45 mins.	6	0	4	10	1	61	1	63	0	0	0	0	29	11	0	40
Total Volume	27	0	9	36	1	227	7	235	0	0	0	0	108	38	0	146
% App. Total	75	0	25		0.4	96.6	3		0	0	0		74	26	0	
PHF	.844	.000	.563	.750	.250	.930	.292	.933	.000	.000	.000	.000	.931	.792	.000	.913



**Accurate Counts**  
978-664-2565

N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 7

Groups Printed- Trucks

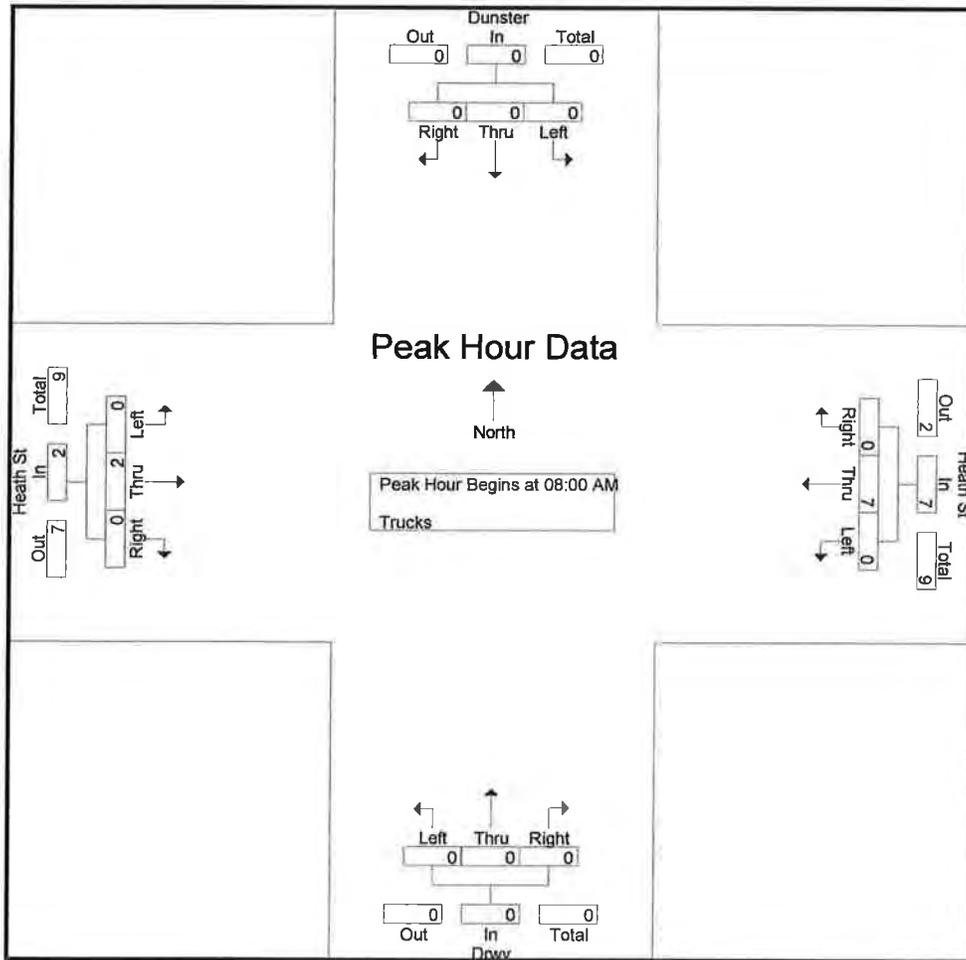
Start Time	Dunster From North			Heath St From East			Drwy From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
07:15 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>3</b>
08:00 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
08:15 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
08:30 AM	0	0	0	0	2	0	0	0	0	0	1	0	3
08:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>9</b>
09:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
09:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>14</b>
Apprch %	0	0	0	0	100	0	0	0	0	25	75	0	
Total %	0	0	0	0	71.4	0	0	0	0	7.1	21.4	0	

**Accurate Counts**  
978-664-2565

N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 8

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
08:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
08:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
08:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
<b>Total Volume</b>	0	0	0	0	0	7	0	7	0	0	0	0	0	2	0	2	9
<b>% App. Total</b>	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.875	.000	.875	.000	.000	.000	.000	.000	.500	.000	.500	.750



N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

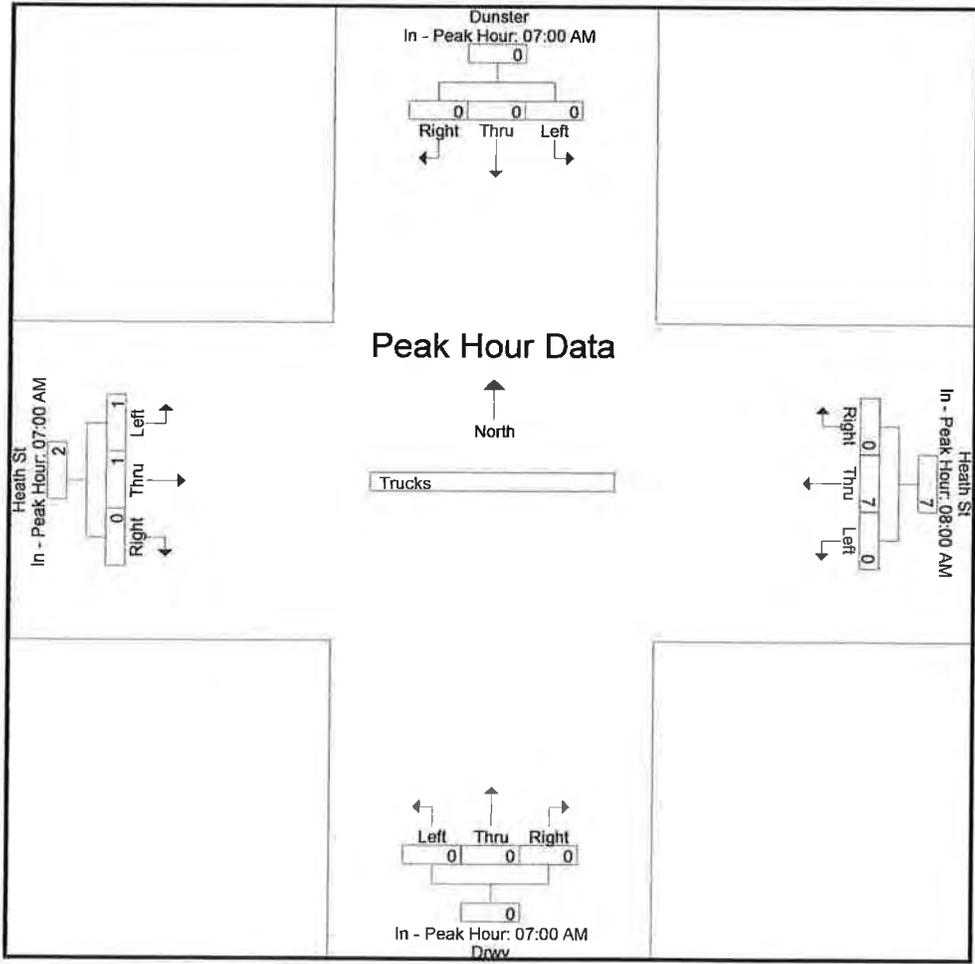
File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 9

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				08:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1
+15 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	7	0	7	0	0	0	0	1	1	0	2
% App. Total	0	0	0		0	100	0		0	0	0		50	50	0	
PHF	.000	.000	.000	.000	.000	.875	.000	.875	.000	.000	.000	.000	.250	.250	.000	.500



**Accurate Counts**  
978-664-2565

N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 10

Groups Printed- Bikes Peds

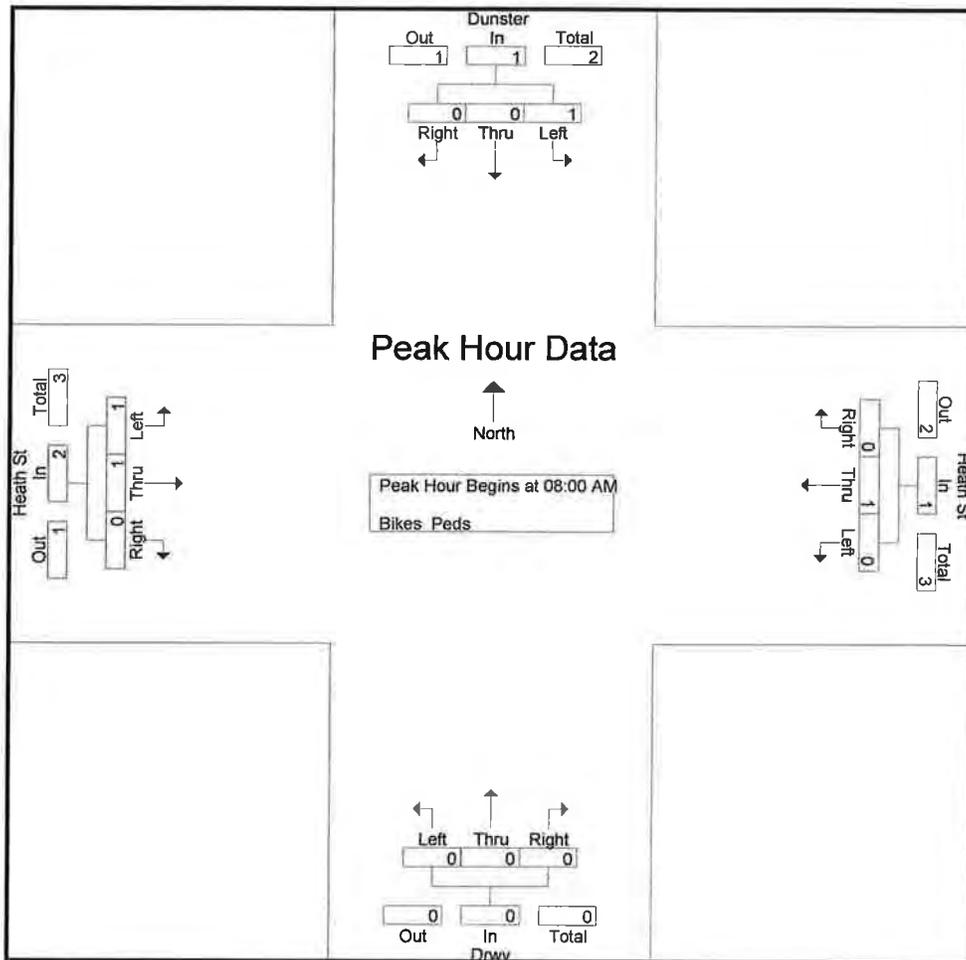
Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
07:15 AM	0	0	0	4	0	1	0	1	0	0	0	1	0	0	0	0	6	1	7
07:30 AM	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	4	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>1</b>	<b>12</b>
08:00 AM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
08:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2
08:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	1	2
08:45 AM	0	0	0	3	0	1	0	0	0	0	0	0	1	0	0	0	3	2	5
<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>8</b>	<b>4</b>	<b>12</b>
09:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Grand Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>21</b>	<b>5</b>	<b>26</b>
Apprch %	100	0	0		0	100	0		0	0	0		50	50	0				
Total %	20	0	0		0	40	0		0	0	0		20	20	0		80.8	19.2	

**Accurate Counts**  
978-664-2565

N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 11

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 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
08:15 AM	1	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	1	0	1	1
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	2
<b>Total Volume</b>	1	0	0	1	0	1	0	1	0	0	0	0	1	1	0	2	4
<b>% App. Total</b>	100	0	0		0	100	0		0	0	0		50	50	0		
PHF	.250	.000	.000	.250	.000	.250	.000	.250	.000	.000	.000	.000	.250	.250	.000	.500	.500



**Accurate Counts**  
978-664-2565

N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

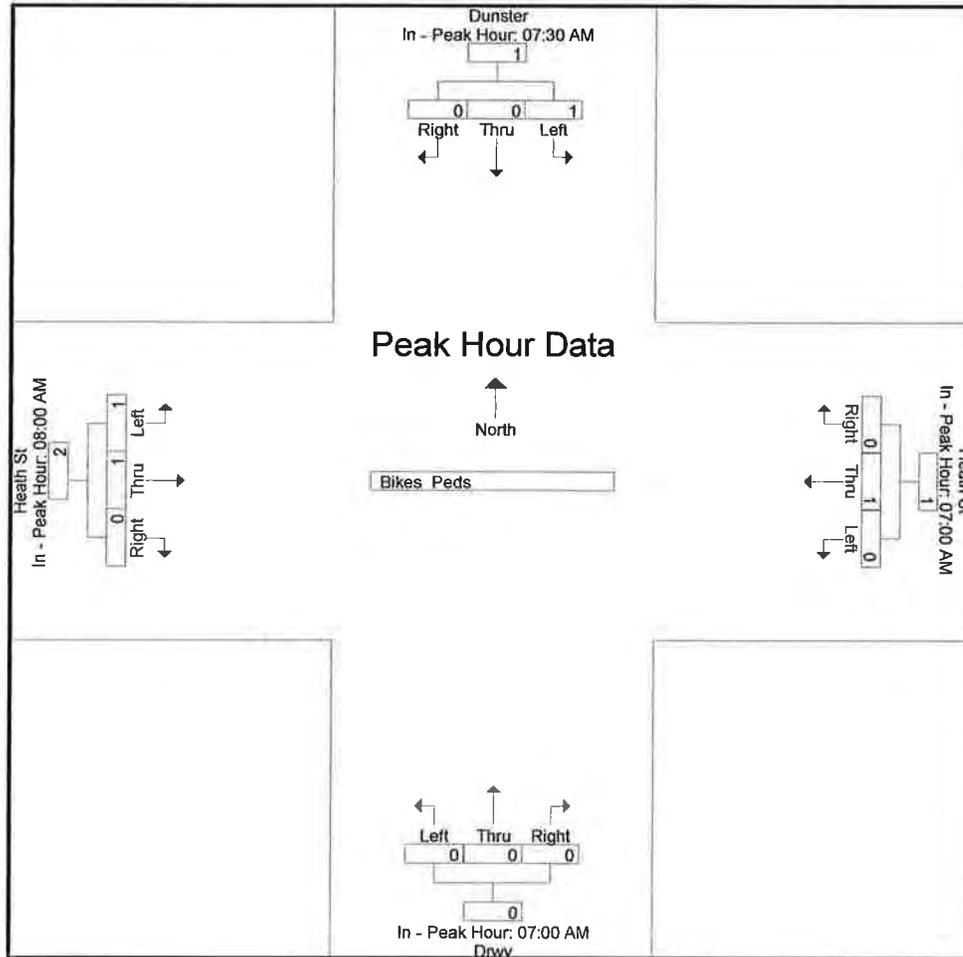
File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 12

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM				07:00 AM				07:00 AM				08:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+45 mins.	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1
Total Volume	1	0	0	1	0	1	0	1	0	0	0	0	1	1	0	2
% App. Total	100	0	0		0	100	0		0	0	0		50	50	0	
PHF	.250	.000	.000	.250	.000	.250	.000	.250	.000	.000	.000	.000	.250	.250	.000	.500



**Accurate Counts**  
978-664-2565

N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Dunster From North			Heath St From East			Drwy From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	3	0	1	0	58	3	0	0	0	22	7	0	94
02:15 PM	7	1	2	0	43	0	0	0	0	12	13	0	78
02:30 PM	4	0	8	1	49	1	0	0	0	19	11	0	93
02:45 PM	6	0	3	0	53	3	0	1	1	21	5	0	93
<b>Total</b>	<b>20</b>	<b>1</b>	<b>14</b>	<b>1</b>	<b>203</b>	<b>7</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>74</b>	<b>36</b>	<b>0</b>	<b>358</b>
03:00 PM	4	0	3	0	69	0	0	0	0	22	5	0	103
03:15 PM	10	0	2	0	78	0	0	0	0	29	15	0	134
03:30 PM	3	0	4	0	65	0	0	0	0	29	10	0	111
03:45 PM	5	0	2	0	65	5	0	0	0	18	12	0	107
<b>Total</b>	<b>22</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>277</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>98</b>	<b>42</b>	<b>0</b>	<b>455</b>
04:00 PM	4	0	2	0	79	0	0	0	0	27	14	0	126
04:15 PM	7	0	3	0	93	2	0	0	0	27	9	0	141
04:30 PM	6	0	3	1	84	1	0	0	0	21	12	0	128
04:45 PM	6	0	5	0	98	1	0	0	0	25	11	0	146
<b>Total</b>	<b>23</b>	<b>0</b>	<b>13</b>	<b>1</b>	<b>354</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>46</b>	<b>0</b>	<b>541</b>
<b>Grand Total</b>	<b>65</b>	<b>1</b>	<b>38</b>	<b>2</b>	<b>834</b>	<b>16</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>272</b>	<b>124</b>	<b>0</b>	<b>1354</b>
Apprch %	62.5	1	36.5	0.2	97.9	1.9	0	50	50	68.7	31.3	0	
Total %	4.8	0.1	2.8	0.1	61.6	1.2	0	0.1	0.1	20.1	9.2	0	
Cars	65	1	37	2	825	15	0	1	1	272	123	0	1342
% Cars	100	100	97.4	100	98.9	93.8	0	100	100	100	99.2	0	99.1
Trucks	0	0	1	0	9	1	0	0	0	0	1	0	12
% Trucks	0	0	2.6	0	1.1	6.2	0	0	0	0	0.8	0	0.9

N/S Street : Dunster Road / Driveway  
 E/W Street: Heath Street  
 City/State : Brookline, MA  
 Weather : Clear

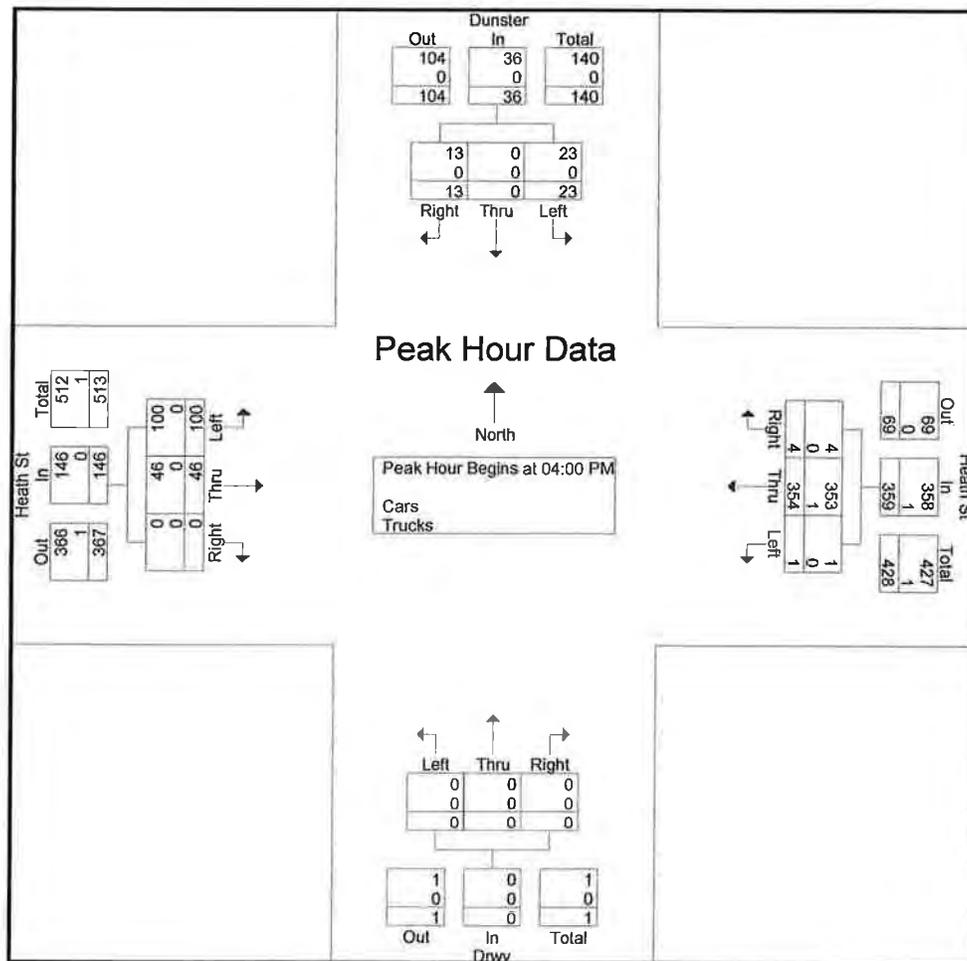
File Name : 7382N002  
 Site Code : 73820002  
 Start Date : 11/17/2016  
 Page No : 2

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	4	0	2	6	0	79	0	79	0	0	0	0	27	14	0	41	126
04:15 PM	7	0	3	10	0	93	2	95	0	0	0	0	27	9	0	36	141
04:30 PM	6	0	3	9	1	84	1	86	0	0	0	0	21	12	0	33	128
04:45 PM	6	0	5	11	0	98	1	99	0	0	0	0	25	11	0	36	146
<b>Total Volume</b>	23	0	13	36	1	354	4	359	0	0	0	0	100	46	0	146	541
% App. Total	63.9	0	36.1		0.3	98.6	1.1		0	0	0		68.5	31.5	0		
PHF	.821	.000	.650	.818	.250	.903	.500	.907	.000	.000	.000	.000	.926	.821	.000	.890	.926
Cars	23	0	13	36	1	353	4	358	0	0	0	0	100	46	0	146	540
% Cars	100	0	100	100	100	99.7	100	99.7	0	0	0	0	100	100	0	100	99.8
Trucks	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
% Trucks	0	0	0	0	0	0.3	0	0.3	0	0	0	0	0	0	0	0	0.2



N/S Street : Dunster Road / Driveway  
 E/W Street: Heath Street  
 City/State : Brookline, MA  
 Weather : Clear

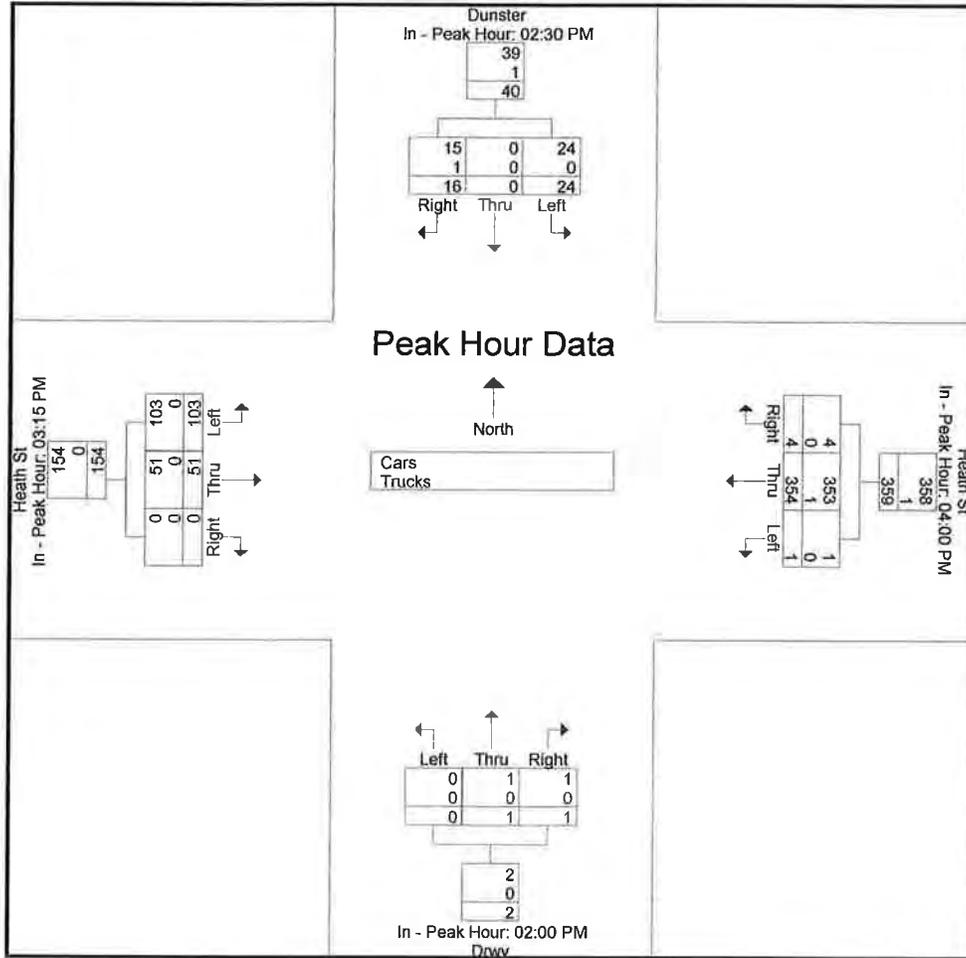
File Name : 7382N002  
 Site Code : 73820002  
 Start Date : 11/17/2016  
 Page No : 3

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:30 PM				04:00 PM				02:00 PM				03:15 PM			
+0 mins.	4	0	8	12	0	79	0	79	0	0	0	0	29	15	0	44
+15 mins.	6	0	3	9	0	93	2	95	0	0	0	0	29	10	0	39
+30 mins.	4	0	3	7	1	84	1	86	0	0	0	0	18	12	0	30
+45 mins.	10	0	2	12	0	98	1	99	0	1	1	2	27	14	0	41
Total Volume	24	0	16	40	1	354	4	359	0	1	1	2	103	51	0	154
% App. Total	60	0	40		0.3	98.6	1.1		0	50	50		66.9	33.1	0	
PHF	.600	.000	.500	.833	.250	.903	.500	.907	.000	.250	.250	.250	.888	.850	.000	.875
Cars	24	0	15	39	1	353	4	358	0	1	1	2	103	51	0	154
% Cars	100	0	93.8	97.5	100	99.7	100	99.7	0	100	100	100	100	100	0	100
Trucks	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0
% Trucks	0	0	6.2	2.5	0	0.3	0	0.3	0	0	0	0	0	0	0	0



**Accurate Counts**  
978-664-2565

N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 4

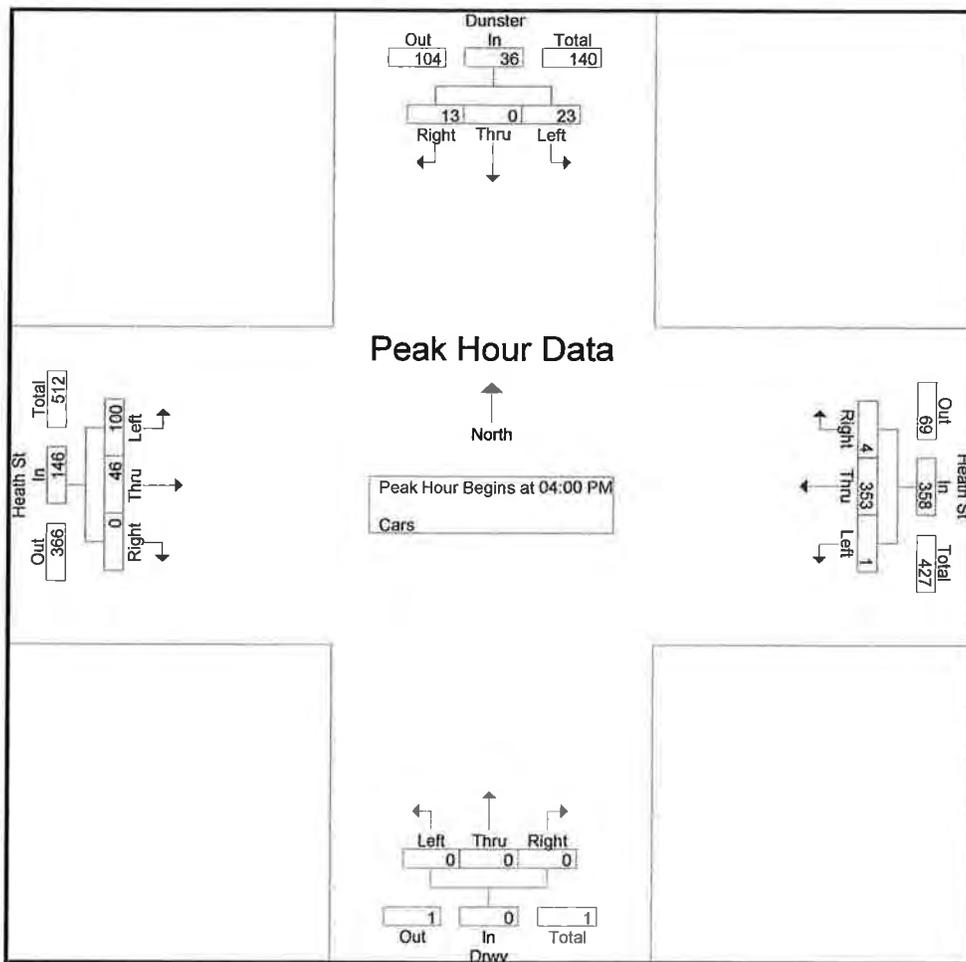
Groups Printed- Cars

Start Time	Dunster From North			Heath St From East			Drwy From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	3	0	1	0	58	2	0	0	0	22	7	0	93
02:15 PM	7	1	2	0	42	0	0	0	0	12	12	0	76
02:30 PM	4	0	7	1	46	1	0	0	0	19	11	0	89
02:45 PM	6	0	3	0	53	3	0	1	1	21	5	0	93
<b>Total</b>	<b>20</b>	<b>1</b>	<b>13</b>	<b>1</b>	<b>199</b>	<b>6</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>74</b>	<b>35</b>	<b>0</b>	<b>351</b>
03:00 PM	4	0	3	0	69	0	0	0	0	22	5	0	103
03:15 PM	10	0	2	0	77	0	0	0	0	29	15	0	133
03:30 PM	3	0	4	0	64	0	0	0	0	29	10	0	110
03:45 PM	5	0	2	0	63	5	0	0	0	18	12	0	105
<b>Total</b>	<b>22</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>273</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>98</b>	<b>42</b>	<b>0</b>	<b>451</b>
04:00 PM	4	0	2	0	78	0	0	0	0	27	14	0	125
04:15 PM	7	0	3	0	93	2	0	0	0	27	9	0	141
04:30 PM	6	0	3	1	84	1	0	0	0	21	12	0	128
04:45 PM	6	0	5	0	98	1	0	0	0	25	11	0	146
<b>Total</b>	<b>23</b>	<b>0</b>	<b>13</b>	<b>1</b>	<b>353</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>46</b>	<b>0</b>	<b>540</b>
<b>Grand Total</b>	<b>65</b>	<b>1</b>	<b>37</b>	<b>2</b>	<b>825</b>	<b>15</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>272</b>	<b>123</b>	<b>0</b>	<b>1342</b>
<b>Apprch %</b>	<b>63.1</b>	<b>1</b>	<b>35.9</b>	<b>0.2</b>	<b>98</b>	<b>1.8</b>	<b>0</b>	<b>50</b>	<b>50</b>	<b>68.9</b>	<b>31.1</b>	<b>0</b>	
<b>Total %</b>	<b>4.8</b>	<b>0.1</b>	<b>2.8</b>	<b>0.1</b>	<b>61.5</b>	<b>1.1</b>	<b>0</b>	<b>0.1</b>	<b>0.1</b>	<b>20.3</b>	<b>9.2</b>	<b>0</b>	

N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 5

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	4	0	2	6	0	78	0	78	0	0	0	0	27	14	0	41	125
04:15 PM	7	0	3	10	0	93	2	95	0	0	0	0	27	9	0	36	141
04:30 PM	6	0	3	9	1	84	1	86	0	0	0	0	21	12	0	33	128
04:45 PM	6	0	5	11	0	98	1	99	0	0	0	0	25	11	0	36	146
Total Volume	23	0	13	36	1	353	4	358	0	0	0	0	100	46	0	146	540
% App. Total	63.9	0	36.1		0.3	98.6	1.1		0	0	0		68.5	31.5	0		
PHF	.821	.000	.650	.818	.250	.901	.500	.904	.000	.000	.000	.000	.926	.821	.000	.890	.925



N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

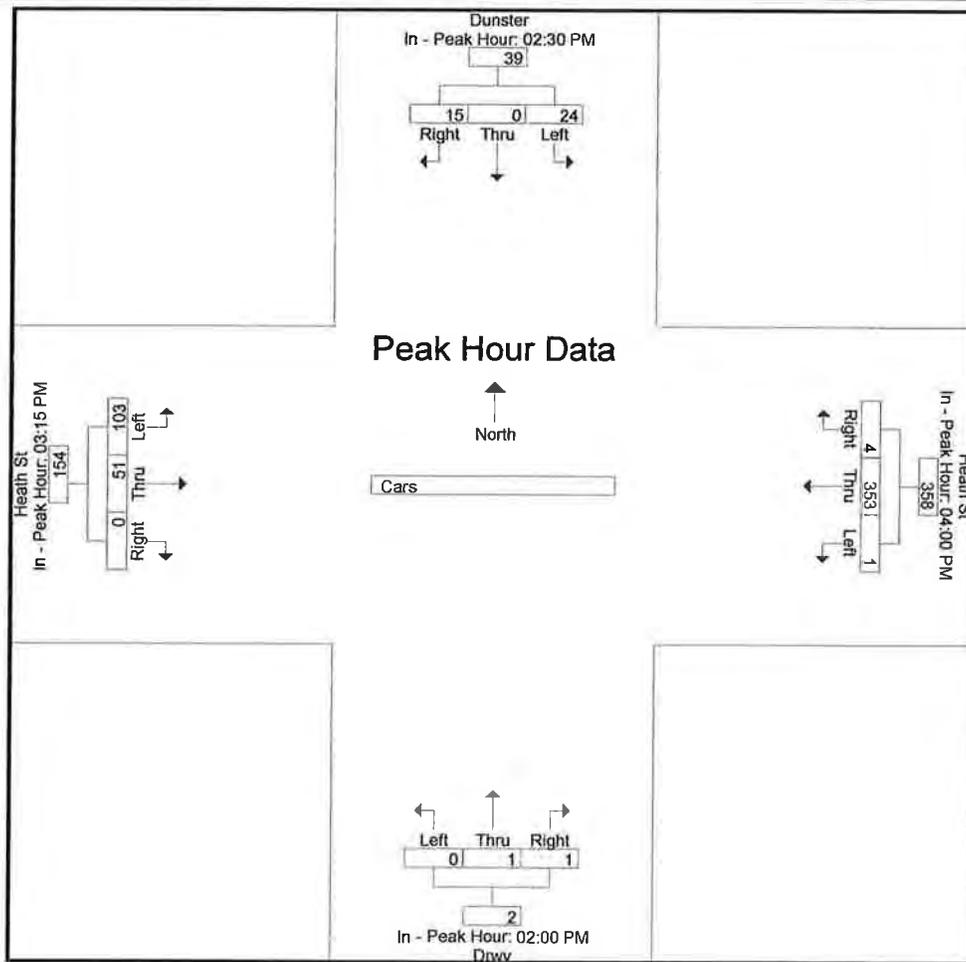
File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 6

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:30 PM				04:00 PM				02:00 PM				03:15 PM			
+0 mins.	4	0	7	11	0	78	0	78	0	0	0	0	29	15	0	44
+15 mins.	6	0	3	9	0	93	2	95	0	0	0	0	29	10	0	39
+30 mins.	4	0	3	7	1	84	1	86	0	0	0	0	18	12	0	30
+45 mins.	10	0	2	12	0	98	1	99	0	1	1	2	27	14	0	41
Total Volume	24	0	15	39	1	353	4	358	0	1	1	2	103	51	0	154
% App. Total	61.5	0	38.5		0.3	98.6	1.1		0	50	50		66.9	33.1	0	
PHF	.600	.000	.536	.813	.250	.901	.500	.904	.000	.250	.250	.250	.888	.850	.000	.875



**Accurate Counts**  
978-664-2565

N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 7

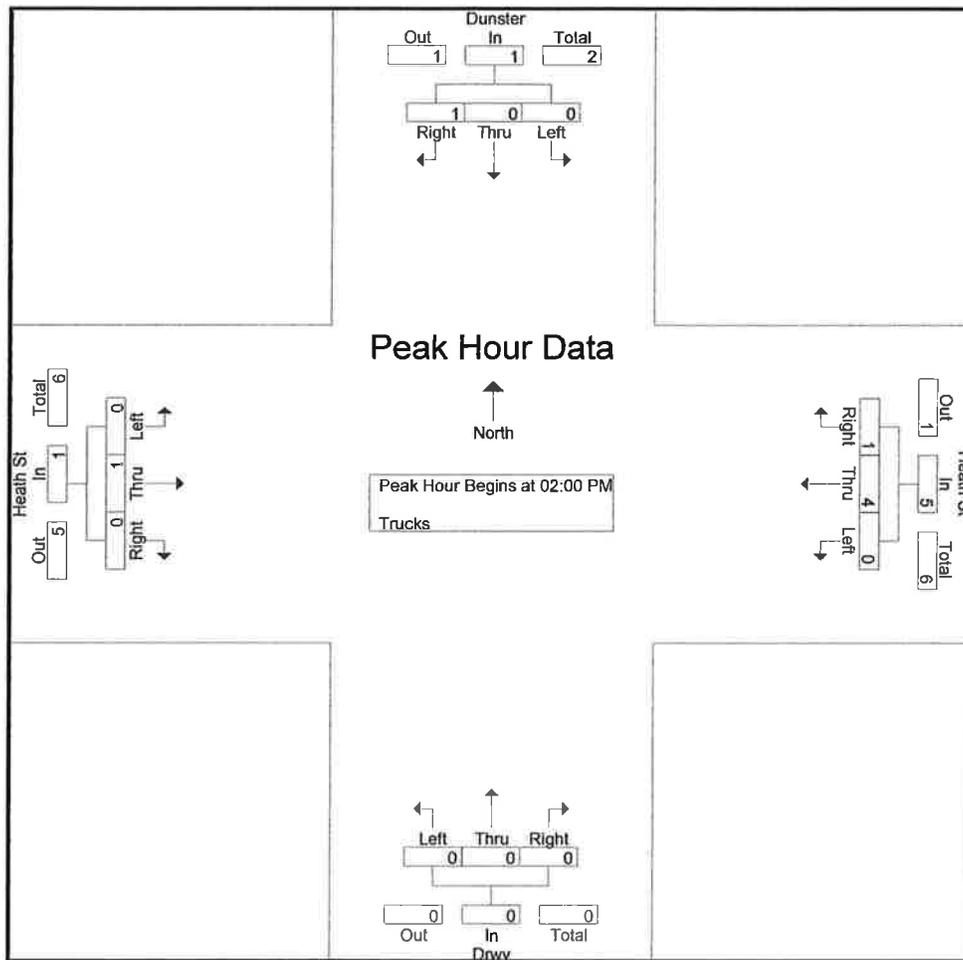
Groups Printed- Trucks

Start Time	Dunster From North			Heath St From East			Dwvy From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
02:15 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
02:30 PM	0	0	1	0	3	0	0	0	0	0	0	0	4
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>7</b>
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
03:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
03:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>
04:00 PM	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
04:30 PM	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
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>9</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>12</b>
<b>Apprch %</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>0</b>	<b>90</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>0</b>	
<b>Total %</b>	<b>0</b>	<b>0</b>	<b>8.3</b>	<b>0</b>	<b>75</b>	<b>8.3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8.3</b>	<b>0</b>	

N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 8

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
02:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
02:30 PM	0	0	1	1	0	3	0	3	0	0	0	0	0	0	0	0	4
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	1	1	0	4	1	5	0	0	0	0	0	1	0	1	7
% App. Total	0	0	100		0	80	20		0	0	0		0	100	0		
PHF	.000	.000	.250	.250	.000	.333	.250	.417	.000	.000	.000	.000	.000	.250	.000	.250	.438



N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

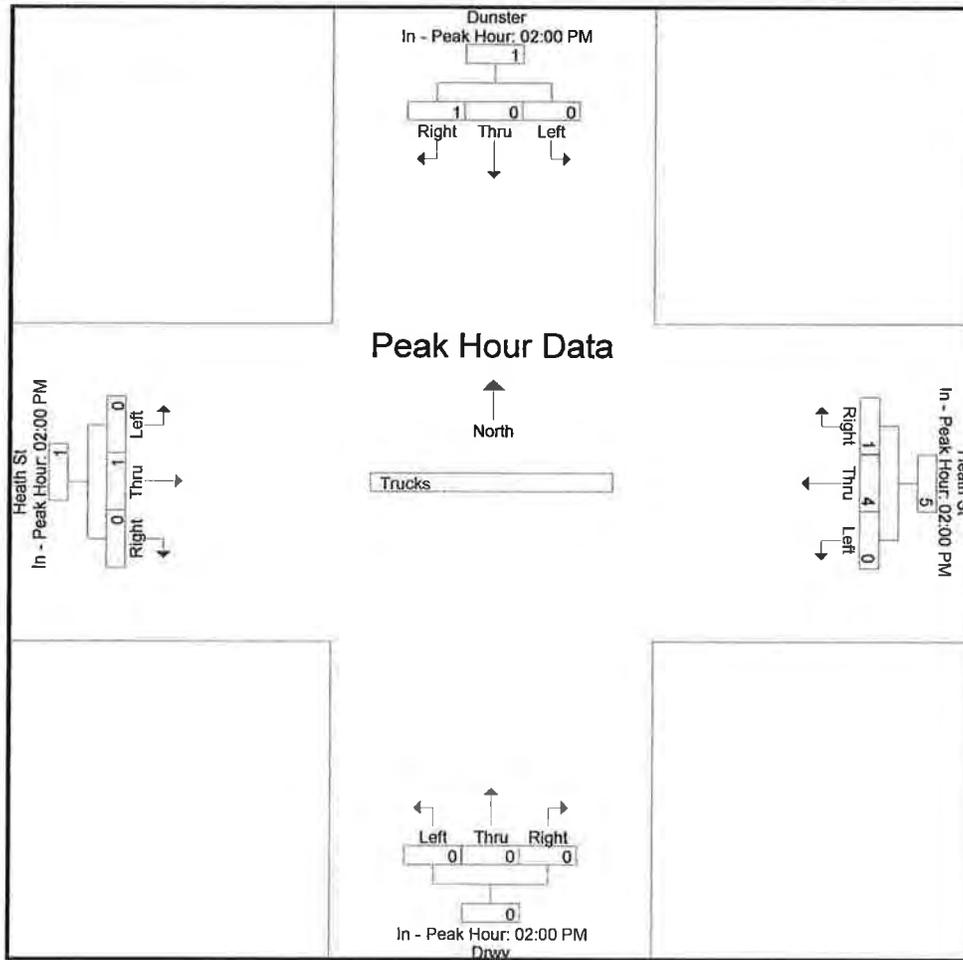
File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 9

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM				02:00 PM				02:00 PM				02:00 PM			
+0 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+30 mins.	0	0	1	1	0	3	0	3	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	1	1	0	4	1	5	0	0	0	0	0	1	0	1
% App. Total	0	0	100		0	80	20		0	0	0		0	100	0	
PHF	.000	.000	.250	.250	.000	.333	.250	.417	.000	.000	.000	.000	.000	.250	.000	.250



N/S Street : Dunster Road / Driveway  
 E/W Street: Heath Street  
 City/State : Brookline, MA  
 Weather : Clear

File Name : 7382N002  
 Site Code : 73820002  
 Start Date : 11/17/2016  
 Page No : 10

Groups Printed- Bikes Peds

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
02:00 PM	0	0	0	3	0	0	0	1	0	0	0	1	0	0	0	0	5	0	5
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
02:45 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2	0	2
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>8</b>
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
03:30 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
03:45 PM	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>12</b>
04:00 PM	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1	6	0	6
04:15 PM	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6
04:30 PM	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	4	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>16</b>	<b>0</b>	<b>16</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>36</b>	<b>0</b>	<b>36</b>
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0				
Total %																	100	0	

**Accurate Counts**  
978-664-2565

N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

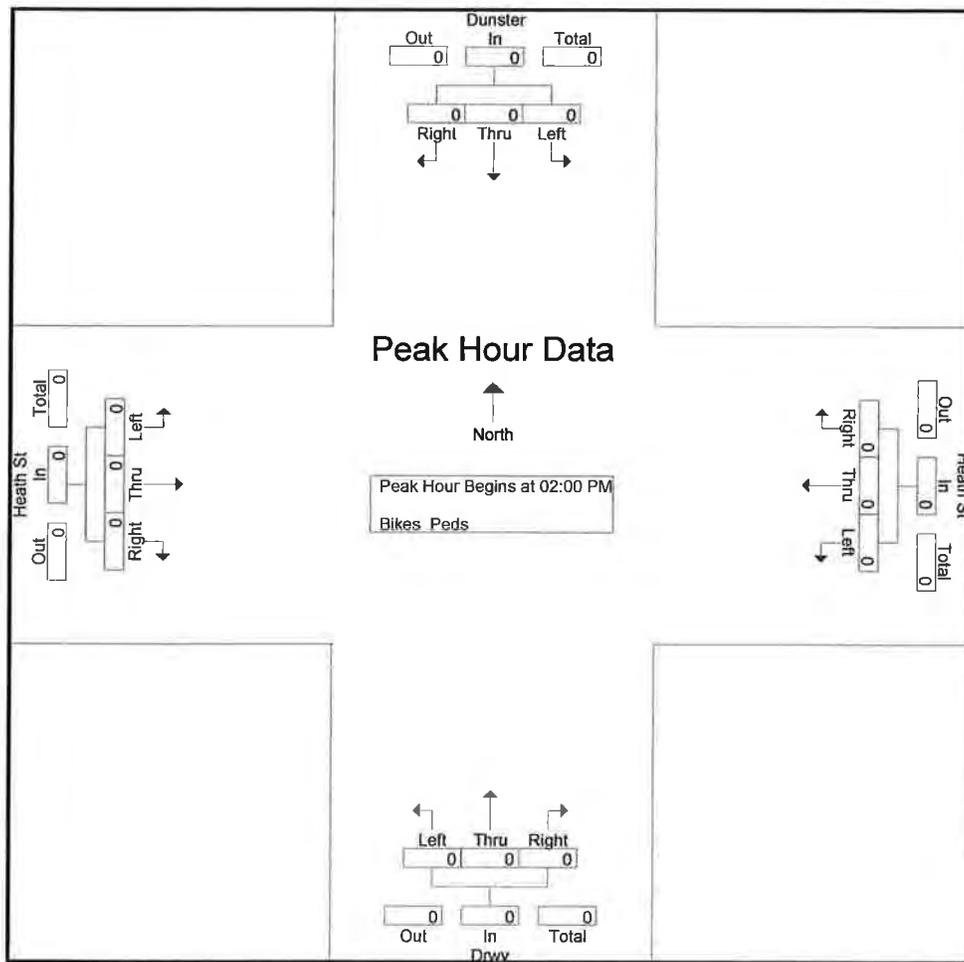
File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 11

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 02:00 PM

02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



N/S Street : Dunster Road / Driveway  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

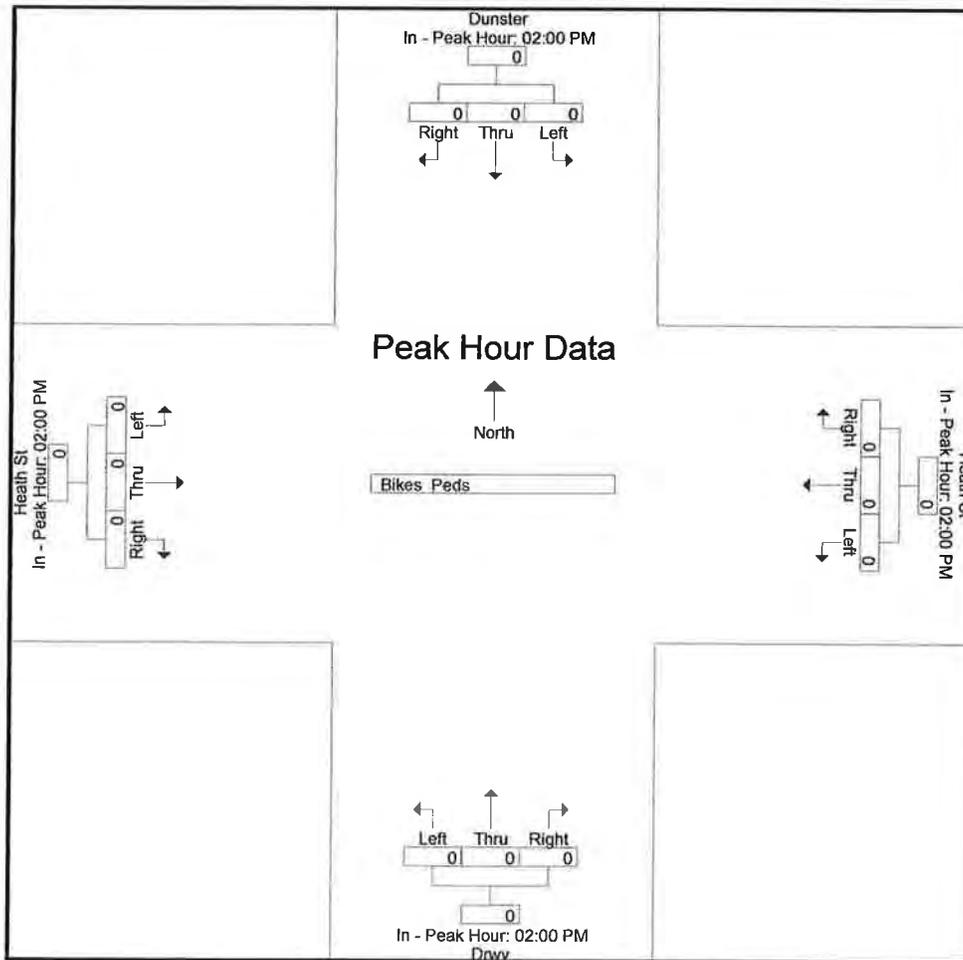
File Name : 7382N002  
Site Code : 73820002  
Start Date : 11/17/2016  
Page No : 12

Start Time	Dunster From North				Heath St From East				Drwy From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM				02:00 PM				02:00 PM				02:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Hammond St From North			Heath St From East			Hammond St From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	5	65	5	8	6	9	5	102	28	0	0	0	233
07:15 AM	11	92	7	16	7	14	4	125	30	0	0	0	306
07:30 AM	7	103	7	22	4	30	0	111	23	0	0	0	307
07:45 AM	17	122	4	23	7	27	5	101	15	0	0	0	321
<b>Total</b>	<b>40</b>	<b>382</b>	<b>23</b>	<b>69</b>	<b>24</b>	<b>80</b>	<b>14</b>	<b>439</b>	<b>96</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1167</b>
08:00 AM	11	99	8	23	5	16	4	117	23	0	0	0	306
08:15 AM	8	84	10	23	17	30	2	109	18	0	0	0	301
08:30 AM	12	87	5	24	7	23	5	109	27	0	0	0	299
08:45 AM	11	101	8	22	7	29	9	112	26	0	0	0	325
<b>Total</b>	<b>42</b>	<b>371</b>	<b>31</b>	<b>92</b>	<b>36</b>	<b>98</b>	<b>20</b>	<b>447</b>	<b>94</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1231</b>
09:00 AM	7	77	9	13	7	29	8	106	32	0	0	0	288
09:15 AM	4	72	9	13	9	16	6	118	31	0	0	0	278
<b>Grand Total</b>	<b>93</b>	<b>902</b>	<b>72</b>	<b>187</b>	<b>76</b>	<b>223</b>	<b>48</b>	<b>1110</b>	<b>253</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2964</b>
Apprch %	8.7	84.5	6.7	38.5	15.6	45.9	3.4	78.7	17.9	0	0	0	
Total %	3.1	30.4	2.4	6.3	2.6	7.5	1.6	37.4	8.5	0	0	0	
<b>Cars</b>	<b>91</b>	<b>860</b>	<b>67</b>	<b>183</b>	<b>76</b>	<b>216</b>	<b>48</b>	<b>1083</b>	<b>250</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2874</b>
<b>% Cars</b>	<b>97.8</b>	<b>95.3</b>	<b>93.1</b>	<b>97.9</b>	<b>100</b>	<b>96.9</b>	<b>100</b>	<b>97.6</b>	<b>98.8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>97</b>
<b>Trucks</b>	<b>2</b>	<b>42</b>	<b>5</b>	<b>4</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>27</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>90</b>
<b>% Trucks</b>	<b>2.2</b>	<b>4.7</b>	<b>6.9</b>	<b>2.1</b>	<b>0</b>	<b>3.1</b>	<b>0</b>	<b>2.4</b>	<b>1.2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>

N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

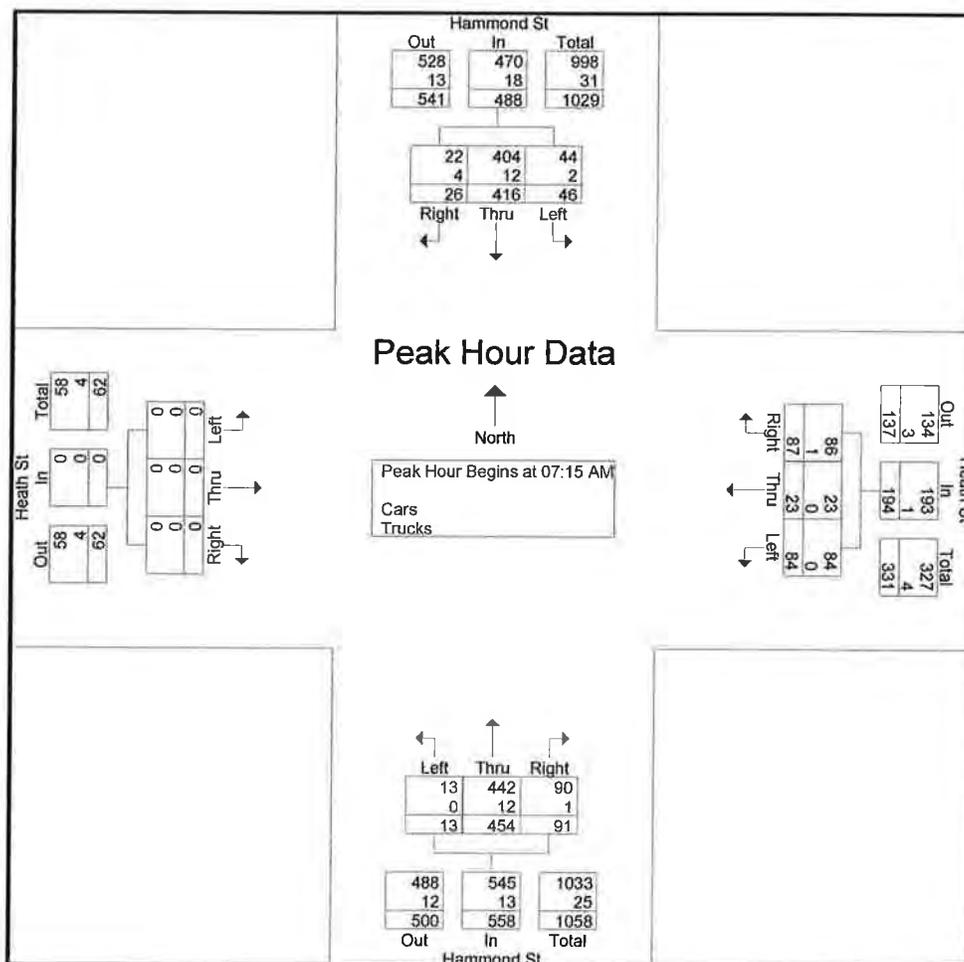
File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 2

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

07:15 AM	11	92	7	110	16	7	14	37	4	125	30	159	0	0	0	0	306
07:30 AM	7	103	7	117	22	4	30	56	0	111	23	134	0	0	0	0	307
07:45 AM	17	122	4	143	23	7	27	57	5	101	15	121	0	0	0	0	321
08:00 AM	11	99	8	118	23	5	16	44	4	117	23	144	0	0	0	0	306
<b>Total Volume</b>	46	416	26	488	84	23	87	194	13	454	91	558	0	0	0	0	1240
% App. Total	9.4	85.2	5.3		43.3	11.9	44.8		2.3	81.4	16.3		0	0	0		
PHF	.676	.852	.813	.853	.913	.821	.725	.851	.650	.908	.758	.877	.000	.000	.000	.000	.966
Cars	44	404	22	470	84	23	86	193	13	442	90	545	0	0	0	0	1208
% Cars	95.7	97.1	84.6	96.3	100	100	98.9	99.5	100	97.4	98.9	97.7	0	0	0	0	97.4
Trucks	2	12	4	18	0	0	1	1	0	12	1	13	0	0	0	0	32
% Trucks	4.3	2.9	15.4	3.7	0	0	1.1	0.5	0	2.6	1.1	2.3	0	0	0	0	2.6



N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

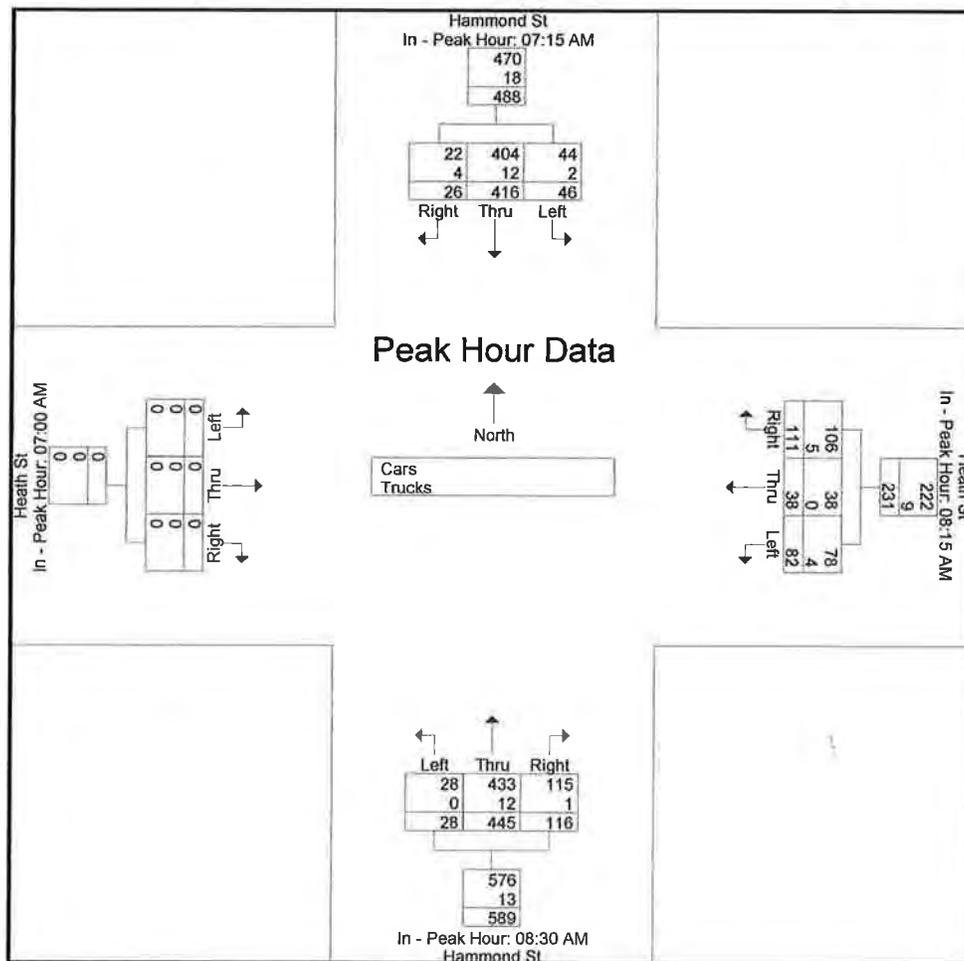
File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 3

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				08:15 AM				08:30 AM				07:00 AM			
+0 mins.	11	92	7	110	23	17	30	70	5	109	27	141	0	0	0	0
+15 mins.	7	103	7	117	24	7	23	54	9	112	26	147	0	0	0	0
+30 mins.	17	122	4	143	22	7	29	58	8	106	32	146	0	0	0	0
+45 mins.	11	99	8	118	13	7	29	49	6	118	31	155	0	0	0	0
Total Volume	46	416	26	488	82	38	111	231	28	445	116	589	0	0	0	0
% App. Total	9.4	85.2	5.3		35.5	16.5	48.1		4.8	75.6	19.7		0	0	0	
PHF	.676	.852	.813	.853	.854	.559	.925	.825	.778	.943	.906	.950	.000	.000	.000	.000
Cars	44	404	22	470	78	38	106	222	28	433	115	576	0	0	0	0
% Cars	95.7	97.1	84.6	96.3	95.1	100	95.5	96.1	100	97.3	99.1	97.8	0	0	0	0
Trucks	2	12	4	18	4	0	5	9	0	12	1	13	0	0	0	0
% Trucks	4.3	2.9	15.4	3.7	4.9	0	4.5	3.9	0	2.7	0.9	2.2	0	0	0	0



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 4

Groups Printed- Cars

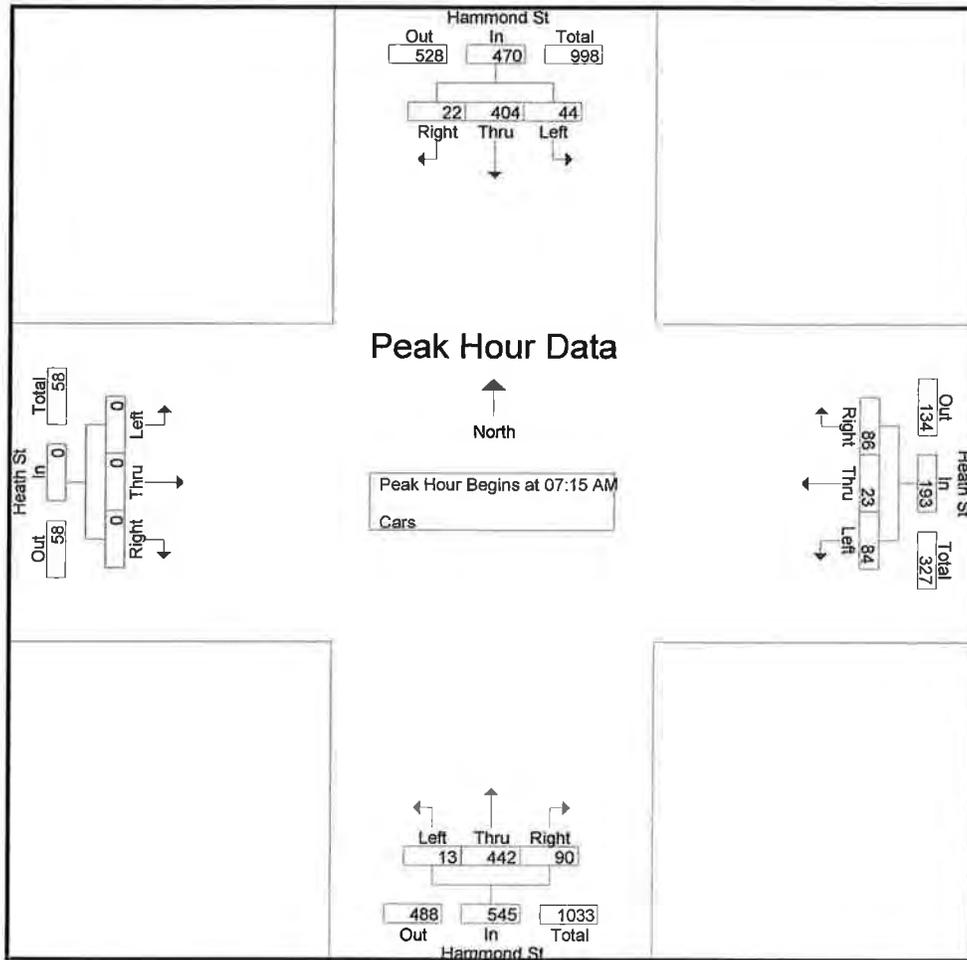
Start Time	Hammond St From North			Heath St From East			Hammond St From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	5	61	5	8	6	9	5	101	27	0	0	0	227
07:15 AM	10	89	4	16	7	13	4	125	30	0	0	0	298
07:30 AM	7	99	6	22	4	30	0	108	23	0	0	0	299
07:45 AM	17	120	4	23	7	27	5	98	15	0	0	0	316
<b>Total</b>	<b>39</b>	<b>369</b>	<b>19</b>	<b>69</b>	<b>24</b>	<b>79</b>	<b>14</b>	<b>432</b>	<b>95</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1140</b>
08:00 AM	10	96	8	23	5	16	4	111	22	0	0	0	295
08:15 AM	8	81	10	22	17	29	2	107	18	0	0	0	294
08:30 AM	12	83	5	23	7	21	5	107	26	0	0	0	289
08:45 AM	11	93	8	20	7	28	9	110	26	0	0	0	312
<b>Total</b>	<b>41</b>	<b>353</b>	<b>31</b>	<b>88</b>	<b>36</b>	<b>94</b>	<b>20</b>	<b>435</b>	<b>92</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1190</b>
09:00 AM	7	71	9	13	7	28	8	106	32	0	0	0	281
09:15 AM	4	67	8	13	9	15	6	110	31	0	0	0	263
<b>Grand Total</b>	<b>91</b>	<b>860</b>	<b>67</b>	<b>183</b>	<b>76</b>	<b>216</b>	<b>48</b>	<b>1083</b>	<b>250</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2874</b>
<b>Apprch %</b>	<b>8.9</b>	<b>84.5</b>	<b>6.6</b>	<b>38.5</b>	<b>16</b>	<b>45.5</b>	<b>3.5</b>	<b>78.4</b>	<b>18.1</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Total %</b>	<b>3.2</b>	<b>29.9</b>	<b>2.3</b>	<b>6.4</b>	<b>2.6</b>	<b>7.5</b>	<b>1.7</b>	<b>37.7</b>	<b>8.7</b>	<b>0</b>	<b>0</b>	<b>0</b>	

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 5

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	10	89	4	103	16	7	13	36	4	125	30	159	0	0	0	0	298
07:30 AM	7	99	6	112	22	4	30	56	0	108	23	131	0	0	0	0	299
07:45 AM	17	120	4	141	23	7	27	57	5	98	15	118	0	0	0	0	316
08:00 AM	10	96	8	114	23	5	16	44	4	111	22	137	0	0	0	0	295
Total Volume	44	404	22	470	84	23	86	193	13	442	90	545	0	0	0	0	1208
% App. Total	9.4	86	4.7		43.5	11.9	44.6		2.4	81.1	16.5		0	0	0		
PHF	.647	.842	.688	.833	.913	.821	.717	.846	.650	.884	.750	.857	.000	.000	.000	.000	.956



N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

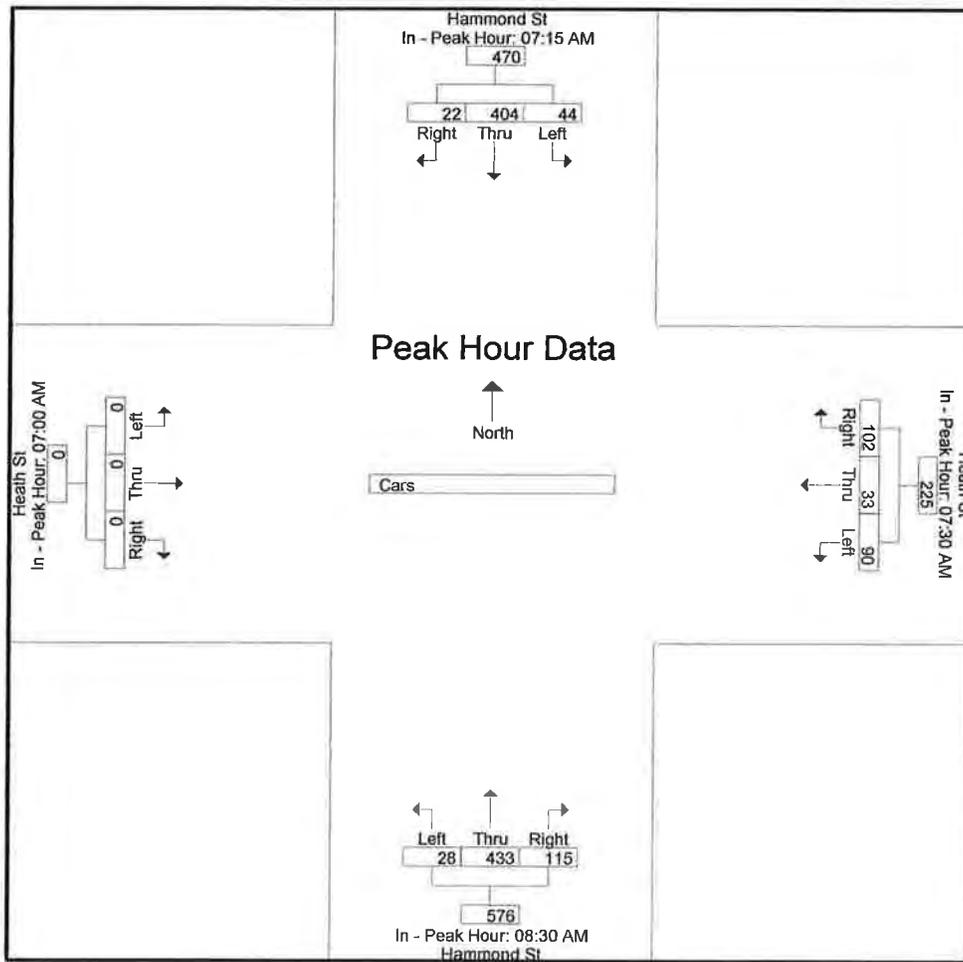
File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 6

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				07:30 AM				08:30 AM				07:00 AM			
+0 mins.	10	89	4	103	22	4	30	56	5	107	26	138	0	0	0	0
+15 mins.	7	99	6	112	23	7	27	57	9	110	26	145	0	0	0	0
+30 mins.	17	120	4	141	23	5	16	44	8	106	32	146	0	0	0	0
+45 mins.	10	96	8	114	22	17	29	68	6	110	31	147	0	0	0	0
Total Volume	44	404	22	470	90	33	102	225	28	433	115	576	0	0	0	0
% App. Total	9.4	86	4.7		40	14.7	45.3		4.9	75.2	20		0	0	0	
PHF	.647	.842	.688	.833	.978	.485	.850	.827	.778	.984	.898	.980	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 7

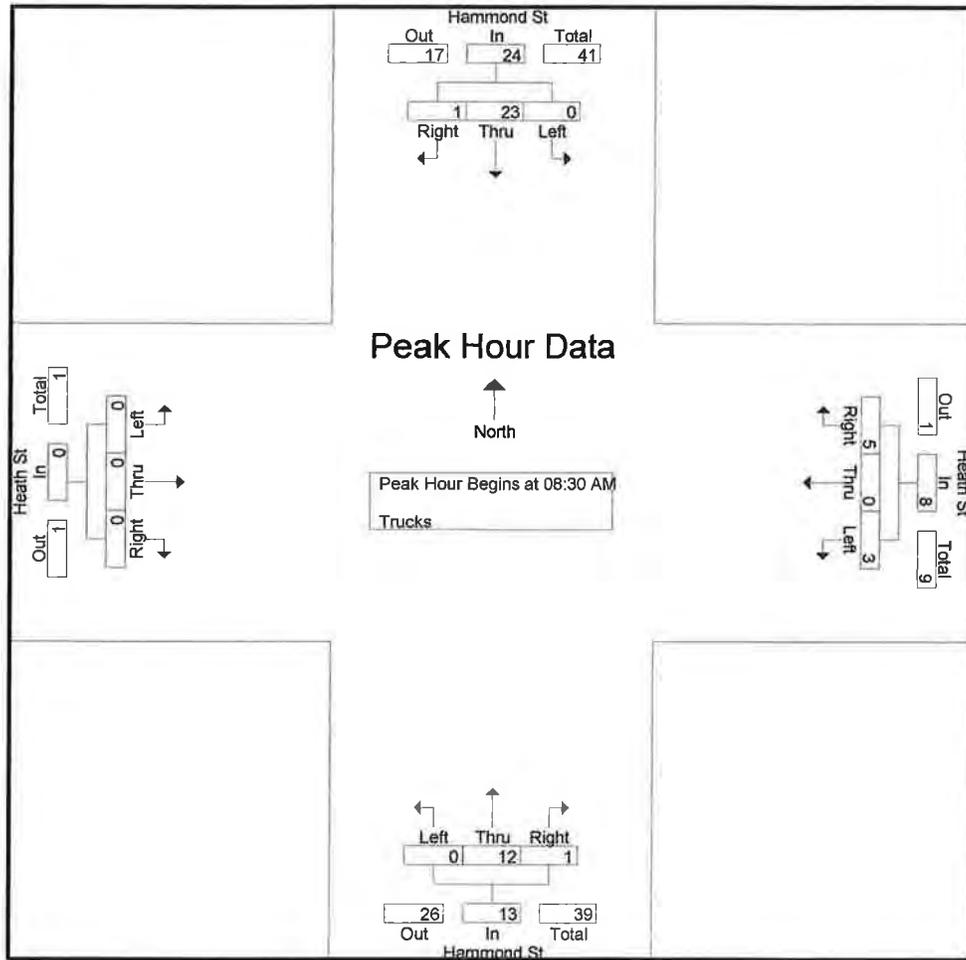
Groups Printed- Trucks

Start Time	Hammond St From North			Heath St From East			Hammond St From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	4	0	0	0	0	0	1	1	0	0	0	6
07:15 AM	1	3	3	0	0	1	0	0	0	0	0	0	8
07:30 AM	0	4	1	0	0	0	0	3	0	0	0	0	8
07:45 AM	0	2	0	0	0	0	0	3	0	0	0	0	5
<b>Total</b>	<b>1</b>	<b>13</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>27</b>
08:00 AM	1	3	0	0	0	0	0	6	1	0	0	0	11
08:15 AM	0	3	0	1	0	1	0	2	0	0	0	0	7
08:30 AM	0	4	0	1	0	2	0	2	1	0	0	0	10
08:45 AM	0	8	0	2	0	1	0	2	0	0	0	0	13
<b>Total</b>	<b>1</b>	<b>18</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>12</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>41</b>
09:00 AM	0	6	0	0	0	1	0	0	0	0	0	0	7
09:15 AM	0	5	1	0	0	1	0	8	0	0	0	0	15
<b>Grand Total</b>	<b>2</b>	<b>42</b>	<b>5</b>	<b>4</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>27</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>90</b>
Approch %	4.1	85.7	10.2	36.4	0	63.6	0	90	10	0	0	0	
Total %	2.2	46.7	5.6	4.4	0	7.8	0	30	3.3	0	0	0	

N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 8

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:30 AM																	
08:30 AM	0	4	0	4	1	0	2	3	0	2	1	3	0	0	0	0	10
08:45 AM	0	8	0	8	2	0	1	3	0	2	0	2	0	0	0	0	13
09:00 AM	0	6	0	6	0	0	1	1	0	0	0	0	0	0	0	0	7
09:15 AM	0	5	1	6	0	0	1	1	0	8	0	8	0	0	0	0	15
<b>Total Volume</b>	0	23	1	24	3	0	5	8	0	12	1	13	0	0	0	0	45
<b>% App. Total</b>	0	95.8	4.2		37.5	0	62.5		0	92.3	7.7		0	0	0		
<b>PHF</b>	.000	.719	.250	.750	.375	.000	.625	.667	.000	.375	.250	.406	.000	.000	.000	.000	.750



N/S Street : Hammond Street  
 E/W Street: Heath Street  
 City/State : Brookline, MA  
 Weather : Clear

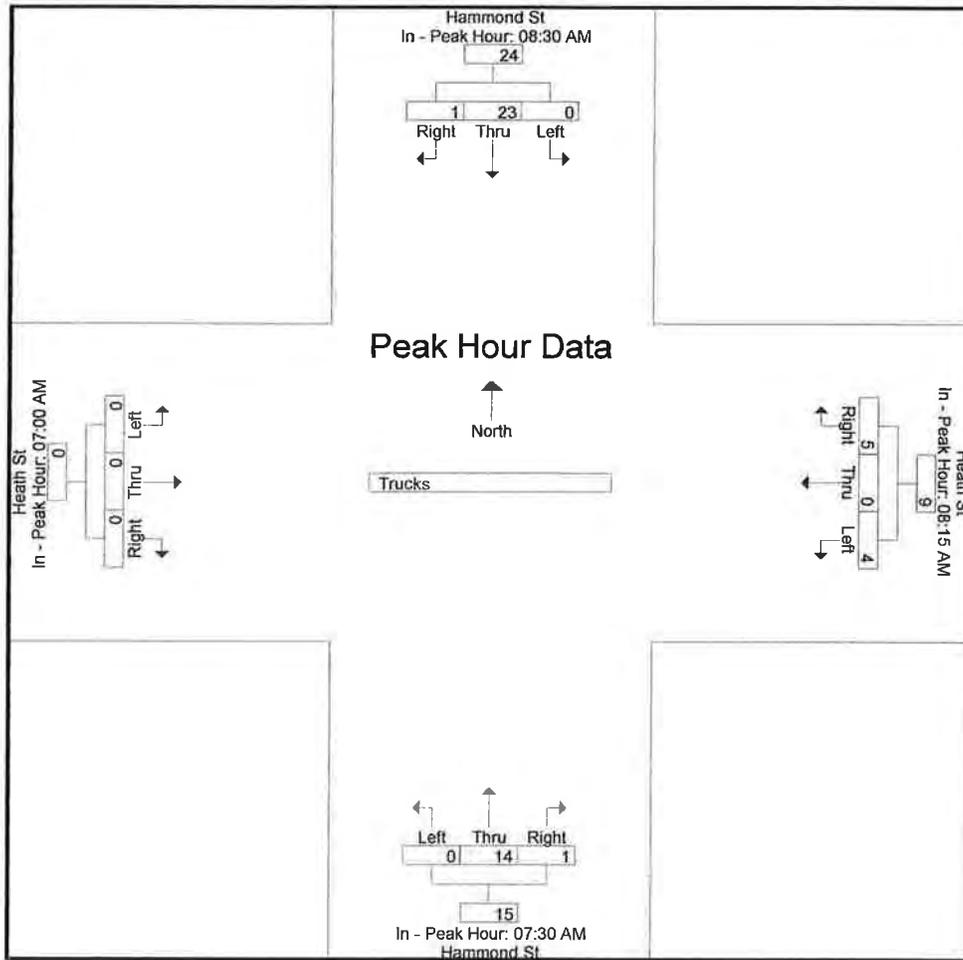
File Name : 7382N003  
 Site Code : 73820003  
 Start Date : 11/17/2016  
 Page No : 9

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:30 AM				08:15 AM				07:30 AM				07:00 AM			
+0 mins.	0	4	0	4	1	0	1	2	0	3	0	3	0	0	0	0
+15 mins.	0	8	0	8	1	0	2	3	0	3	0	3	0	0	0	0
+30 mins.	0	6	0	6	2	0	1	3	0	6	1	7	0	0	0	0
+45 mins.	0	5	1	6	0	0	1	1	0	2	0	2	0	0	0	0
Total Volume	0	23	1	24	4	0	5	9	0	14	1	15	0	0	0	0
% App. Total	0	95.8	4.2		44.4	0	55.6		0	93.3	6.7		0	0	0	
PHF	.000	.719	.250	.750	.500	.000	.625	.750	.000	.583	.250	.536	.000	.000	.000	.000



N/S Street : Hammond Street  
 E/W Street: Heath Street  
 City/State : Brookline, MA  
 Weather : Clear

File Name : 7382N003  
 Site Code : 73820003  
 Start Date : 11/17/2016  
 Page No : 10

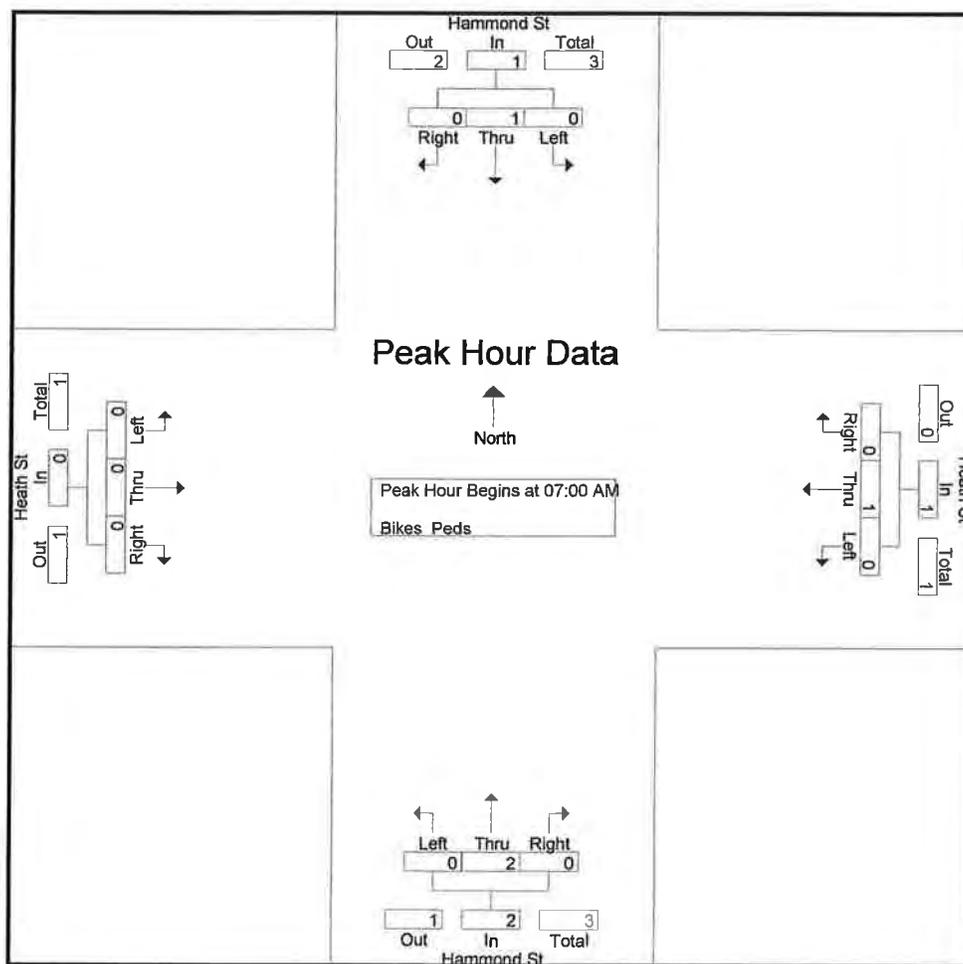
Groups Printed- Bikes Peds

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	1	0	0	0	4	0	1	0	1	0	0	0	0	6	1	7
07:15 AM	0	0	0	2	0	1	0	3	0	1	0	0	0	0	0	4	9	2	11
07:30 AM	0	1	0	4	0	0	0	0	0	0	0	1	0	0	0	0	5	1	6
07:45 AM	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0	4	8	0	8
Total	0	1	0	9	0	1	0	8	0	2	0	3	0	0	0	8	28	4	32
08:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3	0	3
08:15 AM	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	1	4	0	4
08:30 AM	0	0	0	5	0	0	0	1	0	0	0	0	0	0	0	0	6	0	6
08:45 AM	0	0	0	5	0	1	0	2	0	1	0	2	0	0	0	0	9	2	11
Total	0	0	0	12	0	1	0	5	0	1	0	2	0	0	0	3	22	2	24
09:00 AM	0	0	0	6	0	0	0	0	0	1	0	0	0	0	0	1	7	1	8
09:15 AM	0	0	0	9	0	0	0	0	0	1	0	0	0	0	0	1	10	1	11
Grand Total	0	1	0	36	0	2	0	13	0	5	0	5	0	0	0	13	67	8	75
Apprch %	0	100	0		0	100	0		0	100	0		0	0	0				
Total %	0	12.5	0		0	25	0		0	62.5	0		0	0	0		89.3	10.7	

N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 11

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 07:00 AM to 09:15 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	1	0	1	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	2
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Volume</b>	0	1	0	1	0	1	0	1	0	2	0	2	0	0	0	0	0	4
<b>% App. Total</b>	0	100	0		0	100	0		0	100	0		0	0	0			
PHF	.000	.250	.000	.250	.000	.250	.000	.250	.000	.500	.000	.500	.000	.000	.000	.000		.500



N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

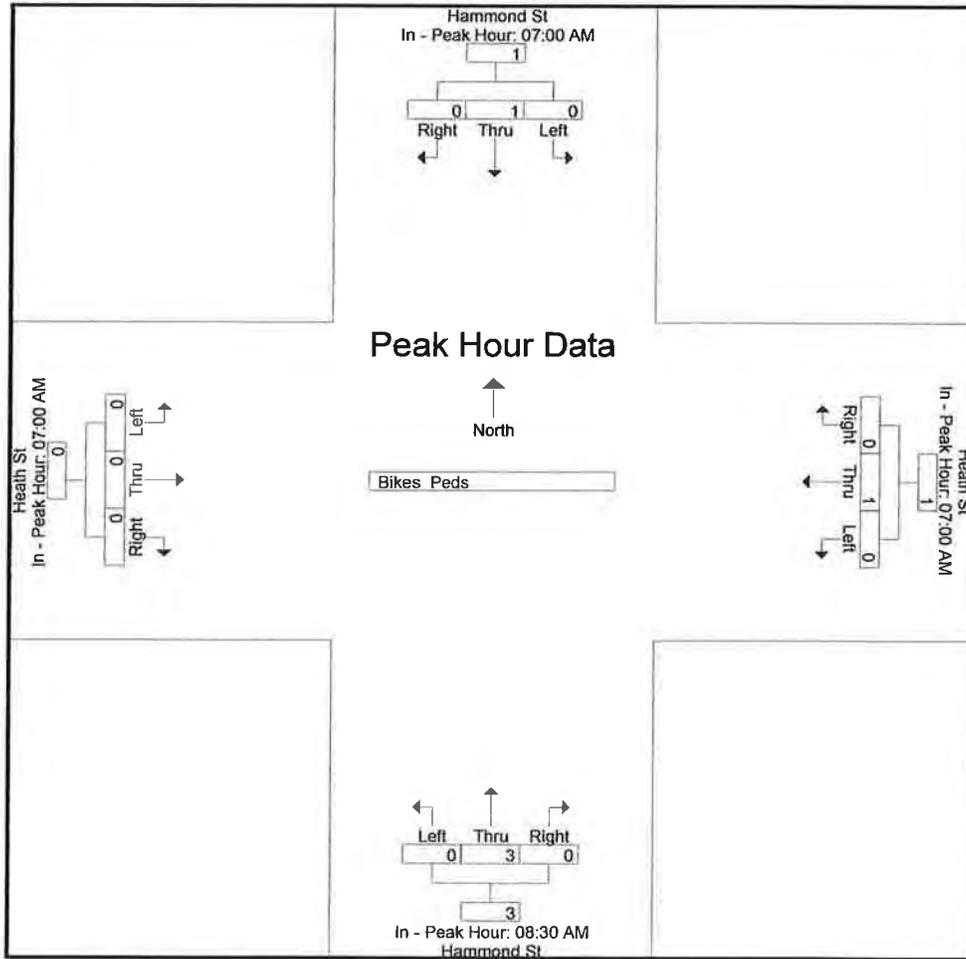
File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 12

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				08:30 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	1	0	1	0	1	0	1	0	3	0	3	0	0	0	0
% App. Total	0	100	0		0	100	0		0	100	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.250	.000	.250	.000	.750	.000	.750	.000	.000	.000	.000



N/S Street : Hammond Street  
 E/W Street : Heath Street  
 City/State : Brookline, MA  
 Weather : Clear

File Name : 7382N003  
 Site Code : 73820003  
 Start Date : 11/17/2016  
 Page No : 1

## Groups Printed- Cars - Trucks

Start Time	Hammond St From North			Heath St From East			Hammond St From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	5	119	10	20	5	29	5	87	22	0	0	0	302
02:15 PM	14	116	8	26	4	20	1	89	16	0	0	0	294
02:30 PM	6	117	6	24	4	21	2	78	19	0	0	0	277
02:45 PM	7	126	12	33	8	20	4	113	25	0	0	0	348
Total	32	478	36	103	21	90	12	367	82	0	0	0	1221
03:00 PM	5	137	6	35	10	26	4	86	22	0	0	0	331
03:15 PM	11	143	9	50	8	21	2	105	33	0	0	0	382
03:30 PM	14	156	4	54	10	14	3	112	18	0	0	0	385
03:45 PM	7	131	11	35	8	22	6	93	25	0	0	0	338
Total	37	567	30	174	36	83	15	396	98	0	0	0	1436
04:00 PM	10	140	7	48	17	29	5	106	30	0	0	0	392
04:15 PM	9	129	7	44	14	31	3	95	28	0	0	0	360
04:30 PM	13	134	7	40	12	39	6	88	21	0	0	0	360
04:45 PM	6	172	7	41	18	41	5	85	30	0	0	0	405
Total	38	575	28	173	61	140	19	374	109	0	0	0	1517
Grand Total	107	1620	94	450	118	313	46	1137	289	0	0	0	4174
Apprch %	5.9	89	5.2	51.1	13.4	35.5	3.1	77.2	19.6	0	0	0	
Total %	2.6	38.8	2.3	10.8	2.8	7.5	1.1	27.2	6.9	0	0	0	
Cars	107	1597	94	446	117	307	46	1110	288	0	0	0	4112
% Cars	100	98.6	100	99.1	99.2	98.1	100	97.6	99.7	0	0	0	98.5
Trucks	0	23	0	4	1	6	0	27	1	0	0	0	62
% Trucks	0	1.4	0	0.9	0.8	1.9	0	2.4	0.3	0	0	0	1.5

N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

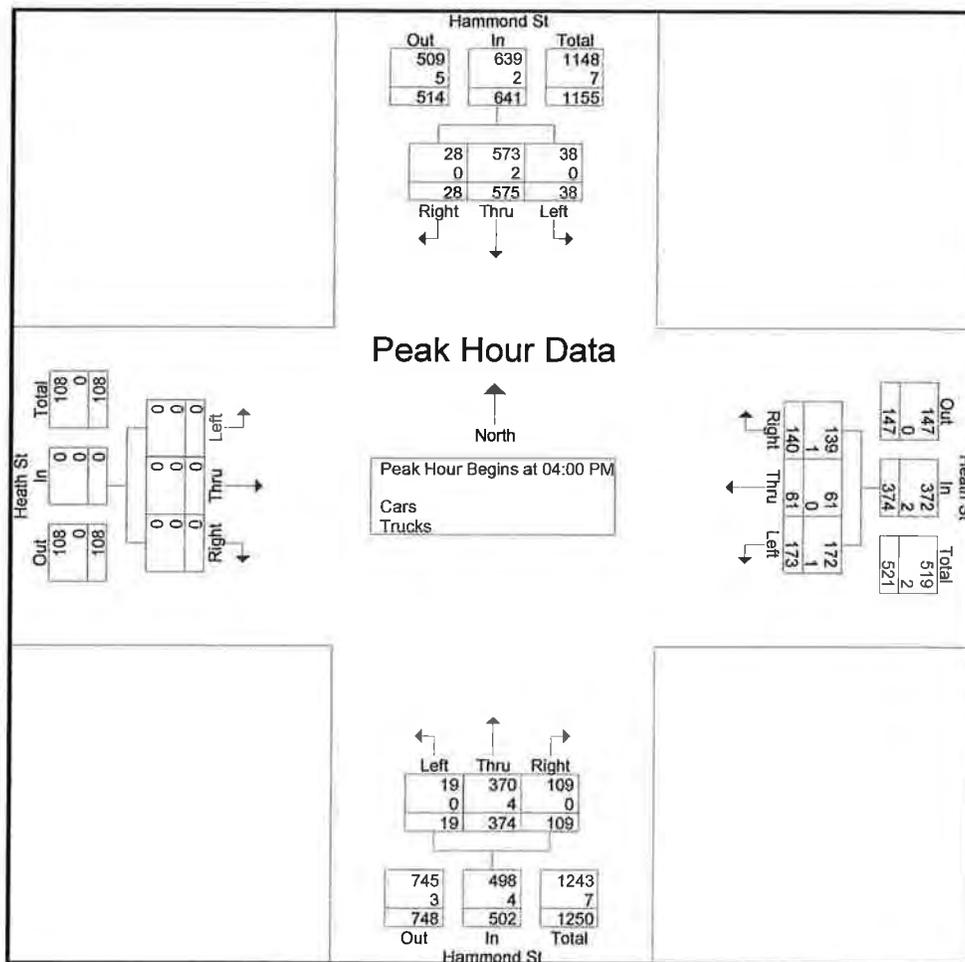
File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 2

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	10	140	7	157	48	17	29	94	5	106	30	141	0	0	0	0	392
04:15 PM	9	129	7	145	44	14	31	89	3	95	28	126	0	0	0	0	360
04:30 PM	13	134	7	154	40	12	39	91	6	88	21	115	0	0	0	0	360
04:45 PM	6	172	7	185	41	18	41	100	5	85	30	120	0	0	0	0	405
Total Volume	38	575	28	641	173	61	140	374	19	374	109	502	0	0	0	0	1517
% App. Total	5.9	89.7	4.4		46.3	16.3	37.4		3.8	74.5	21.7		0	0	0		
PHF	.731	.836	1.00	.866	.901	.847	.854	.935	.792	.882	.908	.890	.000	.000	.000	.000	.936
Cars	38	573	28	639	172	61	139	372	19	370	109	498	0	0	0	0	1509
% Cars	100	99.7	100	99.7	99.4	100	99.3	99.5	100	98.9	100	99.2	0	0	0	0	99.5
Trucks	0	2	0	2	1	0	1	2	0	4	0	4	0	0	0	0	8
% Trucks	0	0.3	0	0.3	0.6	0	0.7	0.5	0	1.1	0	0.8	0	0	0	0	0.5





**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 4

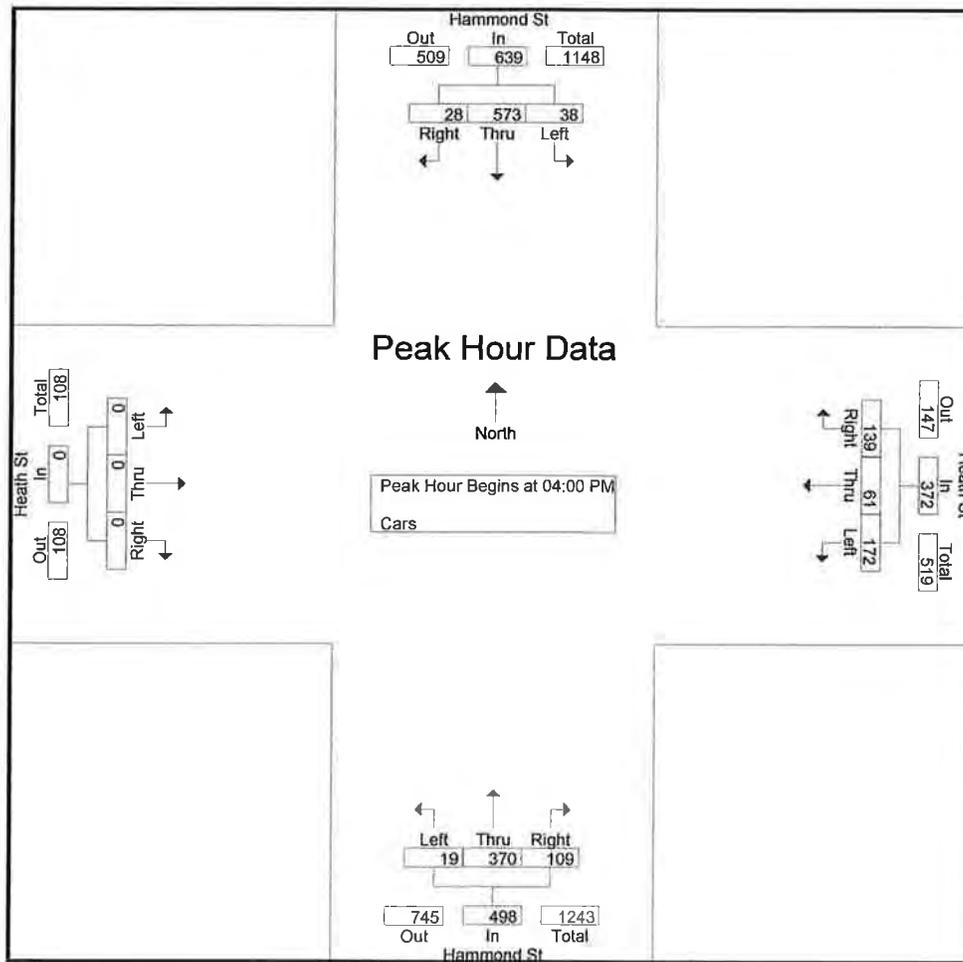
Groups Printed- Cars

Start Time	Hammond St From North			Heath St From East			Hammond St From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	5	117	10	20	5	29	5	83	22	0	0	0	296
02:15 PM	14	111	8	26	4	19	1	87	15	0	0	0	285
02:30 PM	6	112	6	24	4	19	2	72	19	0	0	0	264
02:45 PM	7	123	12	33	7	20	4	110	25	0	0	0	341
<b>Total</b>	<b>32</b>	<b>463</b>	<b>36</b>	<b>103</b>	<b>20</b>	<b>87</b>	<b>12</b>	<b>352</b>	<b>81</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1186</b>
03:00 PM	5	136	6	35	10	25	4	82	22	0	0	0	325
03:15 PM	11	142	9	50	8	20	2	104	33	0	0	0	379
03:30 PM	14	154	4	53	10	14	3	111	18	0	0	0	381
03:45 PM	7	129	11	33	8	22	6	91	25	0	0	0	332
<b>Total</b>	<b>37</b>	<b>561</b>	<b>30</b>	<b>171</b>	<b>36</b>	<b>81</b>	<b>15</b>	<b>388</b>	<b>98</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1417</b>
04:00 PM	10	139	7	47	17	29	5	104	30	0	0	0	388
04:15 PM	9	129	7	44	14	30	3	94	28	0	0	0	358
04:30 PM	13	133	7	40	12	39	6	87	21	0	0	0	358
04:45 PM	6	172	7	41	18	41	5	85	30	0	0	0	405
<b>Total</b>	<b>38</b>	<b>573</b>	<b>28</b>	<b>172</b>	<b>61</b>	<b>139</b>	<b>19</b>	<b>370</b>	<b>109</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1509</b>
<b>Grand Total</b>	<b>107</b>	<b>1597</b>	<b>94</b>	<b>446</b>	<b>117</b>	<b>307</b>	<b>46</b>	<b>1110</b>	<b>288</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4112</b>
<b>Apprch %</b>	<b>6</b>	<b>88.8</b>	<b>5.2</b>	<b>51.3</b>	<b>13.4</b>	<b>35.3</b>	<b>3.2</b>	<b>76.9</b>	<b>19.9</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Total %</b>	<b>2.6</b>	<b>38.8</b>	<b>2.3</b>	<b>10.8</b>	<b>2.8</b>	<b>7.5</b>	<b>1.1</b>	<b>27</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	

N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 5

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	10	139	7	156	47	17	29	93	5	104	30	139	0	0	0	0	388
04:15 PM	9	129	7	145	44	14	30	88	3	94	28	125	0	0	0	0	358
04:30 PM	13	133	7	153	40	12	39	91	6	87	21	114	0	0	0	0	358
04:45 PM	6	172	7	185	41	18	41	100	5	85	30	120	0	0	0	0	405
Total Volume	38	573	28	639	172	61	139	372	19	370	109	498	0	0	0	0	1509
% App. Total	5.9	89.7	4.4		46.2	16.4	37.4		3.8	74.3	21.9		0	0	0		
PHF	.731	.833	1.00	.864	.915	.847	.848	.930	.792	.889	.908	.896	.000	.000	.000	.000	.931



N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

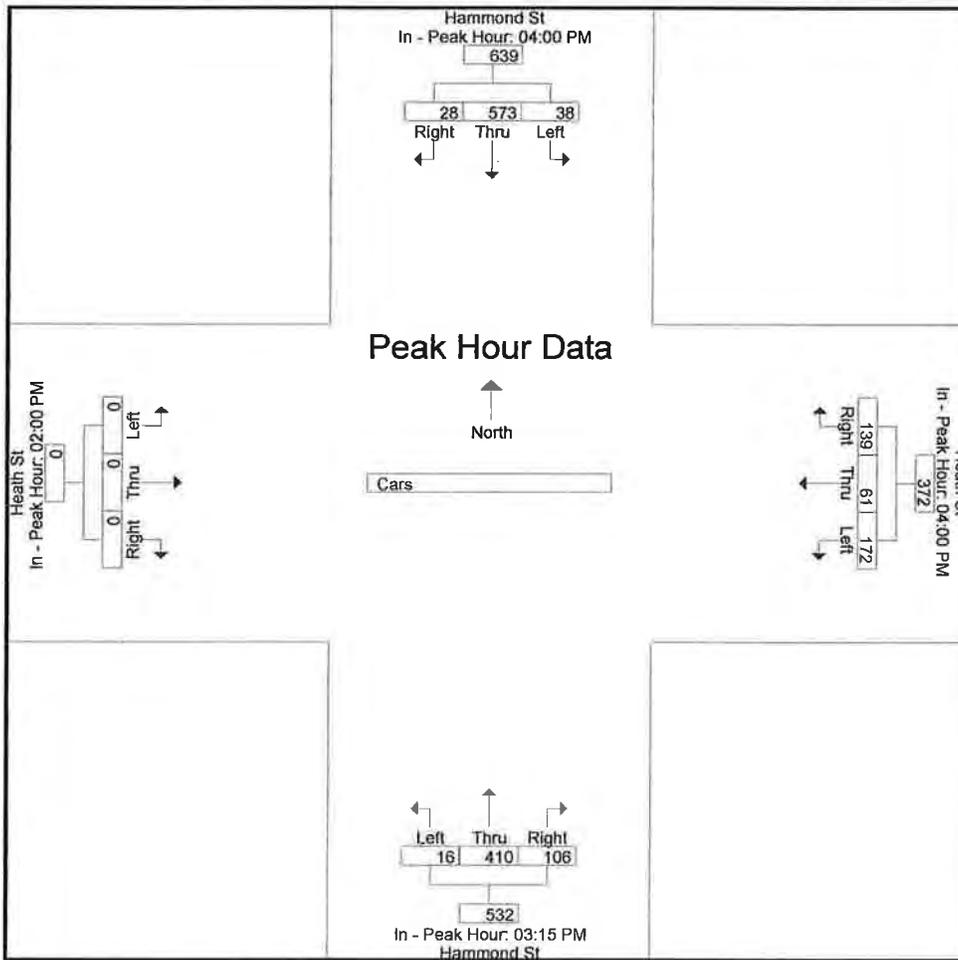
File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 6

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				03:15 PM				02:00 PM			
+0 mins.	10	139	7	156	47	17	29	93	2	104	33	139	0	0	0	0
+15 mins.	9	129	7	145	44	14	30	88	3	111	18	132	0	0	0	0
+30 mins.	13	133	7	153	40	12	39	91	6	91	25	122	0	0	0	0
+45 mins.	6	172	7	185	41	18	41	100	5	104	30	139	0	0	0	0
Total Volume	38	573	28	639	172	61	139	372	16	410	106	532	0	0	0	0
% App. Total	5.9	89.7	4.4		46.2	16.4	37.4		3	77.1	19.9		0	0	0	
PHF	.731	.833	1.000	.864	.915	.847	.848	.930	.667	.923	.803	.957	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 7

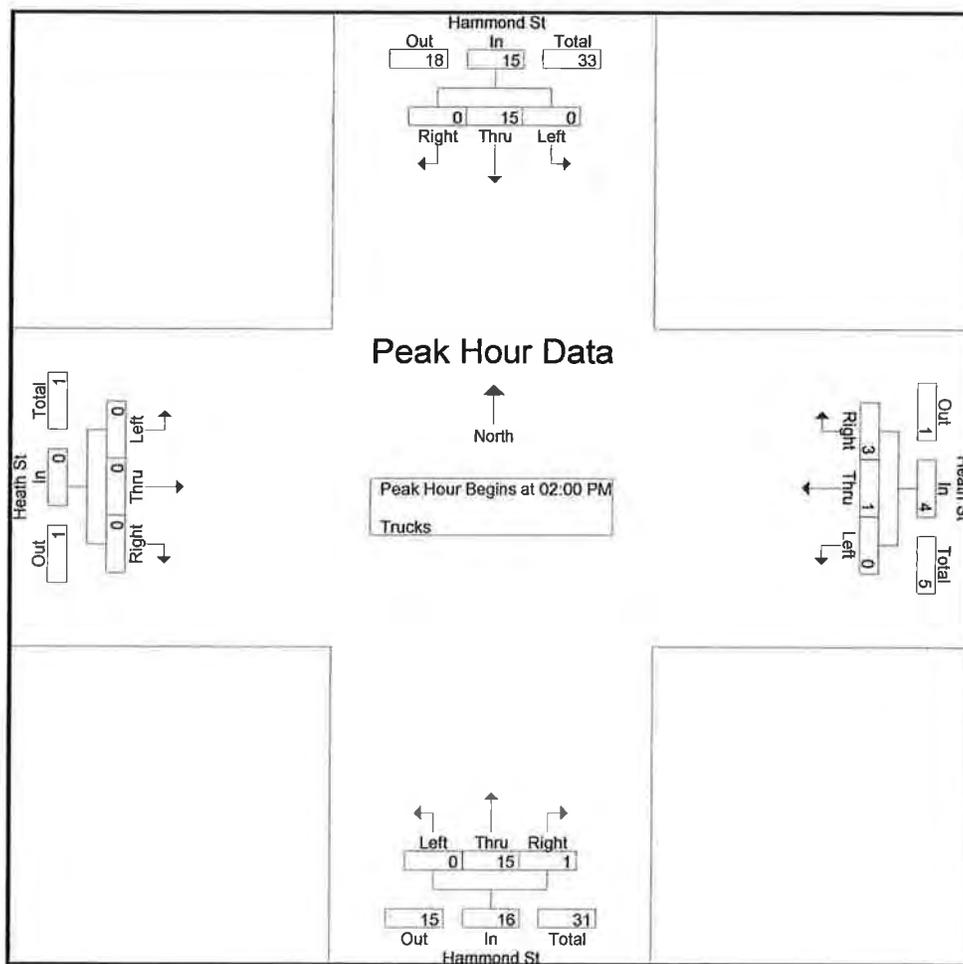
Groups Printed- Trucks

Start Time	Hammond St From North			Heath St From East			Hammond St From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	0	2	0	0	0	0	0	4	0	0	0	0	6
02:15 PM	0	5	0	0	0	1	0	2	1	0	0	0	9
02:30 PM	0	5	0	0	0	2	0	6	0	0	0	0	13
02:45 PM	0	3	0	0	1	0	0	3	0	0	0	0	7
<b>Total</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>15</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>35</b>
03:00 PM	0	1	0	0	0	1	0	4	0	0	0	0	6
03:15 PM	0	1	0	0	0	1	0	1	0	0	0	0	3
03:30 PM	0	2	0	1	0	0	0	1	0	0	0	0	4
03:45 PM	0	2	0	2	0	0	0	2	0	0	0	0	6
<b>Total</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19</b>
04:00 PM	0	1	0	1	0	0	0	2	0	0	0	0	4
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	2
04:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>
<b>Grand Total</b>	<b>0</b>	<b>23</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>27</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>62</b>
Apprch %	0	100	0	36.4	9.1	54.5	0	96.4	3.6	0	0	0	
Total %	0	37.1	0	6.5	1.6	9.7	0	43.5	1.6	0	0	0	

N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 8

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 02:00 PM																		
02:00 PM	0	2	0	2	0	0	0	0	0	4	0	4	0	0	0	0	0	6
02:15 PM	0	5	0	5	0	0	1	1	0	2	1	3	0	0	0	0	0	9
02:30 PM	0	5	0	5	0	0	2	2	0	6	0	6	0	0	0	0	0	13
02:45 PM	0	3	0	3	0	1	0	1	0	3	0	3	0	0	0	0	0	7
Total Volume	0	15	0	15	0	1	3	4	0	15	1	16	0	0	0	0	0	35
% App. Total	0	100	0		0	25	75		0	93.8	6.2		0	0	0			
PHF	.000	.750	.000	.750	.000	.250	.375	.500	.000	.625	.250	.667	.000	.000	.000	.000		.673



N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

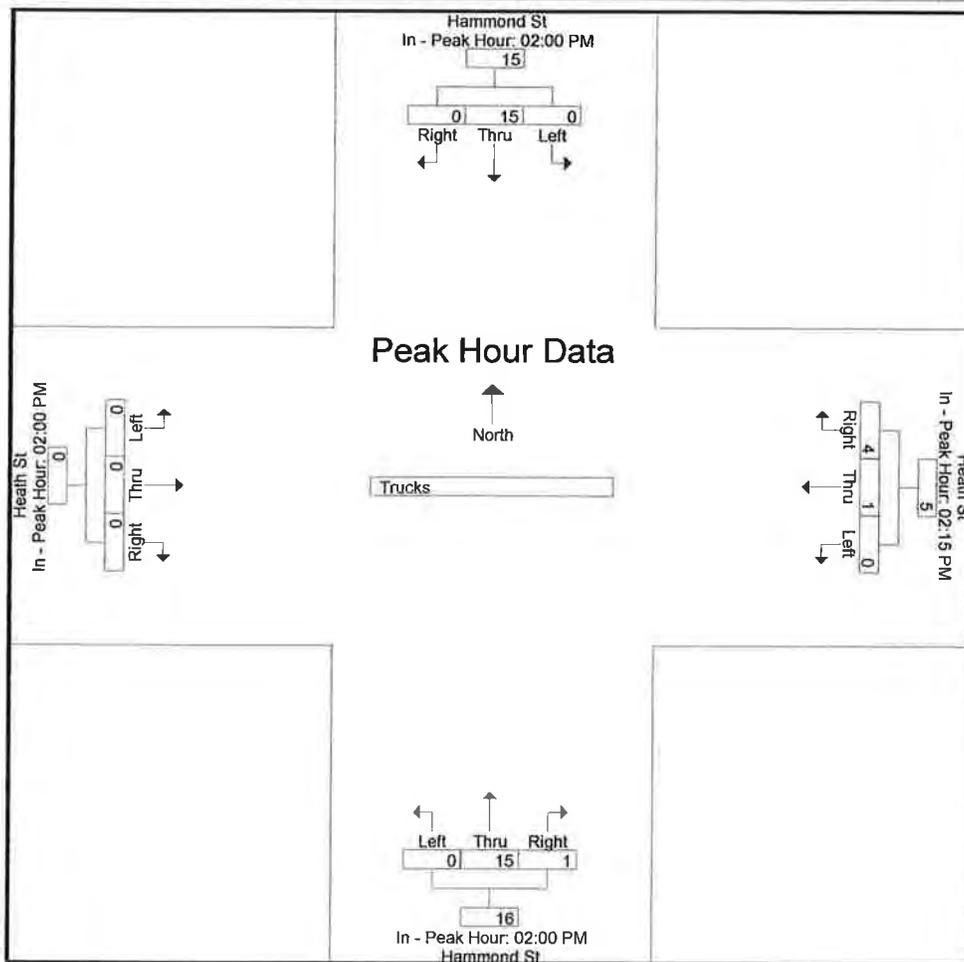
File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 9

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM				02:15 PM				02:00 PM				02:00 PM			
+0 mins.	0	2	0	2	0	0	1	1	0	4	0	4	0	0	0	0
+15 mins.	0	5	0	5	0	0	2	2	0	2	1	3	0	0	0	0
+30 mins.	0	5	0	5	0	1	0	1	0	6	0	6	0	0	0	0
+45 mins.	0	3	0	3	0	0	1	1	0	3	0	3	0	0	0	0
Total Volume	0	15	0	15	0	1	4	5	0	15	1	16	0	0	0	0
% App. Total	0	100	0		0	20	80		0	93.8	6.2		0	0	0	
PHF	.000	.750	.000	.750	.000	.250	.500	.625	.000	.625	.250	.667	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 10

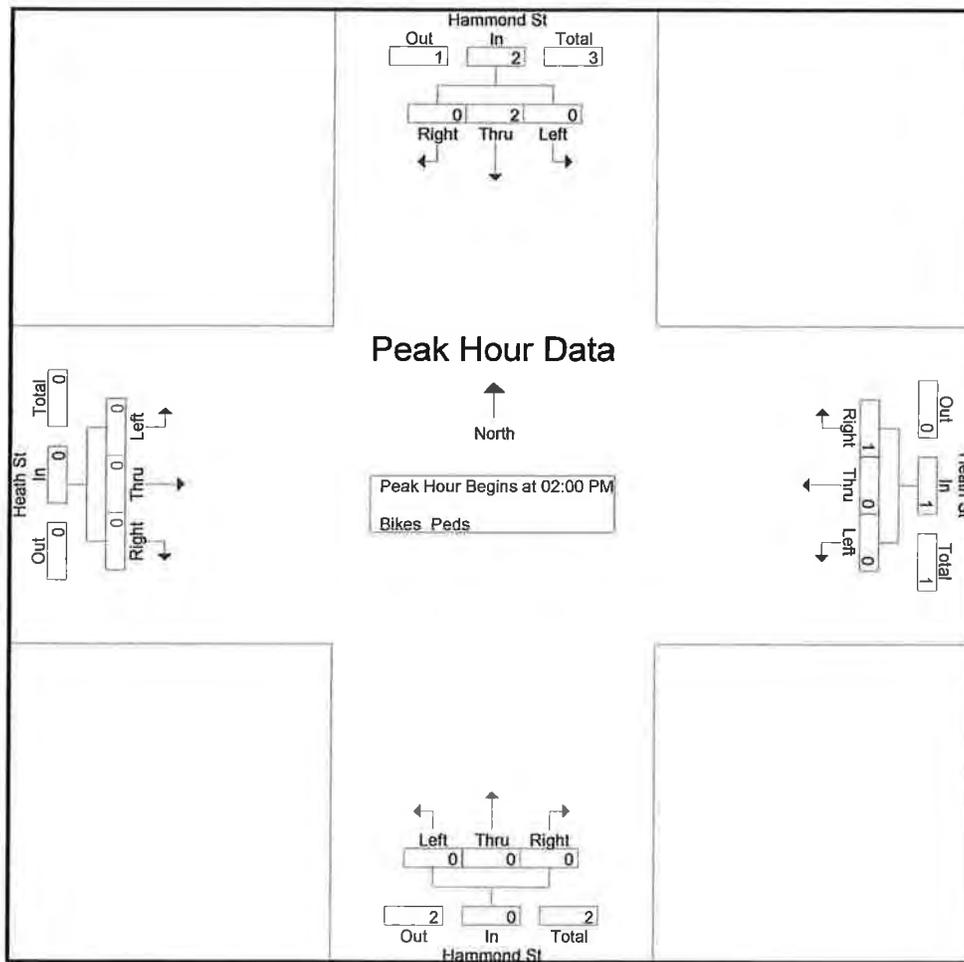
Groups Printed- Bikes Peds

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
02:00 PM	0	0	0	10	0	0	0	2	0	0	0	1	0	0	0	1	14	0	14
02:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2
02:30 PM	0	0	0	4	0	0	1	3	0	0	0	0	0	0	0	2	9	1	10
02:45 PM	0	1	0	2	0	0	0	2	0	0	0	1	0	0	0	2	7	1	8
<b>Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>31</b>	<b>3</b>	<b>34</b>
03:00 PM	0	0	0	3	0	0	0	1	0	0	0	3	0	0	0	0	7	0	7
03:15 PM	0	0	0	1	0	0	0	2	0	1	0	0	0	0	0	3	6	1	7
03:30 PM	0	0	0	11	0	0	0	2	0	0	0	0	0	0	0	0	13	0	13
03:45 PM	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>42</b>	<b>1</b>	<b>43</b>
04:00 PM	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	18	35	0	35
04:15 PM	0	0	0	21	0	0	0	22	0	0	0	0	0	0	0	15	58	0	58
04:30 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	4	0	4
04:45 PM	0	0	0	2	0	0	0	3	0	1	0	0	0	0	0	1	6	1	7
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>35</b>	<b>103</b>	<b>1</b>	<b>104</b>
<b>Grand Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>90</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>37</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>44</b>	<b>176</b>	<b>5</b>	<b>181</b>
Apprch %	0	100	0		0	0	100		0	100	0		0	0	0				
Total %	0	40	0		0	0	20		0	40	0		0	0	0		97.2	2.8	

N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 11

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
02:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
02:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	2	0	0	1	1	0	0	0	0	0	0	0	0	3
% App. Total	0	100	0		0	0	100		0	0	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.750



N/S Street : Hammond Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

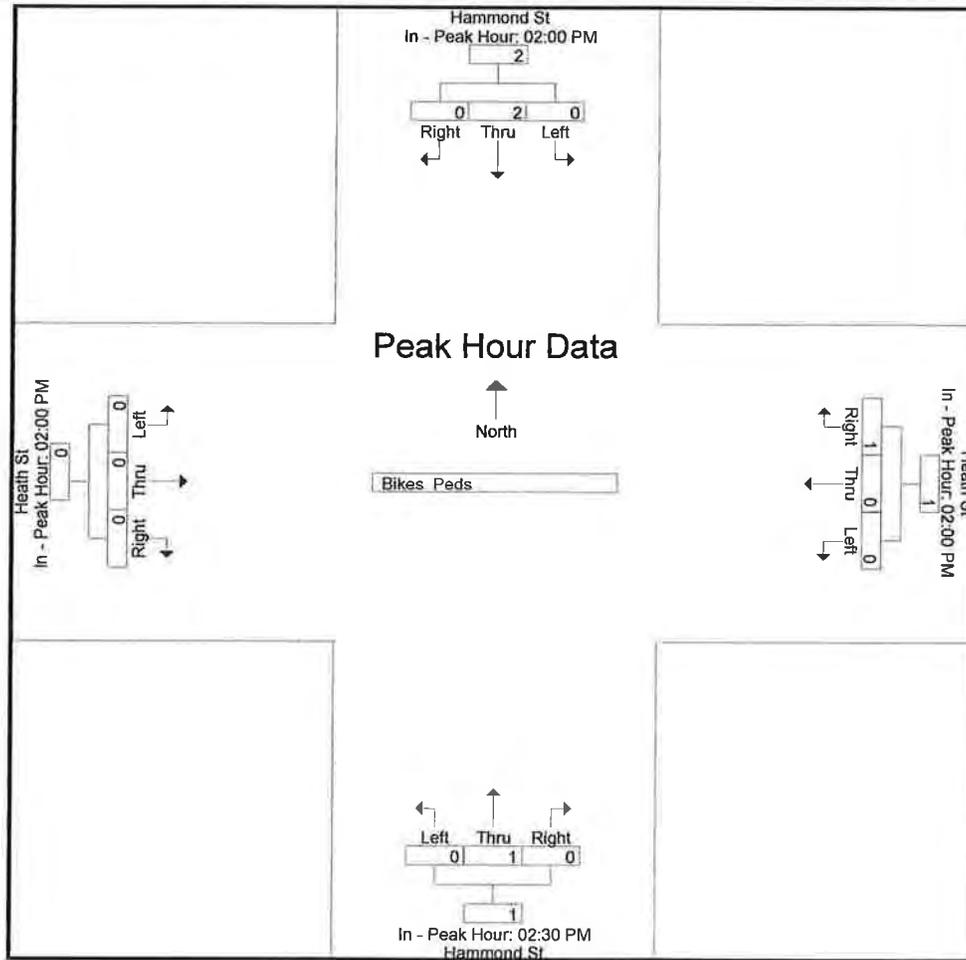
File Name : 7382N003  
Site Code : 73820003  
Start Date : 11/17/2016  
Page No : 12

Start Time	Hammond St From North				Heath St From East				Hammond St From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM				02:00 PM				02:30 PM				02:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	2	0	2	0	0	1	1	0	1	0	1	0	0	0	0
% App. Total	0	100	0		0	0	100		0	100	0		0	0	0	
PHF	.000	.500	.000	.500	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

Street : Hammond Street  
 W Street: Soule Recreation / Driveway  
 City/State : Brookline, MA  
 Weather : Clear

File Name : 7382N004  
 Site Code : 73820004  
 Start Date : 11/17/2016  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Hammond St From North			Soule Recreation Center From East			Hammond St From South			Drwy From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	2	59	0	0	0	0	0	138	2	0	0	0	201
07:15 AM	2	106	0	2	0	0	0	154	2	0	0	0	266
07:30 AM	0	115	0	1	0	1	1	134	2	0	0	0	254
07:45 AM	4	150	1	2	0	0	1	128	3	0	0	0	289
<b>Total</b>	<b>8</b>	<b>430</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>554</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1010</b>
08:00 AM	6	112	1	2	0	5	0	115	8	1	0	0	250
08:15 AM	11	83	1	6	0	6	0	135	7	0	0	0	249
08:30 AM	4	112	0	5	0	11	0	126	1	0	0	0	259
08:45 AM	3	123	0	1	0	4	0	131	1	0	0	0	263
<b>Total</b>	<b>24</b>	<b>430</b>	<b>2</b>	<b>14</b>	<b>0</b>	<b>26</b>	<b>0</b>	<b>507</b>	<b>17</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1021</b>
09:00 AM	2	83	0	1	0	0	0	127	1	0	0	0	214
09:15 AM	0	90	2	0	0	1	0	131	0	0	0	0	224
<b>Grand Total</b>	<b>34</b>	<b>1033</b>	<b>5</b>	<b>20</b>	<b>0</b>	<b>28</b>	<b>2</b>	<b>1319</b>	<b>27</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2469</b>
Apprch %	3.2	96.4	0.5	41.7	0	58.3	0.1	97.8	2	100	0	0	
Total %	1.4	41.8	0.2	0.8	0	1.1	0.1	53.4	1.1	0	0	0	
<b>Cars</b>	<b>33</b>	<b>987</b>	<b>5</b>	<b>20</b>	<b>0</b>	<b>27</b>	<b>2</b>	<b>1283</b>	<b>27</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2385</b>
<b>% Cars</b>	<b>97.1</b>	<b>95.5</b>	<b>100</b>	<b>100</b>	<b>0</b>	<b>96.4</b>	<b>100</b>	<b>97.3</b>	<b>100</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>96.6</b>
<b>Trucks</b>	<b>1</b>	<b>46</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>36</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>84</b>
<b>% Trucks</b>	<b>2.9</b>	<b>4.5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3.6</b>	<b>0</b>	<b>2.7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3.4</b>

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

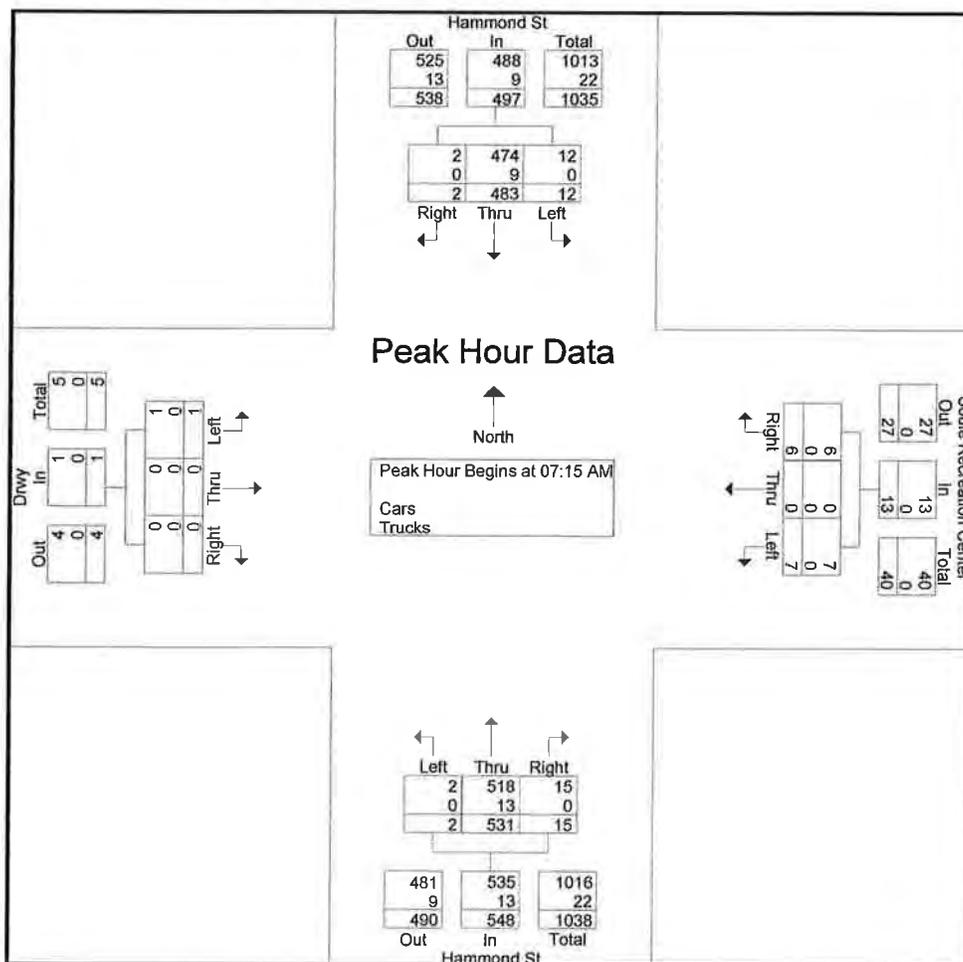
File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 2

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

07:15 AM	2	106	0	108	2	0	0	2	0	154	2	156	0	0	0	0	266
07:30 AM	0	115	0	115	1	0	1	2	1	134	2	137	0	0	0	0	254
07:45 AM	4	150	1	155	2	0	0	2	1	128	3	132	0	0	0	0	289
08:00 AM	6	112	1	119	2	0	5	7	0	115	8	123	1	0	0	1	250
Total Volume	12	483	2	497	7	0	6	13	2	531	15	548	1	0	0	1	1059
% App. Total	2.4	97.2	0.4		53.8	0	46.2		0.4	96.9	2.7		100	0	0		
PHF	.500	.805	.500	.802	.875	.000	.300	.464	.500	.862	.469	.878	.250	.000	.000	.250	.916
Cars	12	474	2	488	7	0	6	13	2	518	15	535	1	0	0	1	1037
% Cars	100	98.1	100	98.2	100	0	100	100	100	97.6	100	97.6	100	0	0	100	97.9
Trucks	0	9	0	9	0	0	0	0	0	13	0	13	0	0	0	0	22
% Trucks	0	1.9	0	1.8	0	0	0	0	0	2.4	0	2.4	0	0	0	0	2.1



N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

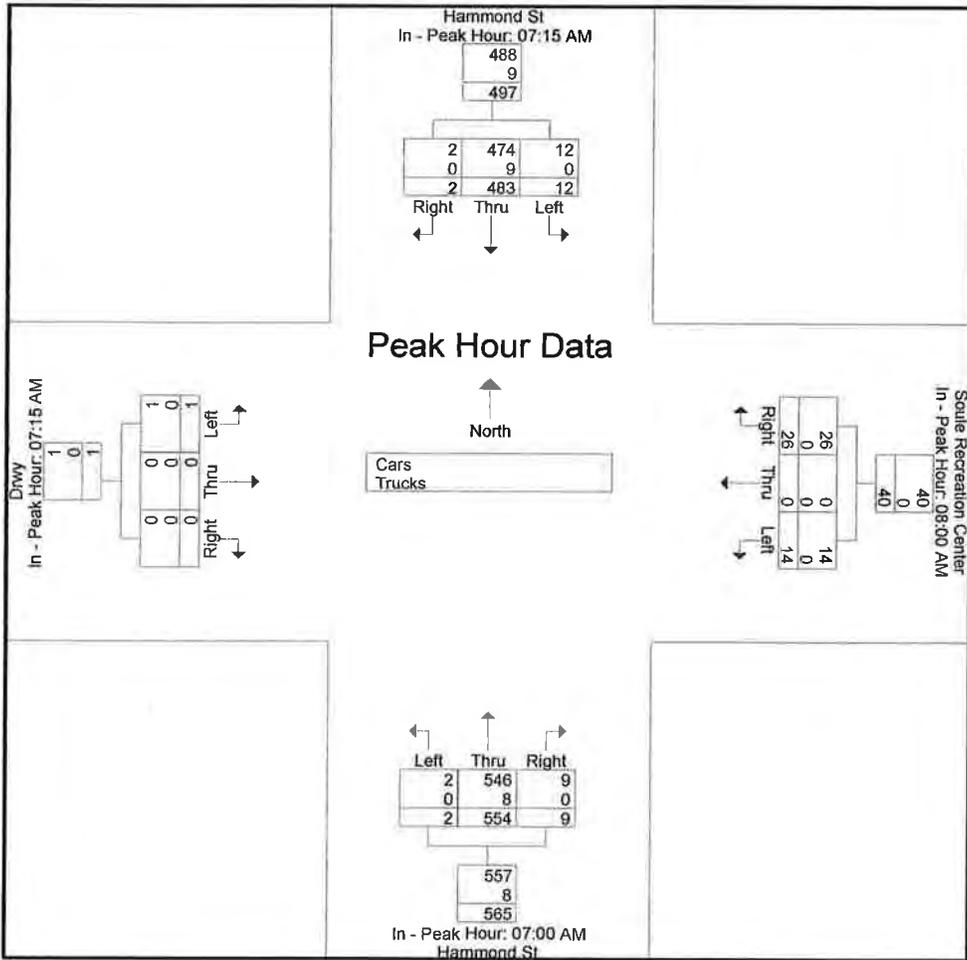
File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 3

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				08:00 AM				07:00 AM				07:15 AM			
+0 mins.	2	106	0	108	2	0	5	7	0	138	2	140	0	0	0	0
+15 mins.	0	115	0	115	6	0	6	12	0	154	2	156	0	0	0	0
+30 mins.	4	150	1	155	5	0	11	16	1	134	2	137	0	0	0	0
+45 mins.	6	112	1	119	1	0	4	5	1	128	3	132	1	0	0	1
Total Volume	12	483	2	497	14	0	26	40	2	554	9	565	1	0	0	1
% App. Total	2.4	97.2	0.4		35	0	65		0.4	98.1	1.6		100	0	0	
PHF	.500	.805	.500	.802	.583	.000	.591	.625	.500	.899	.750	.905	.250	.000	.000	.250
Cars	12	474	2	488	14	0	26	40	2	546	9	557	1	0	0	1
% Cars	100	98.1	100	98.2	100	0	100	100	100	98.6	100	98.6	100	0	0	100
Trucks	0	9	0	9	0	0	0	0	0	8	0	8	0	0	0	0
% Trucks	0	1.9	0	1.8	0	0	0	0	0	1.4	0	1.4	0	0	0	0



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 4

Groups Printed- Cars

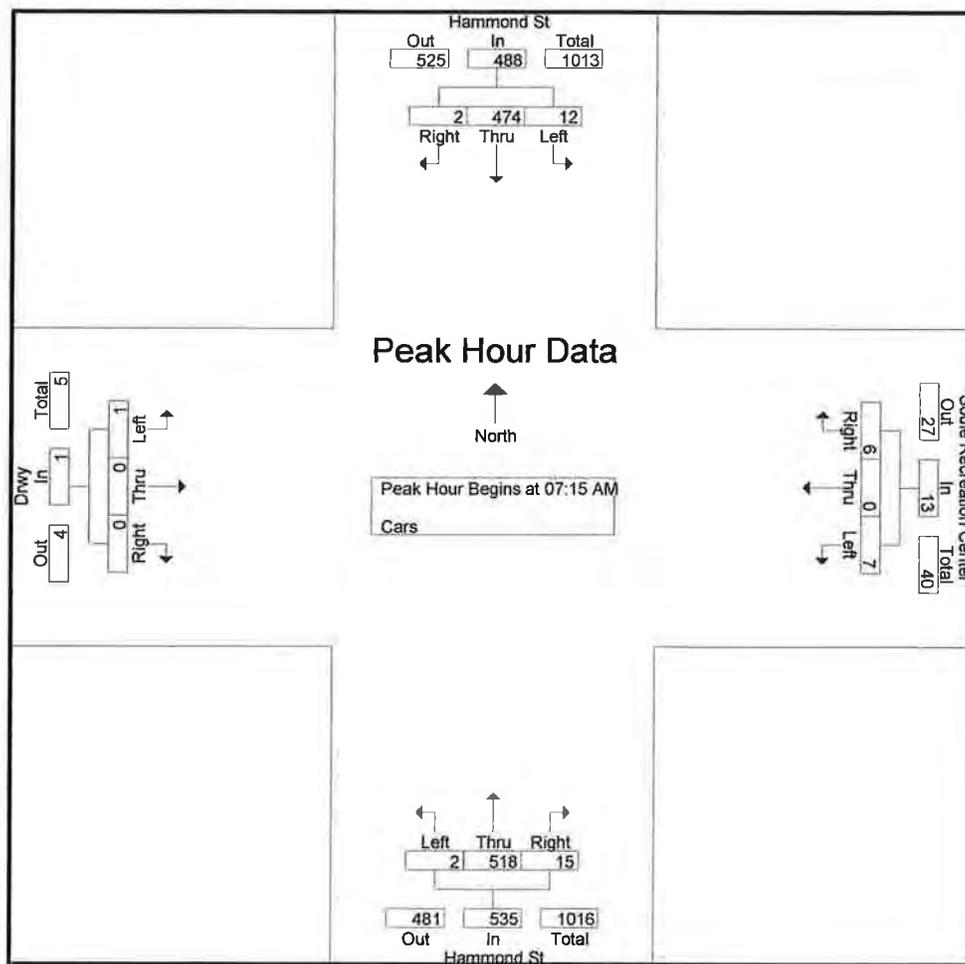
Start Time	Hammond St From North			Soule Recreation Center From East			Hammond St From South			Drwy From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	2	55	0	0	0	0	0	136	2	0	0	0	195
07:15 AM	2	105	0	2	0	0	0	154	2	0	0	0	265
07:30 AM	0	111	0	1	0	1	1	131	2	0	0	0	247
07:45 AM	4	149	1	2	0	0	1	125	3	0	0	0	285
<b>Total</b>	<b>8</b>	<b>420</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>546</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>992</b>
08:00 AM	6	109	1	2	0	5	0	108	8	1	0	0	240
08:15 AM	11	79	1	6	0	6	0	133	7	0	0	0	243
08:30 AM	4	106	0	5	0	11	0	122	1	0	0	0	249
08:45 AM	2	113	0	1	0	4	0	128	1	0	0	0	249
<b>Total</b>	<b>23</b>	<b>407</b>	<b>2</b>	<b>14</b>	<b>0</b>	<b>26</b>	<b>0</b>	<b>491</b>	<b>17</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>981</b>
09:00 AM	2	78	0	1	0	0	0	122	1	0	0	0	204
09:15 AM	0	82	2	0	0	0	0	124	0	0	0	0	208
<b>Grand Total</b>	<b>33</b>	<b>987</b>	<b>5</b>	<b>20</b>	<b>0</b>	<b>27</b>	<b>2</b>	<b>1283</b>	<b>27</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2385</b>
Apprch %	3.2	96.3	0.5	42.6	0	57.4	0.2	97.8	2.1	100	0	0	
Total %	1.4	41.4	0.2	0.8	0	1.1	0.1	53.8	1.1	0	0	0	

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 5

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	2	105	0	107	2	0	0	2	0	154	2	156	0	0	0	0	265
07:30 AM	0	111	0	111	1	0	1	2	1	131	2	134	0	0	0	0	247
07:45 AM	4	149	1	154	2	0	0	2	1	125	3	129	0	0	0	0	285
08:00 AM	6	109	1	116	2	0	5	7	0	108	8	116	1	0	0	1	240
Total Volume	12	474	2	488	7	0	6	13	2	518	15	535	1	0	0	1	1037
% App. Total	2.5	97.1	0.4		53.8	0	46.2		0.4	96.8	2.8		100	0	0		
PHF	.500	.795	.500	.792	.875	.000	.300	.464	.500	.841	.469	.857	.250	.000	.000	.250	.910



N/S Street : Hammond Street  
 E/W Street: Soule Recreation / Driveway  
 City/State : Brookline, MA  
 Weather : Clear

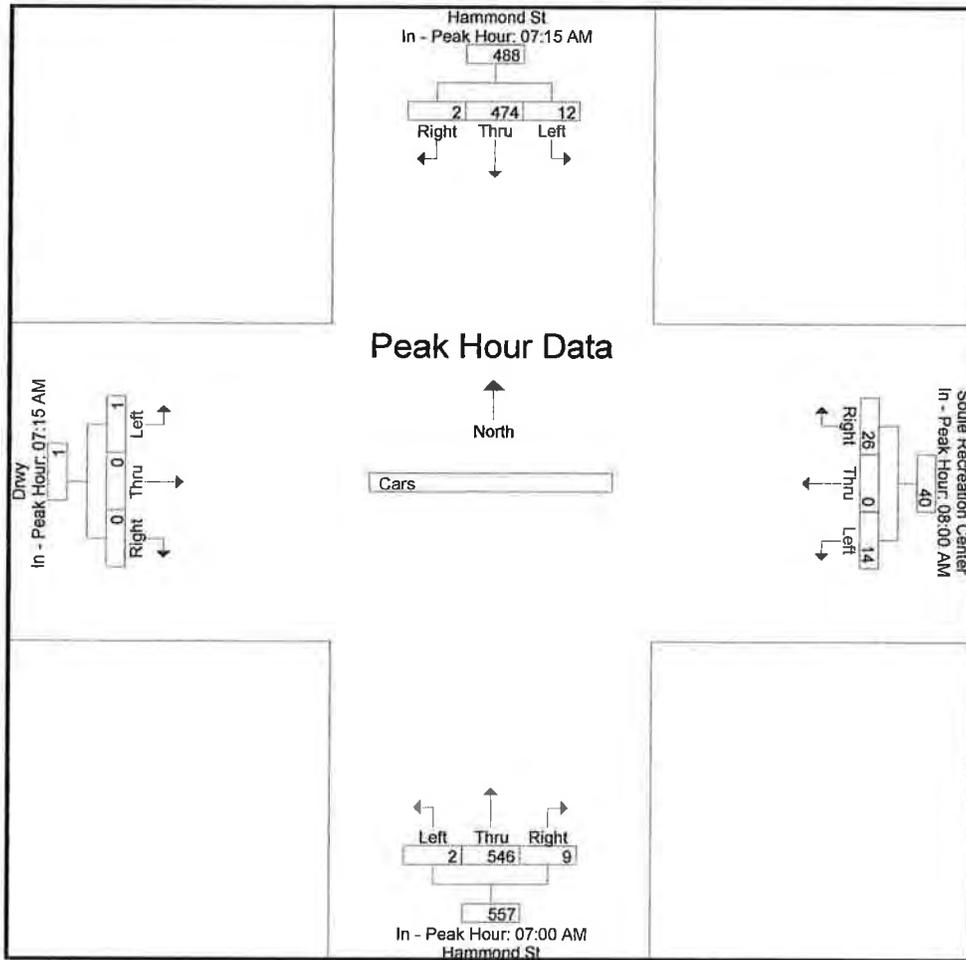
File Name : 7382N004  
 Site Code : 73820004  
 Start Date : 11/17/2016  
 Page No : 6

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				08:00 AM				07:00 AM				07:15 AM			
+0 mins.	2	105	0	107	2	0	5	7	0	136	2	138	0	0	0	0
+15 mins.	0	111	0	111	6	0	6	12	0	154	2	156	0	0	0	0
+30 mins.	4	149	1	154	5	0	11	16	1	131	2	134	0	0	0	0
+45 mins.	6	109	1	116	1	0	4	5	1	125	3	129	1	0	0	1
Total Volume	12	474	2	488	14	0	26	40	2	546	9	557	1	0	0	1
% App. Total	2.5	97.1	0.4		35	0	65		0.4	98	1.6		100	0	0	
PHF	.500	.795	.500	.792	.583	.000	.591	.625	.500	.886	.750	.893	.250	.000	.000	.250



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 7

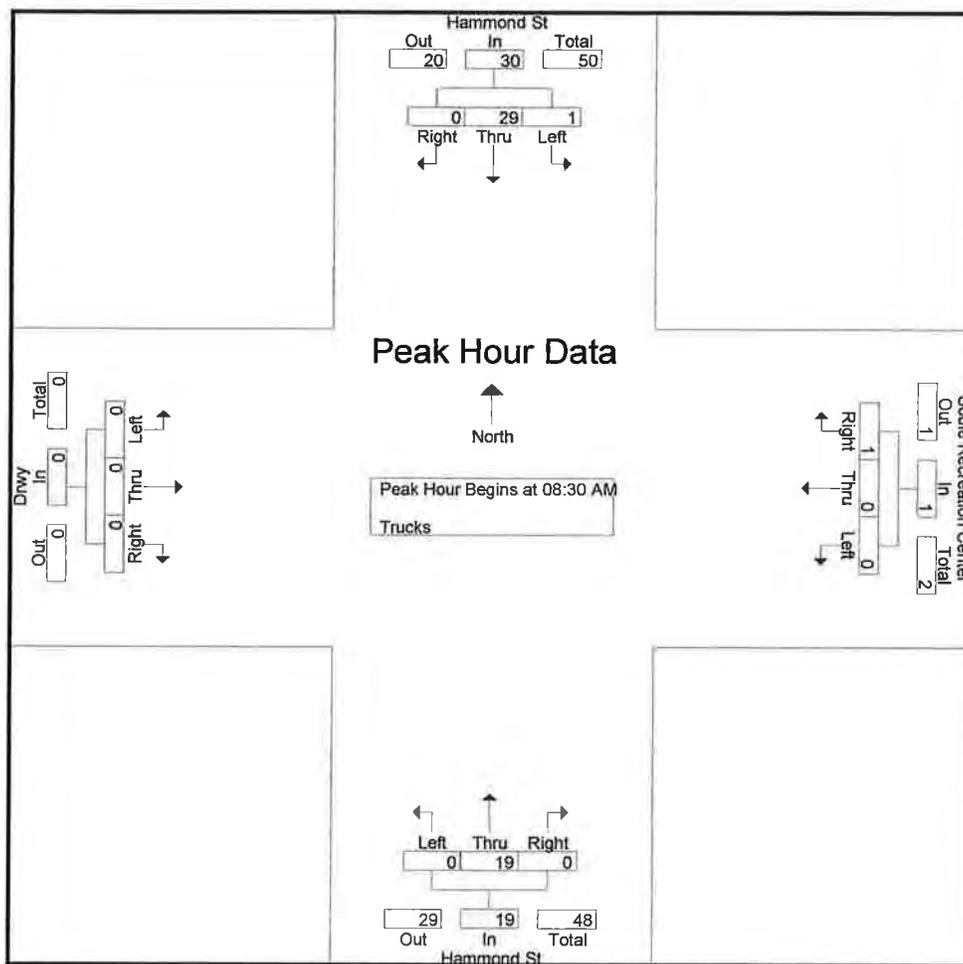
Groups Printed- Trucks

Start Time	Hammond St From North			Soule Recreation Center From East			Hammond St From South			Drwy From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	4	0	0	0	0	0	2	0	0	0	0	6
07:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	4	0	0	0	0	0	3	0	0	0	0	7
07:45 AM	0	1	0	0	0	0	0	3	0	0	0	0	4
<b>Total</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>
08:00 AM	0	3	0	0	0	0	0	7	0	0	0	0	10
08:15 AM	0	4	0	0	0	0	0	2	0	0	0	0	6
08:30 AM	0	6	0	0	0	0	0	4	0	0	0	0	10
08:45 AM	1	10	0	0	0	0	0	3	0	0	0	0	14
<b>Total</b>	<b>1</b>	<b>23</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>40</b>
09:00 AM	0	5	0	0	0	0	0	5	0	0	0	0	10
09:15 AM	0	8	0	0	0	1	0	7	0	0	0	0	16
<b>Grand Total</b>	<b>1</b>	<b>46</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>36</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>84</b>
Apprch %	2.1	97.9	0	0	0	100	0	100	0	0	0	0	
Total %	1.2	54.8	0	0	0	1.2	0	42.9	0	0	0	0	

N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 8

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
<b>Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1</b>																	
<b>Peak Hour for Entire Intersection Begins at 08:30 AM</b>																	
08:30 AM	0	6	0	6	0	0	0	0	0	4	0	4	0	0	0	0	10
08:45 AM	1	10	0	11	0	0	0	0	0	3	0	3	0	0	0	0	14
09:00 AM	0	5	0	5	0	0	0	0	0	5	0	5	0	0	0	0	10
09:15 AM	0	8	0	8	0	0	1	1	0	7	0	7	0	0	0	0	16
<b>Total Volume</b>	1	29	0	30	0	0	1	1	0	19	0	19	0	0	0	0	50
<b>% App. Total</b>	3.3	96.7	0		0	0	100		0	100	0		0	0	0		
PHF	.250	.725	.000	.682	.000	.000	.250	.250	.000	.679	.000	.679	.000	.000	.000	.000	.781



N/S Street : Hammond Street  
 E/W Street: Soule Recreation / Driveway  
 City/State : Brookline, MA  
 Weather : Clear

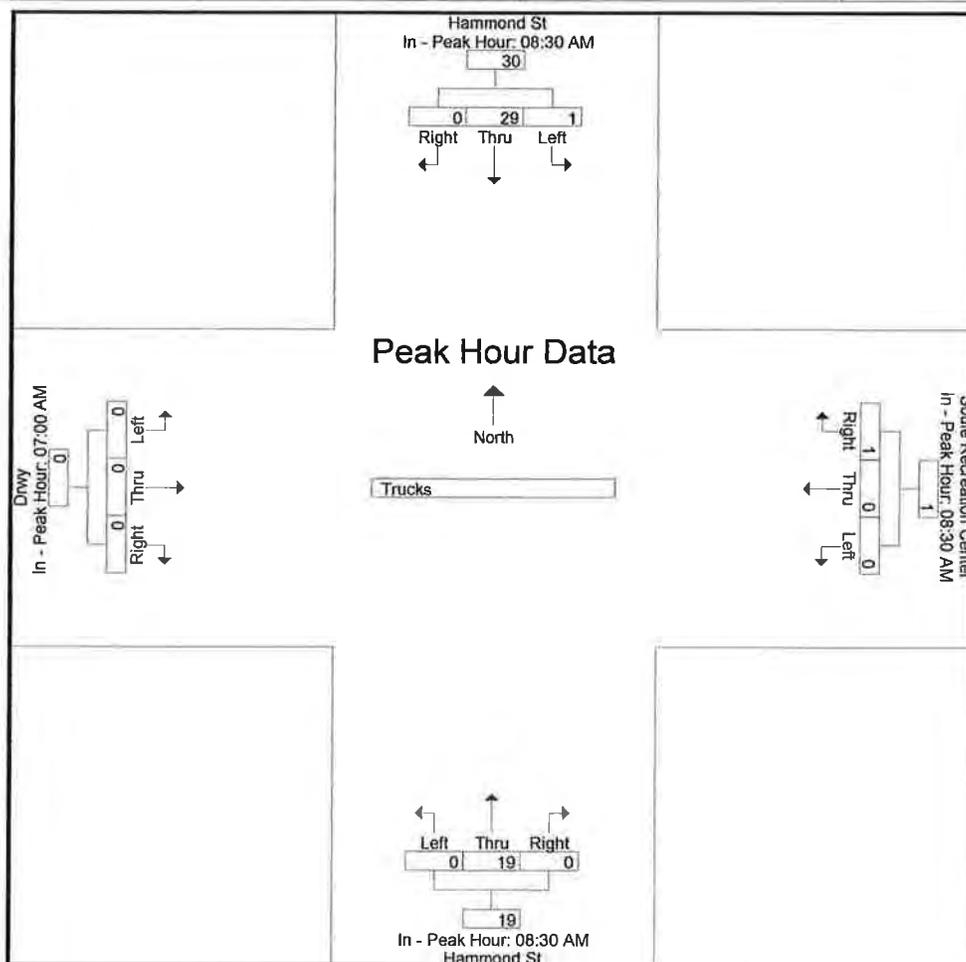
File Name : 7382N004  
 Site Code : 73820004  
 Start Date : 11/17/2016  
 Page No : 9

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:30 AM				08:30 AM				08:30 AM				07:00 AM			
+0 mins.	0	6	0	6	0	0	0	0	0	4	0	4	0	0	0	0
+15 mins.	1	10	0	11	0	0	0	0	0	3	0	3	0	0	0	0
+30 mins.	0	5	0	5	0	0	0	0	0	5	0	5	0	0	0	0
+45 mins.	0	8	0	8	0	0	1	1	0	7	0	7	0	0	0	0
Total Volume	1	29	0	30	0	0	1	1	0	19	0	19	0	0	0	0
% App. Total	3.3	96.7	0		0	0	100		0	100	0		0	0	0	
PHF	.250	.725	.000	.682	.000	.000	.250	.250	.000	.679	.000	.679	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 10

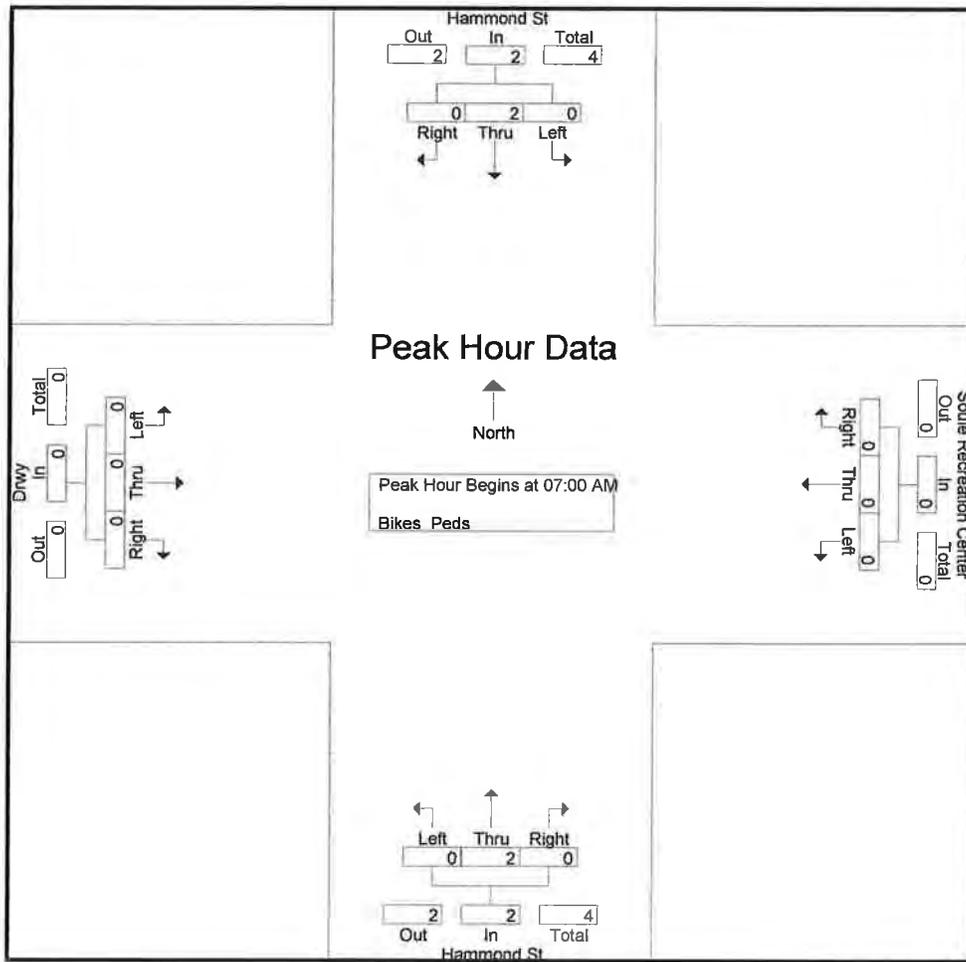
Groups Printed- Bikes Peds

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	1	3	1	4
07:15 AM	0	1	0	0	0	0	0	2	0	1	0	1	0	0	0	3	6	2	8
07:30 AM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2	1	3
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	4
Total	0	2	0	0	0	0	0	5	0	2	0	1	0	0	0	9	15	4	19
08:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	4	6	0	6
08:15 AM	0	0	0	0	0	0	0	3	0	0	0	2	0	0	0	4	9	0	9
08:30 AM	0	0	0	0	0	0	0	4	0	0	0	2	0	0	0	4	10	0	10
08:45 AM	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	2	1	3
Total	0	0	0	0	0	0	0	11	0	1	0	4	0	0	0	12	27	1	28
09:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5	5	1	6
09:15 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	2	3
Grand Total	0	2	0	0	0	0	0	16	0	5	1	5	0	0	0	27	48	8	56
Apprch %	0	100	0		0	0	0		0	83.3	16.7		0	0	0				
Total %	0	25	0		0	0	0		0	62.5	12.5		0	0	0		85.7	14.3	

N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 11

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 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	1	0	1	0	0	0	0	1
07:15 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.500



N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

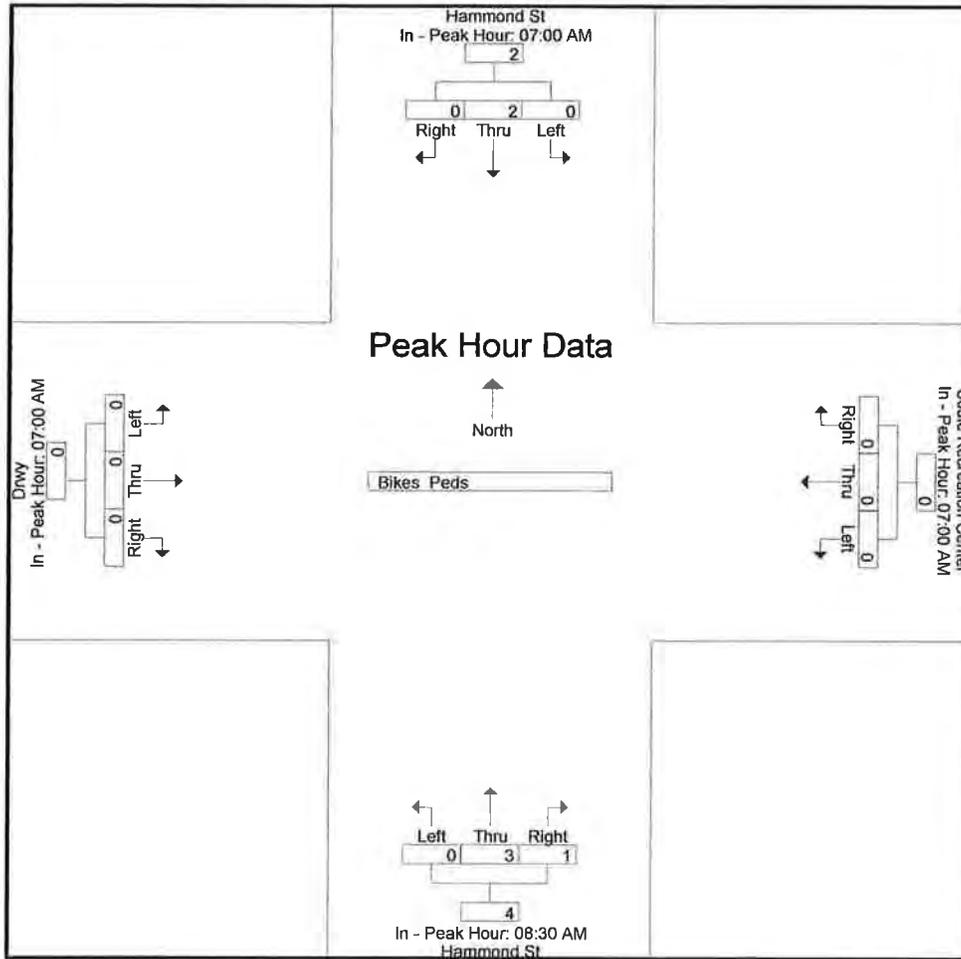
File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 12

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				08:30 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	3	1	4	0	0	0	0
% App. Total	0	100	0		0	0	0		0	75	25		0	0	0	
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.750	.250	.500	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Hammond St From North			Soule Recreation Center From East			Hammond St From South			Drwy From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	4	133	1	1	0	2	0	116	1	0	0	0	258
02:15 PM	2	137	0	0	0	1	0	101	2	1	0	0	244
02:30 PM	2	141	1	1	0	3	0	105	1	0	0	1	255
02:45 PM	2	149	0	1	0	3	0	129	1	0	0	0	285
<b>Total</b>	<b>10</b>	<b>560</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>451</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1042</b>
03:00 PM	4	160	0	1	0	2	0	105	0	0	0	0	272
03:15 PM	0	191	0	1	0	1	0	141	0	0	0	0	334
03:30 PM	1	196	0	2	0	3	0	124	2	0	0	0	328
03:45 PM	6	155	0	0	0	1	0	120	3	0	0	0	285
<b>Total</b>	<b>11</b>	<b>702</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>490</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1219</b>
04:00 PM	5	180	0	3	0	8	0	128	1	0	0	0	325
04:15 PM	1	166	0	0	0	4	0	119	1	0	0	0	291
04:30 PM	0	176	1	2	0	4	0	110	0	1	0	0	294
04:45 PM	4	210	0	1	0	2	0	109	1	1	0	1	329
<b>Total</b>	<b>10</b>	<b>732</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>466</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>1239</b>
<b>Grand Total</b>	<b>31</b>	<b>1994</b>	<b>3</b>	<b>13</b>	<b>0</b>	<b>34</b>	<b>0</b>	<b>1407</b>	<b>13</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>3500</b>
Apprch %	1.5	98.3	0.1	27.7	0	72.3	0	99.1	0.9	60	0	40	
Total %	0.9	57	0.1	0.4	0	1	0	40.2	0.4	0.1	0	0.1	
<b>Cars</b>	<b>31</b>	<b>1972</b>	<b>3</b>	<b>13</b>	<b>0</b>	<b>34</b>	<b>0</b>	<b>1378</b>	<b>13</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>3449</b>
<b>% Cars</b>	<b>100</b>	<b>98.9</b>	<b>100</b>	<b>100</b>	<b>0</b>	<b>100</b>	<b>0</b>	<b>97.9</b>	<b>100</b>	<b>100</b>	<b>0</b>	<b>100</b>	<b>98.5</b>
<b>Trucks</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>29</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>51</b>
<b>% Trucks</b>	<b>0</b>	<b>1.1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2.1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.5</b>

N/S Street : Hammond Street  
 E/W Street: Soule Recreation / Driveway  
 City/State : Brookline, MA  
 Weather : Clear

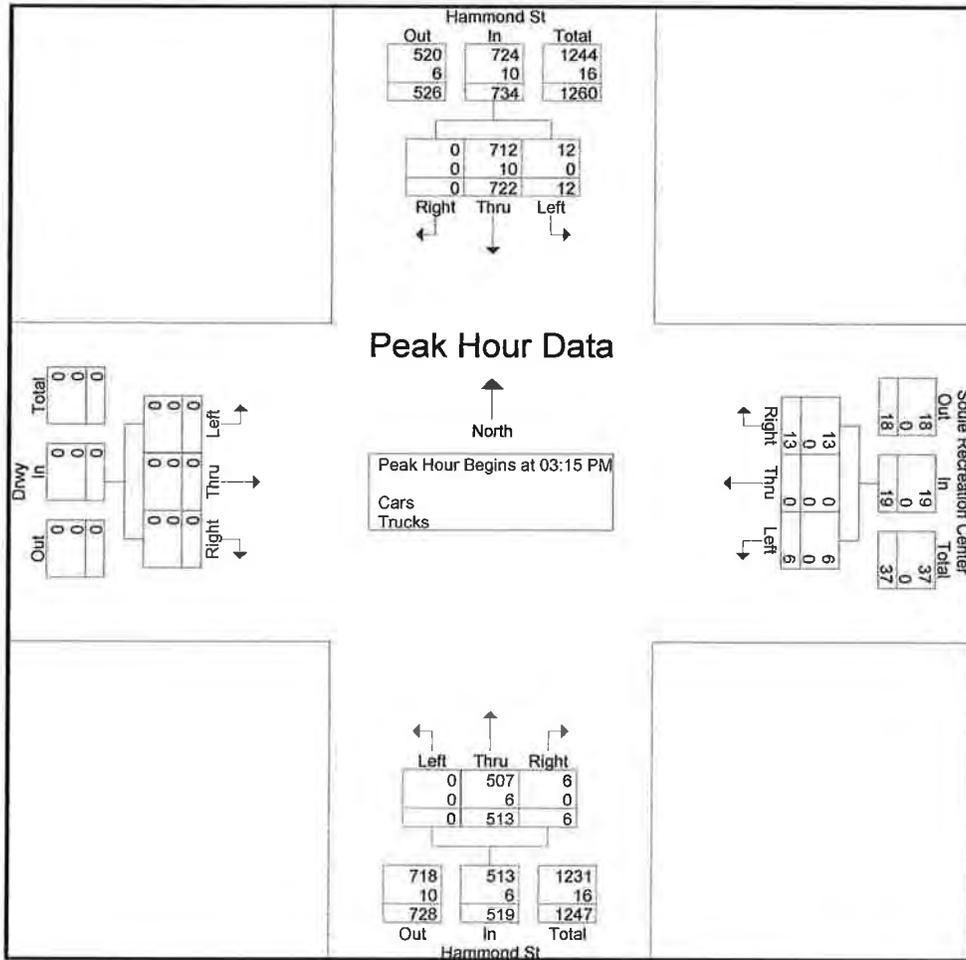
File Name : 7382N004  
 Site Code : 73820004  
 Start Date : 11/17/2016  
 Page No : 2

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 03:15 PM

03:15 PM	0	191	0	191	1	0	1	2	0	<b>141</b>	0	<b>141</b>	0	0	0	0	<b>334</b>
03:30 PM	1	<b>196</b>	0	<b>197</b>	2	0	3	5	0	124	2	126	0	0	0	0	328
03:45 PM	<b>6</b>	155	0	161	0	0	1	1	0	120	<b>3</b>	123	0	0	0	0	285
04:00 PM	5	180	0	185	<b>3</b>	0	<b>8</b>	<b>11</b>	0	128	1	129	0	0	0	0	325
<b>Total Volume</b>	12	722	0	734	6	0	13	19	0	513	6	519	0	0	0	0	1272
<b>% App. Total</b>	1.6	98.4	0		31.6	0	68.4		0	98.8	1.2		0	0	0		
PHF	.500	.921	.000	.931	.500	.000	.406	.432	.000	.910	.500	.920	.000	.000	.000	.000	.952
Cars	12	712	0	724	6	0	13	19	0	507	6	513	0	0	0	0	1256
% Cars	100	98.6	0	98.6	100	0	100	100	0	98.8	100	98.8	0	0	0	0	98.7
Trucks	0	10	0	10	0	0	0	0	0	6	0	6	0	0	0	0	16
% Trucks	0	1.4	0	1.4	0	0	0	0	0	1.2	0	1.2	0	0	0	0	1.3



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

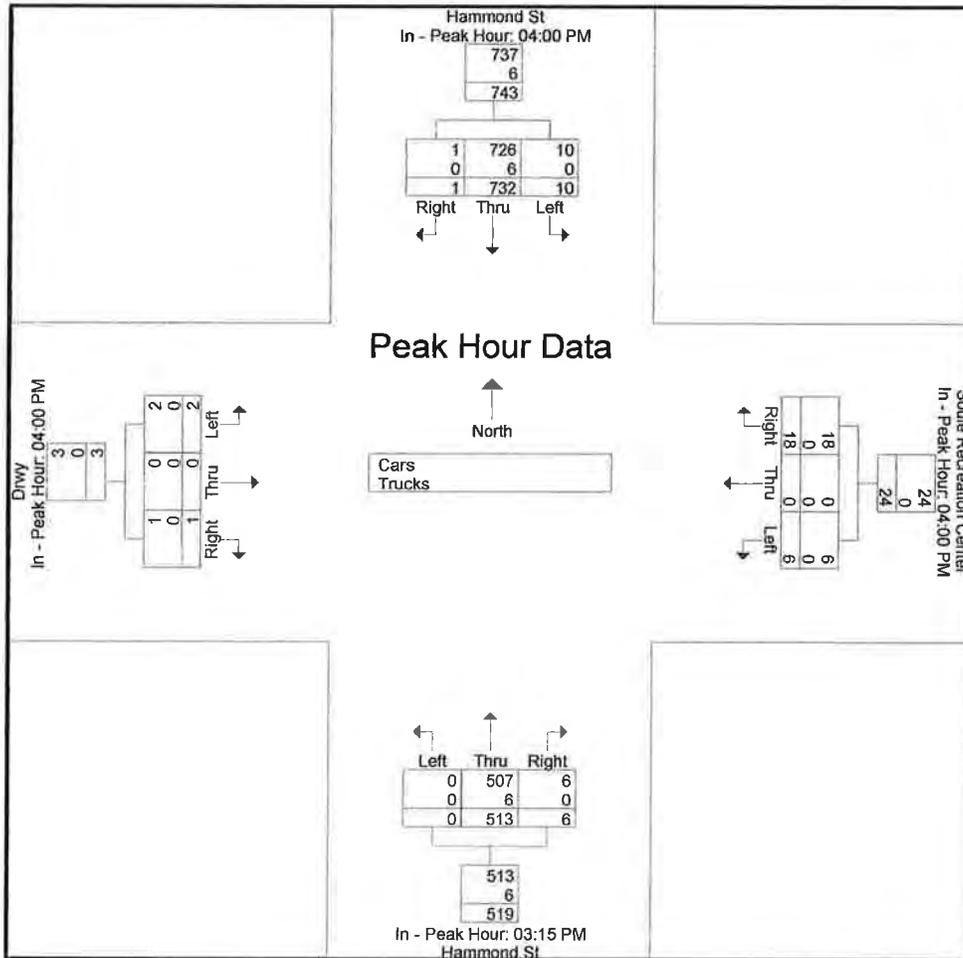
File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 3

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				03:15 PM				04:00 PM			
+0 mins.	5	180	0	185	3	0	8	11	0	141	0	141	0	0	0	0
+15 mins.	1	166	0	167	0	0	4	4	0	124	2	126	0	0	0	0
+30 mins.	0	176	1	177	2	0	4	6	0	120	3	123	1	0	0	1
+45 mins.	4	210	0	214	1	0	2	3	0	128	1	129	1	0	1	2
Total Volume	10	732	1	743	6	0	18	24	0	513	6	519	2	0	1	3
% App. Total	1.3	98.5	0.1		25	0	75		0	98.8	1.2		66.7	0	33.3	
PHF	.500	.871	.250	.868	.500	.000	.563	.545	.000	.910	.500	.920	.500	.000	.250	.375
Cars	10	726	1	737	6	0	18	24	0	507	6	513	2	0	1	3
% Cars	100	99.2	100	99.2	100	0	100	100	0	98.8	100	98.8	100	0	100	100
Trucks	0	6	0	6	0	0	0	0	0	6	0	6	0	0	0	0
% Trucks	0	0.8	0	0.8	0	0	0	0	0	1.2	0	1.2	0	0	0	0



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 4

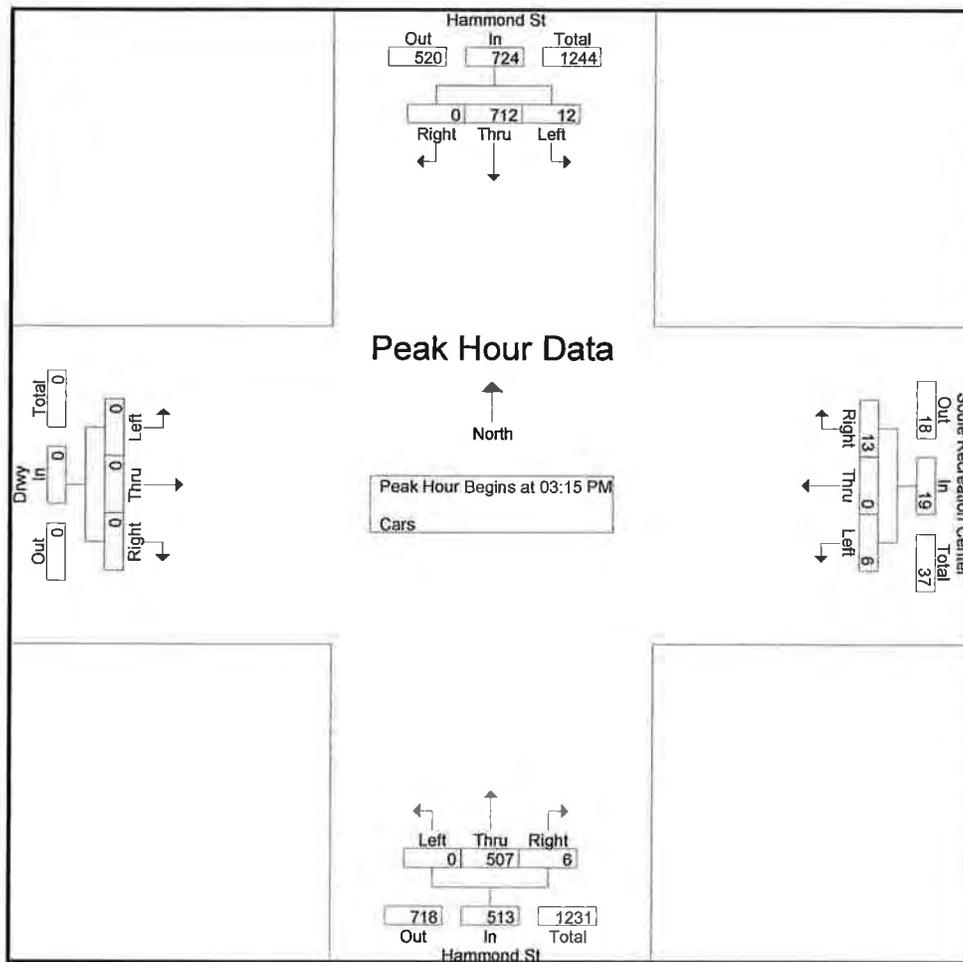
Groups Printed- Cars

Start Time	Hammond St From North			Soule Recreation Center From East			Hammond St From South			Drwy From West			Int, Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	4	131	1	1	0	2	0	113	1	0	0	0	253
02:15 PM	2	133	0	0	0	1	0	97	2	1	0	0	236
02:30 PM	2	139	1	1	0	3	0	99	1	0	0	1	247
02:45 PM	2	148	0	1	0	3	0	124	1	0	0	0	279
<b>Total</b>	<b>10</b>	<b>551</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>433</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1015</b>
03:00 PM	4	159	0	1	0	2	0	102	0	0	0	0	268
03:15 PM	0	190	0	1	0	1	0	140	0	0	0	0	332
03:30 PM	1	194	0	2	0	3	0	123	2	0	0	0	325
03:45 PM	6	152	0	0	0	1	0	118	3	0	0	0	280
<b>Total</b>	<b>11</b>	<b>695</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>483</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1205</b>
04:00 PM	5	176	0	3	0	8	0	126	1	0	0	0	319
04:15 PM	1	166	0	0	0	4	0	118	1	0	0	0	290
04:30 PM	0	175	1	2	0	4	0	109	0	1	0	0	292
04:45 PM	4	209	0	1	0	2	0	109	1	1	0	1	328
<b>Total</b>	<b>10</b>	<b>726</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>462</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>1229</b>
<b>Grand Total</b>	<b>31</b>	<b>1972</b>	<b>3</b>	<b>13</b>	<b>0</b>	<b>34</b>	<b>0</b>	<b>1378</b>	<b>13</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>3449</b>
Apprch %	1.5	98.3	0.1	27.7	0	72.3	0	99.1	0.9	60	0	40	
Total %	0.9	57.2	0.1	0.4	0	1	0	40	0.4	0.1	0	0.1	

N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 5

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	0	190	0	190	1	0	1	2	0	140	0	140	0	0	0	0	332
03:30 PM	1	194	0	195	2	0	3	5	0	123	2	125	0	0	0	0	325
03:45 PM	6	152	0	158	0	0	1	1	0	118	3	121	0	0	0	0	280
04:00 PM	5	176	0	181	3	0	8	11	0	126	1	127	0	0	0	0	319
Total Volume	12	712	0	724	6	0	13	19	0	507	6	513	0	0	0	0	1256
% App. Total	1.7	98.3	0		31.6	0	68.4		0	98.8	1.2		0	0	0		
PHF	.500	.918	.000	.928	.500	.000	.406	.432	.000	.905	.500	.916	.000	.000	.000	.000	.946



N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

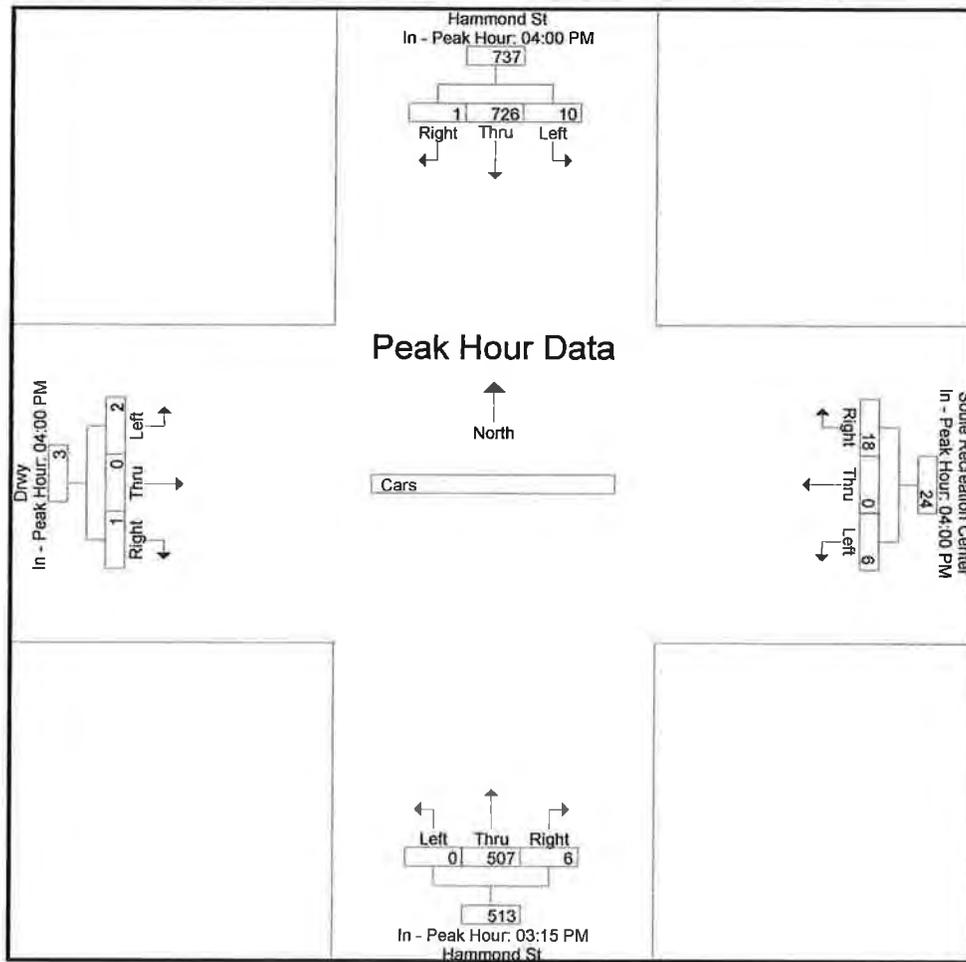
File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 6

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				03:15 PM				04:00 PM			
+0 mins.	5	176	0	181	3	0	8	11	0	140	0	140	0	0	0	0
+15 mins.	1	166	0	167	0	0	4	4	0	123	2	125	0	0	0	0
+30 mins.	0	175	1	176	2	0	4	6	0	118	3	121	1	0	0	1
+45 mins.	4	209	0	213	1	0	2	3	0	126	1	127	1	0	1	2
Total Volume	10	726	1	737	6	0	18	24	0	507	6	513	2	0	1	3
% App. Total	1.4	98.5	0.1		25	0	75		0	98.8	1.2		66.7	0	33.3	
PHF	.500	.868	.250	.865	.500	.000	.563	.545	.000	.905	.500	.916	.500	.000	.250	.375



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 7

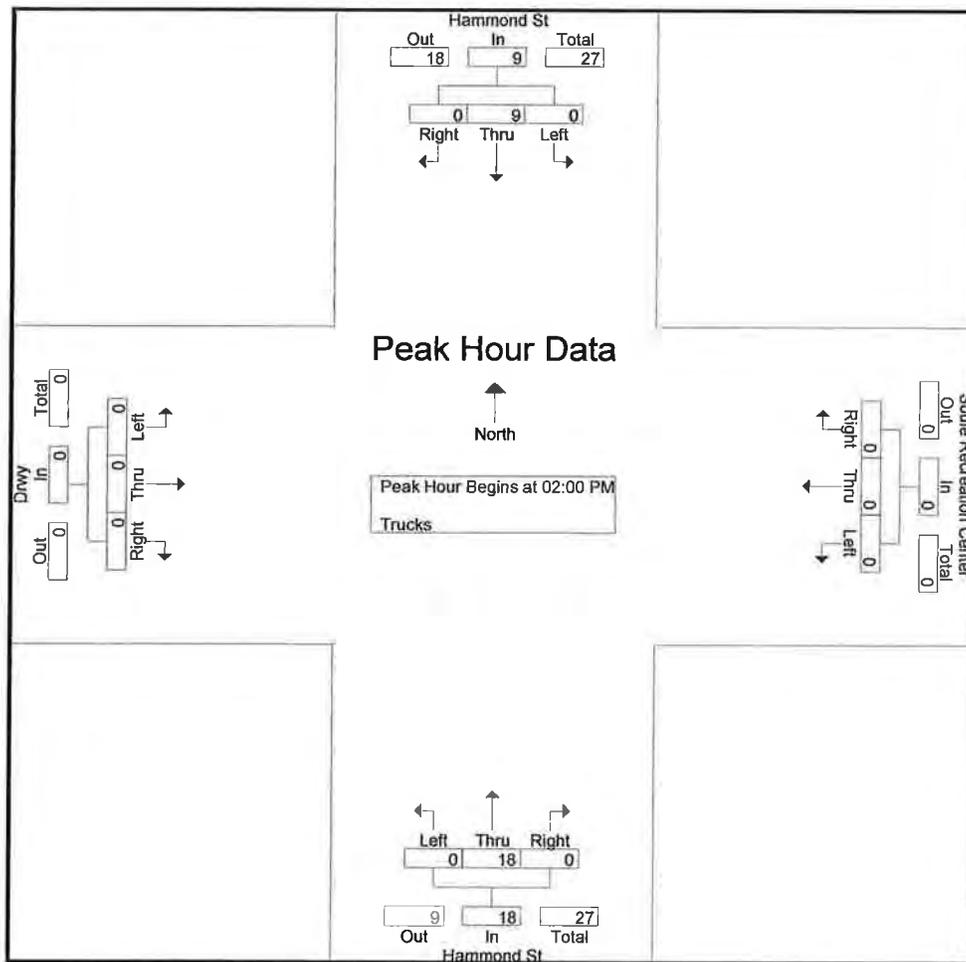
Groups Printed- Trucks

Start Time	Hammond St From North			Soule Recreation Center From East			Hammond St From South			Drwy From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	0	2	0	0	0	0	0	3	0	0	0	0	5
02:15 PM	0	4	0	0	0	0	0	4	0	0	0	0	8
02:30 PM	0	2	0	0	0	0	0	6	0	0	0	0	8
02:45 PM	0	1	0	0	0	0	0	5	0	0	0	0	6
<b>Total</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>27</b>
03:00 PM	0	1	0	0	0	0	0	3	0	0	0	0	4
03:15 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
03:30 PM	0	2	0	0	0	0	0	1	0	0	0	0	3
03:45 PM	0	3	0	0	0	0	0	2	0	0	0	0	5
<b>Total</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>
04:00 PM	0	4	0	0	0	0	0	2	0	0	0	0	6
04:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
04:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
04:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
<b>Total</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>
<b>Grand Total</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>29</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>51</b>
Apprch %	0	100	0	0	0	0	0	100	0	0	0	0	
Total %	0	43.1	0	0	0	0	0	56.9	0	0	0	0	

N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 8

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	0	2	0	2	0	0	0	0	0	3	0	3	0	0	0	0	5
02:15 PM	0	4	0	4	0	0	0	0	0	4	0	4	0	0	0	0	8
02:30 PM	0	2	0	2	0	0	0	0	0	6	0	6	0	0	0	0	8
02:45 PM	0	1	0	1	0	0	0	0	0	5	0	5	0	0	0	0	6
Total Volume	0	9	0	9	0	0	0	0	0	18	0	18	0	0	0	0	27
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.563	.000	.563	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.844



N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

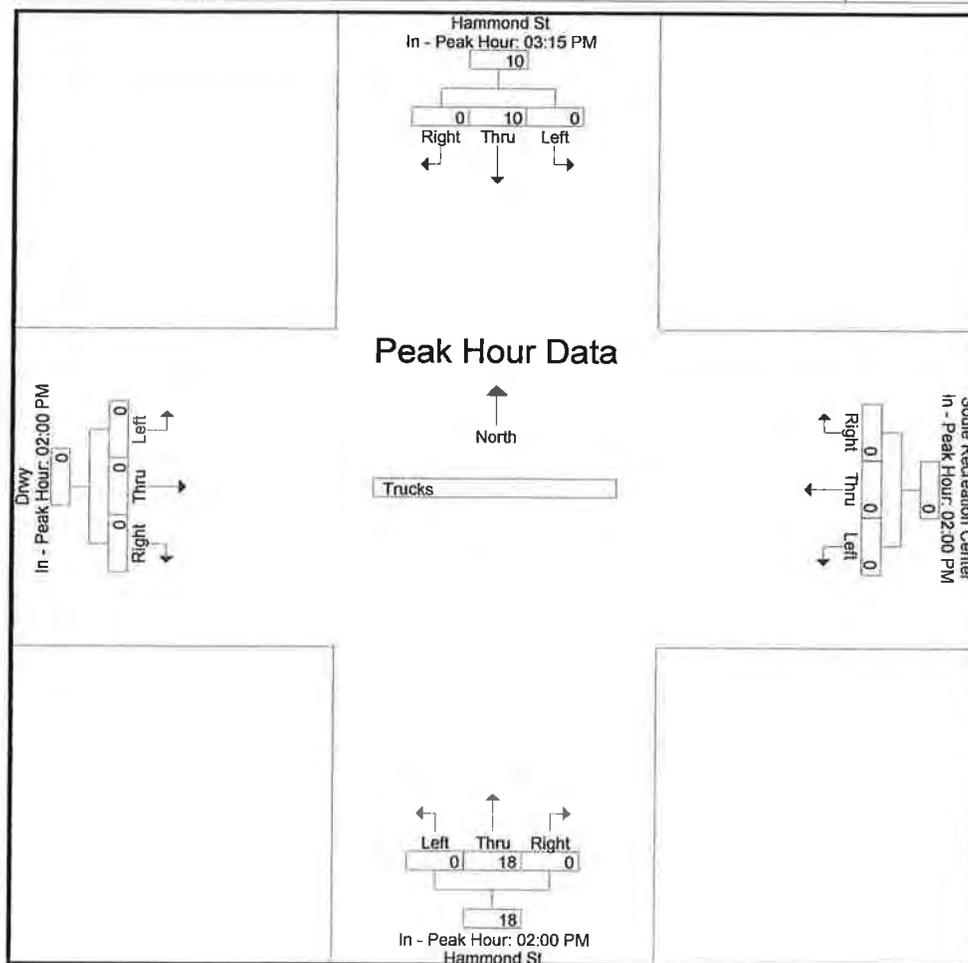
File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 9

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:15 PM				02:00 PM				02:00 PM				02:00 PM			
+0 mins.	0	1	0	1	0	0	0	0	0	3	0	3	0	0	0	0
+15 mins.	0	2	0	2	0	0	0	0	0	4	0	4	0	0	0	0
+30 mins.	0	3	0	3	0	0	0	0	0	6	0	6	0	0	0	0
+45 mins.	0	4	0	4	0	0	0	0	0	5	0	5	0	0	0	0
Total Volume	0	10	0	10	0	0	0	0	0	18	0	18	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.625	.000	.625	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 10

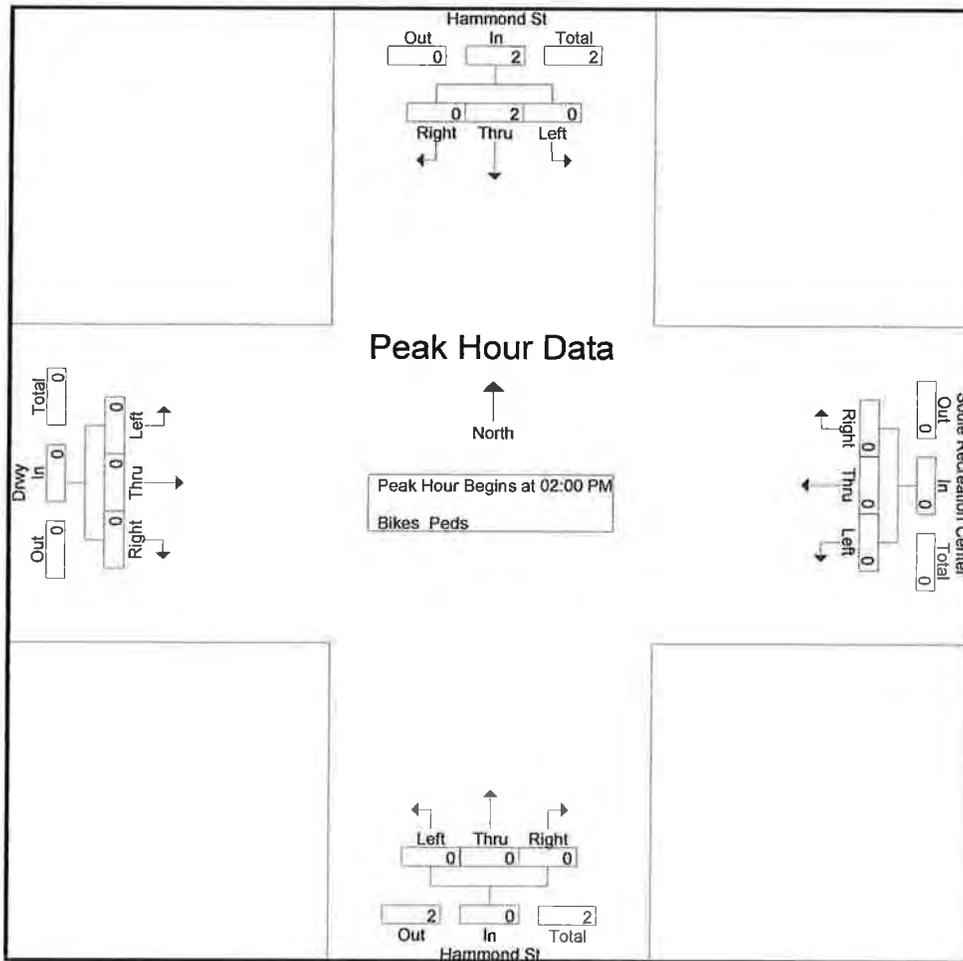
Groups Printed- Bikes Peds

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
02:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	5	7	0	7
02:15 PM	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3	1	4
02:30 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	3	7	0	7
02:45 PM	0	1	0	0	0	0	0	2	0	0	0	3	0	0	0	3	8	1	9
<b>Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>25</b>	<b>2</b>	<b>27</b>
03:00 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	5	7	0	7
03:15 PM	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	7	9	1	10
03:30 PM	0	0	0	1	0	0	0	10	0	0	0	0	0	0	0	2	13	0	13
03:45 PM	0	0	0	1	0	0	0	7	0	0	0	1	0	0	0	4	13	0	13
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>42</b>	<b>1</b>	<b>43</b>
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	19	20	0	20
04:15 PM	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	14	25	0	25
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	1	6
04:45 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3	0	3
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>38</b>	<b>53</b>	<b>1</b>	<b>54</b>
<b>Grand Total</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>38</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>69</b>	<b>120</b>	<b>4</b>	<b>124</b>
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0				
Total %	0	75	0		0	0	0		0	25	0		0	0	0		96.8	3.2	

N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 11

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500



N/S Street : Hammond Street  
E/W Street: Soule Recreation / Driveway  
City/State : Brookline, MA  
Weather : Clear

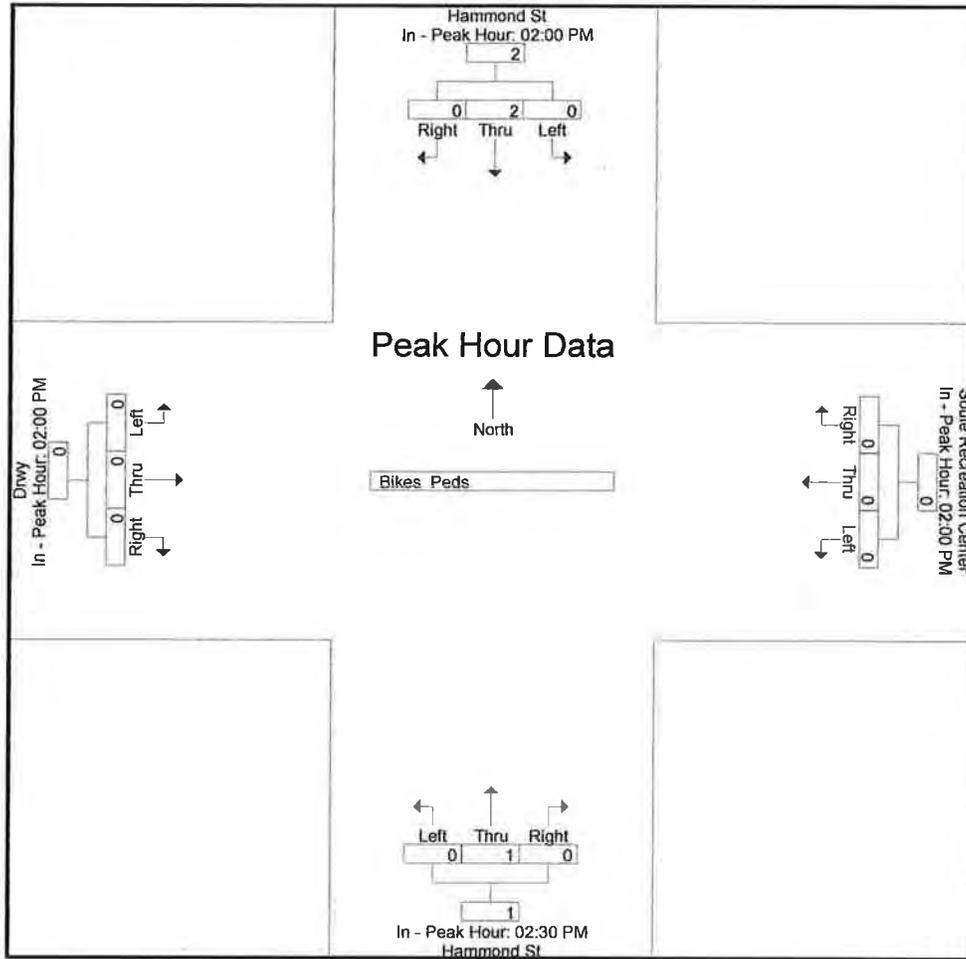
File Name : 7382N004  
Site Code : 73820004  
Start Date : 11/17/2016  
Page No : 12

Start Time	Hammond St From North				Soule Recreation Center From East				Hammond St From South				Drwy From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM				02:00 PM				02:30 PM				02:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Hammond St From North			Woodland Rd From East			Hammond St From South			Woodland Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	2	48	8	0	0	0	9	140	103	2	7	3	322
07:15 AM	0	86	20	0	0	0	12	167	129	3	17	3	437
07:30 AM	4	103	20	0	0	0	24	148	112	3	21	9	444
07:45 AM	2	115	26	0	0	0	40	114	133	8	41	23	502
<b>Total</b>	<b>8</b>	<b>352</b>	<b>74</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>85</b>	<b>569</b>	<b>477</b>	<b>16</b>	<b>86</b>	<b>38</b>	<b>1705</b>
08:00 AM	2	82	15	0	0	0	17	120	108	4	27	8	383
08:15 AM	1	81	13	0	0	0	23	152	86	3	32	8	399
08:30 AM	0	99	17	0	0	0	19	125	106	3	20	6	395
08:45 AM	0	100	18	0	0	0	22	130	101	7	19	13	410
<b>Total</b>	<b>3</b>	<b>362</b>	<b>63</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>81</b>	<b>527</b>	<b>401</b>	<b>17</b>	<b>98</b>	<b>35</b>	<b>1587</b>
09:00 AM	2	68	6	0	0	1	5	121	75	3	13	2	296
09:15 AM	1	85	5	0	0	0	1	130	63	1	7	5	298
<b>Grand Total</b>	<b>14</b>	<b>867</b>	<b>148</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>172</b>	<b>1347</b>	<b>1016</b>	<b>37</b>	<b>204</b>	<b>80</b>	<b>3886</b>
<b>Aprch %</b>	<b>1.4</b>	<b>84.3</b>	<b>14.4</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>6.8</b>	<b>53.1</b>	<b>40.1</b>	<b>11.5</b>	<b>63.6</b>	<b>24.9</b>	
<b>Total %</b>	<b>0.4</b>	<b>22.3</b>	<b>3.8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4.4</b>	<b>34.7</b>	<b>26.1</b>	<b>1</b>	<b>5.2</b>	<b>2.1</b>	
<b>Cars</b>	<b>13</b>	<b>825</b>	<b>144</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>172</b>	<b>1313</b>	<b>1005</b>	<b>36</b>	<b>203</b>	<b>77</b>	<b>3789</b>
<b>% Cars</b>	<b>92.9</b>	<b>95.2</b>	<b>97.3</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>100</b>	<b>97.5</b>	<b>98.9</b>	<b>97.3</b>	<b>99.5</b>	<b>96.2</b>	<b>97.5</b>
<b>Trucks</b>	<b>1</b>	<b>42</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>11</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>97</b>
<b>% Trucks</b>	<b>7.1</b>	<b>4.8</b>	<b>2.7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2.5</b>	<b>1.1</b>	<b>2.7</b>	<b>0.5</b>	<b>3.8</b>	<b>2.5</b>

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

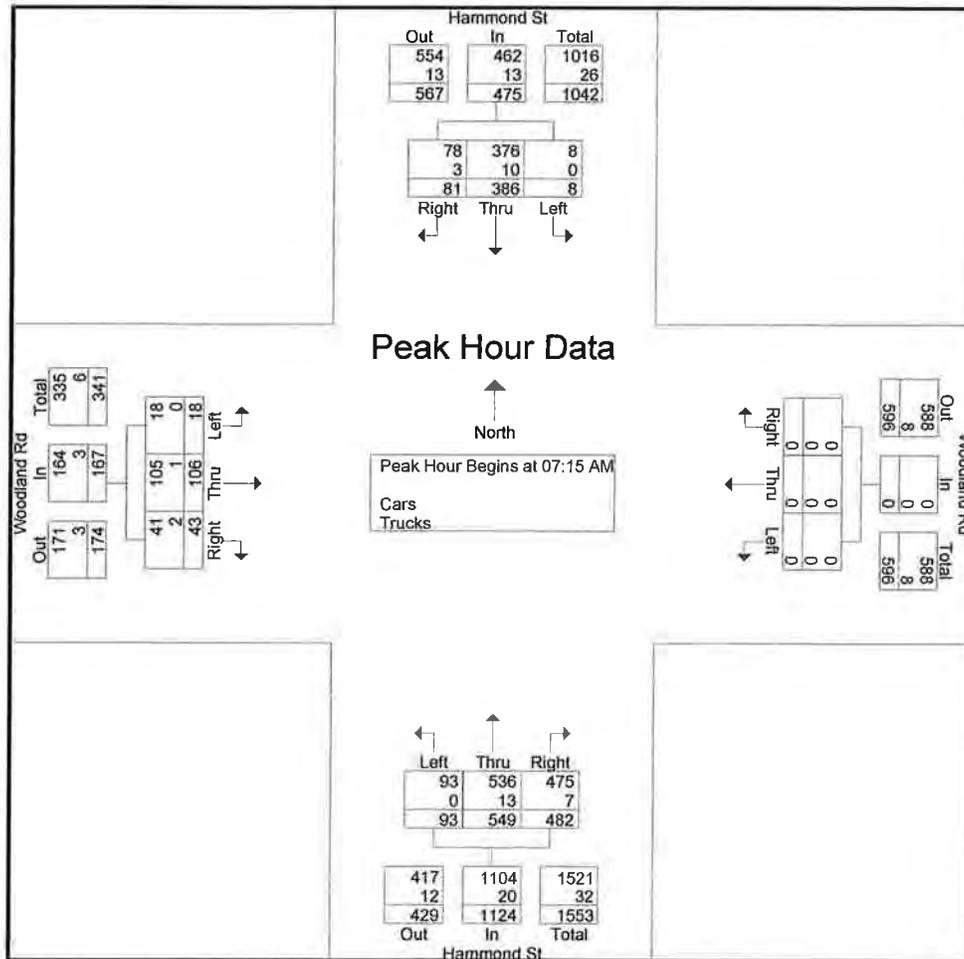
File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 2

Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

07:15 AM	0	86	20	106	0	0	0	0	12	<b>167</b>	129	<b>308</b>	3	17	3	23	437
07:30 AM	<b>4</b>	103	20	127	0	0	0	0	24	148	112	284	3	21	9	33	444
07:45 AM	2	<b>115</b>	<b>26</b>	<b>143</b>	0	0	0	0	<b>40</b>	114	<b>133</b>	287	<b>8</b>	<b>41</b>	<b>23</b>	<b>72</b>	<b>502</b>
08:00 AM	2	82	15	99	0	0	0	0	17	120	108	245	4	27	8	39	383
Total Volume	8	386	81	475	0	0	0	0	93	549	482	1124	18	106	43	167	1766
% App. Total	1.7	81.3	17.1		0	0	0		8.3	48.8	42.9		10.8	63.5	25.7		
PHF	.500	.839	.779	.830	.000	.000	.000	.000	.581	.822	.906	.912	.563	.646	.467	.580	.879
Cars	8	376	78	462	0	0	0	0	93	536	475	1104	18	105	41	164	1730
% Cars	100	97.4	96.3	97.3	0	0	0	0	100	97.6	98.5	98.2	100	99.1	95.3	98.2	98.0
Trucks	0	10	3	13	0	0	0	0	0	13	7	20	0	1	2	3	36
% Trucks	0	2.6	3.7	2.7	0	0	0	0	0	2.4	1.5	1.8	0	0.9	4.7	1.8	2.0



N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

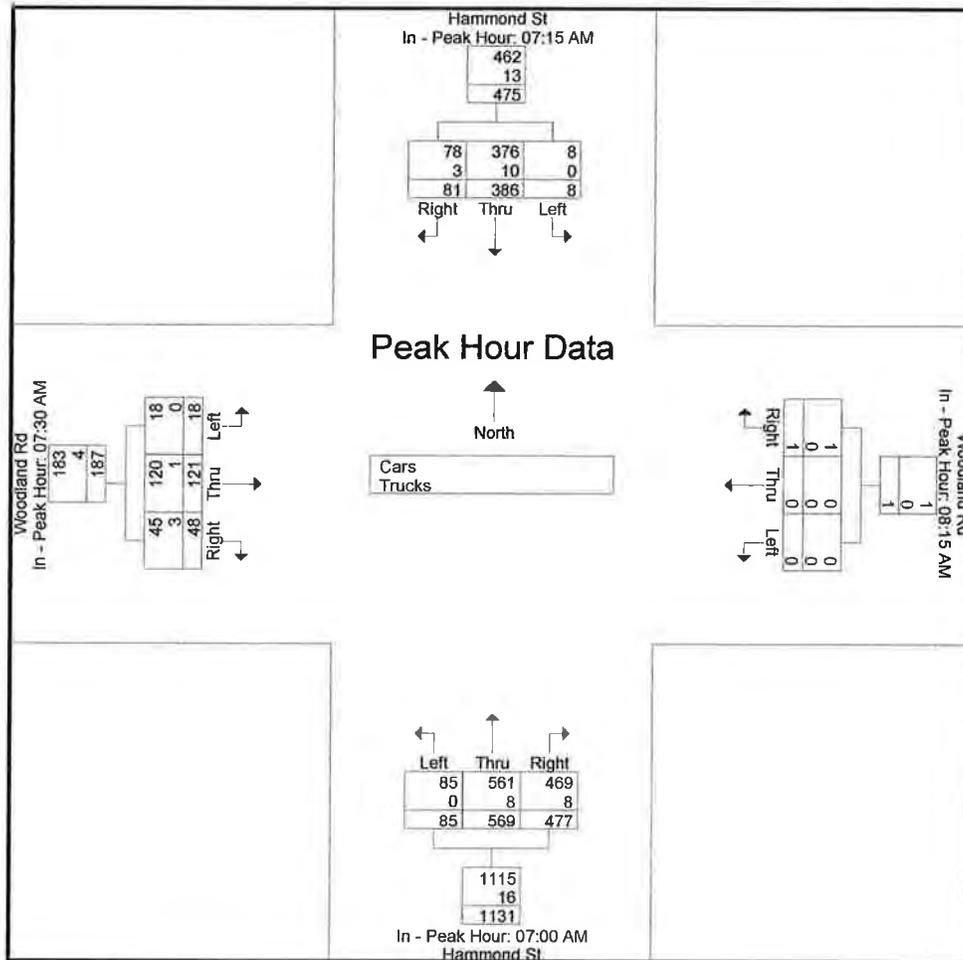
File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 3

Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				08:15 AM				07:00 AM				07:30 AM			
+0 mins.	0	86	20	106	0	0	0	0	9	140	103	252	3	21	9	33
+15 mins.	4	103	20	127	0	0	0	0	12	167	129	308	8	41	23	72
+30 mins.	2	115	26	143	0	0	0	0	24	148	112	284	4	27	8	39
+45 mins.	2	82	15	99	0	0	1	1	40	114	133	287	3	32	8	43
Total Volume	8	386	81	475	0	0	1	1	85	569	477	1131	18	121	48	187
% App. Total	1.7	81.3	17.1		0	0	100		7.5	50.3	42.2		9.6	64.7	25.7	
PHF	.500	.839	.779	.830	.000	.000	.250	.250	.531	.852	.897	.918	.563	.738	.522	.649
Cars	8	376	78	462	0	0	1	1	85	561	469	1115	18	120	45	183
% Cars	100	97.4	96.3	97.3	0	0	100	100	100	98.6	98.3	98.6	100	99.2	93.8	97.9
Trucks	0	10	3	13	0	0	0	0	0	8	8	16	0	1	3	4
% Trucks	0	2.6	3.7	2.7	0	0	0	0	0	1.4	1.7	1.4	0	0.8	6.2	2.1



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 4

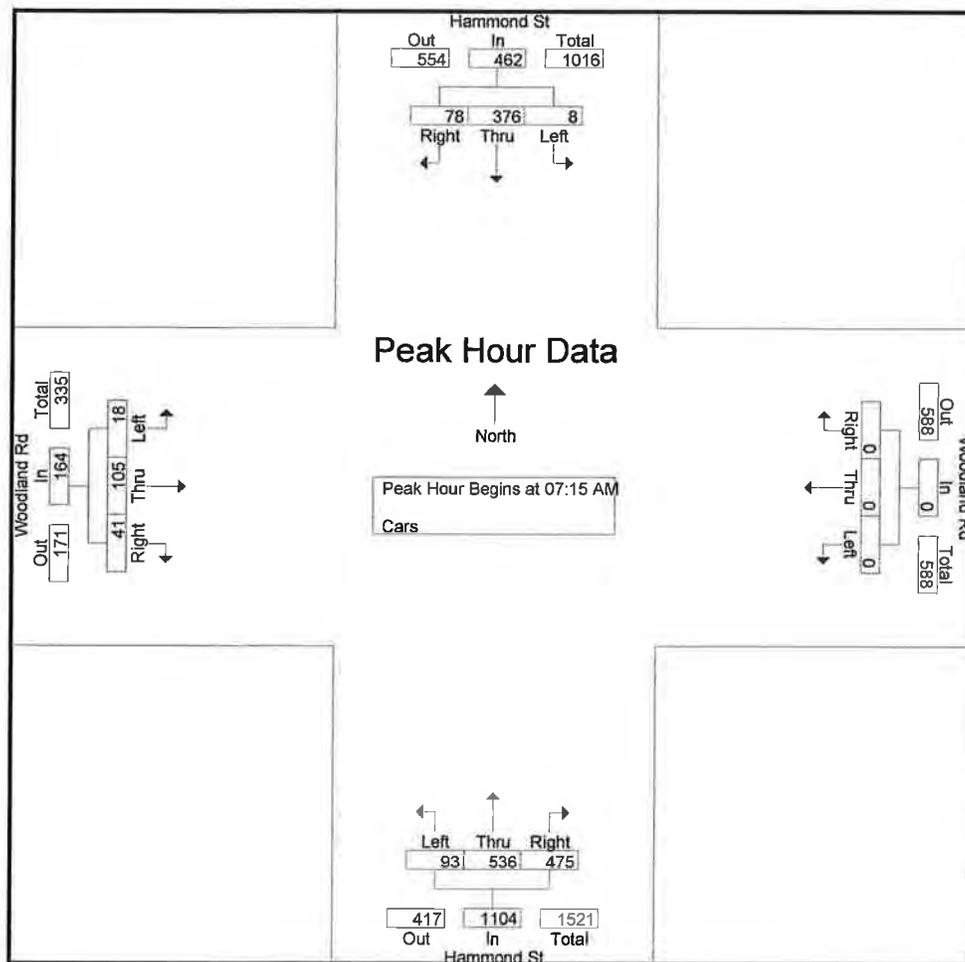
Groups Printed- Cars

Start Time	Hammond St From North			Woodland Rd From East			Hammond St From South			Woodland Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	2	44	8	0	0	0	9	138	102	2	7	3	315
07:15 AM	0	84	20	0	0	0	12	167	122	3	17	3	428
07:30 AM	4	101	18	0	0	0	24	144	112	3	21	7	434
07:45 AM	2	112	25	0	0	0	40	112	133	8	40	23	495
<b>Total</b>	<b>8</b>	<b>341</b>	<b>71</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>85</b>	<b>561</b>	<b>469</b>	<b>16</b>	<b>85</b>	<b>36</b>	<b>1672</b>
08:00 AM	2	79	15	0	0	0	17	113	108	4	27	8	373
08:15 AM	0	78	13	0	0	0	23	150	85	3	32	7	391
08:30 AM	0	94	17	0	0	0	19	121	106	2	20	6	385
08:45 AM	0	91	18	0	0	0	22	127	101	7	19	13	398
<b>Total</b>	<b>2</b>	<b>342</b>	<b>63</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>81</b>	<b>511</b>	<b>400</b>	<b>16</b>	<b>98</b>	<b>34</b>	<b>1547</b>
09:00 AM	2	64	5	0	0	1	5	118	74	3	13	2	287
09:15 AM	1	78	5	0	0	0	1	123	62	1	7	5	283
<b>Grand Total</b>	<b>13</b>	<b>825</b>	<b>144</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>172</b>	<b>1313</b>	<b>1005</b>	<b>36</b>	<b>203</b>	<b>77</b>	<b>3789</b>
<b>Apprch %</b>	<b>1.3</b>	<b>84</b>	<b>14.7</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>6.9</b>	<b>52.7</b>	<b>40.4</b>	<b>11.4</b>	<b>64.2</b>	<b>24.4</b>	
<b>Total %</b>	<b>0.3</b>	<b>21.8</b>	<b>3.8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4.5</b>	<b>34.7</b>	<b>26.5</b>	<b>1</b>	<b>5.4</b>	<b>2</b>	

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 5

Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	84	20	104	0	0	0	0	12	<b>167</b>	122	<b>301</b>	3	17	3	23	428
07:30 AM	4	101	18	123	0	0	0	0	24	144	112	280	3	21	7	31	434
07:45 AM	2	<b>112</b>	<b>25</b>	<b>139</b>	0	0	0	0	<b>40</b>	112	<b>133</b>	285	<b>8</b>	<b>40</b>	<b>23</b>	<b>71</b>	<b>495</b>
08:00 AM	2	79	15	96	0	0	0	0	17	113	108	238	4	27	8	39	373
<b>Total Volume</b>	<b>8</b>	<b>376</b>	<b>78</b>	<b>462</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>93</b>	<b>536</b>	<b>475</b>	<b>1104</b>	<b>18</b>	<b>105</b>	<b>41</b>	<b>164</b>	<b>1730</b>
% App. Total	1.7	81.4	16.9		0	0	0		8.4	48.6	43		11	64	25		
PHF	.500	.839	.780	.831	.000	.000	.000	.000	.581	.802	.893	.917	.563	.656	.446	.577	.874



N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

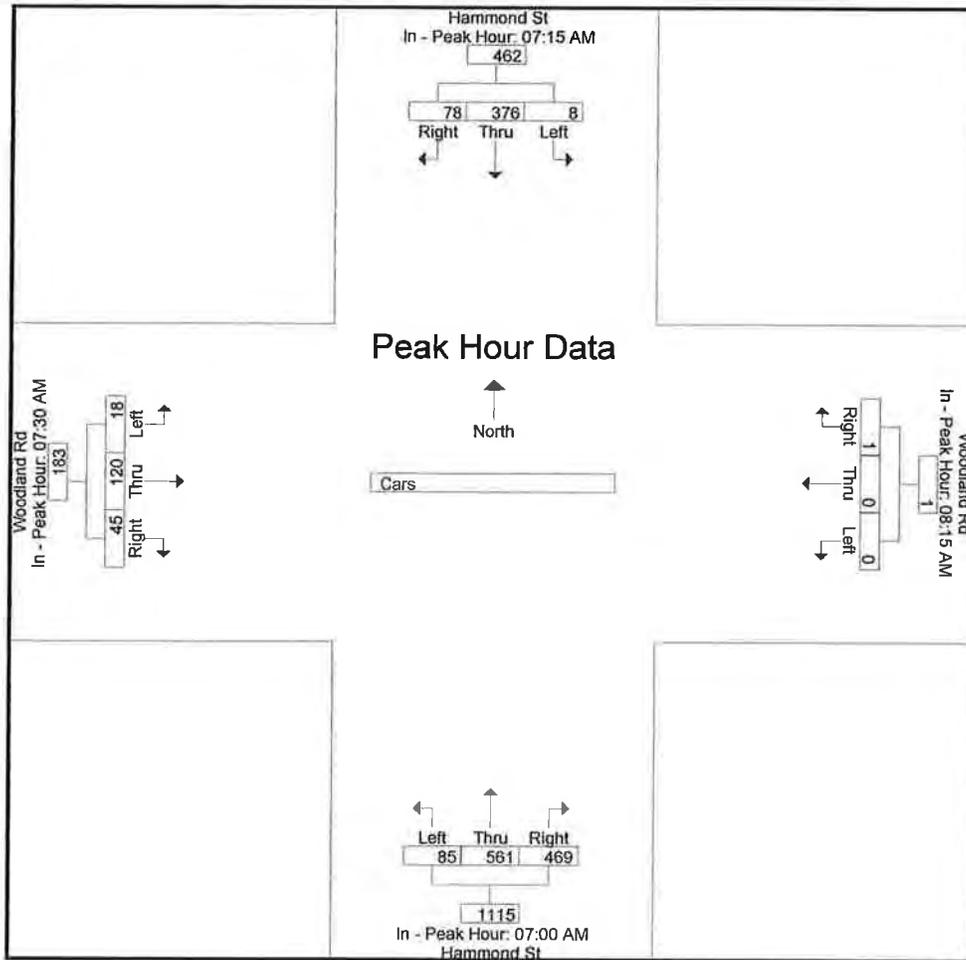
File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 6

Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				08:15 AM				07:00 AM				07:30 AM			
+0 mins.	0	84	20	104	0	0	0	0	9	138	102	249	3	21	7	31
+15 mins.	4	101	18	123	0	0	0	0	12	167	122	301	8	40	23	71
+30 mins.	2	112	25	139	0	0	0	0	24	144	112	280	4	27	8	39
+45 mins.	2	79	15	96	0	0	1	1	40	112	133	285	3	32	7	42
Total Volume	8	376	78	462	0	0	1	1	85	561	469	1115	18	120	45	183
% App. Total	1.7	81.4	16.9		0	0	100		7.6	50.3	42.1		9.8	65.6	24.6	
PHF	.500	.839	.780	.831	.000	.000	.250	.250	.531	.840	.882	.926	.563	.750	.489	.644



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 7

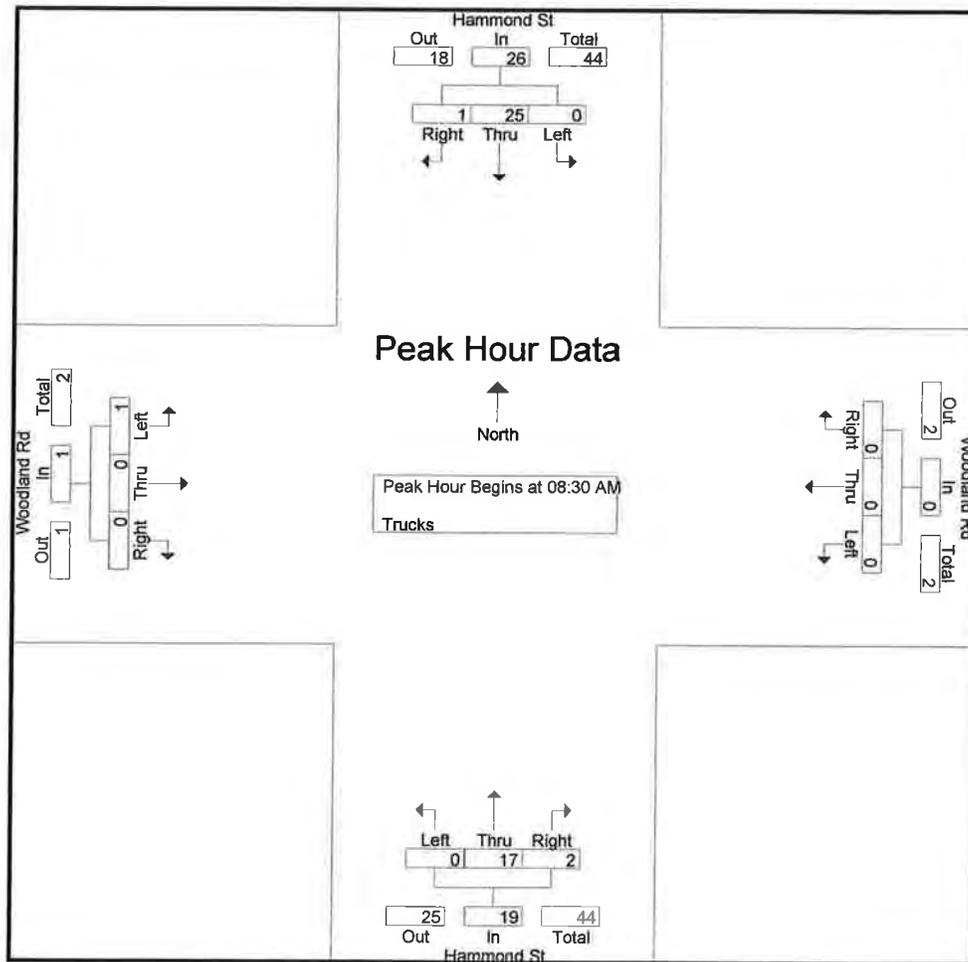
Groups Printed- Trucks

Start Time	Hammond St From North			Woodland Rd From East			Hammond St From South			Woodland Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	4	0	0	0	0	0	2	1	0	0	0	7
07:15 AM	0	2	0	0	0	0	0	0	7	0	0	0	9
07:30 AM	0	2	2	0	0	0	0	4	0	0	0	2	10
07:45 AM	0	3	1	0	0	0	0	2	0	0	1	0	7
<b>Total</b>	<b>0</b>	<b>11</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>8</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>33</b>
08:00 AM	0	3	0	0	0	0	0	7	0	0	0	0	10
08:15 AM	1	3	0	0	0	0	0	2	1	0	0	1	8
08:30 AM	0	5	0	0	0	0	0	4	0	1	0	0	10
08:45 AM	0	9	0	0	0	0	0	3	0	0	0	0	12
<b>Total</b>	<b>1</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>40</b>
09:00 AM	0	4	1	0	0	0	0	3	1	0	0	0	9
09:15 AM	0	7	0	0	0	0	0	7	1	0	0	0	15
<b>Grand Total</b>	<b>1</b>	<b>42</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>11</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>97</b>
Apprch %	2.1	89.4	8.5	0	0	0	0	75.6	24.4	20	20	60	
Total %	1	43.3	4.1	0	0	0	0	35.1	11.3	1	1	3.1	

N/S Street : Hammond Street  
E/W Street : Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 8

Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:30 AM																	
08:30 AM	0	5	0	5	0	0	0	0	0	4	0	4	1	0	0	1	10
08:45 AM	0	9	0	9	0	0	0	0	0	3	0	3	0	0	0	0	12
09:00 AM	0	4	1	5	0	0	0	0	0	3	1	4	0	0	0	0	9
09:15 AM	0	7	0	7	0	0	0	0	0	7	1	8	0	0	0	0	15
Total Volume	0	25	1	26	0	0	0	0	0	17	2	19	1	0	0	1	46
% App. Total	0	96.2	3.8		0	0	0		0	89.5	10.5		100	0	0		
PHF	.000	.694	.250	.722	.000	.000	.000	.000	.000	.607	.500	.594	.250	.000	.000	.250	.767



N/S Street : Hammond Street  
E/W Street : Woodland Road  
City/State : Brookline, MA  
Weather : Clear

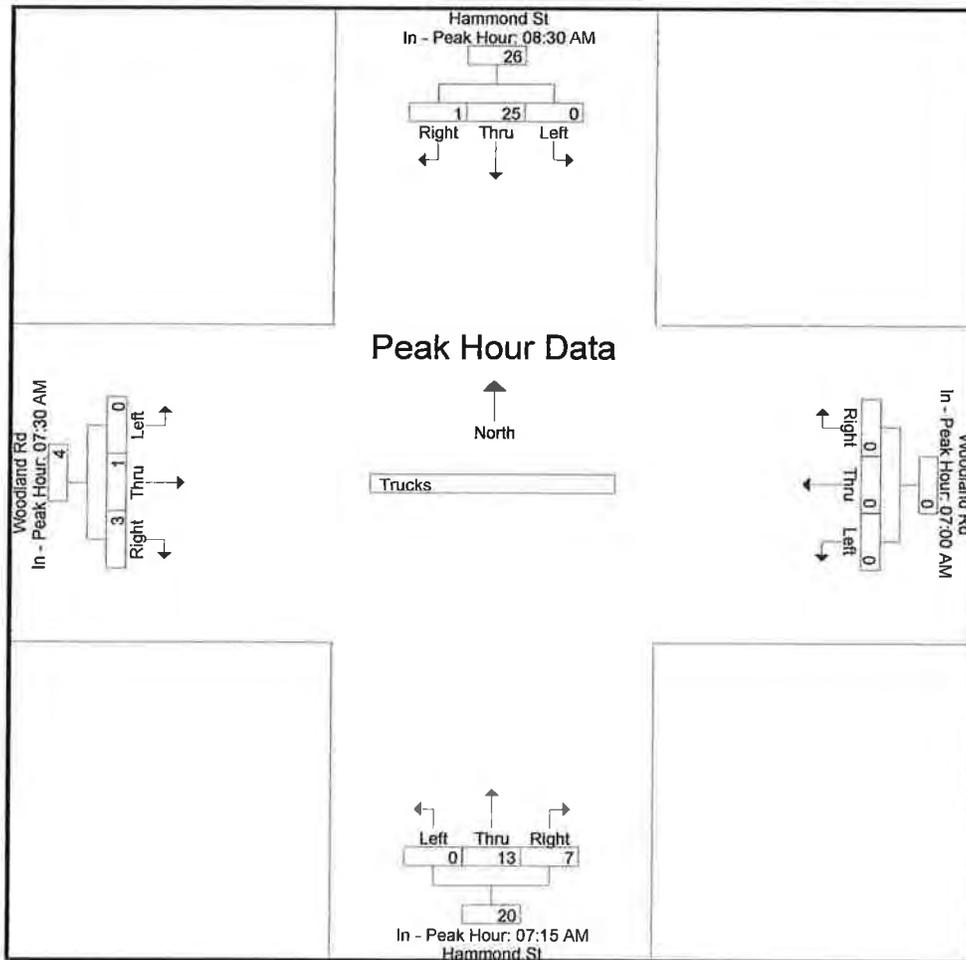
File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 9

Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:30 AM				07:00 AM				07:15 AM				07:30 AM			
+0 mins.	0	5	0	5	0	0	0	0	0	0	7	7	0	0	2	2
+15 mins.	0	9	0	9	0	0	0	0	0	4	0	4	0	1	0	1
+30 mins.	0	4	1	5	0	0	0	0	0	2	0	2	0	0	0	0
+45 mins.	0	7	0	7	0	0	0	0	0	7	0	7	0	0	1	1
Total Volume	0	25	1	26	0	0	0	0	0	13	7	20	0	1	3	4
% App. Total	0	96.2	3.8		0	0	0		0	65	35		0	25	75	
PHF	.000	.694	.250	.722	.000	.000	.000	.000	.000	.464	.250	.714	.000	.250	.375	.500



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 10

Groups Printed- Bikes Peds

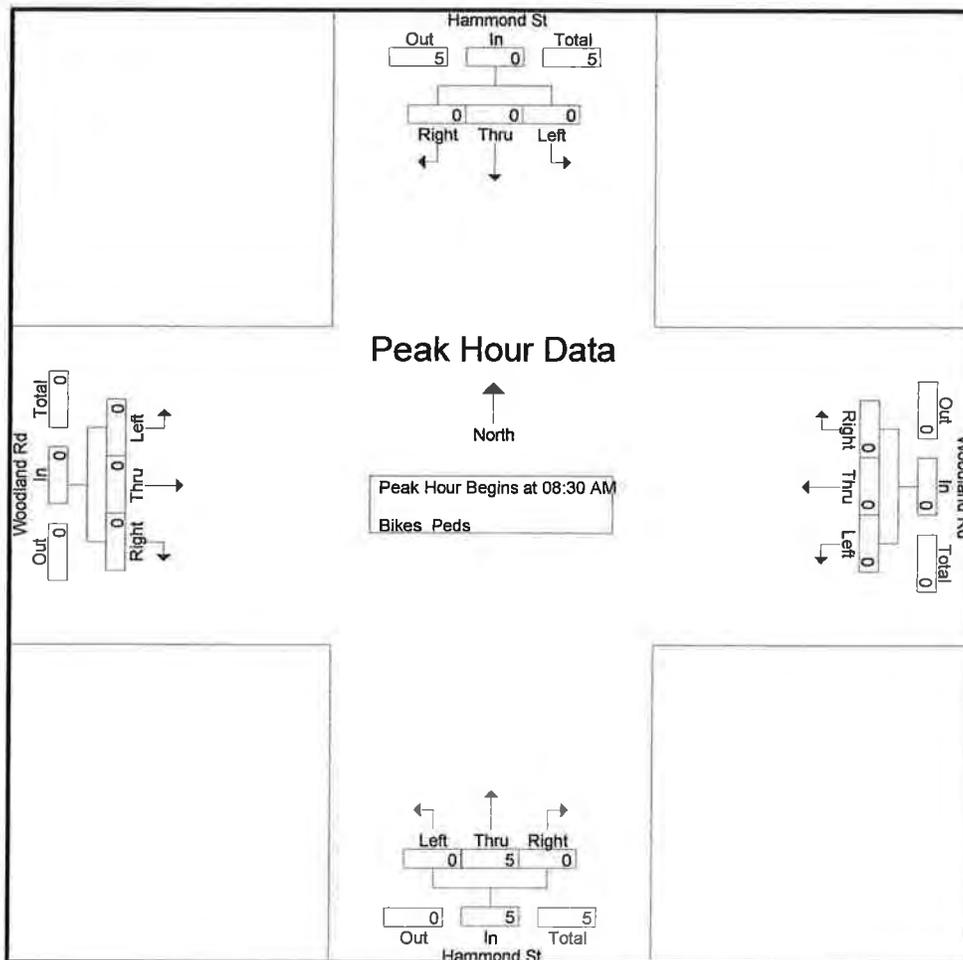
Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds															
07:00 AM	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	3	1	4
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	2	1	3
07:30 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4
07:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
<b>Total</b>	0	2	0	3	0	0	0	1	0	2	0	3	0	0	0	1	8	4	12
08:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
08:15 AM	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	3	0	3
08:30 AM	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	2	1	3
08:45 AM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1	1	2
<b>Total</b>	0	0	0	4	0	0	0	3	0	2	0	0	0	0	0	0	7	2	9
09:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	2
09:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	2
<b>Grand Total</b>	0	2	0	7	0	0	0	5	0	7	0	3	0	0	0	1	16	9	25
<b>Apprch %</b>	0	100	0		0	0	0		0	100	0		0	0	0				
<b>Total %</b>	0	22.2	0		0	0	0		0	77.8	0		0	0	0		64	36	

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 11

Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:30 AM																	
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
09:00 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
09:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	5	0	5	0	0	0	0	5
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.625	.000	.625	.000	.000	.000	.000	.625



N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

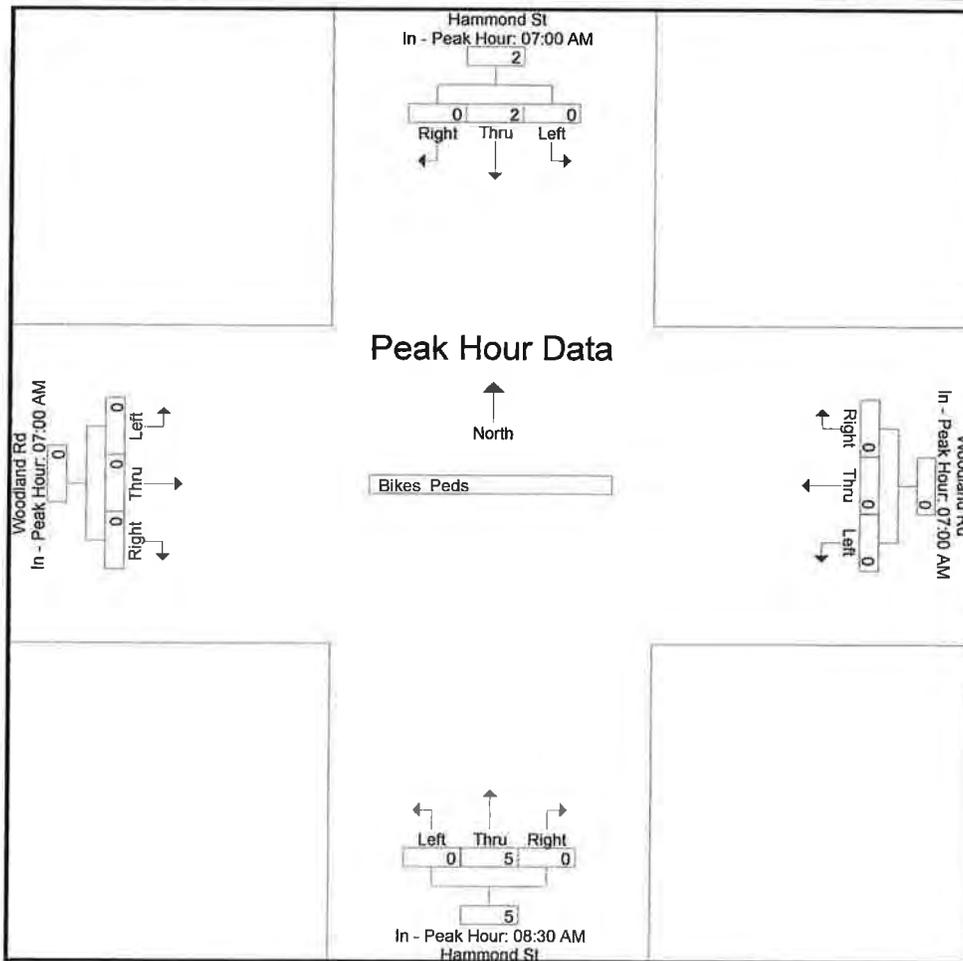
File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 12

Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				08:30 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	5	0	5	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.625	.000	.625	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Hammond St From North			Woodland Rd From East			Hammond St From South			Woodland Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	0	130	5	0	1	0	3	113	22	6	5	3	288
02:15 PM	0	126	5	0	0	0	4	101	33	0	8	5	282
02:30 PM	1	140	5	0	0	0	6	99	25	6	7	9	298
02:45 PM	0	139	6	0	0	0	9	128	32	4	5	6	329
<b>Total</b>	<b>1</b>	<b>535</b>	<b>21</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>22</b>	<b>441</b>	<b>112</b>	<b>16</b>	<b>25</b>	<b>23</b>	<b>1197</b>
03:00 PM	0	152	6	0	0	0	18	99	22	2	6	10	315
03:15 PM	0	170	21	0	0	0	14	134	37	7	6	27	416
03:30 PM	0	186	10	0	0	0	8	122	20	6	6	23	381
03:45 PM	0	164	12	0	0	0	9	113	16	9	11	23	357
<b>Total</b>	<b>0</b>	<b>672</b>	<b>49</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>49</b>	<b>468</b>	<b>95</b>	<b>24</b>	<b>29</b>	<b>83</b>	<b>1469</b>
04:00 PM	0	177	2	0	0	0	8	123	26	6	8	18	368
04:15 PM	1	145	4	0	0	0	3	113	28	3	7	11	315
04:30 PM	0	178	8	0	0	0	6	109	25	2	9	14	351
04:45 PM	0	194	12	0	0	0	2	100	25	6	13	18	370
<b>Total</b>	<b>1</b>	<b>694</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>445</b>	<b>104</b>	<b>17</b>	<b>37</b>	<b>61</b>	<b>1404</b>
<b>Grand Total</b>	<b>2</b>	<b>1901</b>	<b>96</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>90</b>	<b>1354</b>	<b>311</b>	<b>57</b>	<b>91</b>	<b>167</b>	<b>4070</b>
Apprch %	0.1	95.1	4.8	0	100	0	5.1	77.2	17.7	18.1	28.9	53	
Total %	0	46.7	2.4	0	0	0	2.2	33.3	7.6	1.4	2.2	4.1	
<b>Cars</b>	<b>2</b>	<b>1873</b>	<b>93</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>89</b>	<b>1325</b>	<b>308</b>	<b>54</b>	<b>91</b>	<b>163</b>	<b>3999</b>
% Cars	100	98.5	96.9	0	100	0	98.9	97.9	99	94.7	100	97.6	98.3
<b>Trucks</b>	<b>0</b>	<b>28</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>29</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>71</b>
% Trucks	0	1.5	3.1	0	0	0	1.1	2.1	1	5.3	0	2.4	1.7

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

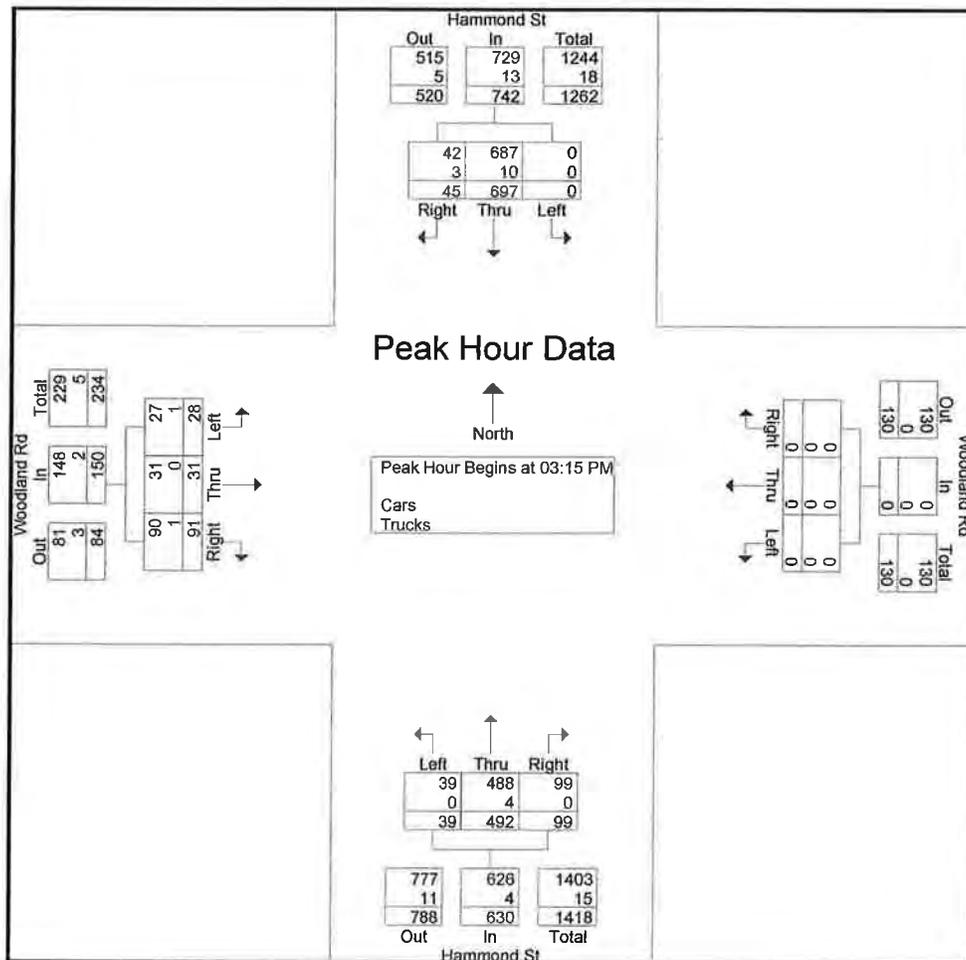
File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 2

Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 03:15 PM

03:15 PM	0	170	21	191	0	0	0	0	14	134	37	185	7	6	27	40	416
03:30 PM	0	186	10	196	0	0	0	0	8	122	20	150	6	6	23	35	381
03:45 PM	0	164	12	176	0	0	0	0	9	113	16	138	9	11	23	43	357
04:00 PM	0	177	2	179	0	0	0	0	8	123	26	157	6	8	18	32	368
Total Volume	0	697	45	742	0	0	0	0	39	492	99	630	28	31	91	150	1522
% App. Total	0	93.9	6.1		0	0	0		6.2	78.1	15.7		18.7	20.7	60.7		
PHF	.000	.937	.536	.946	.000	.000	.000	.000	.696	.918	.669	.851	.778	.705	.843	.872	.915
Cars	0	687	42	729	0	0	0	0	39	488	99	626	27	31	90	148	1503
% Cars	0	98.6	93.3	98.2	0	0	0	0	100	99.2	100	99.4	96.4	100	98.9	98.7	98.8
Trucks	0	10	3	13	0	0	0	0	0	4	0	4	1	0	1	2	19
% Trucks	0	1.4	6.7	1.8	0	0	0	0	0	0.8	0	0.6	3.6	0	1.1	1.3	1.2



N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

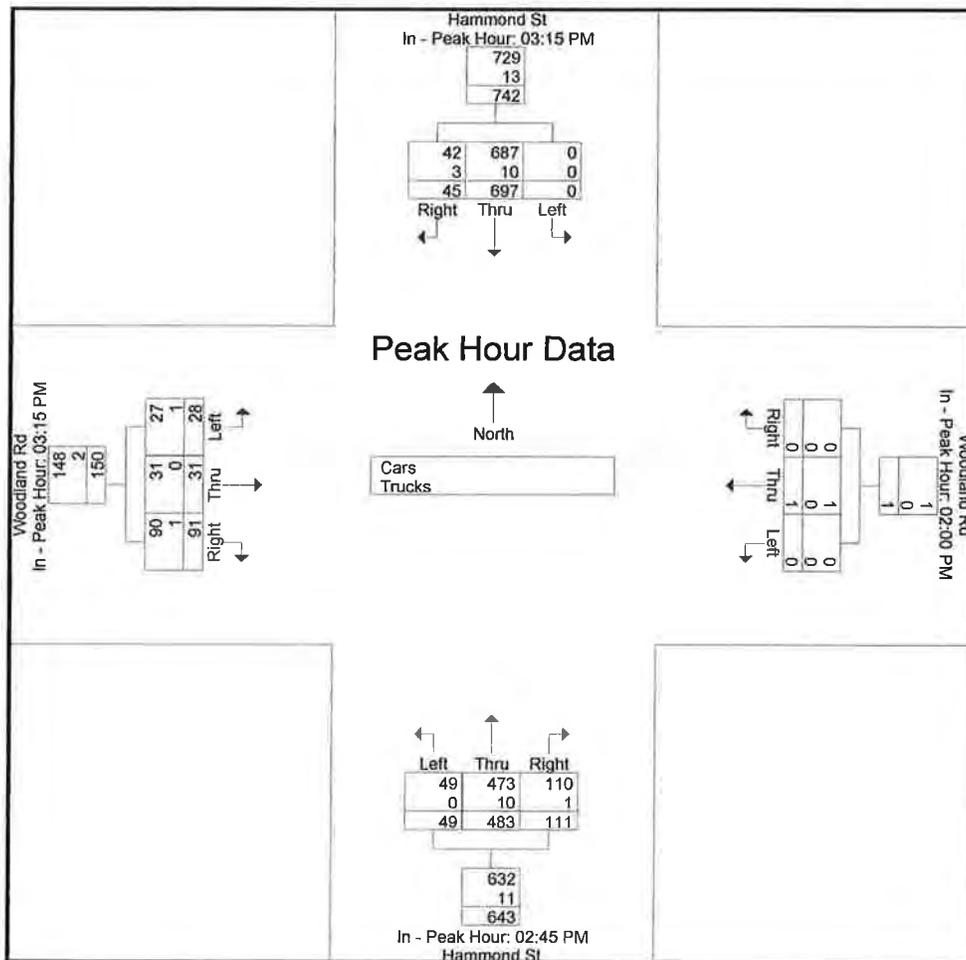
File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 3

Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:15 PM				02:00 PM				02:45 PM				03:15 PM			
+0 mins.	0	170	21	191	0	1	0	1	9	128	32	169	7	6	27	40
+15 mins.	0	186	10	196	0	0	0	0	18	99	22	139	6	6	23	35
+30 mins.	0	164	12	176	0	0	0	0	14	134	37	185	9	11	23	43
+45 mins.	0	177	2	179	0	0	0	0	8	122	20	150	6	8	18	32
Total Volume	0	697	45	742	0	1	0	1	49	483	111	643	28	31	91	150
% App. Total	0	93.9	6.1		0	100	0		7.6	75.1	17.3		18.7	20.7	60.7	
PHF	.000	.937	.536	.946	.000	.250	.000	.250	.681	.901	.750	.869	.778	.705	.843	.872
Cars	0	687	42	729	0	1	0	1	49	473	110	632	27	31	90	148
% Cars	0	98.6	93.3	98.2	0	100	0	100	100	97.9	99.1	98.3	96.4	100	98.9	98.7
Trucks	0	10	3	13	0	0	0	0	0	10	1	11	1	0	1	2
% Trucks	0	1.4	6.7	1.8	0	0	0	0	0	2.1	0.9	1.7	3.6	0	1.1	1.3



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 4

Groups Printed- Cars

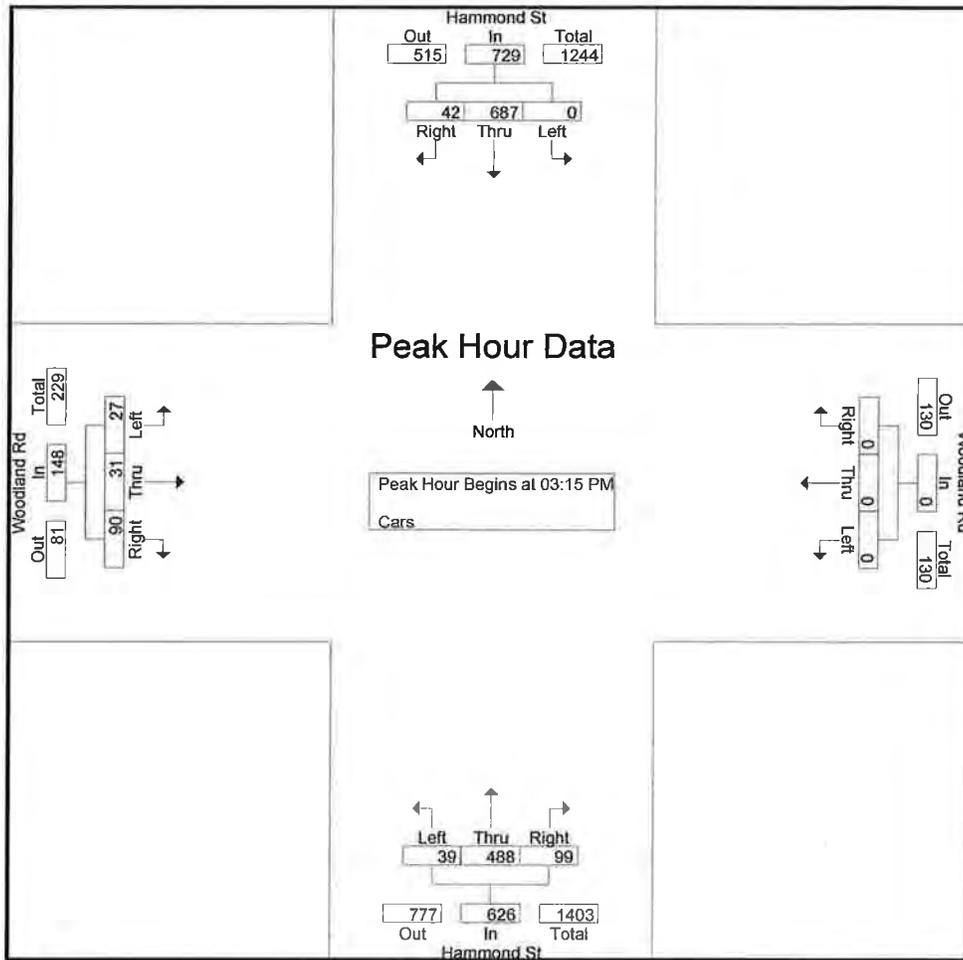
Start Time	Hammond St From North			Woodland Rd From East			Hammond St From South			Woodland Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	0	127	5	0	1	0	3	110	20	6	5	3	280
02:15 PM	0	125	5	0	0	0	4	95	33	0	8	5	275
02:30 PM	1	133	5	0	0	0	6	94	25	5	7	9	285
02:45 PM	0	139	6	0	0	0	9	122	32	3	5	5	321
<b>Total</b>	<b>1</b>	<b>524</b>	<b>21</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>22</b>	<b>421</b>	<b>110</b>	<b>14</b>	<b>25</b>	<b>22</b>	<b>1161</b>
03:00 PM	0	150	6	0	0	0	18	96	21	2	6	10	309
03:15 PM	0	169	21	0	0	0	14	134	37	7	6	27	415
03:30 PM	0	184	9	0	0	0	8	121	20	6	6	23	377
03:45 PM	0	159	11	0	0	0	9	111	16	9	11	22	348
<b>Total</b>	<b>0</b>	<b>662</b>	<b>47</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>49</b>	<b>462</b>	<b>94</b>	<b>24</b>	<b>29</b>	<b>82</b>	<b>1449</b>
04:00 PM	0	175	1	0	0	0	8	122	26	5	8	18	363
04:15 PM	1	143	4	0	0	0	2	112	28	3	7	11	311
04:30 PM	0	177	8	0	0	0	6	108	25	2	9	12	347
04:45 PM	0	192	12	0	0	0	2	100	25	6	13	18	368
<b>Total</b>	<b>1</b>	<b>687</b>	<b>25</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>442</b>	<b>104</b>	<b>16</b>	<b>37</b>	<b>59</b>	<b>1389</b>
<b>Grand Total</b>	<b>2</b>	<b>1873</b>	<b>93</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>89</b>	<b>1325</b>	<b>308</b>	<b>54</b>	<b>91</b>	<b>163</b>	<b>3999</b>
Apprch %	0.1	95.2	4.7	0	100	0	5.2	76.9	17.9	17.5	29.5	52.9	
Total %	0.1	46.8	2.3	0	0	0	2.2	33.1	7.7	1.4	2.3	4.1	

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 5

Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	0	169	21	190	0	0	0	0	14	134	37	185	7	6	27	40	415
03:30 PM	0	184	9	193	0	0	0	0	8	121	20	149	6	6	23	35	377
03:45 PM	0	159	11	170	0	0	0	0	9	111	16	136	9	11	22	42	348
04:00 PM	0	175	1	176	0	0	0	0	8	122	26	156	5	8	18	31	363
Total Volume	0	687	42	729	0	0	0	0	39	488	99	626	27	31	90	148	1503
% App. Total	0	94.2	5.8		0	0	0		6.2	78	15.8		18.2	20.9	60.8		
PHF	.000	.933	.500	.944	.000	.000	.000	.000	.696	.910	.669	.846	.750	.705	.833	.881	.905



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

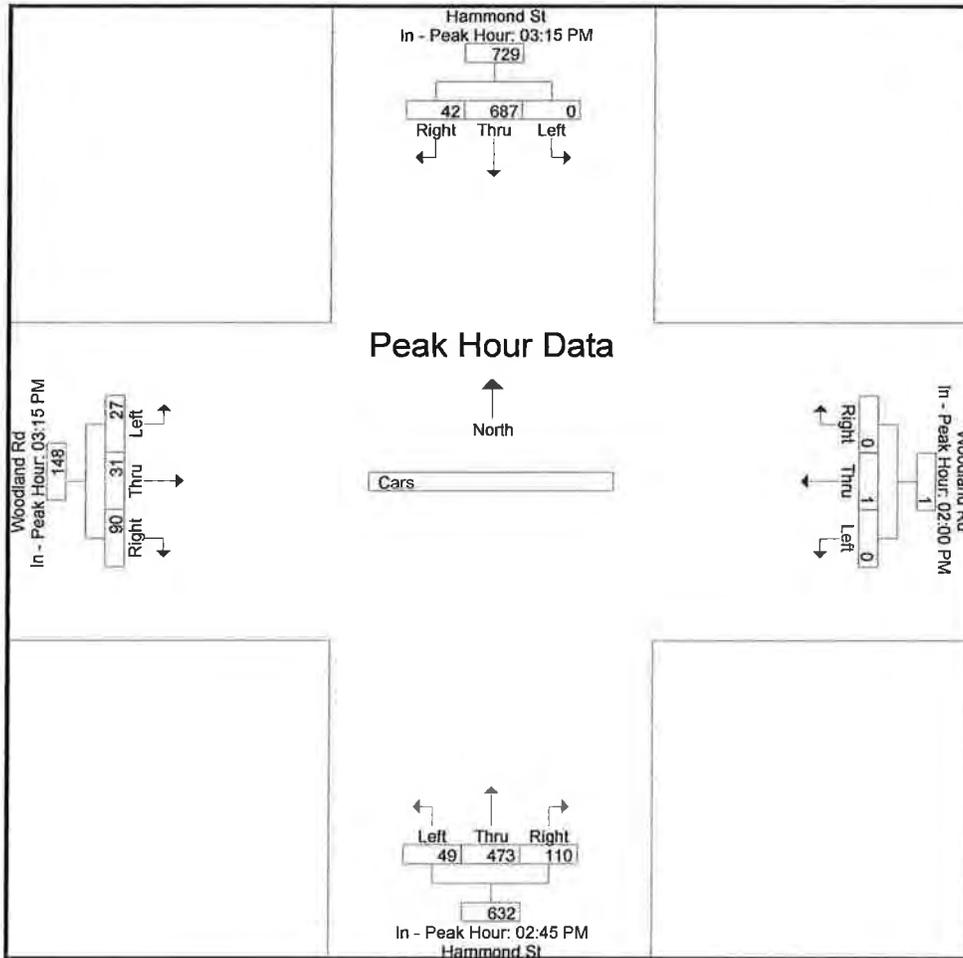
File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 6

Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:15 PM				02:00 PM				02:45 PM				03:15 PM			
+0 mins.	0	169	21	190	0	1	0	1	9	122	32	163	7	6	27	40
+15 mins.	0	184	9	193	0	0	0	0	18	96	21	135	6	6	23	35
+30 mins.	0	159	11	170	0	0	0	0	14	134	37	185	9	11	22	42
+45 mins.	0	175	1	176	0	0	0	0	8	121	20	149	5	8	18	31
Total Volume	0	687	42	729	0	1	0	1	49	473	110	632	27	31	90	148
% App. Total	0	94.2	5.8		0	100	0		7.8	74.8	17.4		18.2	20.9	60.8	
PHF	.000	.933	.500	.944	.000	.250	.000	.250	.681	.882	.743	.854	.750	.705	.833	.881



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 7

Groups Printed- Trucks

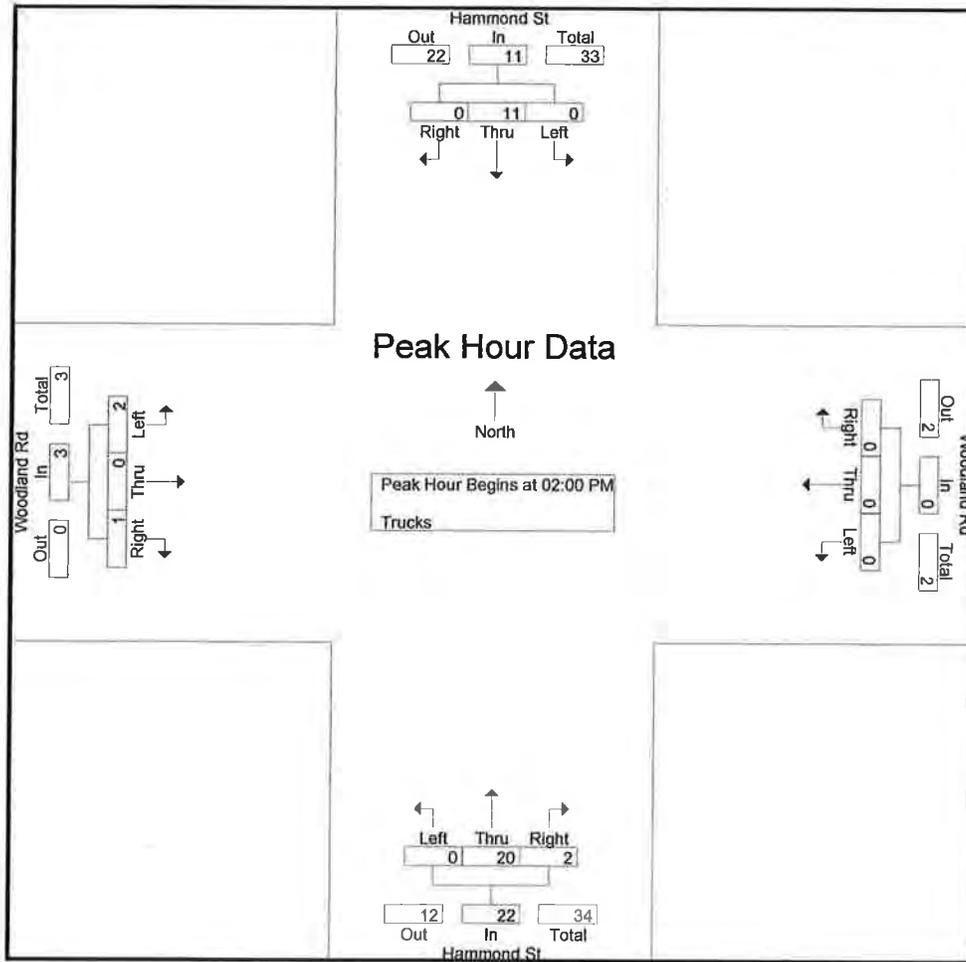
Start Time	Hammond St From North			Woodland Rd From East			Hammond St From South			Woodland Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	0	3	0	0	0	0	0	3	2	0	0	0	8
02:15 PM	0	1	0	0	0	0	0	6	0	0	0	0	7
02:30 PM	0	7	0	0	0	0	0	5	0	1	0	0	13
02:45 PM	0	0	0	0	0	0	0	6	0	1	0	1	8
<b>Total</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>36</b>
03:00 PM	0	2	0	0	0	0	0	3	1	0	0	0	6
03:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
03:30 PM	0	2	1	0	0	0	0	1	0	0	0	0	4
03:45 PM	0	5	1	0	0	0	0	2	0	0	0	1	9
<b>Total</b>	<b>0</b>	<b>10</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>20</b>
04:00 PM	0	2	1	0	0	0	0	1	0	1	0	0	5
04:15 PM	0	2	0	0	0	0	1	1	0	0	0	0	4
04:30 PM	0	1	0	0	0	0	0	1	0	0	0	2	4
04:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
<b>Total</b>	<b>0</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>15</b>
<b>Grand Total</b>	<b>0</b>	<b>28</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>29</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>71</b>
Apprch %	0	90.3	9.7	0	0	0	3	87.9	9.1	42.9	0	57.1	
Total %	0	39.4	4.2	0	0	0	1.4	40.8	4.2	4.2	0	5.6	

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 8

Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	0	3	0	3	0	0	0	0	0	3	2	5	0	0	0	0	8
02:15 PM	0	1	0	1	0	0	0	0	0	6	0	6	0	0	0	0	7
02:30 PM	0	7	0	7	0	0	0	0	0	5	0	5	1	0	0	1	13
02:45 PM	0	0	0	0	0	0	0	0	0	6	0	6	1	0	1	2	8
Total Volume	0	11	0	11	0	0	0	0	0	20	2	22	2	0	1	3	36
% App. Total	0	100	0		0	0	0		0	90.9	9.1		66.7	0	33.3		
PHF	.000	.393	.000	.393	.000	.000	.000	.000	.000	.833	.250	.917	.500	.000	.250	.375	.692



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

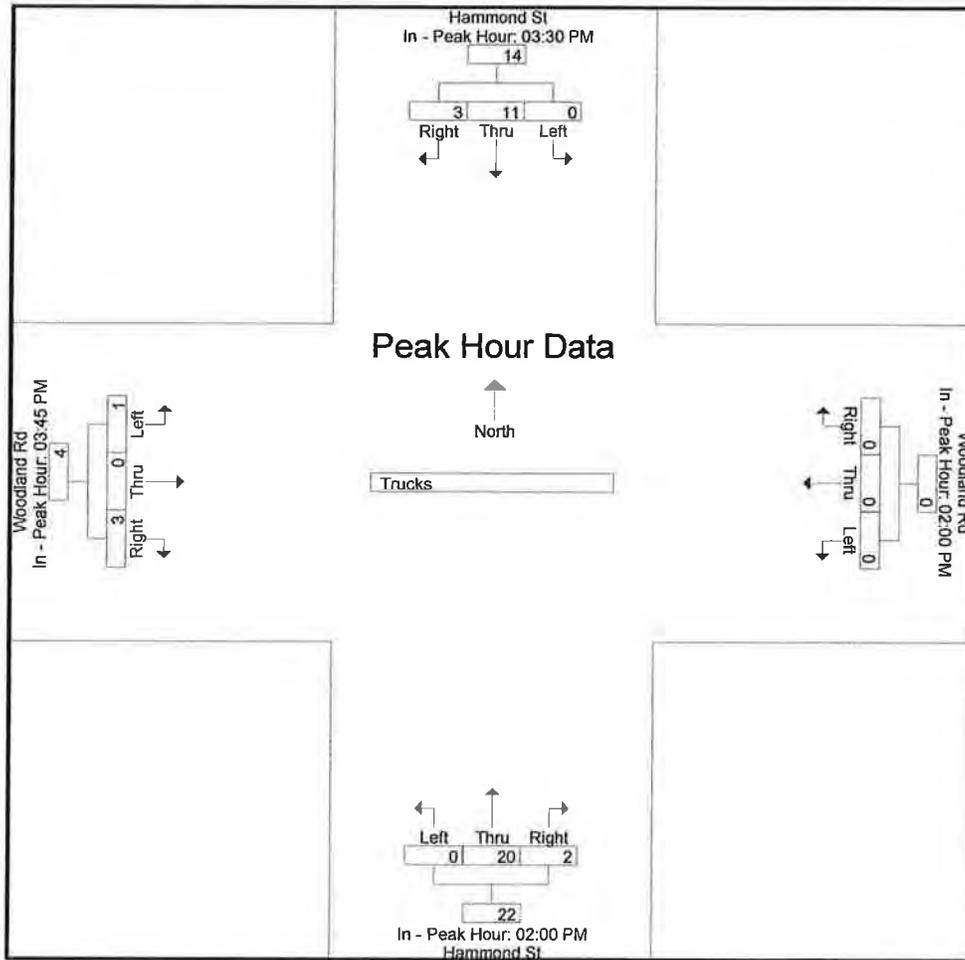
File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 9

Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:30 PM				02:00 PM				02:00 PM				03:45 PM			
+0 mins.	0	2	1	3	0	0	0	0	0	3	2	5	0	0	1	1
+15 mins.	0	5	1	6	0	0	0	0	0	6	0	6	1	0	0	1
+30 mins.	0	2	1	3	0	0	0	0	0	5	0	5	0	0	0	0
+45 mins.	0	2	0	2	0	0	0	0	0	6	0	6	0	0	2	2
Total Volume	0	11	3	14	0	0	0	0	0	20	2	22	1	0	3	4
% App. Total	0	78.6	21.4		0	0	0		0	90.9	9.1		25	0	75	
PHF	.000	.550	.750	.583	.000	.000	.000	.000	.000	.833	.250	.917	.250	.000	.375	.500



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 10

Groups Printed- Bikes Peds

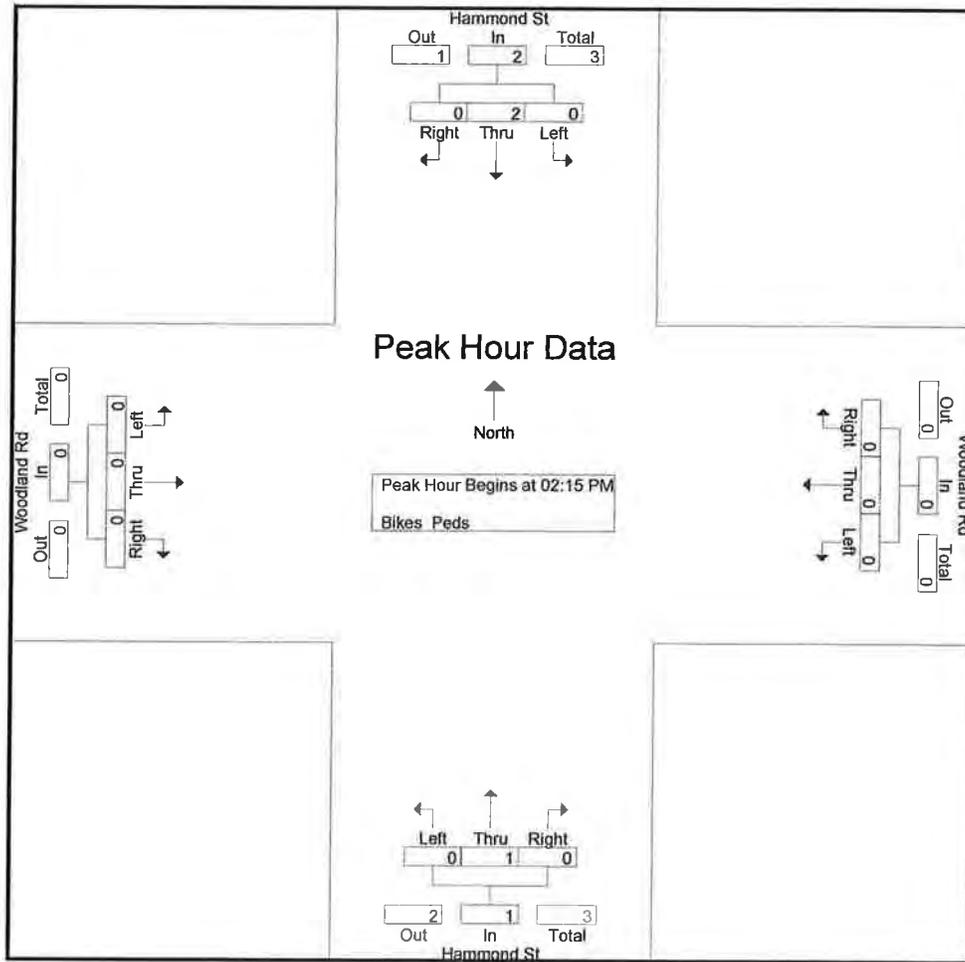
Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds															
02:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2	0	2
02:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2
02:30 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	0	2
02:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2
<b>Total</b>	0	2	0	1	0	0	0	2	0	0	0	1	0	0	0	2	6	2	8
03:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
03:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1
03:30 PM	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	1	4	0	4
03:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
<b>Total</b>	0	0	0	3	0	0	0	2	0	1	0	0	0	0	0	1	6	1	7
04:00 PM	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	2	8	0	8
04:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3	0	3
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	1	0	8	0	0	0	0	0	0	0	0	0	0	0	4	12	1	13
<b>Grand Total</b>	0	3	0	12	0	0	0	4	0	1	0	1	0	0	0	7	24	4	28
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0				
Total %	0	75	0		0	0	0		0	25	0		0	0	0		85.7	14.3	

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 11

Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:15 PM																	
02:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.750



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

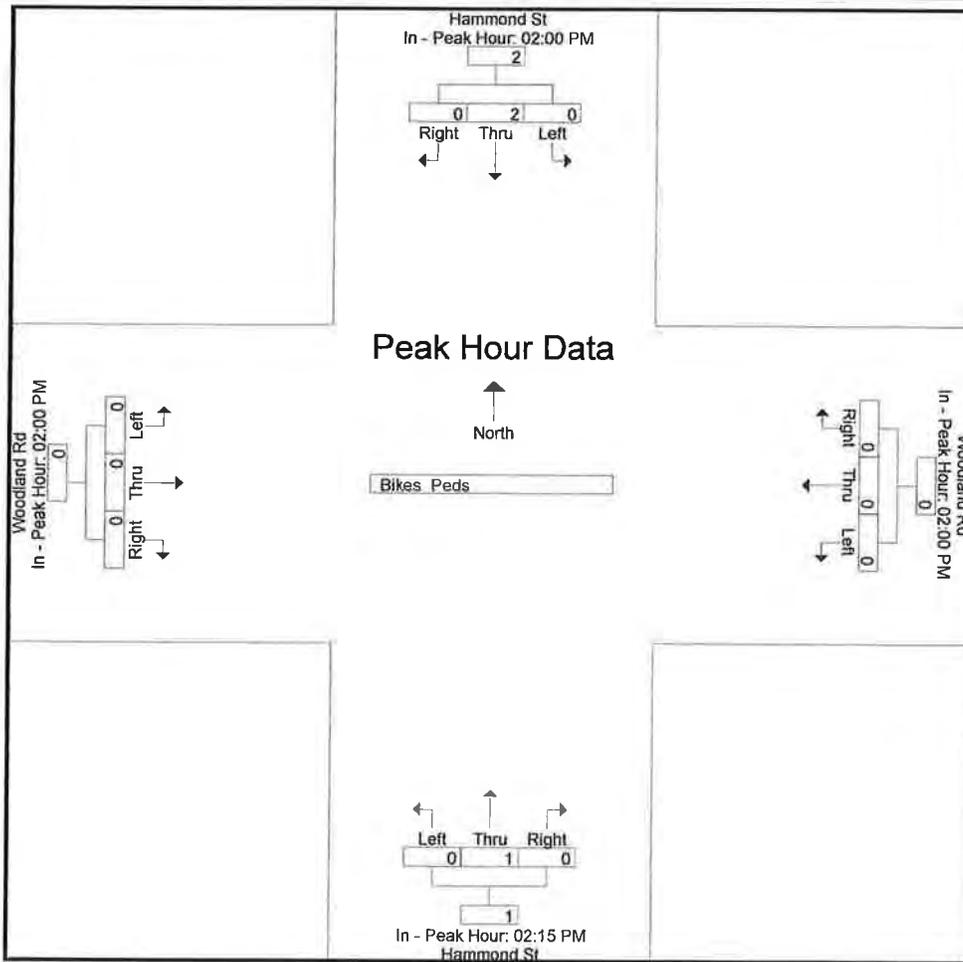
File Name : 7382N005  
Site Code : 73820005  
Start Date : 11/17/2016  
Page No : 12

Start Time	Hammond St From North				Woodland Rd From East				Hammond St From South				Woodland Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM				02:00 PM				02:15 PM				02:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Heath St From East		Oak St From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	3	25	0	0	31	1	60
07:15 AM	4	37	0	1	38	2	82
07:30 AM	1	54	1	4	26	0	86
07:45 AM	2	59	2	2	32	5	102
<b>Total</b>	<b>10</b>	<b>175</b>	<b>3</b>	<b>7</b>	<b>127</b>	<b>8</b>	<b>330</b>
08:00 AM	1	56	1	1	34	0	93
08:15 AM	4	61	1	1	24	1	92
08:30 AM	2	55	1	2	39	2	101
08:45 AM	3	49	3	1	34	2	92
<b>Total</b>	<b>10</b>	<b>221</b>	<b>6</b>	<b>5</b>	<b>131</b>	<b>5</b>	<b>378</b>
09:00 AM	0	48	3	1	32	1	85
09:15 AM	0	35	0	0	38	1	74
<b>Grand Total</b>	<b>20</b>	<b>479</b>	<b>12</b>	<b>13</b>	<b>328</b>	<b>15</b>	<b>867</b>
Apprch %	4	96	48	52	95.6	4.4	
Total %	2.3	55.2	1.4	1.5	37.8	1.7	
<b>Cars</b>	<b>20</b>	<b>469</b>	<b>12</b>	<b>13</b>	<b>324</b>	<b>15</b>	<b>853</b>
<b>% Cars</b>	<b>100</b>	<b>97.9</b>	<b>100</b>	<b>100</b>	<b>98.8</b>	<b>100</b>	<b>98.4</b>
<b>Trucks</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>14</b>
<b>% Trucks</b>	<b>0</b>	<b>2.1</b>	<b>0</b>	<b>0</b>	<b>1.2</b>	<b>0</b>	<b>1.6</b>

**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

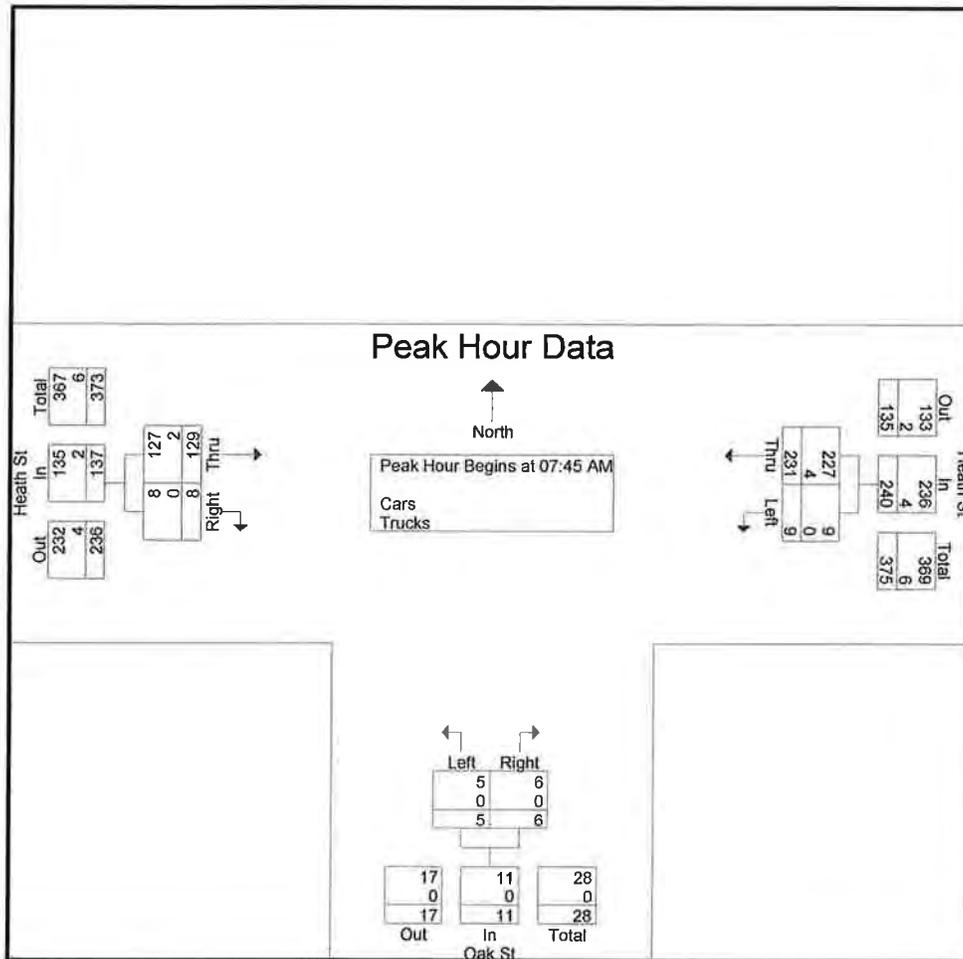
File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 2

Start Time	Heath St From East			Oak St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45 AM

07:45 AM	2	59	61	2	2	4	32	5	37	102
08:00 AM	1	56	57	1	1	2	34	0	34	93
08:15 AM	4	61	65	1	1	2	24	1	25	92
08:30 AM	2	55	57	1	2	3	39	2	41	101
<b>Total Volume</b>	9	231	240	5	6	11	129	8	137	388
<b>% App. Total</b>	3.8	96.2		45.5	54.5		94.2	5.8		
PHF	.563	.947	.923	.625	.750	.688	.827	.400	.835	.951
Cars	9	227	236	5	6	11	127	8	135	382
% Cars	100	98.3	98.3	100	100	100	98.4	100	98.5	98.5
Trucks	0	4	4	0	0	0	2	0	2	6
% Trucks	0	1.7	1.7	0	0	0	1.6	0	1.5	1.5



**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

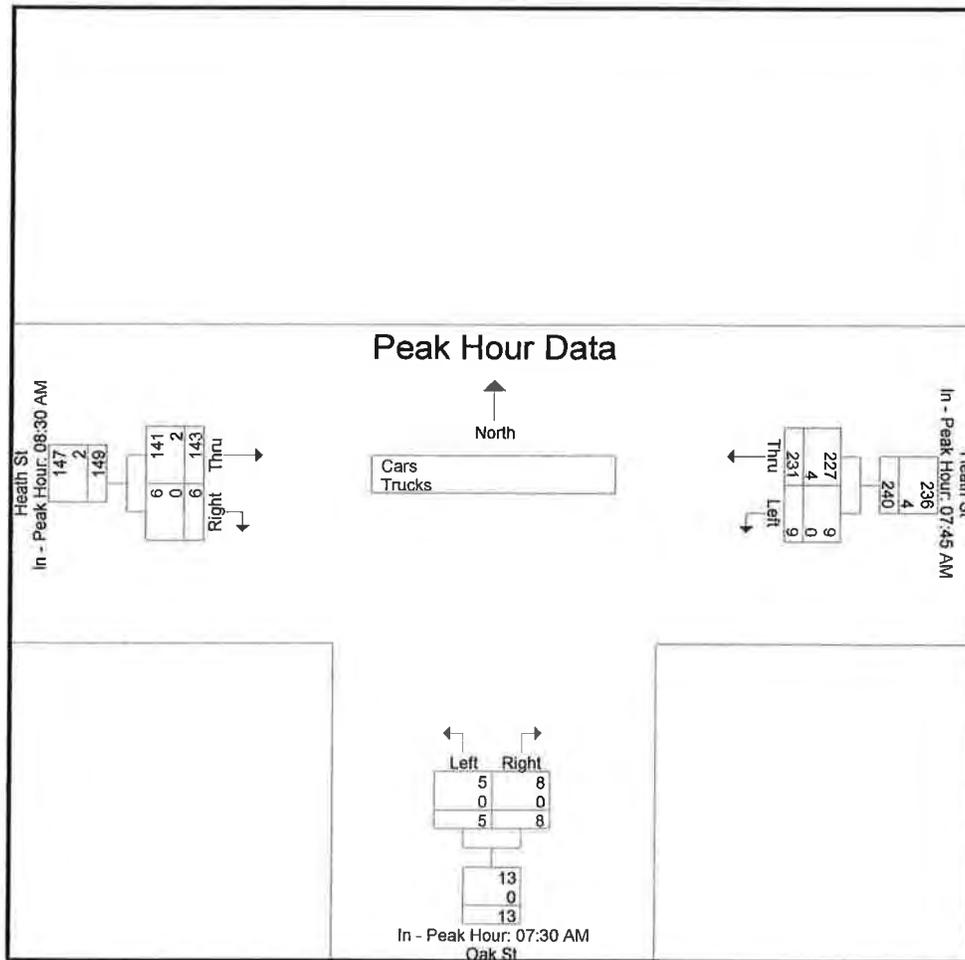
File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 3

Start Time	Heath St From East			Oak St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM			07:30 AM			08:30 AM		
+0 mins.	2	59	61	1	4	5	39	2	41
+15 mins.	1	56	57	2	2	4	34	2	36
+30 mins.	4	61	65	1	1	2	32	1	33
+45 mins.	2	55	57	1	1	2	38	1	39
Total Volume	9	231	240	5	8	13	143	6	149
% App. Total	3.8	96.2		38.5	61.5		96	4	
PHF	.563	.947	.923	.625	.500	.650	.917	.750	.909
Cars	9	227	236	5	8	13	141	6	147
% Cars	100	98.3	98.3	100	100	100	98.6	100	98.7
Trucks	0	4	4	0	0	0	2	0	2
% Trucks	0	1.7	1.7	0	0	0	1.4	0	1.3



**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 4

Groups Printed- Cars

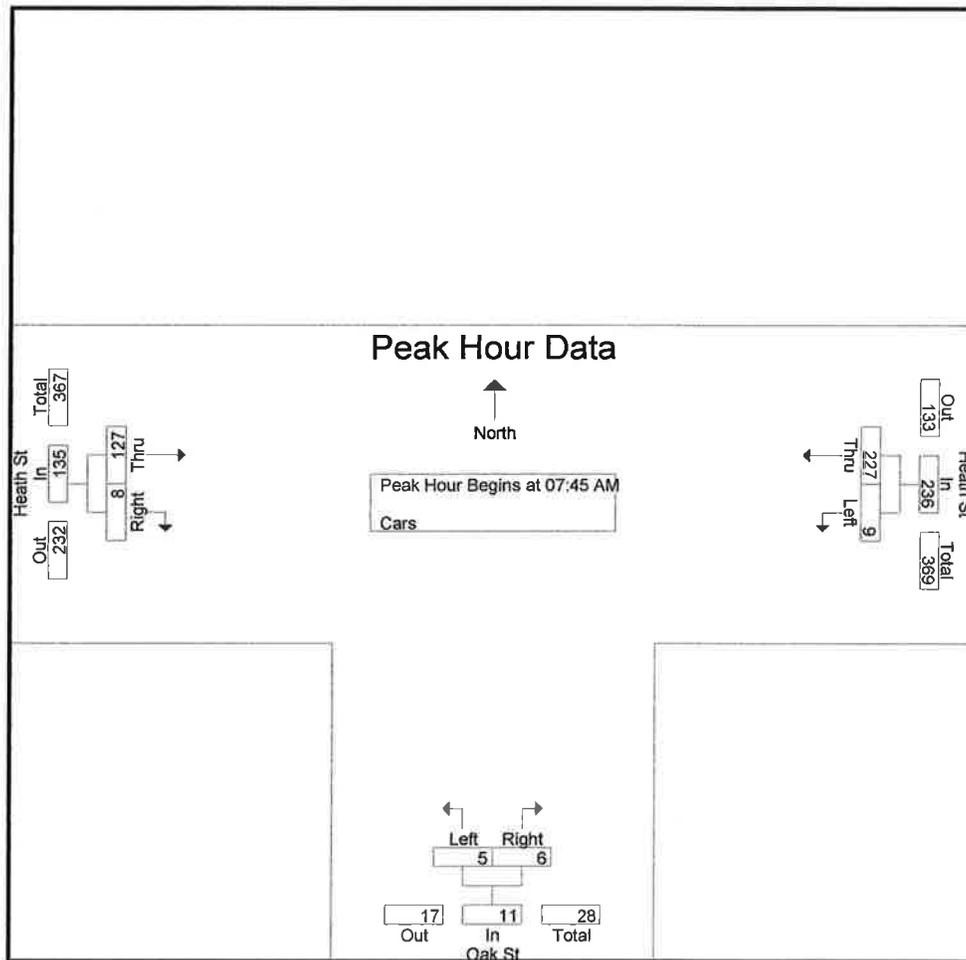
Start Time	Heath St From East		Oak St From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	3	25	0	0	31	1	60
07:15 AM	4	36	0	1	37	2	80
07:30 AM	1	54	1	4	26	0	86
07:45 AM	2	59	2	2	32	5	102
<b>Total</b>	<b>10</b>	<b>174</b>	<b>3</b>	<b>7</b>	<b>126</b>	<b>8</b>	<b>328</b>
08:00 AM	1	55	1	1	33	0	91
08:15 AM	4	59	1	1	24	1	90
08:30 AM	2	54	1	2	38	2	99
08:45 AM	3	46	3	1	34	2	89
<b>Total</b>	<b>10</b>	<b>214</b>	<b>6</b>	<b>5</b>	<b>129</b>	<b>5</b>	<b>369</b>
09:00 AM	0	47	3	1	32	1	84
09:15 AM	0	34	0	0	37	1	72
<b>Grand Total</b>	<b>20</b>	<b>469</b>	<b>12</b>	<b>13</b>	<b>324</b>	<b>15</b>	<b>853</b>
<b>Apprch %</b>	<b>4.1</b>	<b>95.9</b>	<b>48</b>	<b>52</b>	<b>95.6</b>	<b>4.4</b>	
<b>Total %</b>	<b>2.3</b>	<b>55</b>	<b>1.4</b>	<b>1.5</b>	<b>38</b>	<b>1.8</b>	

**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 5

Start Time	Heath St From East			Oak St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	2	59	61	2	2	4	32	5	37	102
08:00 AM	1	55	56	1	1	2	33	0	33	91
08:15 AM	4	59	63	1	1	2	24	1	25	90
08:30 AM	2	54	56	1	2	3	38	2	40	99
Total Volume	9	227	236	5	6	11	127	8	135	382
% App. Total	3.8	96.2		45.5	54.5		94.1	5.9		
PHF	.563	.962	.937	.625	.750	.688	.836	.400	.844	.936



**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

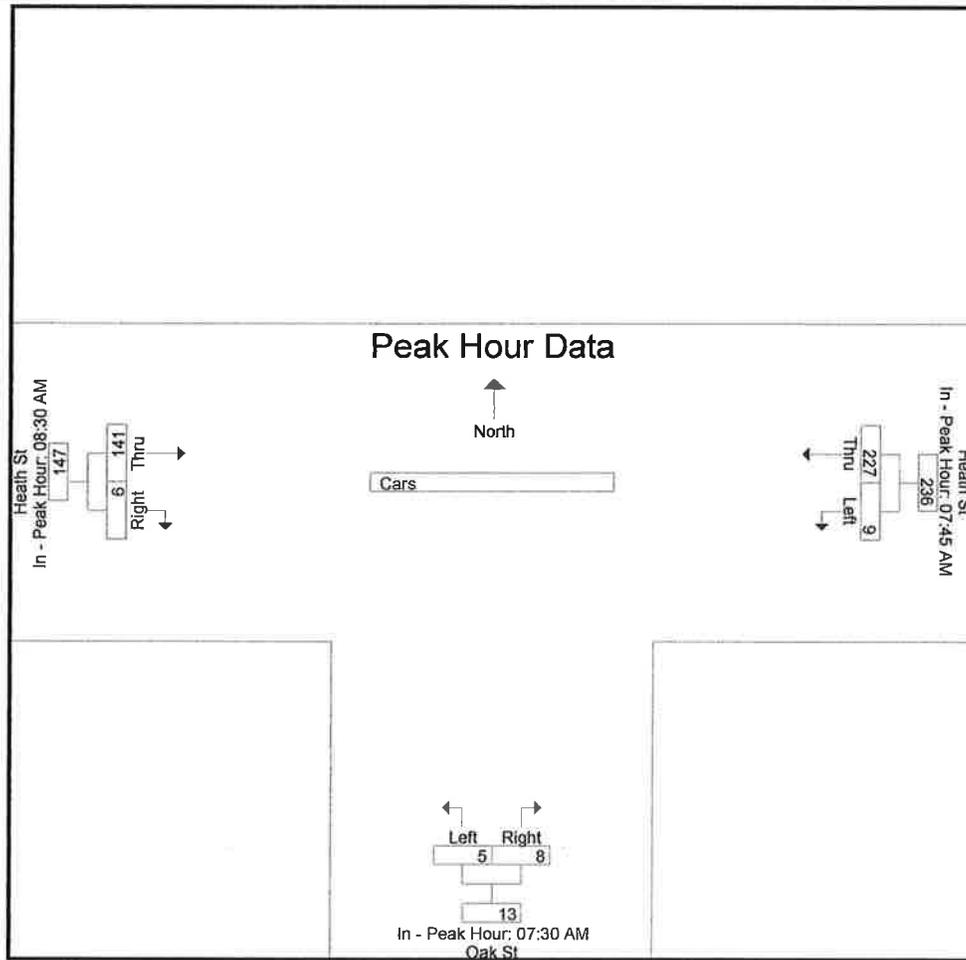
File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 6

Start Time	Heath St From East			Oak St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM			07:30 AM			08:30 AM		
+0 mins.	2	59	61	1	4	5	38	2	40
+15 mins.	1	55	56	2	2	4	34	2	36
+30 mins.	4	59	63	1	1	2	32	1	33
+45 mins.	2	54	56	1	1	2	37	1	38
Total Volume	9	227	236	5	8	13	141	6	147
% App. Total	3.8	96.2		38.5	61.5		95.9	4.1	
PHF	.563	.962	.937	.625	.500	.650	.928	.750	.919



**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 7

Groups Printed- Trucks

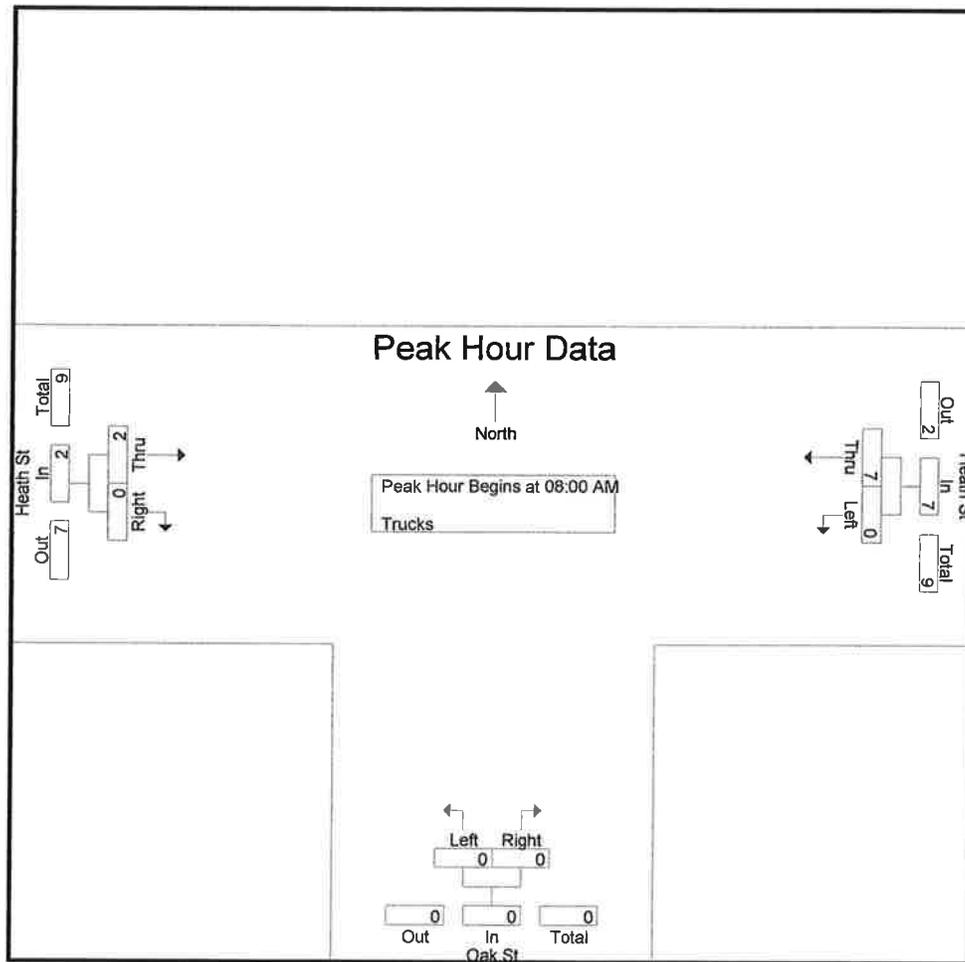
Start Time	Heath St From East		Oak St From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	0	0	0	0	0	0
07:15 AM	0	1	0	0	1	0	2
07:30 AM	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0
<b>Total</b>	0	1	0	0	1	0	2
08:00 AM	0	1	0	0	1	0	2
08:15 AM	0	2	0	0	0	0	2
08:30 AM	0	1	0	0	1	0	2
08:45 AM	0	3	0	0	0	0	3
<b>Total</b>	0	7	0	0	2	0	9
09:00 AM	0	1	0	0	0	0	1
09:15 AM	0	1	0	0	1	0	2
<b>Grand Total</b>	0	10	0	0	4	0	14
<b>Apprch %</b>	0	100	0	0	100	0	
<b>Total %</b>	0	71.4	0	0	28.6	0	

**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 8

Start Time	Heath St From East			Oak St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	0	1	1	0	0	0	1	0	1	2
08:15 AM	0	2	2	0	0	0	0	0	0	2
08:30 AM	0	1	1	0	0	0	1	0	1	2
08:45 AM	0	3	3	0	0	0	0	0	0	3
Total Volume	0	7	7	0	0	0	2	0	2	9
% App. Total	0	100		0	0		100	0		
PHF	.000	.583	.583	.000	.000	.000	.500	.000	.500	.750



**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

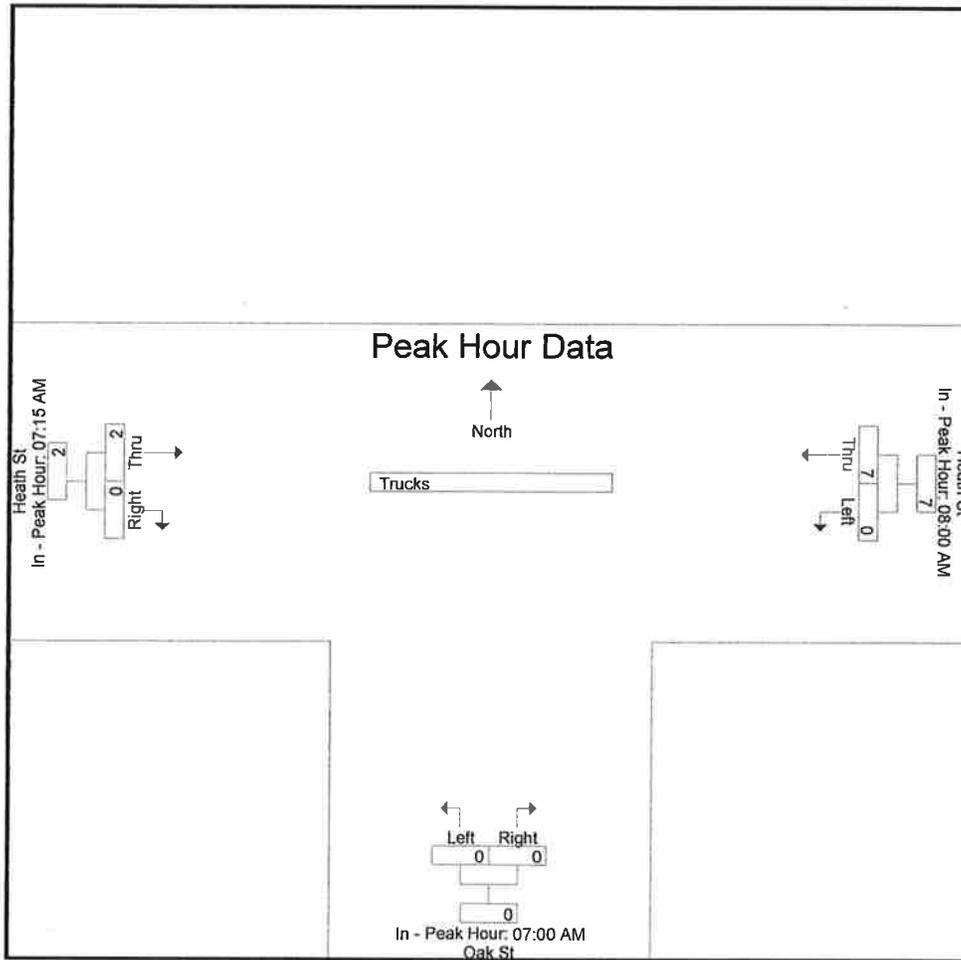
File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 9

Start Time	Heath St From East			Oak St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM			07:00 AM			07:15 AM		
+0 mins.	0	1	1	0	0	0	1	0	1
+15 mins.	0	2	2	0	0	0	0	0	0
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	3	3	0	0	0	1	0	1
Total Volume	0	7	7	0	0	0	2	0	2
% App. Total	0	100		0	0		100	0	
PHF	.000	.583	.583	.000	.000	.000	.500	.000	.500



**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 10

Groups Printed- Bikes Peds

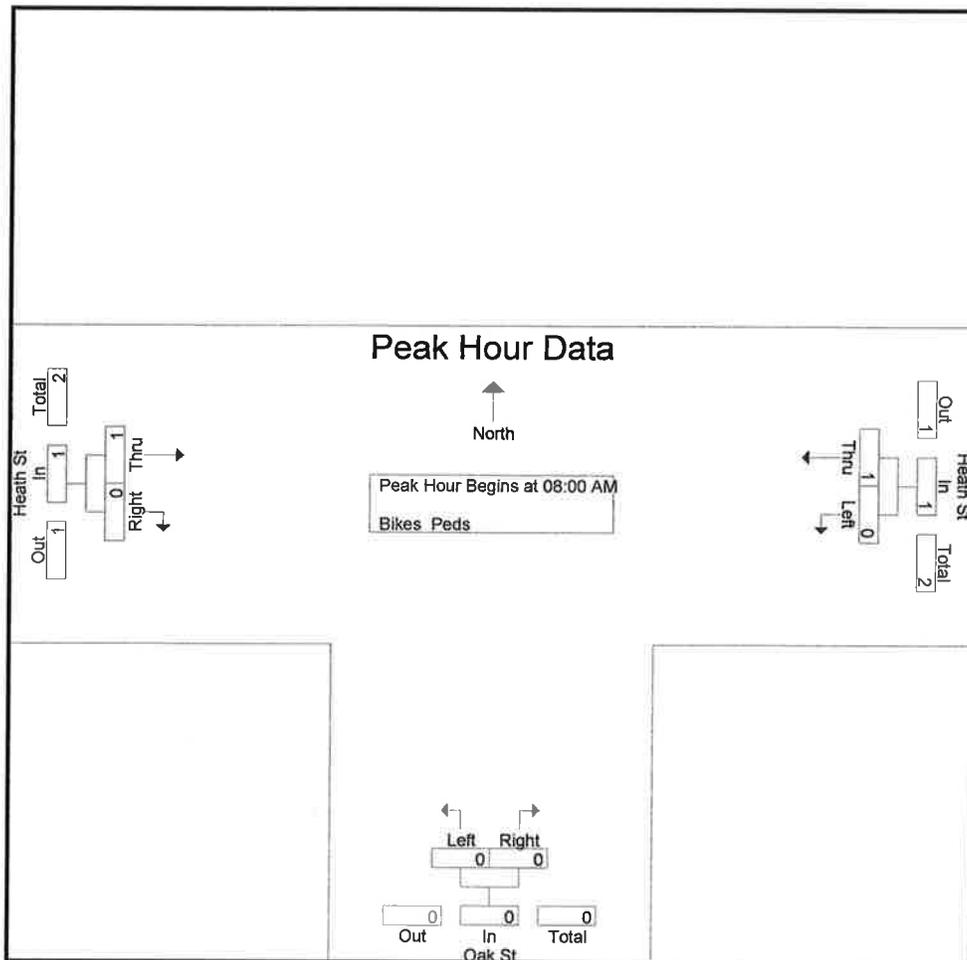
Start Time	Heath St From East			Oak St From South			Heath St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	1	0	0	1	2	0	2
07:15 AM	0	1	2	0	0	0	0	0	0	2	1	3
07:30 AM	0	0	0	0	0	1	0	0	1	2	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	1	2	0	0	2	0	0	2	6	1	7
08:00 AM	0	0	0	0	0	2	0	0	0	2	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	1	0	1	2	1	3
08:45 AM	0	1	0	0	0	0	0	0	0	0	1	1
<b>Total</b>	0	1	0	0	0	3	1	0	1	4	2	6
09:00 AM	0	0	0	0	0	1	0	0	0	1	0	1
09:15 AM	0	0	0	0	0	0	0	0	1	1	0	1
<b>Grand Total</b>	0	2	2	0	0	6	1	0	4	12	3	15
Apprch %	0	100		0	0		100	0				
Total %	0	66.7		0	0		33.3	0		80	20	

**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 11

Start Time	Heath St From East			Oak St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 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
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	1	0	1	1
08:45 AM	0	1	1	0	0	0	0	0	0	1
Total Volume	0	1	1	0	0	0	1	0	1	2
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250	.500



**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

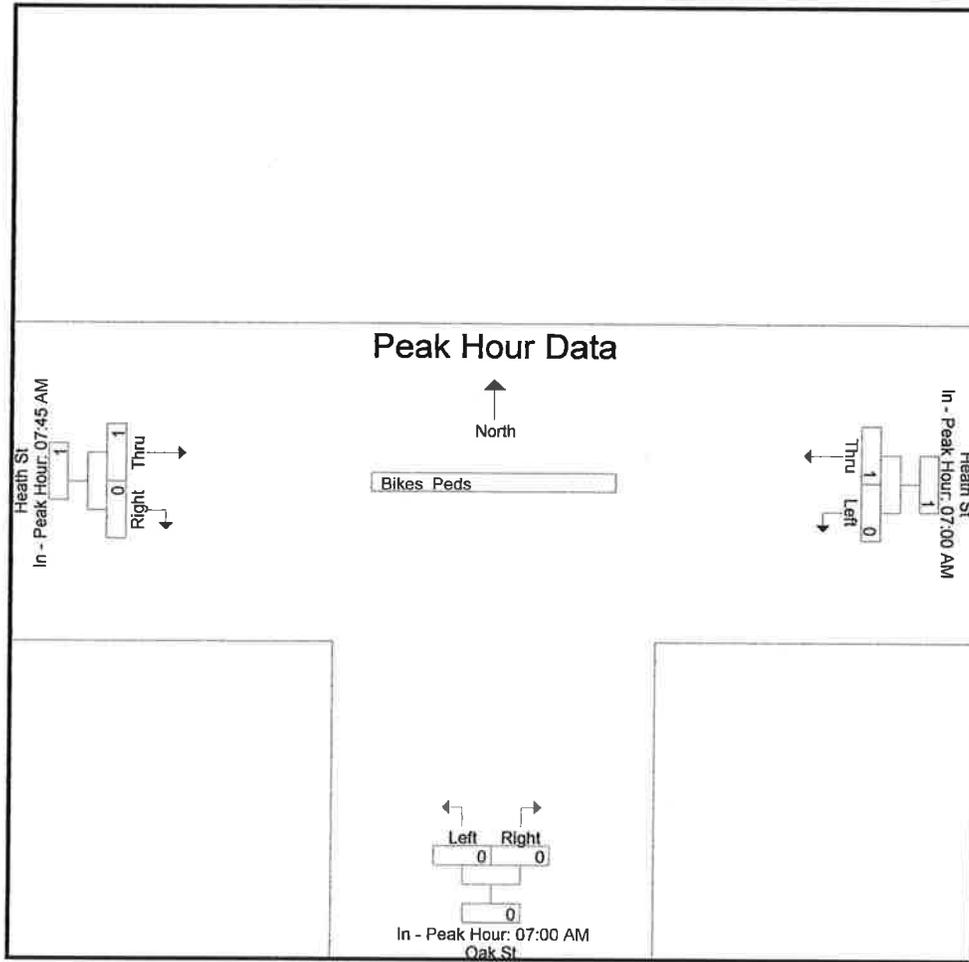
File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 12

Start Time	Heath St From East			Oak St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:45 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	1	1	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	0	1
Total Volume	0	1	1	0	0	0	1	0	1
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250



**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Heath St From East		Oak St From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:00 PM	0	57	0	0	28	0	85
02:15 PM	0	44	2	0	25	0	71
02:30 PM	0	55	0	0	26	0	81
02:45 PM	1	57	0	1	30	0	89
<b>Total</b>	<b>1</b>	<b>213</b>	<b>2</b>	<b>1</b>	<b>109</b>	<b>0</b>	<b>326</b>
03:00 PM	4	70	1	0	27	0	102
03:15 PM	2	71	1	2	41	1	118
03:30 PM	1	72	2	1	35	1	112
03:45 PM	4	61	2	1	29	1	98
<b>Total</b>	<b>11</b>	<b>274</b>	<b>6</b>	<b>4</b>	<b>132</b>	<b>3</b>	<b>430</b>
04:00 PM	0	87	5	2	37	1	132
04:15 PM	2	87	2	0	37	1	129
04:30 PM	1	85	2	1	34	0	123
04:45 PM	0	107	0	0	35	0	142
<b>Total</b>	<b>3</b>	<b>366</b>	<b>9</b>	<b>3</b>	<b>143</b>	<b>2</b>	<b>526</b>
<b>Grand Total</b>	<b>15</b>	<b>853</b>	<b>17</b>	<b>8</b>	<b>384</b>	<b>5</b>	<b>1282</b>
Apprch %	1.7	98.3	68	32	98.7	1.3	
Total %	1.2	66.5	1.3	0.6	30	0.4	
Cars	15	843	17	8	383	5	1271
% Cars	100	98.8	100	100	99.7	100	99.1
Trucks	0	10	0	0	1	0	11
% Trucks	0	1.2	0	0	0.3	0	0.9

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

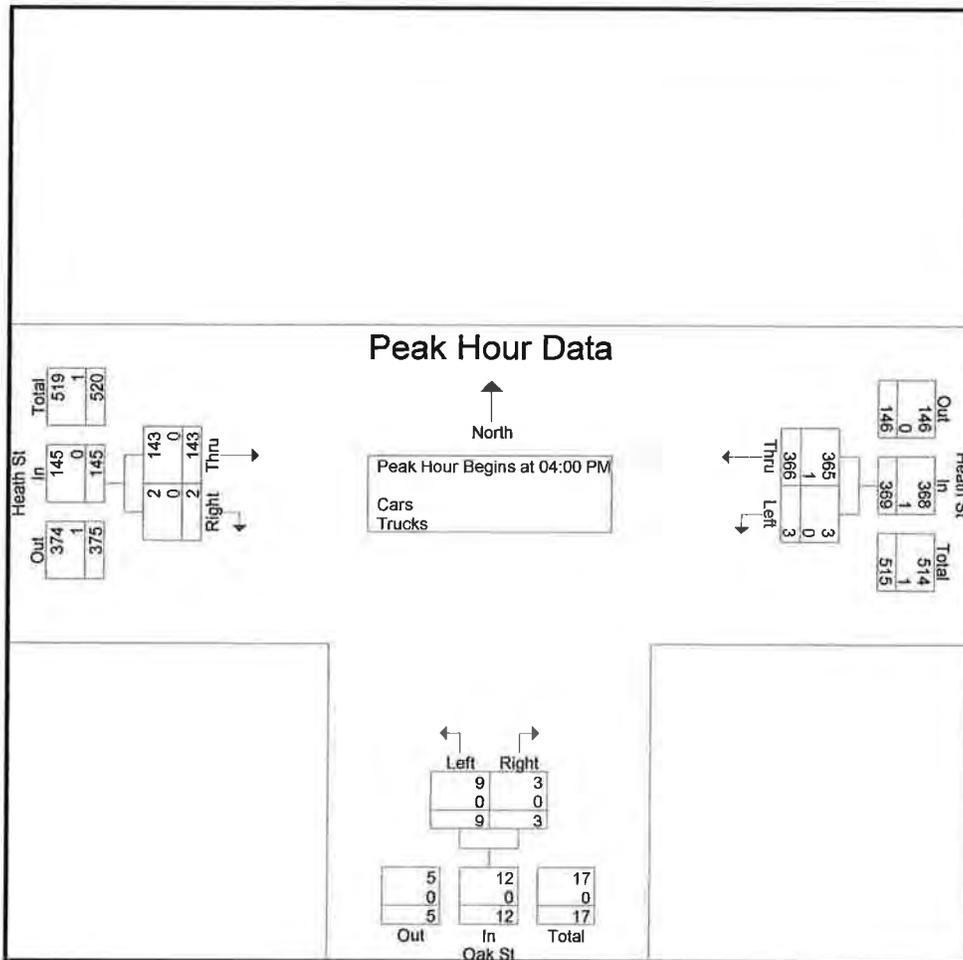
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Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 2

Start Time	Heath St From East			Oak St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	0	87	87	5	2	7	37	1	38	132
04:15 PM	2	87	89	2	0	2	37	1	38	129
04:30 PM	1	85	86	2	1	3	34	0	34	123
04:45 PM	0	107	107	0	0	0	35	0	35	142
<b>Total Volume</b>	<b>3</b>	<b>366</b>	<b>369</b>	<b>9</b>	<b>3</b>	<b>12</b>	<b>143</b>	<b>2</b>	<b>145</b>	<b>526</b>
<b>% App. Total</b>	<b>0.8</b>	<b>99.2</b>		<b>75</b>	<b>25</b>		<b>98.6</b>	<b>1.4</b>		
PHF	.375	.855	.862	.450	.375	.429	.966	.500	.954	.926
Cars	3	365	368	9	3	12	143	2	145	525
% Cars	100	99.7	99.7	100	100	100	100	100	100	99.8
Trucks	0	1	1	0	0	0	0	0	0	1
% Trucks	0	0.3	0.3	0	0	0	0	0	0	0.2



N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

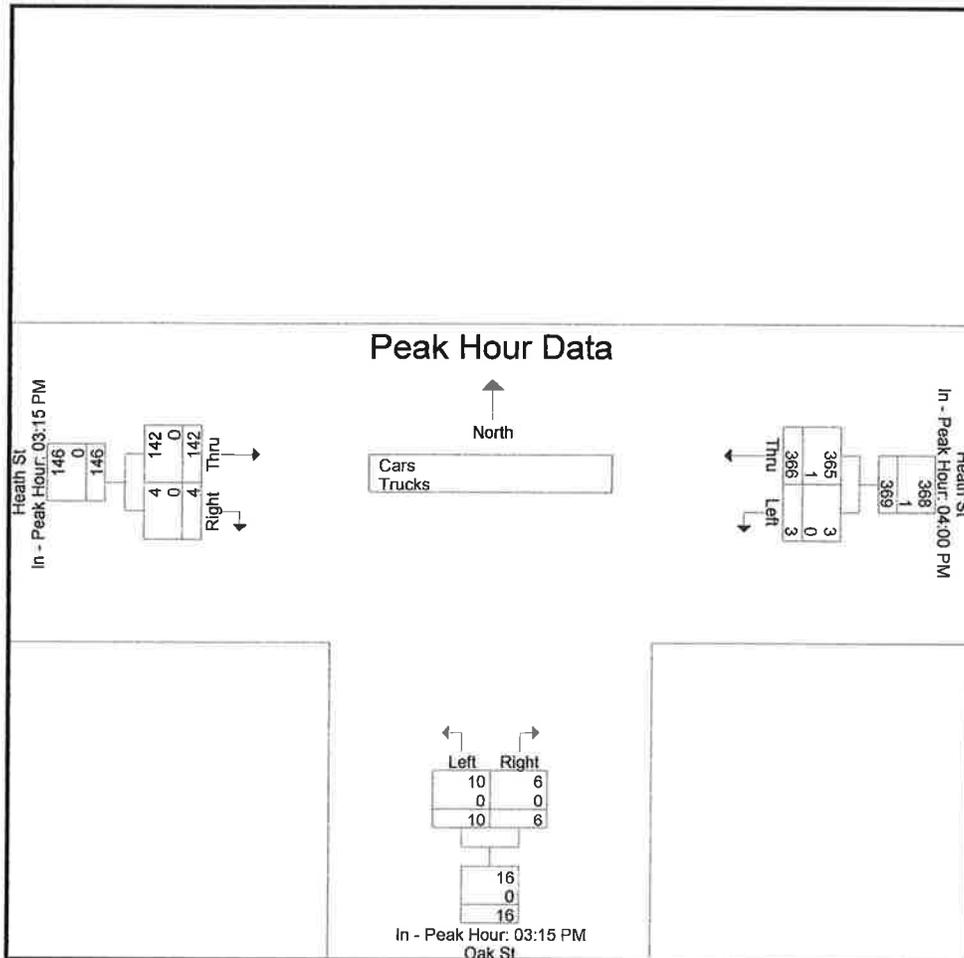
File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 3

Start Time	Heath St From East			Oak St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			03:15 PM			03:15 PM		
+0 mins.	0	87	87	1	2	3	41	1	42
+15 mins.	2	87	89	2	1	3	35	1	36
+30 mins.	1	85	86	2	1	3	29	1	30
+45 mins.	0	107	107	5	2	7	37	1	38
Total Volume	3	366	369	10	6	16	142	4	146
% App. Total	0.8	99.2		62.5	37.5		97.3	2.7	
PHF	.375	.855	.862	.500	.750	.571	.866	1.000	.869
Cars	3	365	368	10	6	16	142	4	146
% Cars	100	99.7	99.7	100	100	100	100	100	100
Trucks	0	1	1	0	0	0	0	0	0
% Trucks	0	0.3	0.3	0	0	0	0	0	0



**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 4

Groups Printed- Cars

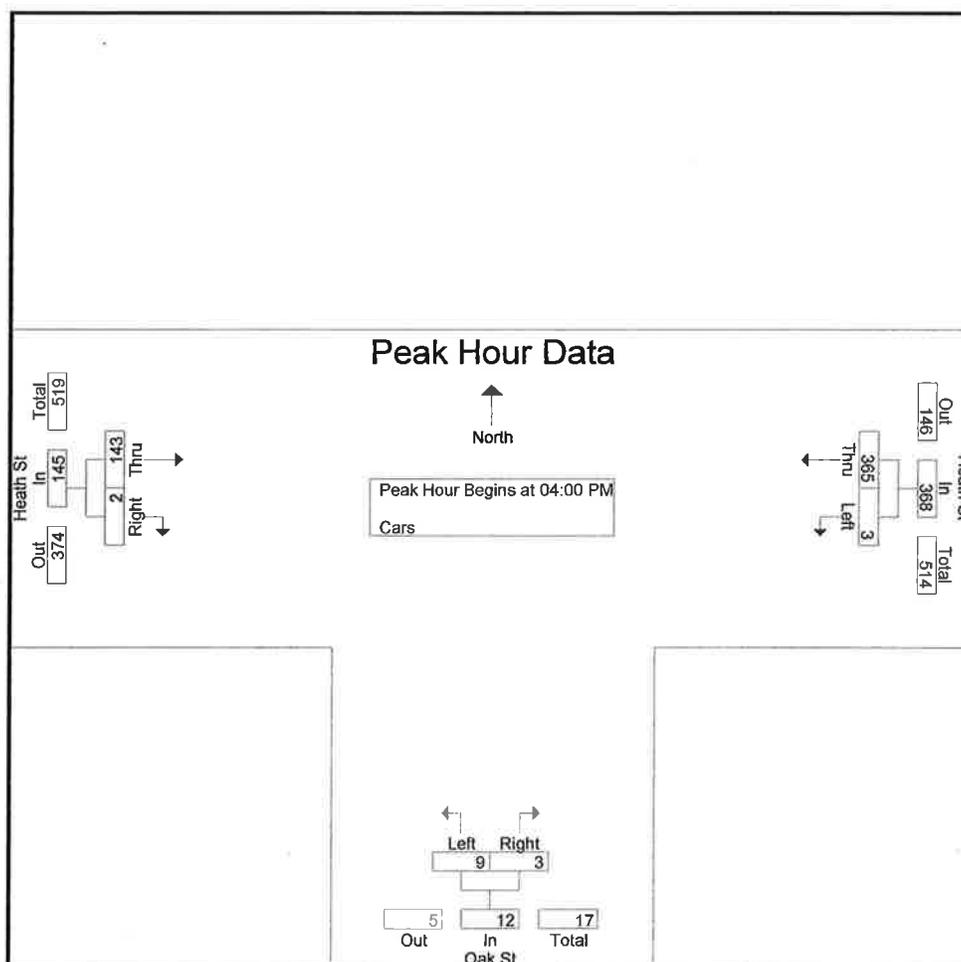
Start Time	Heath St From East		Oak St From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:00 PM	0	57	0	0	28	0	85
02:15 PM	0	43	2	0	24	0	69
02:30 PM	0	51	0	0	26	0	77
02:45 PM	1	57	0	1	30	0	89
<b>Total</b>	<b>1</b>	<b>208</b>	<b>2</b>	<b>1</b>	<b>108</b>	<b>0</b>	<b>320</b>
03:00 PM	4	70	1	0	27	0	102
03:15 PM	2	70	1	2	41	1	117
03:30 PM	1	71	2	1	35	1	111
03:45 PM	4	59	2	1	29	1	96
<b>Total</b>	<b>11</b>	<b>270</b>	<b>6</b>	<b>4</b>	<b>132</b>	<b>3</b>	<b>426</b>
04:00 PM	0	86	5	2	37	1	131
04:15 PM	2	87	2	0	37	1	129
04:30 PM	1	85	2	1	34	0	123
04:45 PM	0	107	0	0	35	0	142
<b>Total</b>	<b>3</b>	<b>365</b>	<b>9</b>	<b>3</b>	<b>143</b>	<b>2</b>	<b>525</b>
<b>Grand Total</b>	<b>15</b>	<b>843</b>	<b>17</b>	<b>8</b>	<b>383</b>	<b>5</b>	<b>1271</b>
Apprch %	1.7	98.3	68	32	98.7	1.3	
Total %	1.2	66.3	1.3	0.6	30.1	0.4	

**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 5

Start Time	Heath St From East			Oak St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	86	86	5	2	7	37	1	38	131
04:15 PM	2	87	89	2	0	2	37	1	38	129
04:30 PM	1	85	86	2	1	3	34	0	34	123
04:45 PM	0	<b>107</b>	<b>107</b>	0	0	0	35	0	35	<b>142</b>
<b>Total Volume</b>	<b>3</b>	<b>365</b>	<b>368</b>	<b>9</b>	<b>3</b>	<b>12</b>	<b>143</b>	<b>2</b>	<b>145</b>	<b>525</b>
<b>% App. Total</b>	<b>0.8</b>	<b>99.2</b>		<b>75</b>	<b>25</b>		<b>98.6</b>	<b>1.4</b>		
<b>PHF</b>	<b>.375</b>	<b>.853</b>	<b>.860</b>	<b>.450</b>	<b>.375</b>	<b>.429</b>	<b>.966</b>	<b>.500</b>	<b>.954</b>	<b>.924</b>



**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

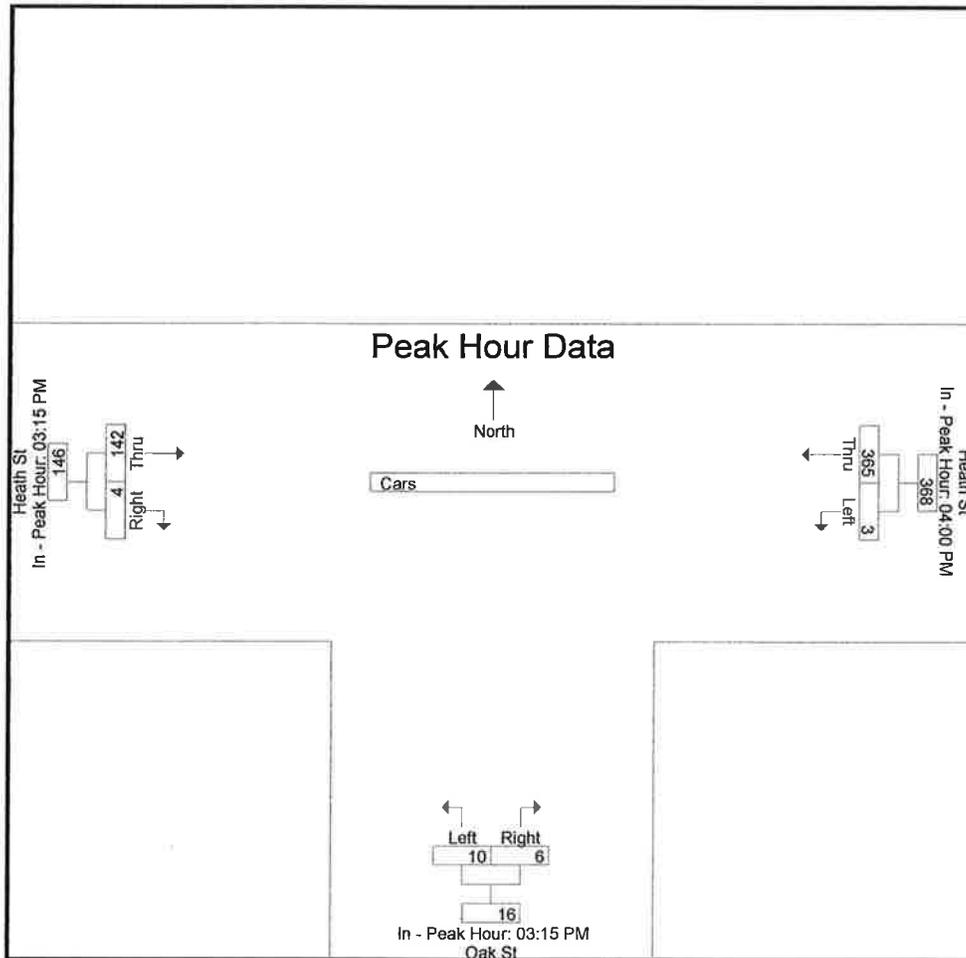
File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 6

Start Time	Heath St From East			Oak St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			03:15 PM			03:15 PM		
+0 mins.	0	86	86	1	2	3	41	1	42
+15 mins.	2	87	89	2	1	3	35	1	36
+30 mins.	1	85	86	2	1	3	29	1	30
+45 mins.	0	<b>107</b>	<b>107</b>	<b>5</b>	<b>2</b>	<b>7</b>	37	1	38
Total Volume	3	365	368	10	6	16	142	4	146
% App. Total	0.8	99.2		62.5	37.5		97.3	2.7	
PHF	.375	.853	.860	.500	.750	.571	.866	1.000	.869



**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 7

Groups Printed- Trucks

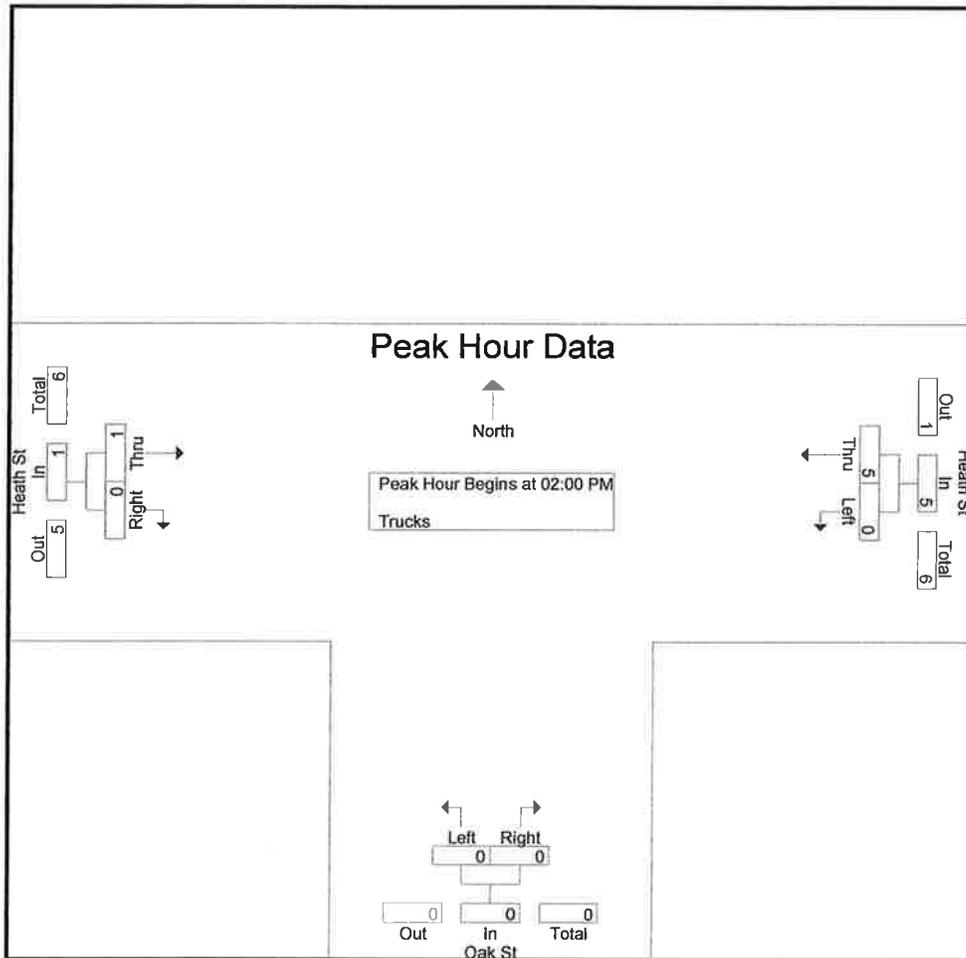
Start Time	Heath St From East		Oak St From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:00 PM	0	0	0	0	0	0	0
02:15 PM	0	1	0	0	1	0	2
02:30 PM	0	4	0	0	0	0	4
02:45 PM	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>6</b>
03:00 PM	0	0	0	0	0	0	0
03:15 PM	0	1	0	0	0	0	1
03:30 PM	0	1	0	0	0	0	1
03:45 PM	0	2	0	0	0	0	2
<b>Total</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>
04:00 PM	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Grand Total</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>11</b>
Apprch %	0	100	0	0	100	0	
Total %	0	90.9	0	0	9.1	0	

**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 8

Start Time	Heath St From East			Oak St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	1	1	0	0	0	1	0	1	2
02:30 PM	0	4	4	0	0	0	0	0	0	4
02:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	5	5	0	0	0	1	0	1	6
% App. Total	0	100		0	0		100	0		
PHF	.000	.313	.313	.000	.000	.000	.250	.000	.250	.375



N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

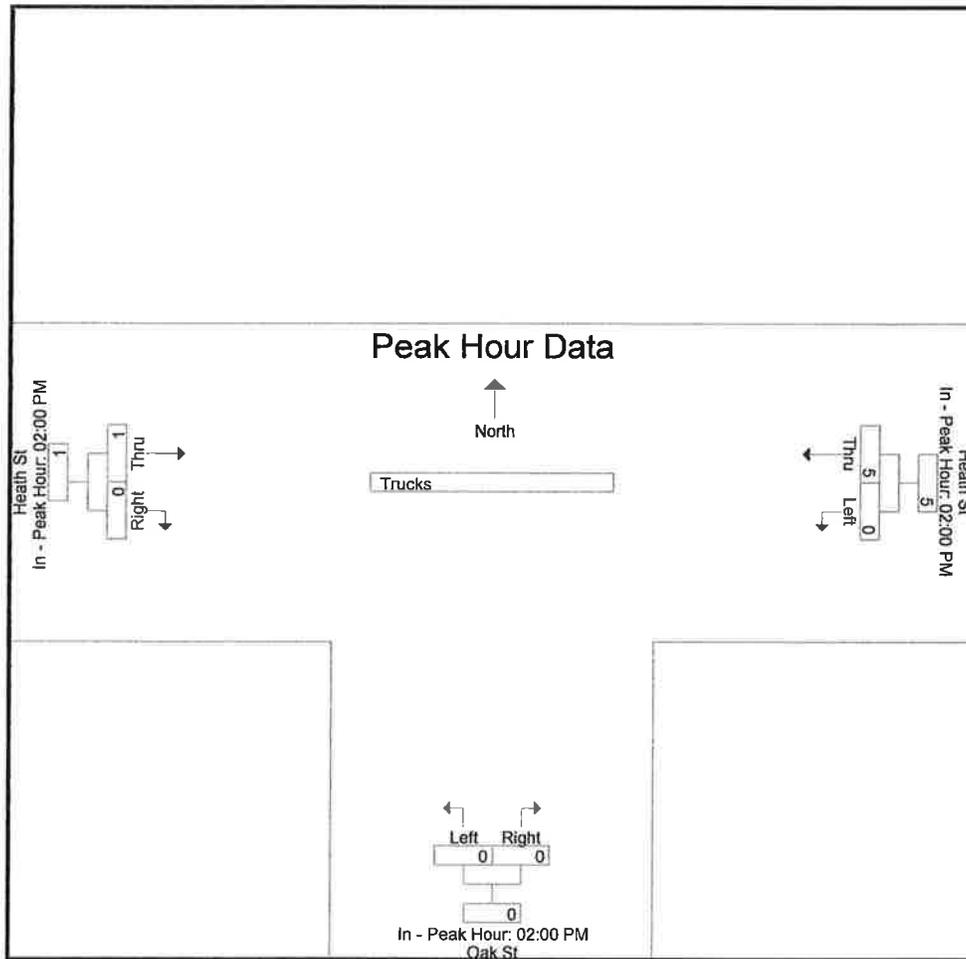
File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 9

Start Time	Heath St From East			Oak St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:00 PM			02:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	1	1	0	0	0	1	0	1
+30 mins.	0	4	4	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	5	5	0	0	0	1	0	1
% App. Total	0	100		0	0		100	0	
PHF	.000	.313	.313	.000	.000	.000	.250	.000	.250



**Accurate Counts**  
978-664-2565

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 10

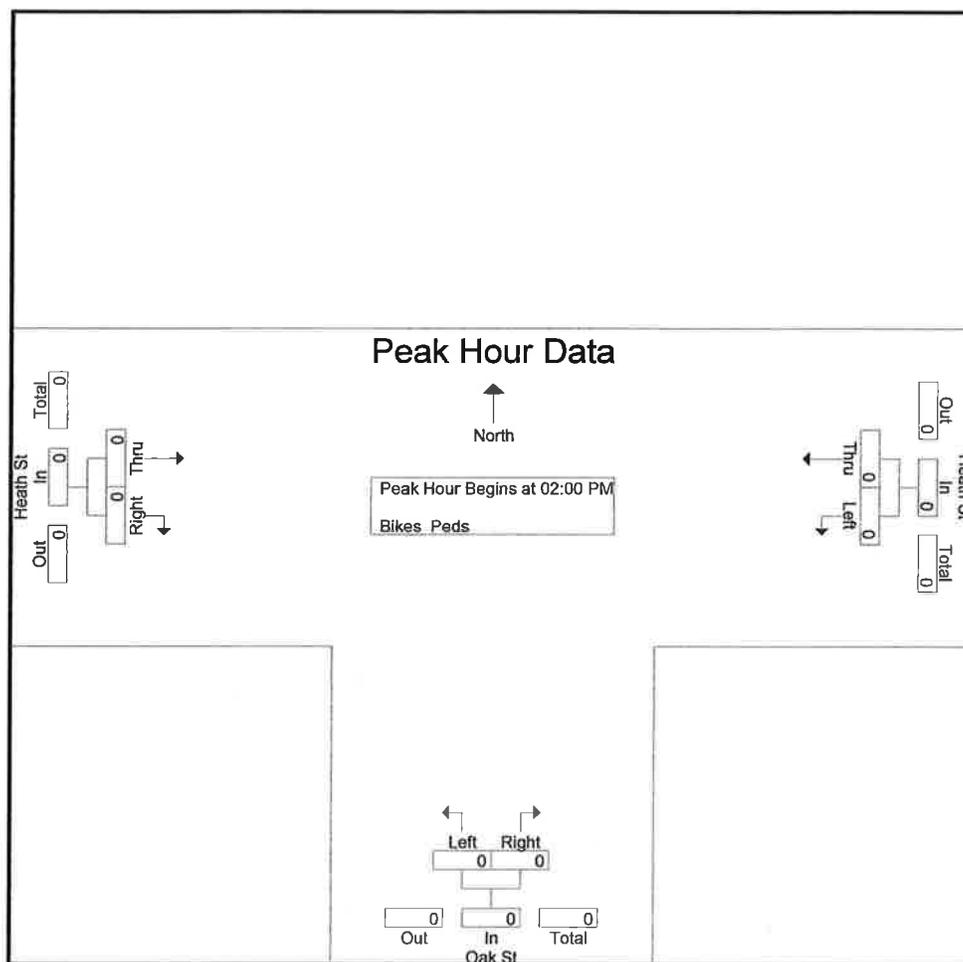
Groups Printed- Bikes Peds

Start Time	Heath St From East			Oak St From South			Heath St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
02:00 PM	0	0	0	0	0	2	0	0	0	2	0	2
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	1	0	0	0	1	0	1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>
03:00 PM	0	0	3	0	0	2	0	0	0	5	0	5
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	1	0	0	1	2	0	2
<b>Total</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>0</b>	<b>7</b>
04:00 PM	0	0	0	0	0	2	0	0	6	8	0	8
04:15 PM	0	0	0	0	0	2	0	0	0	2	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	1	0	0	2	0	0	0	3	0	3
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>13</b>	<b>0</b>	<b>13</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>23</b>	<b>0</b>	<b>23</b>
Apprch %	0	0		0	0		0	0				
Total %										100	0	

N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 11

Start Time	Heath St From East			Oak St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



N/S Street : Oak Street  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

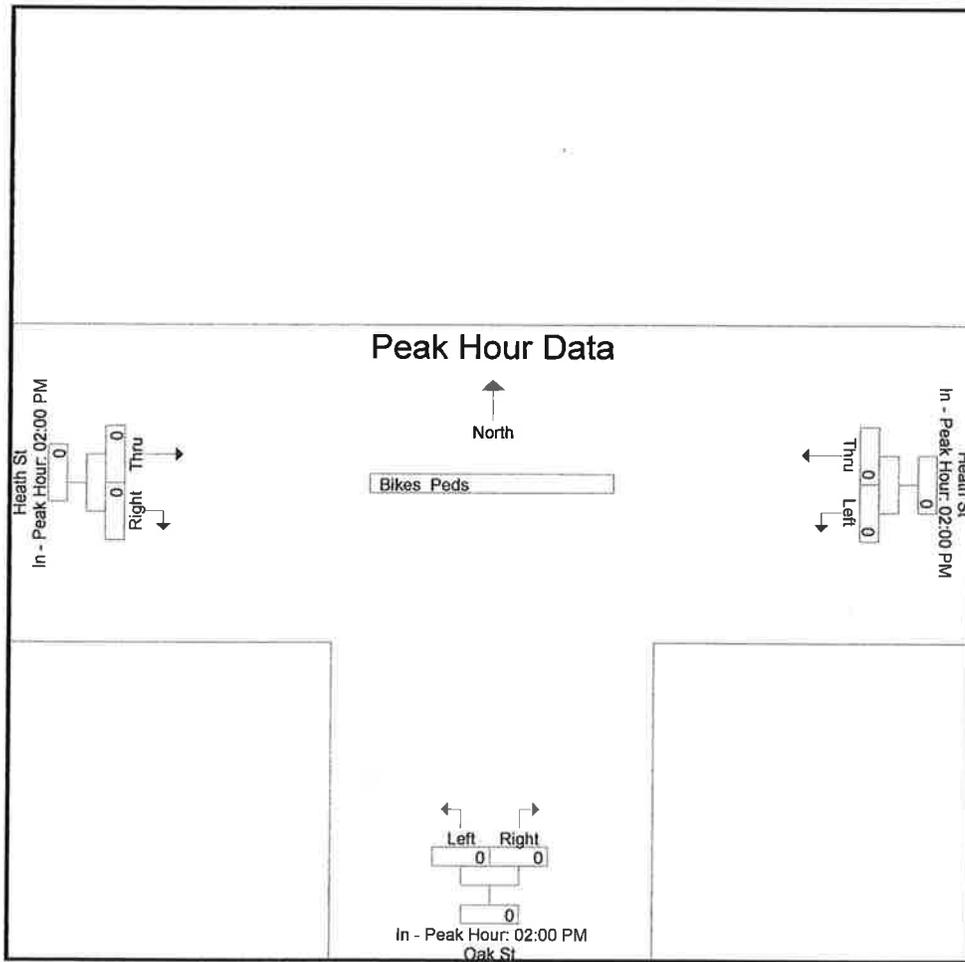
File Name : 7382N006  
Site Code : 73820006  
Start Date : 11/17/2016  
Page No : 12

Start Time	Heath St From East			Oak St From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:00 PM			02:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 1

Groups Printed- Cars - Trucks

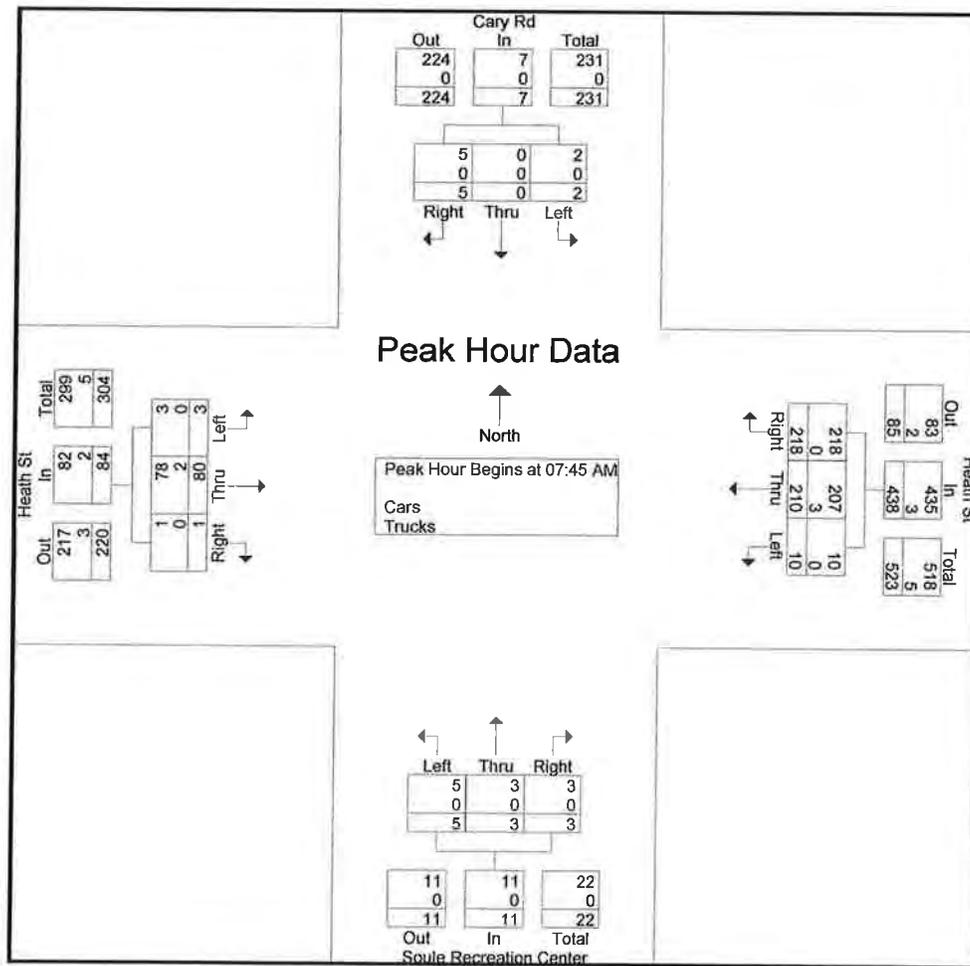
Start Time	Cary Rd From North			Heath St From East			Soule Recreation Center From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	4	1	25	38	0	0	1	0	9	0	78
07:15 AM	0	0	1	1	39	55	0	0	0	2	10	0	108
07:30 AM	2	0	3	0	57	45	0	0	1	2	13	0	123
07:45 AM	1	0	1	0	53	64	0	0	0	0	16	1	136
<b>Total</b>	<b>3</b>	<b>0</b>	<b>9</b>	<b>2</b>	<b>174</b>	<b>202</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>48</b>	<b>1</b>	<b>445</b>
08:00 AM	0	0	1	5	48	50	1	0	0	1	22	0	128
08:15 AM	1	0	2	4	61	42	2	2	2	1	10	0	127
08:30 AM	0	0	1	1	48	62	2	1	1	1	32	0	149
08:45 AM	1	0	3	1	52	43	0	0	0	1	13	0	114
<b>Total</b>	<b>2</b>	<b>0</b>	<b>7</b>	<b>11</b>	<b>209</b>	<b>197</b>	<b>5</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>77</b>	<b>0</b>	<b>518</b>
09:00 AM	0	0	1	0	46	23	0	0	0	0	17	0	87
09:15 AM	0	0	2	0	25	36	0	0	0	1	8	0	72
<b>Grand Total</b>	<b>5</b>	<b>0</b>	<b>19</b>	<b>13</b>	<b>454</b>	<b>458</b>	<b>5</b>	<b>3</b>	<b>5</b>	<b>9</b>	<b>150</b>	<b>1</b>	<b>1122</b>
Apprch %	20.8	0	79.2	1.4	49.1	49.5	38.5	23.1	38.5	5.6	93.8	0.6	
Total %	0.4	0	1.7	1.2	40.5	40.8	0.4	0.3	0.4	0.8	13.4	0.1	
<b>Cars</b>	<b>5</b>	<b>0</b>	<b>19</b>	<b>13</b>	<b>444</b>	<b>458</b>	<b>5</b>	<b>3</b>	<b>5</b>	<b>9</b>	<b>147</b>	<b>1</b>	<b>1109</b>
<b>% Cars</b>	<b>100</b>	<b>0</b>	<b>100</b>	<b>100</b>	<b>97.8</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>98</b>	<b>100</b>	<b>98.8</b>
<b>Trucks</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>13</b>
<b>% Trucks</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2.2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1.2</b>

**Accurate Counts**  
978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 2

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	1	0	1	2	0	53	64	117	0	0	0	0	0	16	1	17	136
08:00 AM	0	0	1	1	5	48	50	103	1	0	0	1	1	22	0	23	128
08:15 AM	1	0	2	3	4	61	42	107	2	2	2	6	1	10	0	11	127
08:30 AM	0	0	1	1	1	48	62	111	2	1	1	4	1	32	0	33	149
Total Volume	2	0	5	7	10	210	218	438	5	3	3	11	3	80	1	84	540
% App. Total	28.6	0	71.4		2.3	47.9	49.8		45.5	27.3	27.3		3.6	95.2	1.2		
PHF	.500	.000	.625	.583	.500	.861	.852	.936	.625	.375	.375	.458	.750	.625	.250	.636	.906
Cars	2	0	5	7	10	207	218	435	5	3	3	11	3	78	1	82	535
% Cars	100	0	100	100	100	98.6	100	99.3	100	100	100	100	100	97.5	100	97.6	99.1
Trucks	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
% Trucks	0	0	0	0	0	1.4	0	0.7	0	0	0	0	0	2.5	0	2.4	0.9



# Accurate Counts

978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
 E/W Street: Heath Street  
 City/State : Brookline, MA  
 Weather : Clear

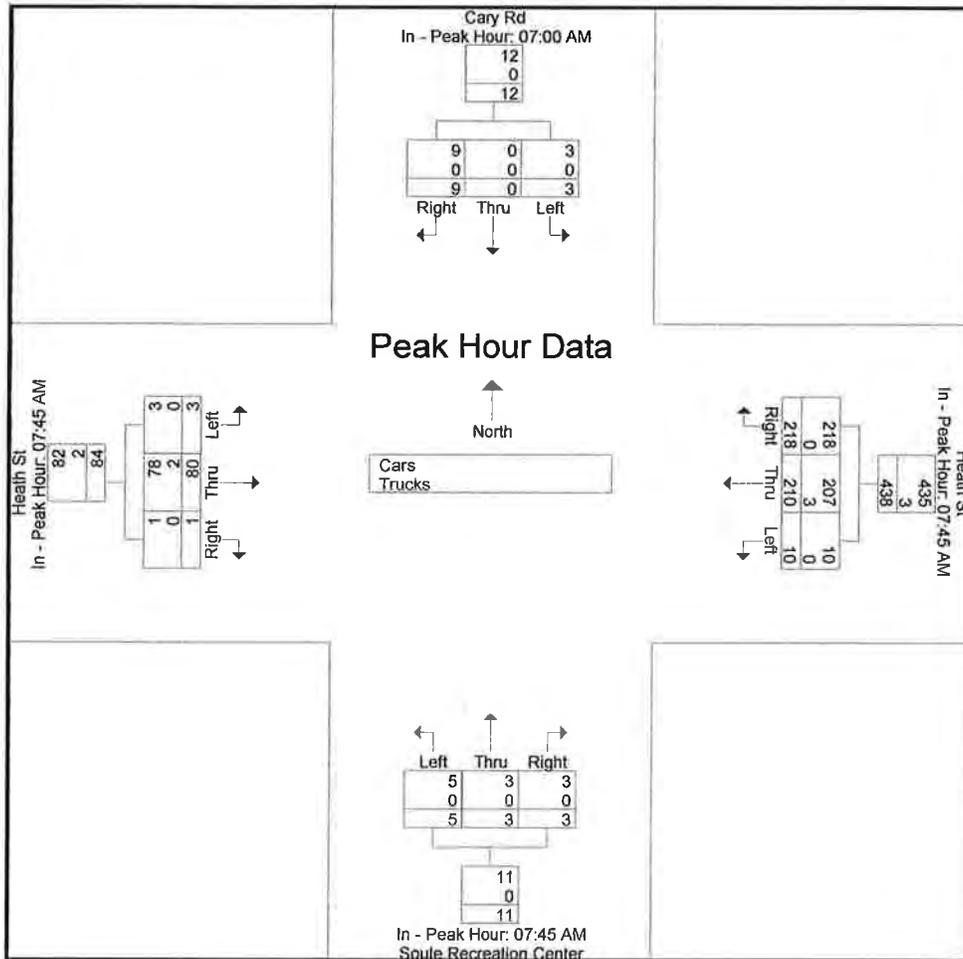
File Name : 7382N007  
 Site Code : 73820007  
 Start Date : 11/17/2016  
 Page No : 3

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	4	4	0	53	64	117	0	0	0	0	0	16	1	17
+15 mins.	0	0	1	1	5	48	50	103	1	0	0	1	1	22	0	23
+30 mins.	2	0	3	5	4	61	42	107	2	2	2	6	1	10	0	11
+45 mins.	1	0	1	2	1	48	62	111	2	1	1	4	1	32	0	33
Total Volume	3	0	9	12	10	210	218	438	5	3	3	11	3	80	1	84
% App. Total	25	0	75		2.3	47.9	49.8		45.5	27.3	27.3		3.6	95.2	1.2	
PHF	.375	.000	.563	.600	.500	.861	.852	.936	.625	.375	.375	.458	.750	.625	.250	.636
Cars	3	0	9	12	10	207	218	435	5	3	3	11	3	78	1	82
% Cars	100	0	100	100	100	98.6	100	99.3	100	100	100	100	100	97.5	100	97.6
Trucks	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2
% Trucks	0	0	0	0	0	1.4	0	0.7	0	0	0	0	0	2.5	0	2.4



**Accurate Counts**  
978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 4

Groups Printed- Cars

Start Time	Cary Rd From North			Heath St From East			Soule Recreation Center From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	4	1	25	38	0	0	1	0	9	0	78
07:15 AM	0	0	1	1	38	55	0	0	0	2	9	0	106
07:30 AM	2	0	3	0	57	45	0	0	1	2	13	0	123
07:45 AM	1	0	1	0	53	64	0	0	0	0	16	1	136
<b>Total</b>	<b>3</b>	<b>0</b>	<b>9</b>	<b>2</b>	<b>173</b>	<b>202</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>47</b>	<b>1</b>	<b>443</b>
08:00 AM	0	0	1	5	48	50	1	0	0	1	21	0	127
08:15 AM	1	0	2	4	58	42	2	2	2	1	10	0	124
08:30 AM	0	0	1	1	48	62	2	1	1	1	31	0	148
08:45 AM	1	0	3	1	48	43	0	0	0	1	13	0	110
<b>Total</b>	<b>2</b>	<b>0</b>	<b>7</b>	<b>11</b>	<b>202</b>	<b>197</b>	<b>5</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>75</b>	<b>0</b>	<b>509</b>
09:00 AM	0	0	1	0	45	23	0	0	0	0	17	0	86
09:15 AM	0	0	2	0	24	36	0	0	0	1	8	0	71
<b>Grand Total</b>	<b>5</b>	<b>0</b>	<b>19</b>	<b>13</b>	<b>444</b>	<b>458</b>	<b>5</b>	<b>3</b>	<b>5</b>	<b>9</b>	<b>147</b>	<b>1</b>	<b>1109</b>
<b>Apprch %</b>	<b>20.8</b>	<b>0</b>	<b>79.2</b>	<b>1.4</b>	<b>48.5</b>	<b>50.1</b>	<b>38.5</b>	<b>23.1</b>	<b>38.5</b>	<b>5.7</b>	<b>93.6</b>	<b>0.6</b>	
<b>Total %</b>	<b>0.5</b>	<b>0</b>	<b>1.7</b>	<b>1.2</b>	<b>40</b>	<b>41.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.5</b>	<b>0.8</b>	<b>13.3</b>	<b>0.1</b>	

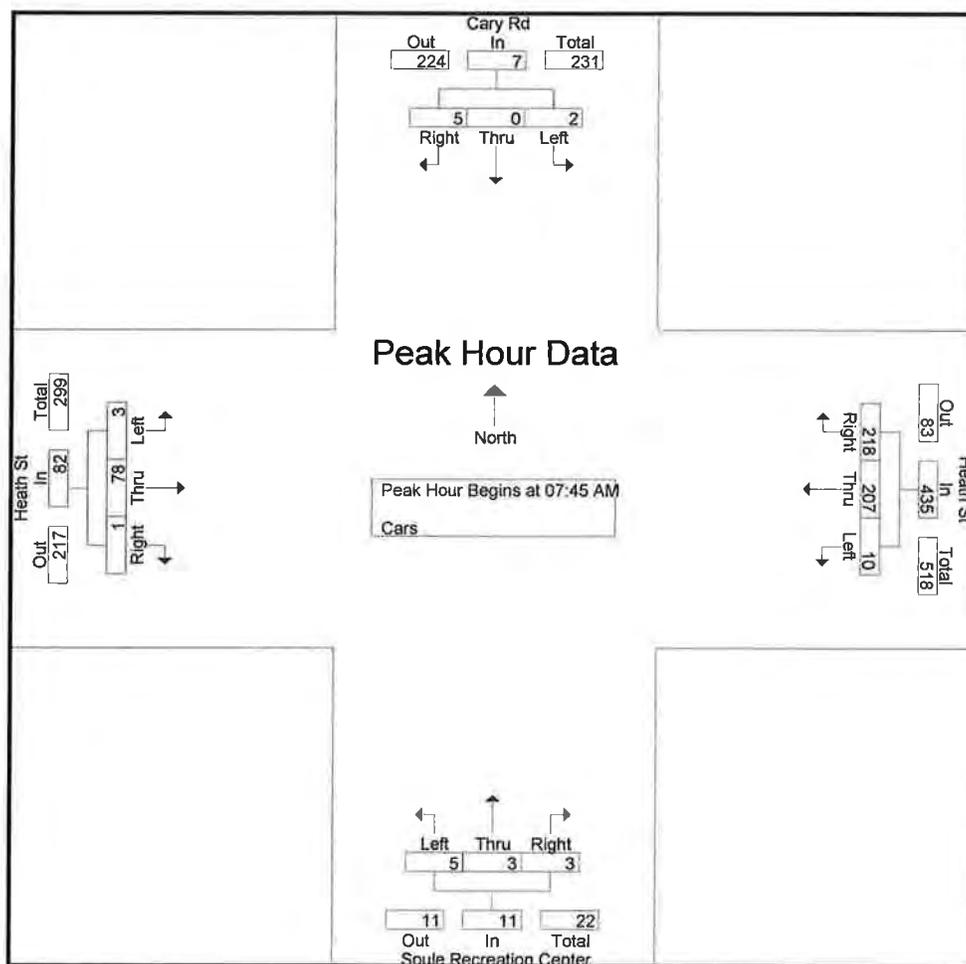
# Accurate Counts

978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
 E/W Street: Heath Street  
 City/State : Brookline, MA  
 Weather : Clear

File Name : 7382N007  
 Site Code : 73820007  
 Start Date : 11/17/2016  
 Page No : 5

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	1	0	1	2	0	53	64	117	0	0	0	0	0	16	1	17	136
08:00 AM	0	0	1	1	5	48	50	103	1	0	0	1	1	21	0	22	127
08:15 AM	1	0	2	3	4	58	42	104	2	2	2	6	1	10	0	11	124
08:30 AM	0	0	1	1	1	48	62	111	2	1	1	4	1	31	0	32	148
Total Volume	2	0	5	7	10	207	218	435	5	3	3	11	3	78	1	82	535
% App. Total	28.6	0	71.4		2.3	47.6	50.1		45.5	27.3	27.3		3.7	95.1	1.2		
PHF	.500	.000	.625	.583	.500	.892	.852	.929	.625	.375	.375	.458	.750	.629	.250	.641	.904



N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

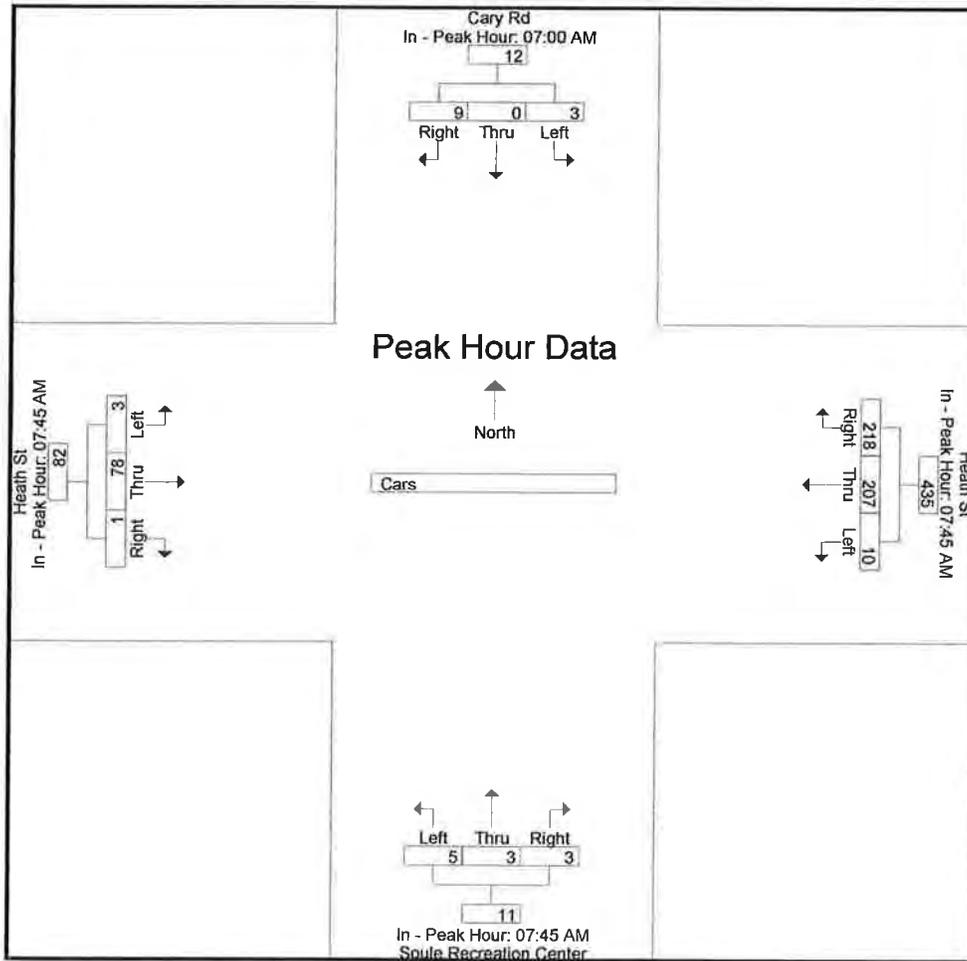
File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 6

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	4	4	0	53	64	117	0	0	0	0	0	16	1	17
+15 mins.	0	0	1	1	5	48	50	103	1	0	0	1	1	21	0	22
+30 mins.	2	0	3	5	4	58	42	104	2	2	2	6	1	10	0	11
+45 mins.	1	0	1	2	1	48	62	111	2	1	1	4	1	31	0	32
Total Volume	3	0	9	12	10	207	218	435	5	3	3	11	3	78	1	82
% App. Total	25	0	75		2.3	47.6	50.1		45.5	27.3	27.3		3.7	95.1	1.2	
PHF	.375	.000	.563	.600	.500	.892	.852	.929	.625	.375	.375	.458	.750	.629	.250	.641



**Accurate Counts**  
978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 7

Groups Printed- Trucks

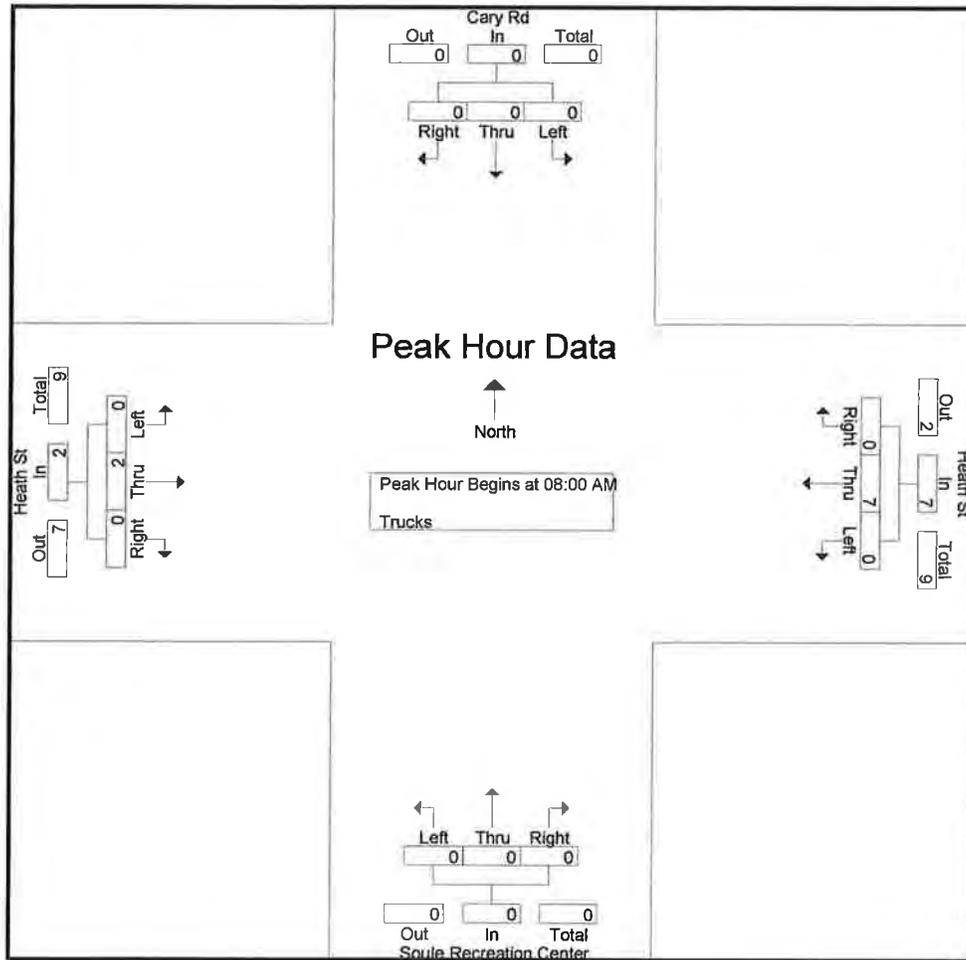
Start Time	Cary Rd From North			Heath St From East			Soule Recreation Center From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	0	0	0	1	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
08:15 AM	0	0	0	0	3	0	0	0	0	0	0	0	3
08:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
08:45 AM	0	0	0	0	4	0	0	0	0	0	0	0	4
Total	0	0	0	0	7	0	0	0	0	0	2	0	9
09:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
09:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	10	0	0	0	0	0	3	0	13
Apprch %	0	0	0	0	100	0	0	0	0	0	100	0	
Total %	0	0	0	0	76.9	0	0	0	0	0	23.1	0	

**Accurate Counts**  
978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 8

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 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	1	0	1	1
08:15 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:45 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	4
Total Volume	0	0	0	0	0	7	0	7	0	0	0	0	0	2	0	2	9
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.438	.000	.438	.000	.000	.000	.000	.000	.500	.000	.500	.563



N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

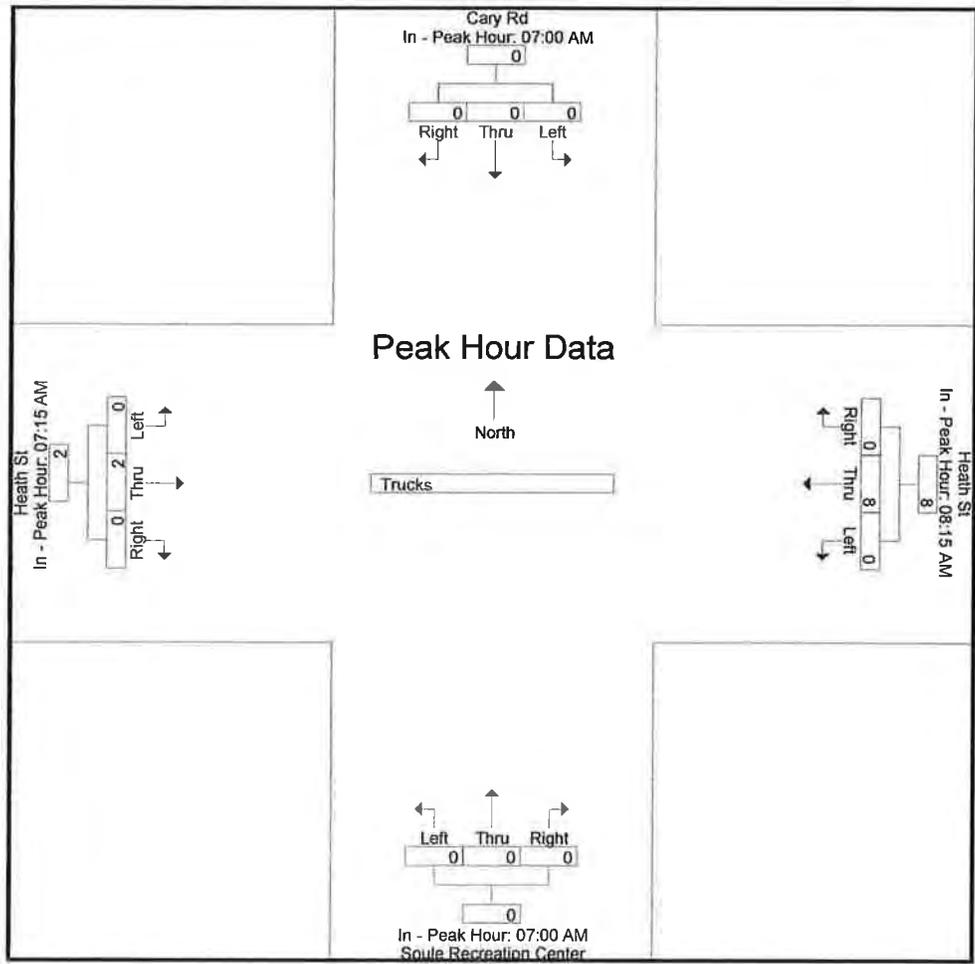
File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 9

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				08:15 AM				07:00 AM				07:15 AM			
+0 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	8	0	8	0	0	0	0	0	2	0	2
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500



**Accurate Counts**  
978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 10

Groups Printed- Bikes Peds

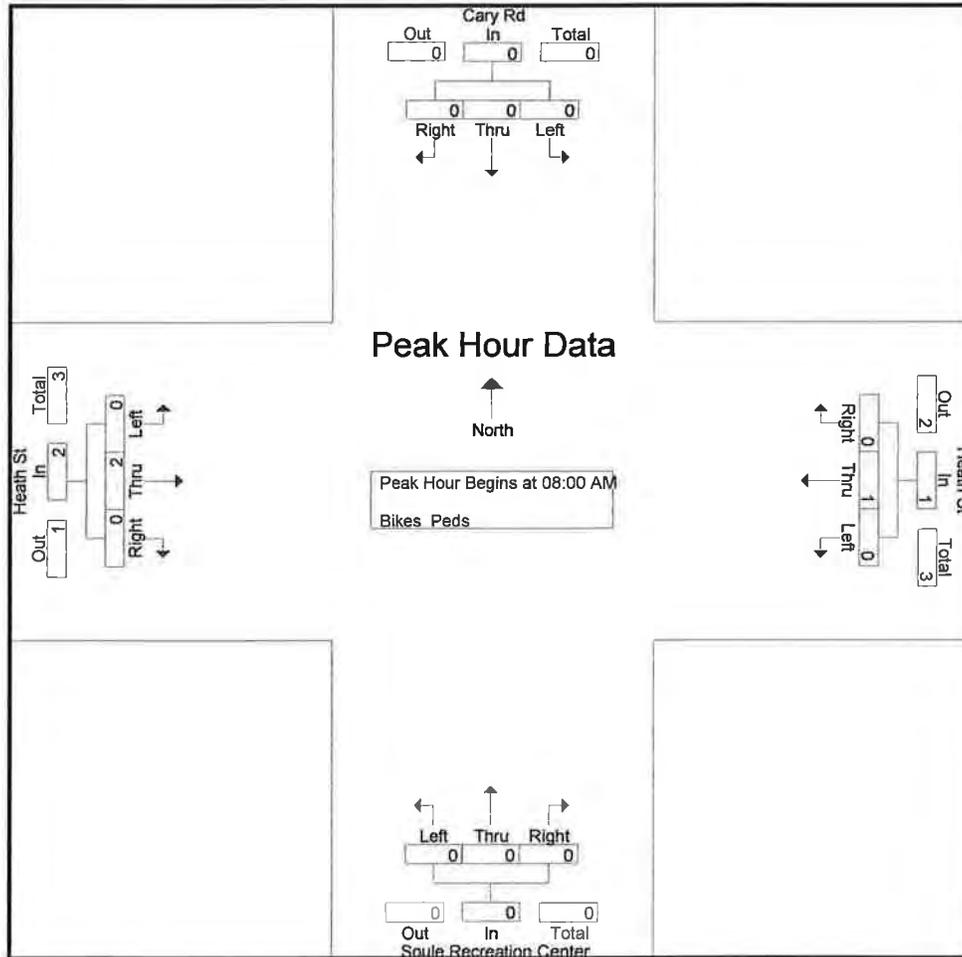
Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	5	1	6
07:30 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
07:45 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
<b>Total</b>	0	0	0	9	0	1	0	0	0	0	0	0	0	0	0	0	9	1	10
08:00 AM	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4
08:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	1	2
08:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
08:45 AM	0	0	0	7	0	1	0	0	0	0	0	0	0	1	0	0	7	2	9
<b>Total</b>	0	0	0	13	0	1	0	0	0	0	0	0	0	2	0	0	13	3	16
09:00 AM	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6
09:15 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
<b>Grand Total</b>	0	0	0	29	0	3	0	0	0	0	0	0	0	2	0	0	29	5	34
Apprch %	0	0	0		0	100	0		0	0	0		0	100	0				
Total %	0	0	0		0	60	0		0	0	0		0	40	0		85.3	14.7	

**Accurate Counts**  
978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 11

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 07:00 AM to 09:15 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
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2	2
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3	3
% App. Total	0	0	0	0	0	100	0	100	0	0	0	0	0	100	0	100	0	0
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.500	.000	.500	.375	.375



# Accurate Counts

978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
 E/W Street: Heath Street  
 City/State : Brookline, MA  
 Weather : Clear

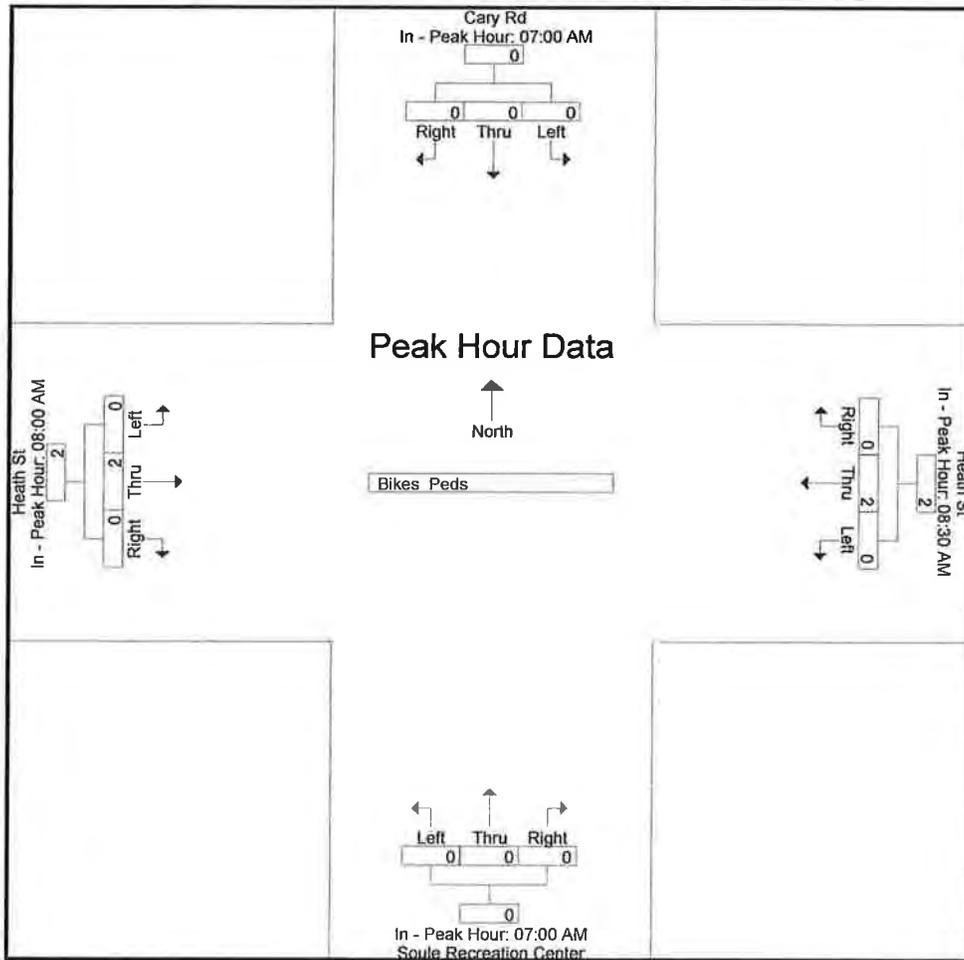
File Name : 7382N007  
 Site Code : 73820007  
 Start Date : 11/17/2016  
 Page No : 12

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				08:30 AM				07:00 AM				08:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500



**Accurate Counts**  
978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 1

Groups Printed- Cars - Trucks

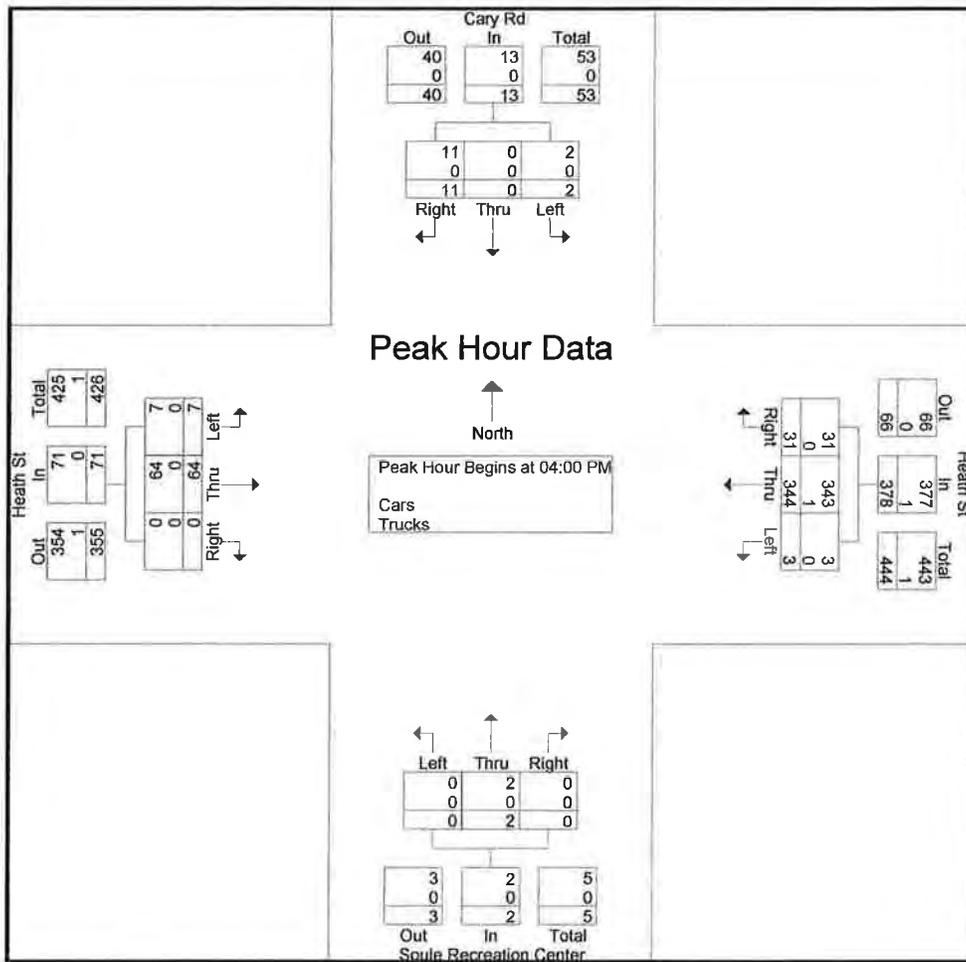
Start Time	Cary Rd From North			Heath St From East			Soule Recreation Center From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	0	0	3	0	53	7	0	0	0	0	8	0	71
02:15 PM	0	0	3	0	42	19	0	0	0	1	17	0	82
02:30 PM	0	0	3	0	41	11	2	1	0	3	12	0	73
02:45 PM	1	0	0	1	52	12	0	0	1	0	16	0	83
<b>Total</b>	<b>1</b>	<b>0</b>	<b>9</b>	<b>1</b>	<b>188</b>	<b>49</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>53</b>	<b>0</b>	<b>309</b>
03:00 PM	1	0	3	0	68	10	0	0	0	0	8	0	90
03:15 PM	3	0	1	0	69	17	0	0	0	1	19	0	110
03:30 PM	3	0	0	1	68	5	0	0	1	1	14	0	93
03:45 PM	1	0	1	0	67	8	0	0	0	0	17	0	94
<b>Total</b>	<b>8</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>272</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>58</b>	<b>0</b>	<b>387</b>
04:00 PM	0	0	3	2	78	7	0	0	0	3	15	0	108
04:15 PM	1	0	2	0	86	7	0	1	0	1	13	0	111
04:30 PM	0	0	4	0	84	11	0	1	0	1	17	0	118
04:45 PM	1	0	2	1	96	6	0	0	0	2	19	0	127
<b>Total</b>	<b>2</b>	<b>0</b>	<b>11</b>	<b>3</b>	<b>344</b>	<b>31</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>7</b>	<b>64</b>	<b>0</b>	<b>464</b>
<b>Grand Total</b>	<b>11</b>	<b>0</b>	<b>25</b>	<b>5</b>	<b>804</b>	<b>120</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>13</b>	<b>175</b>	<b>0</b>	<b>1160</b>
Apprch %	30.6	0	69.4	0.5	86.5	12.9	28.6	42.9	28.6	6.9	93.1	0	
Total %	0.9	0	2.2	0.4	69.3	10.3	0.2	0.3	0.2	1.1	15.1	0	
Cars	10	0	25	5	796	120	2	3	2	13	174	0	1150
% Cars	90.9	0	100	100	99	100	100	100	100	100	99.4	0	99.1
Trucks	1	0	0	0	8	0	0	0	0	0	1	0	10
% Trucks	9.1	0	0	0	1	0	0	0	0	0	0.6	0	0.9

**Accurate Counts**  
978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 2

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	3	3	2	78	7	87	0	0	0	0	3	15	0	18	108
04:15 PM	1	0	2	3	0	86	7	93	0	1	0	1	1	13	0	14	111
04:30 PM	0	0	4	4	0	84	11	95	0	1	0	1	1	17	0	18	118
04:45 PM	1	0	2	3	1	96	6	103	0	0	0	0	2	19	0	21	127
Total Volume	2	0	11	13	3	344	31	378	0	2	0	2	7	64	0	71	464
% App. Total	15.4	0	84.6		0.8	91	8.2		0	100	0		9.9	90.1	0		
PHF	.500	.000	.688	.813	.375	.896	.705	.917	.000	.500	.000	.500	.583	.842	.000	.845	.913
Cars	2	0	11	13	3	343	31	377	0	2	0	2	7	64	0	71	463
% Cars	100	0	100	100	100	99.7	100	99.7	0	100	0	100	100	100	0	100	99.8
Trucks	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
% Trucks	0	0	0	0	0	0.3	0	0.3	0	0	0	0	0	0	0	0	0.2



**Accurate Counts**  
978-664-2565

N/S Street : Cary Rd / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

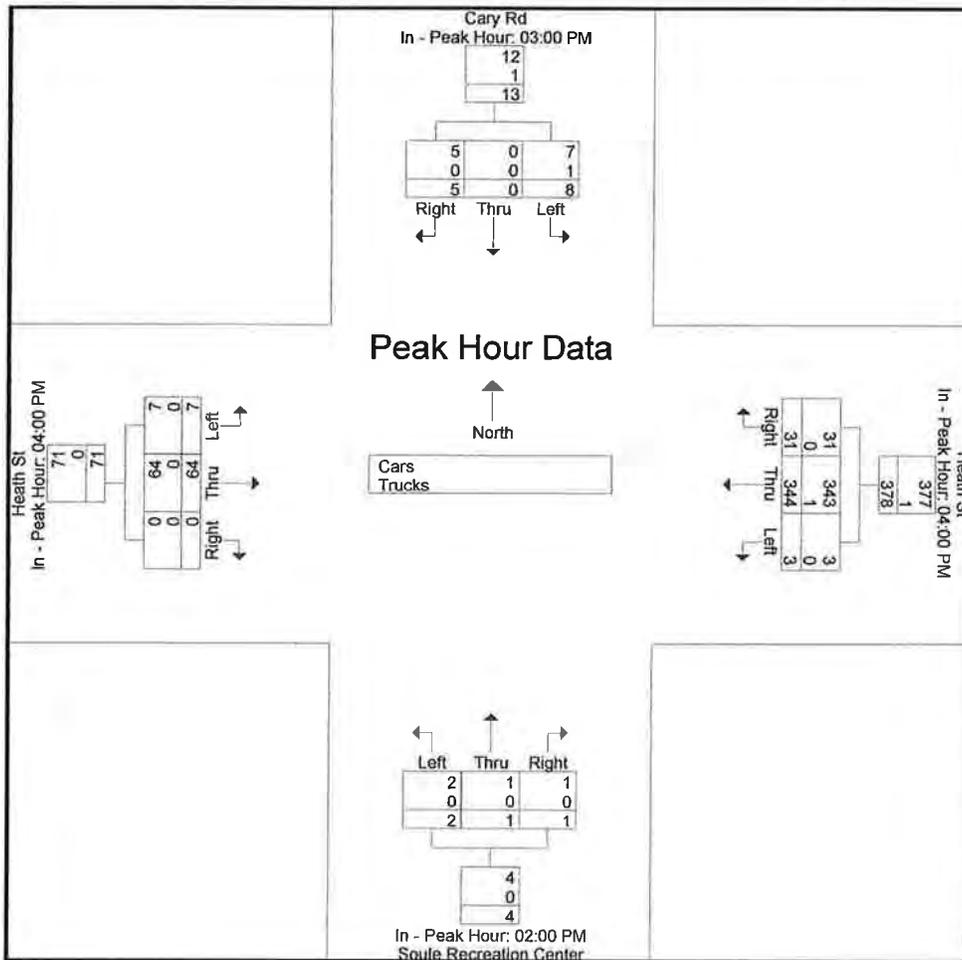
File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 3

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:00 PM				04:00 PM				02:00 PM				04:00 PM			
+0 mins.	1	0	3	4	2	78	7	87	0	0	0	0	3	15	0	18
+15 mins.	3	0	1	4	0	86	7	93	0	0	0	0	1	13	0	14
+30 mins.	3	0	0	3	0	84	11	95	2	1	0	3	1	17	0	18
+45 mins.	1	0	1	2	1	96	6	103	0	0	1	1	2	19	0	21
Total Volume	8	0	5	13	3	344	31	378	2	1	1	4	7	64	0	71
% App. Total	61.5	0	38.5		0.8	91	8.2		50	25	25		9.9	90.1	0	
PHF	.667	.000	.417	.813	.375	.896	.705	.917	.250	.250	.250	.333	.583	.842	.000	.845
Cars	7	0	5	12	3	343	31	377	2	1	1	4	7	64	0	71
% Cars	87.5	0	100	92.3	100	99.7	100	99.7	100	100	100	100	100	100	0	100
Trucks	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0
% Trucks	12.5	0	0	7.7	0	0.3	0	0.3	0	0	0	0	0	0	0	0



**Accurate Counts**  
978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 4

Groups Printed- Cars

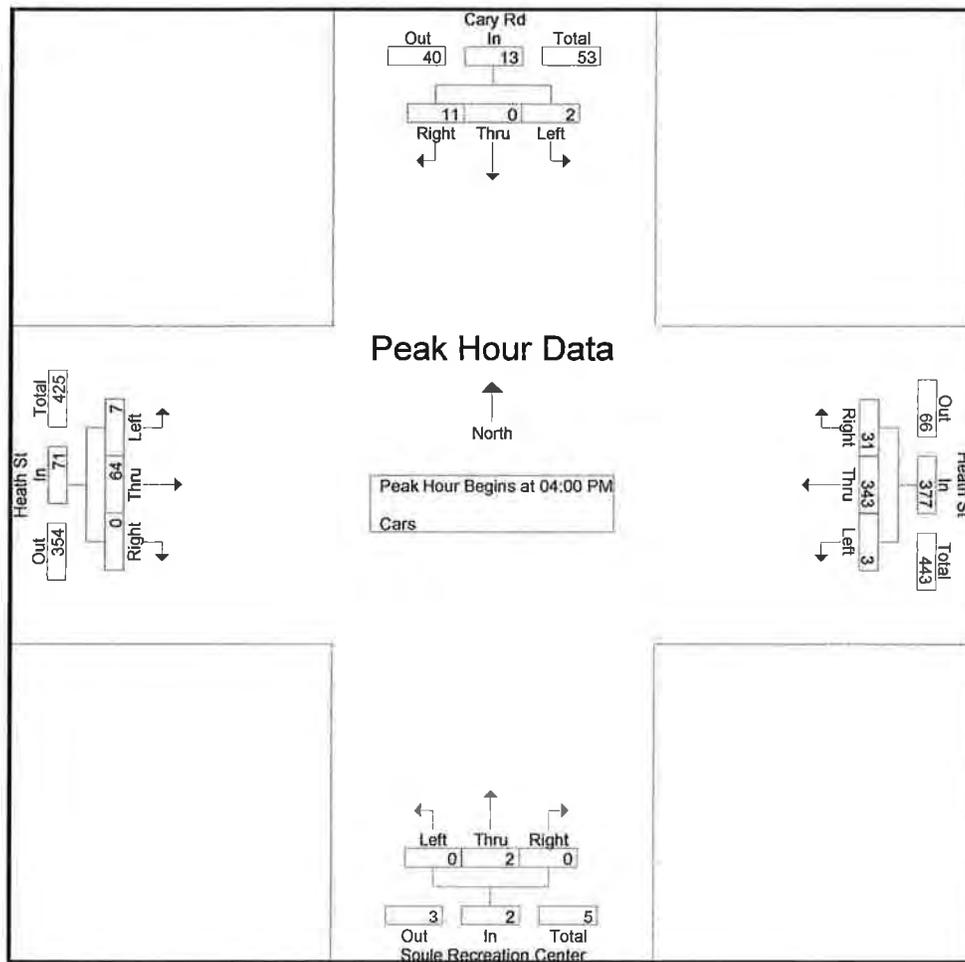
Start Time	Cary Rd From North			Heath St From East			Soule Recreation Center From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	0	0	3	0	52	7	0	0	0	0	8	0	70
02:15 PM	0	0	3	0	42	19	0	0	0	1	16	0	81
02:30 PM	0	0	3	0	39	11	2	1	0	3	12	0	71
02:45 PM	1	0	0	1	52	12	0	0	1	0	16	0	83
<b>Total</b>	<b>1</b>	<b>0</b>	<b>9</b>	<b>1</b>	<b>185</b>	<b>49</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>52</b>	<b>0</b>	<b>305</b>
03:00 PM	1	0	3	0	68	10	0	0	0	0	8	0	90
03:15 PM	3	0	1	0	68	17	0	0	0	1	19	0	109
03:30 PM	2	0	0	1	67	5	0	0	1	1	14	0	91
03:45 PM	1	0	1	0	65	8	0	0	0	0	17	0	92
<b>Total</b>	<b>7</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>268</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>58</b>	<b>0</b>	<b>382</b>
04:00 PM	0	0	3	2	77	7	0	0	0	3	15	0	107
04:15 PM	1	0	2	0	86	7	0	1	0	1	13	0	111
04:30 PM	0	0	4	0	84	11	0	1	0	1	17	0	118
04:45 PM	1	0	2	1	96	6	0	0	0	2	19	0	127
<b>Total</b>	<b>2</b>	<b>0</b>	<b>11</b>	<b>3</b>	<b>343</b>	<b>31</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>7</b>	<b>64</b>	<b>0</b>	<b>463</b>
<b>Grand Total</b>	<b>10</b>	<b>0</b>	<b>25</b>	<b>5</b>	<b>796</b>	<b>120</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>13</b>	<b>174</b>	<b>0</b>	<b>1150</b>
Apprch %	28.6	0	71.4	0.5	86.4	13	28.6	42.9	28.6	7	93	0	
Total %	0.9	0	2.2	0.4	69.2	10.4	0.2	0.3	0.2	1.1	15.1	0	

**Accurate Counts**  
978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 5

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	3	3	2	77	7	86	0	0	0	0	3	15	0	18	107
04:15 PM	1	0	2	3	0	86	7	93	0	1	0	1	1	13	0	14	111
04:30 PM	0	0	4	4	0	84	11	95	0	1	0	1	1	17	0	18	118
04:45 PM	1	0	2	3	1	96	6	103	0	0	0	0	2	19	0	21	127
<b>Total Volume</b>	<b>2</b>	<b>0</b>	<b>11</b>	<b>13</b>	<b>3</b>	<b>343</b>	<b>31</b>	<b>377</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>7</b>	<b>64</b>	<b>0</b>	<b>71</b>	<b>463</b>
% App. Total	15.4	0	84.6		0.8	91	8.2		0	100	0		9.9	90.1	0		
PHF	.500	.000	.688	.813	.375	.893	.705	.915	.000	.500	.000	.500	.583	.842	.000	.845	.911



N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

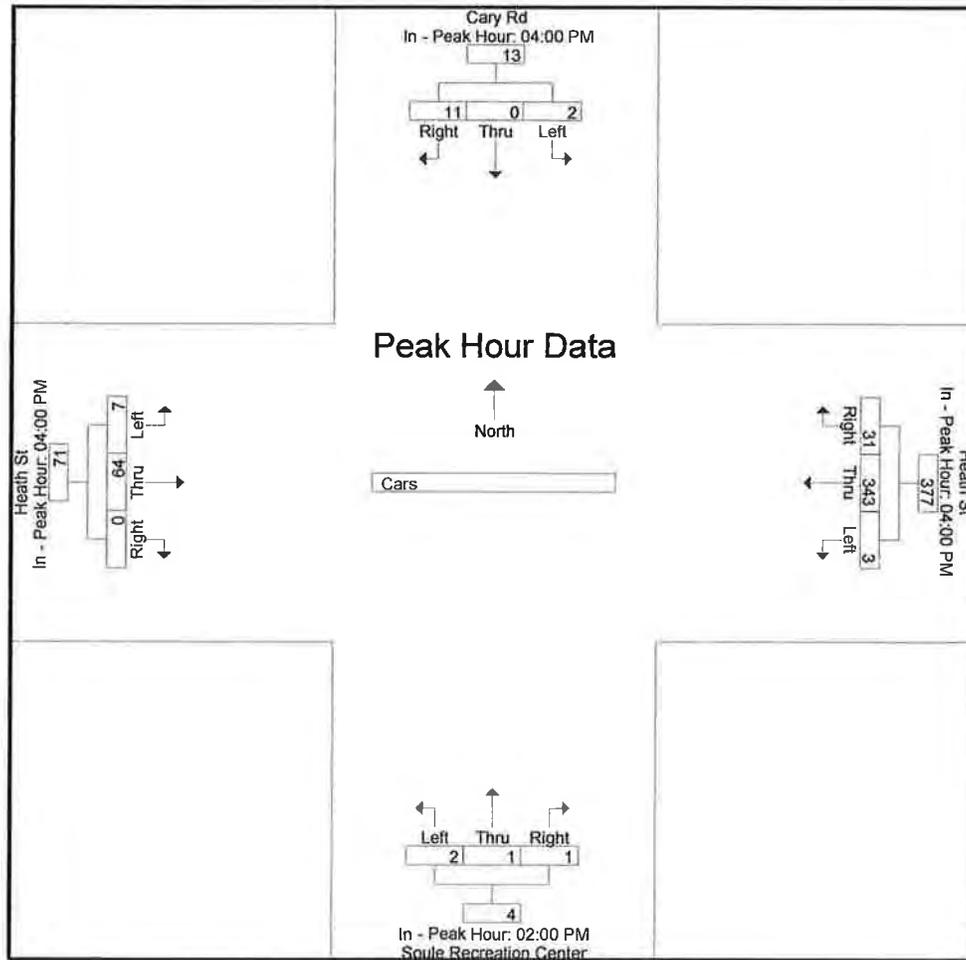
File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 6

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				02:00 PM				04:00 PM			
+0 mins.	0	0	3	3	2	77	7	86	0	0	0	0	3	15	0	18
+15 mins.	1	0	2	3	0	86	7	93	0	0	0	0	1	13	0	14
+30 mins.	0	0	4	4	0	84	11	95	2	1	0	3	1	17	0	18
+45 mins.	1	0	2	3	1	96	6	103	0	0	1	1	2	19	0	21
Total Volume	2	0	11	13	3	343	31	377	2	1	1	4	7	64	0	71
% App. Total	15.4	0	84.6		0.8	91	8.2		50	25	25		9.9	90.1	0	
PHF	.500	.000	.688	.813	.375	.893	.705	.915	.250	.250	.250	.333	.583	.842	.000	.845



**Accurate Counts**  
978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 7

Groups Printed- Trucks

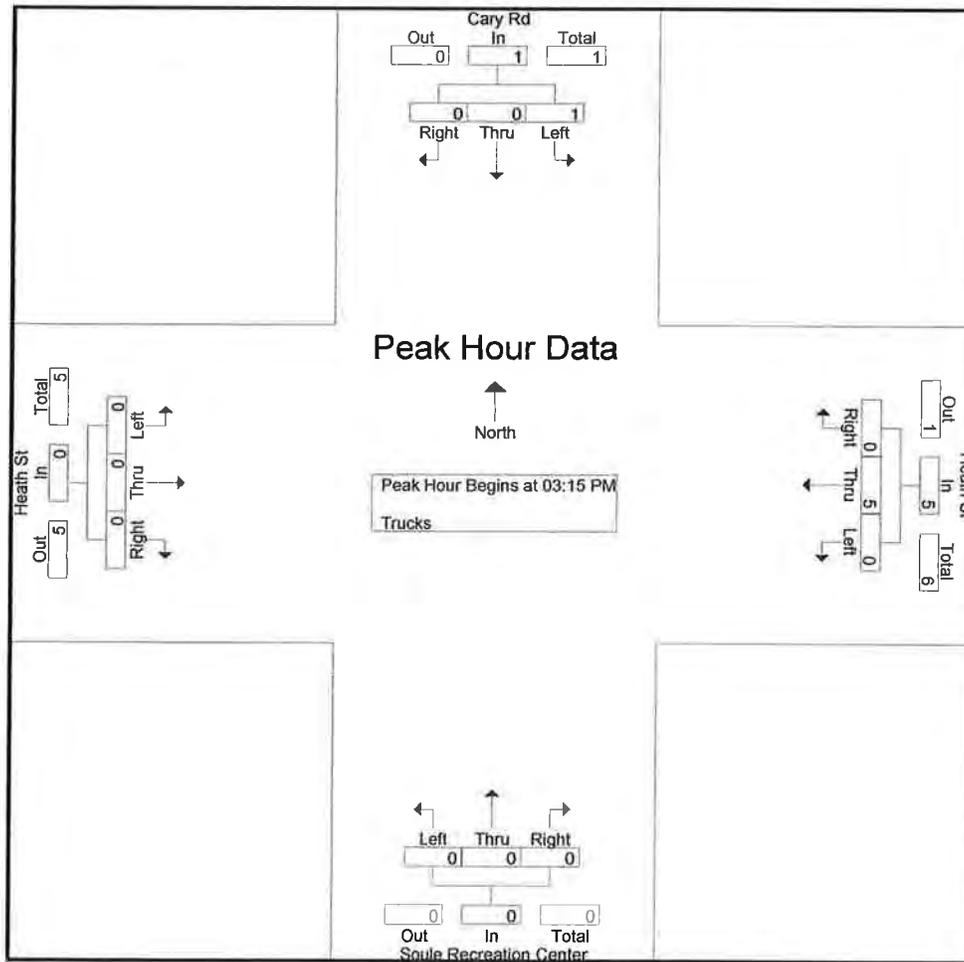
Start Time	Cary Rd From North			Heath St From East			Soule Recreation Center From South			Heath St From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
02:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
02:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
02:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>4</b>
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
03:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	2
03:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>
04:00 PM	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
04:30 PM	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
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Grand Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>10</b>
Apprch %	100	0	0	0	100	0	0	0	0	0	100	0	
Total %	10	0	0	0	80	0	0	0	0	0	10	0	

**Accurate Counts**  
978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 8

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 03:15 PM																		
03:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
03:30 PM	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	2
03:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2
04:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
<b>Total Volume</b>	1	0	0	1	0	5	0	5	0	0	0	0	0	0	0	0	0	6
<b>% App. Total</b>	100	0	0		0	100	0		0	0	0		0	0	0		0	
PHF	.250	.000	.000	.250	.000	.625	.000	.625	.000	.000	.000	.000	.000	.000	.000	.000		.750



N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

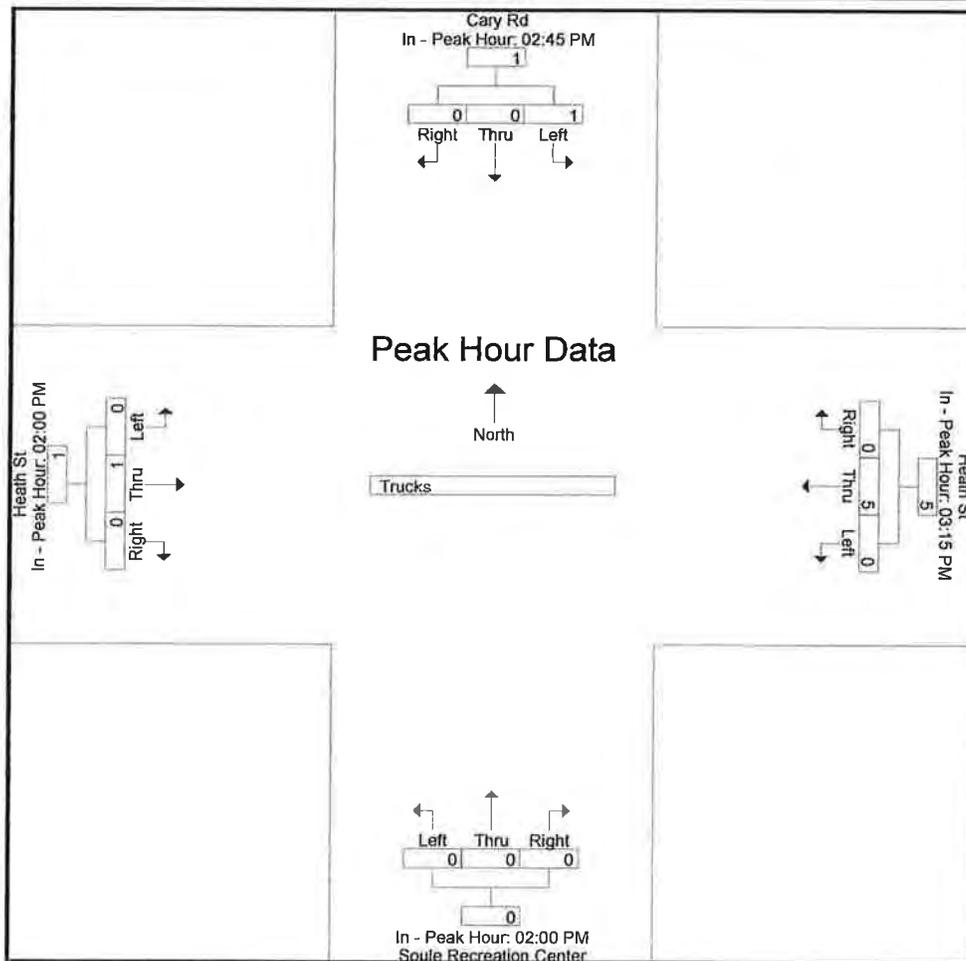
File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 9

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:45 PM				03:15 PM				02:00 PM				02:00 PM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
+45 mins.	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	5	0	5	0	0	0	0	0	1	0	1
% App. Total	100	0	0		0	100	0		0	0	0		0	100	0	
PHF	.250	.000	.000	.250	.000	.625	.000	.625	.000	.000	.000	.000	.000	.250	.000	.250



**Accurate Counts**  
978-664-2565

N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 10

Groups Printed- Bikes Peds

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
02:00 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
02:45 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>1</b>	<b>8</b>
03:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
03:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2	1	3
03:30 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
03:45 PM	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	10	0	10
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>17</b>	<b>1</b>	<b>18</b>
04:00 PM	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4
04:15 PM	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6
04:30 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
04:45 PM	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	9	0	9
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>21</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>44</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>45</b>	<b>2</b>	<b>47</b>
Apprch %	0	0	0		0	100	0		0	0	0		0	100	0				
Total %	0	0	0		0	50	0		0	0	0		0	50	0		95.7	4.3	

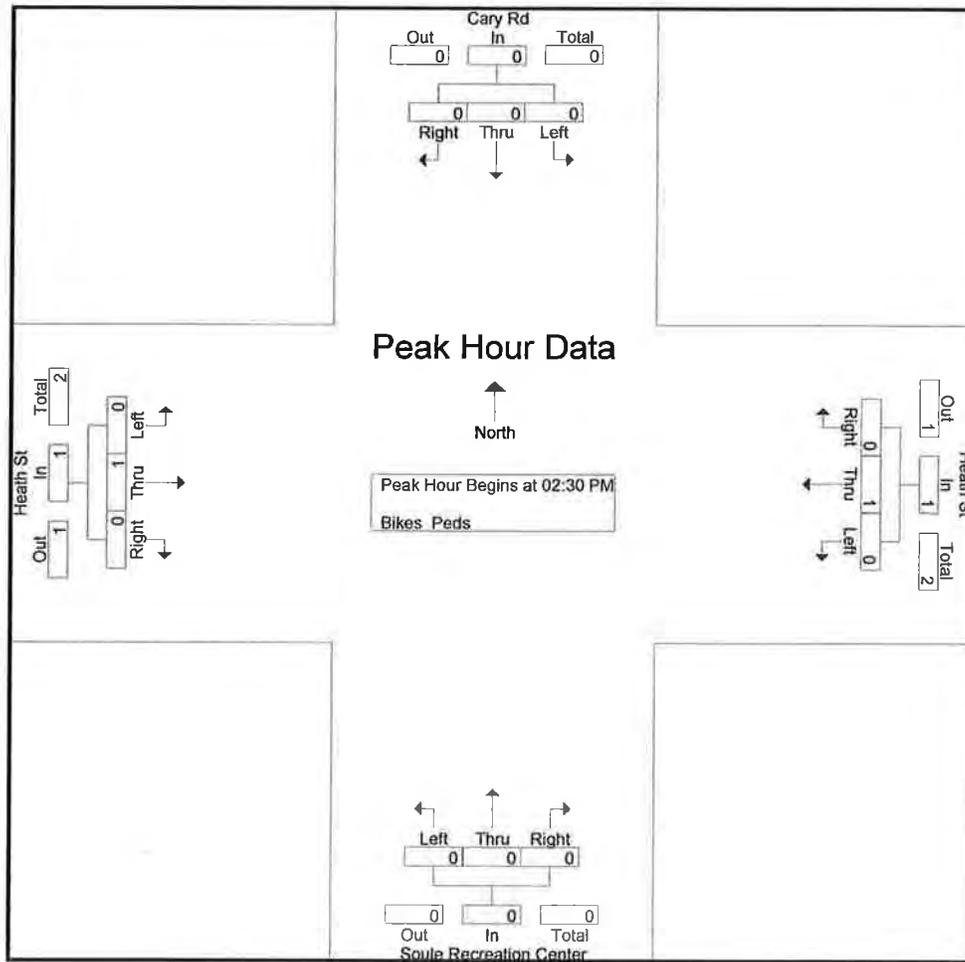
# Accurate Counts

978-664-2565

N/S Street : Cary Rd / Soule Rec Ctr  
 E/W Street: Heath Street  
 City/State : Brookline, MA  
 Weather : Clear

File Name : 7382N007  
 Site Code : 73820007  
 Start Date : 11/17/2016  
 Page No : 11

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:30 PM																	
02:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
<b>Total Volume</b>	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
<b>% App. Total</b>	0	0	0		0	100	0		0	0	0		0	100	0		
<b>PHF</b>	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.500



N/S Street : Cary Road / Soule Rec Ctr  
E/W Street: Heath Street  
City/State : Brookline, MA  
Weather : Clear

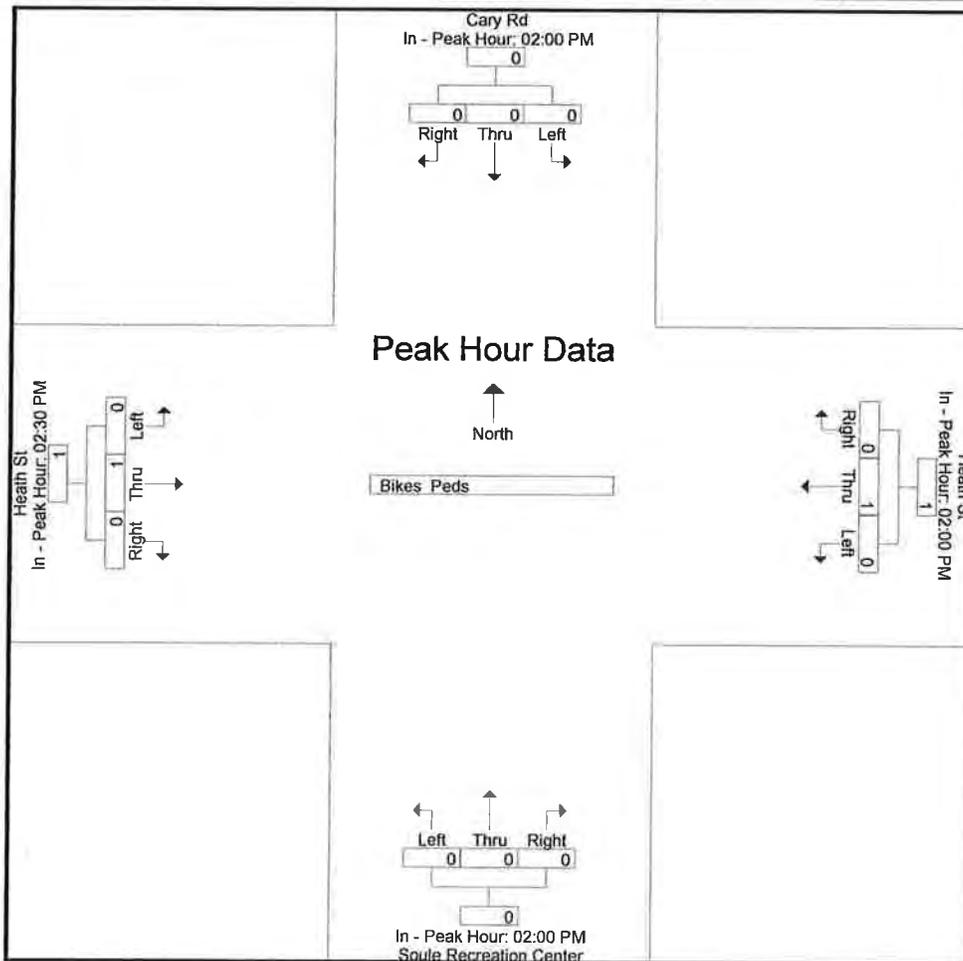
File Name : 7382N007  
Site Code : 73820007  
Start Date : 11/17/2016  
Page No : 12

Start Time	Cary Rd From North				Heath St From East				Soule Recreation Center From South				Heath St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM				02:00 PM				02:00 PM				02:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250



**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 1

Groups Printed- Cars - Trucks

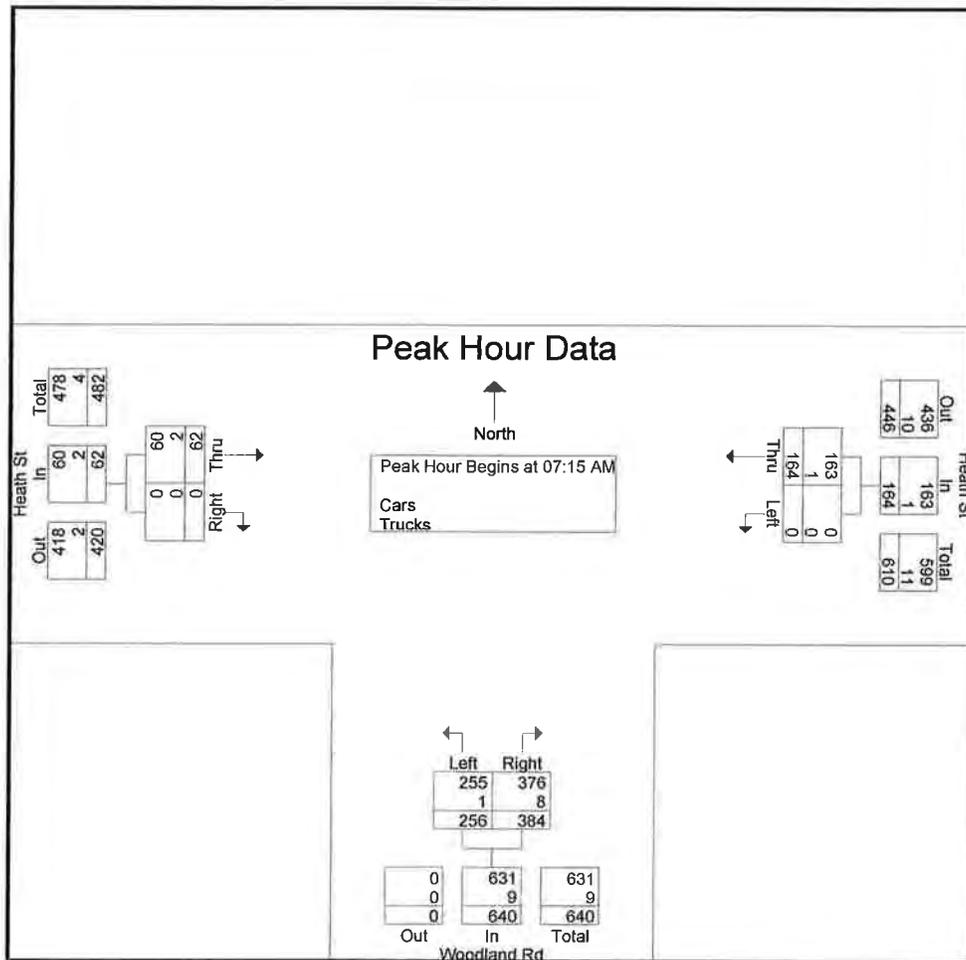
Start Time	Heath St From East		Woodland Rd From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	21	44	67	10	0	142
07:15 AM	0	35	60	88	10	0	193
07:30 AM	0	41	61	86	16	0	204
07:45 AM	0	42	78	123	14	0	257
<b>Total</b>	<b>0</b>	<b>139</b>	<b>243</b>	<b>364</b>	<b>50</b>	<b>0</b>	<b>796</b>
08:00 AM	0	46	57	87	22	0	212
08:15 AM	0	57	52	69	14	0	192
08:30 AM	0	41	73	56	33	0	203
08:45 AM	0	40	55	66	14	0	175
<b>Total</b>	<b>0</b>	<b>184</b>	<b>237</b>	<b>278</b>	<b>83</b>	<b>0</b>	<b>782</b>
09:00 AM	0	37	30	65	17	0	149
09:15 AM	0	26	38	45	9	0	118
<b>Grand Total</b>	<b>0</b>	<b>386</b>	<b>548</b>	<b>752</b>	<b>159</b>	<b>0</b>	<b>1845</b>
Apprch %	0	100	42.2	57.8	100	0	
Total %	0	20.9	29.7	40.8	8.6	0	
<b>Cars</b>	<b>0</b>	<b>377</b>	<b>546</b>	<b>741</b>	<b>156</b>	<b>0</b>	<b>1820</b>
<b>% Cars</b>	<b>0</b>	<b>97.7</b>	<b>99.6</b>	<b>98.5</b>	<b>98.1</b>	<b>0</b>	<b>98.6</b>
<b>Trucks</b>	<b>0</b>	<b>9</b>	<b>2</b>	<b>11</b>	<b>3</b>	<b>0</b>	<b>25</b>
<b>% Trucks</b>	<b>0</b>	<b>2.3</b>	<b>0.4</b>	<b>1.5</b>	<b>1.9</b>	<b>0</b>	<b>1.4</b>

**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 2

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	35	35	60	88	148	10	0	10	193
07:30 AM	0	41	41	61	86	147	16	0	16	204
07:45 AM	0	42	42	78	123	201	14	0	14	257
08:00 AM	0	46	46	57	87	144	22	0	22	212
Total Volume	0	164	164	256	384	640	62	0	62	866
% App. Total	0	100	100	40	60	100	100	0	100	100
PHF	.000	.891	.891	.821	.780	.796	.705	.000	.705	.842
Cars	0	163	163	255	376	631	60	0	60	854
% Cars	0	99.4	99.4	99.6	97.9	98.6	96.8	0	96.8	98.6
Trucks	0	1	1	1	8	9	2	0	2	12
% Trucks	0	0.6	0.6	0.4	2.1	1.4	3.2	0	3.2	1.4



**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

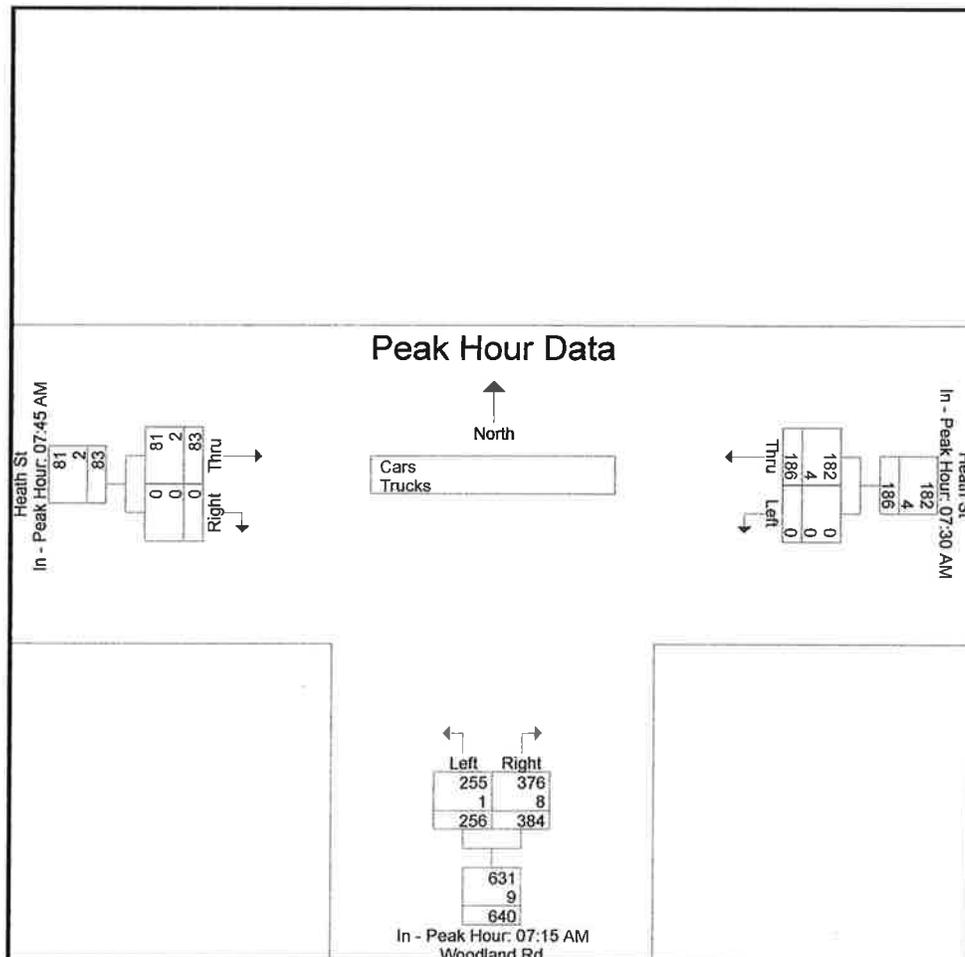
File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 3

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM			07:15 AM			07:45 AM		
+0 mins.	0	41	41	60	88	148	14	0	14
+15 mins.	0	42	42	61	86	147	22	0	22
+30 mins.	0	46	46	78	123	201	14	0	14
+45 mins.	0	57	57	57	87	144	33	0	33
Total Volume	0	186	186	256	384	640	83	0	83
% App. Total	0	100		40	60		100	0	
PHF	.000	.816	.816	.821	.780	.796	.629	.000	.629
Cars	0	182	182	255	376	631	81	0	81
% Cars	0	97.8	97.8	99.6	97.9	98.6	97.6	0	97.6
Trucks	0	4	4	1	8	9	2	0	2
% Trucks	0	2.2	2.2	0.4	2.1	1.4	2.4	0	2.4



**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 4

Groups Printed- Cars

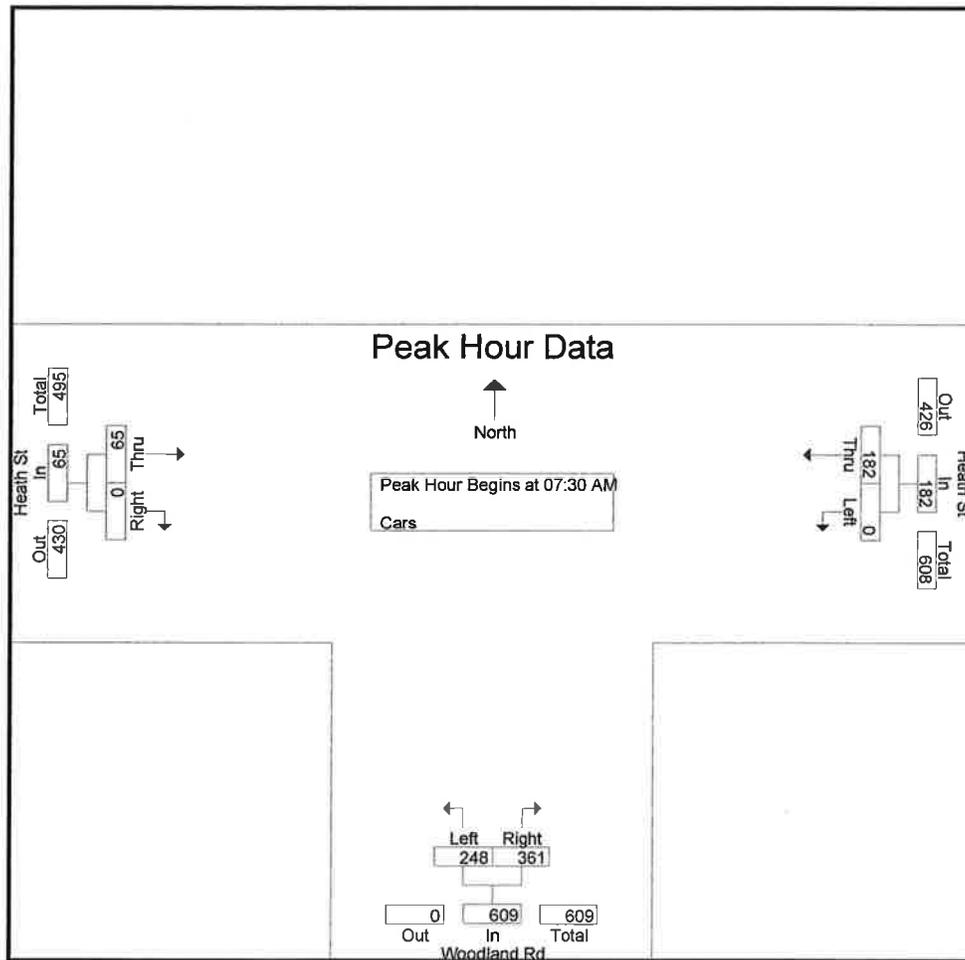
Start Time	Heath St From East		Woodland Rd From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	21	44	67	10	0	142
07:15 AM	0	35	59	83	9	0	186
07:30 AM	0	41	61	85	16	0	203
07:45 AM	0	42	78	121	14	0	255
<b>Total</b>	<b>0</b>	<b>139</b>	<b>242</b>	<b>356</b>	<b>49</b>	<b>0</b>	<b>786</b>
08:00 AM	0	45	57	87	21	0	210
08:15 AM	0	54	52	68	14	0	188
08:30 AM	0	41	72	56	32	0	201
08:45 AM	0	37	55	66	14	0	172
<b>Total</b>	<b>0</b>	<b>177</b>	<b>236</b>	<b>277</b>	<b>81</b>	<b>0</b>	<b>771</b>
09:00 AM	0	36	30	63	17	0	146
09:15 AM	0	25	38	45	9	0	117
<b>Grand Total</b>	<b>0</b>	<b>377</b>	<b>546</b>	<b>741</b>	<b>156</b>	<b>0</b>	<b>1820</b>
Apprch %	0	100	42.4	57.6	100	0	
Total %	0	20.7	30	40.7	8.6	0	

**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 5

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	41	41	61	85	146	16	0	16	203
07:45 AM	0	42	42	78	121	199	14	0	14	255
08:00 AM	0	45	45	57	87	144	21	0	21	210
08:15 AM	0	54	54	52	68	120	14	0	14	188
Total Volume	0	182	182	248	361	609	65	0	65	856
% App. Total	0	100		40.7	59.3		100	0		
PHF	.000	.843	.843	.795	.746	.765	.774	.000	.774	.839



N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

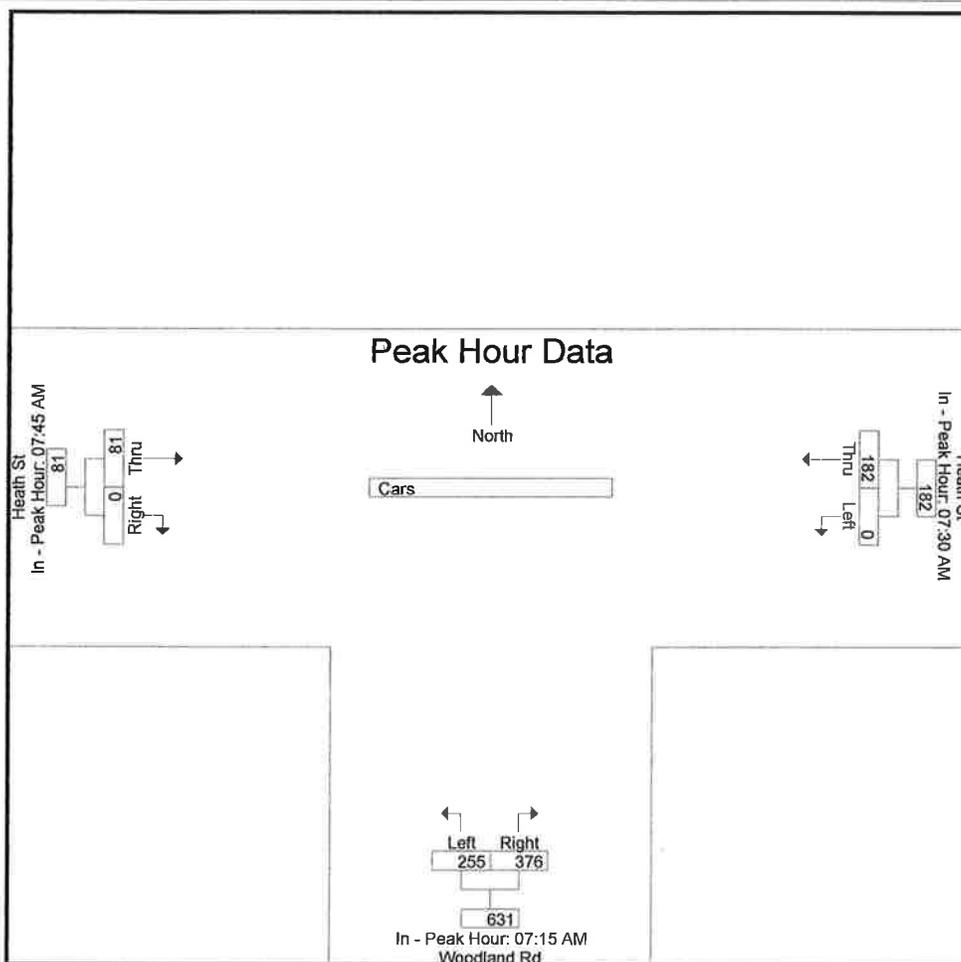
File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 6

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM			07:15 AM			07:45 AM		
+0 mins.	0	41	41	59	83	142	14	0	14
+15 mins.	0	42	42	61	85	146	21	0	21
+30 mins.	0	45	45	78	121	199	14	0	14
+45 mins.	0	54	54	57	87	144	32	0	32
Total Volume	0	182	182	255	376	631	81	0	81
% App. Total	0	100		40.4	59.6		100	0	
PHF	.000	.843	.843	.817	.777	.793	.633	.000	.633



**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 7

Groups Printed- Trucks

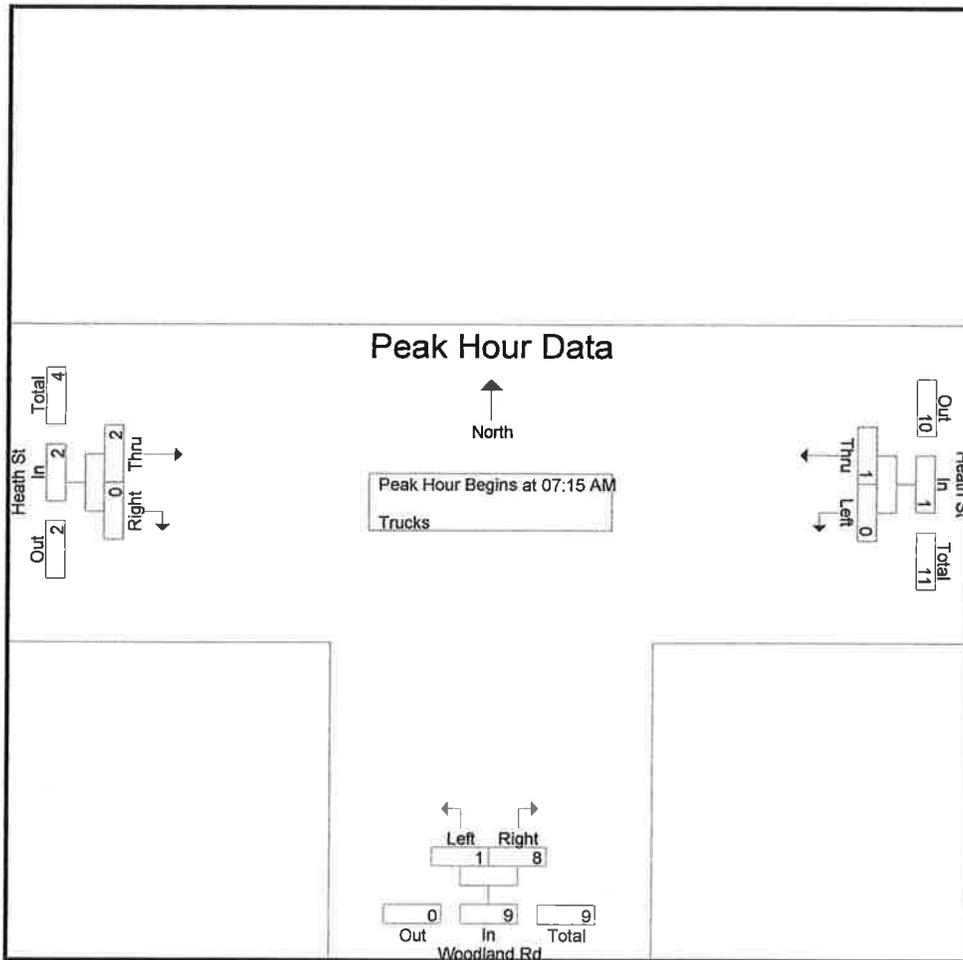
Start Time	Heath St From East		Woodland Rd From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	0	0	0	0	0	0
07:15 AM	0	0	1	5	1	0	7
07:30 AM	0	0	0	1	0	0	1
07:45 AM	0	0	0	2	0	0	2
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>10</b>
08:00 AM	0	1	0	0	1	0	2
08:15 AM	0	3	0	1	0	0	4
08:30 AM	0	0	1	0	1	0	2
08:45 AM	0	3	0	0	0	0	3
<b>Total</b>	<b>0</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>11</b>
09:00 AM	0	1	0	2	0	0	3
09:15 AM	0	1	0	0	0	0	1
<b>Grand Total</b>	<b>0</b>	<b>9</b>	<b>2</b>	<b>11</b>	<b>3</b>	<b>0</b>	<b>25</b>
Apprch %	0	100	15.4	84.6	100	0	
Total %	0	36	8	44	12	0	

**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 8

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	1	5	6	1	0	1	7
07:30 AM	0	0	0	0	1	1	0	0	0	1
07:45 AM	0	0	0	0	2	2	0	0	0	2
08:00 AM	0	1	1	0	0	0	1	0	1	2
Total Volume	0	1	1	1	8	9	2	0	2	12
% App. Total	0	100		11.1	88.9		100	0		
PHF	.000	.250	.250	.250	.400	.375	.500	.000	.500	.429



N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

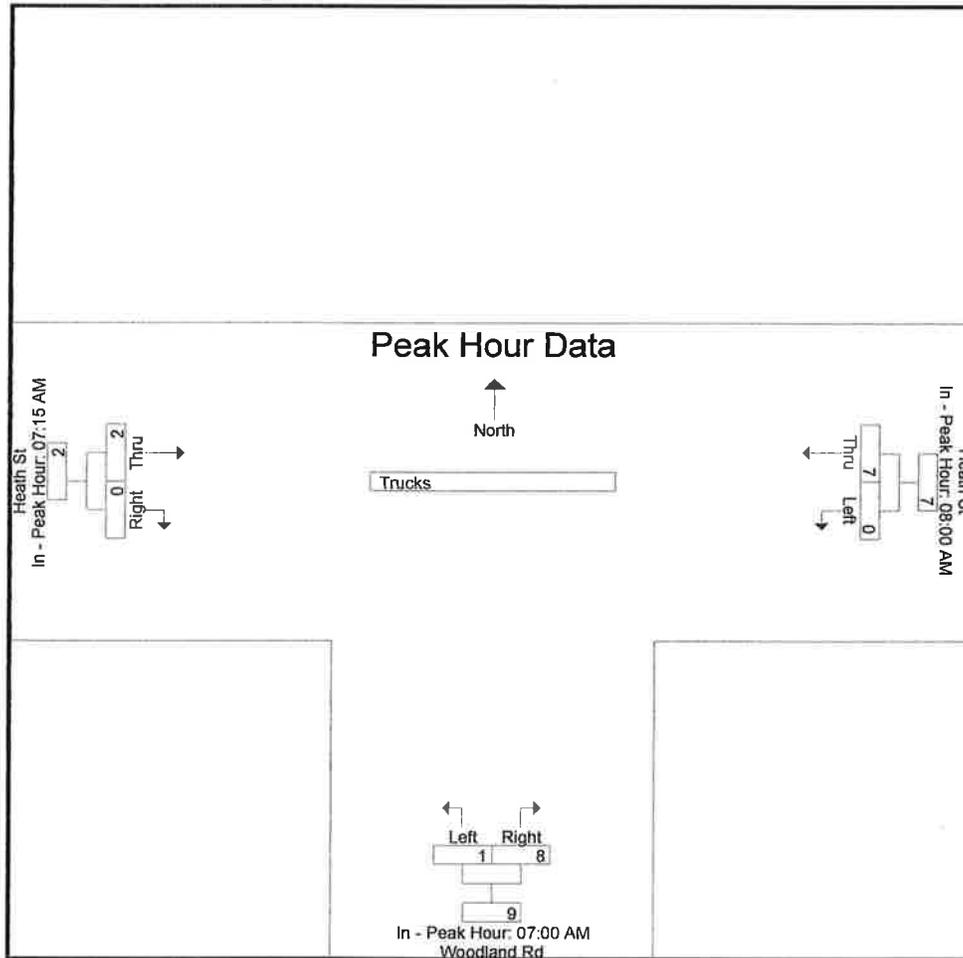
File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 9

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM			07:00 AM			07:15 AM		
+0 mins.	0	1	1	0	0	0	1	0	1
+15 mins.	0	3	3	1	5	6	0	0	0
+30 mins.	0	0	0	0	1	1	0	0	0
+45 mins.	0	3	3	0	2	2	1	0	1
Total Volume	0	7	7	1	8	9	2	0	2
% App. Total	0	100		11.1	88.9		100	0	
PHF	.000	.583	.583	.250	.400	.375	.500	.000	.500



**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 10

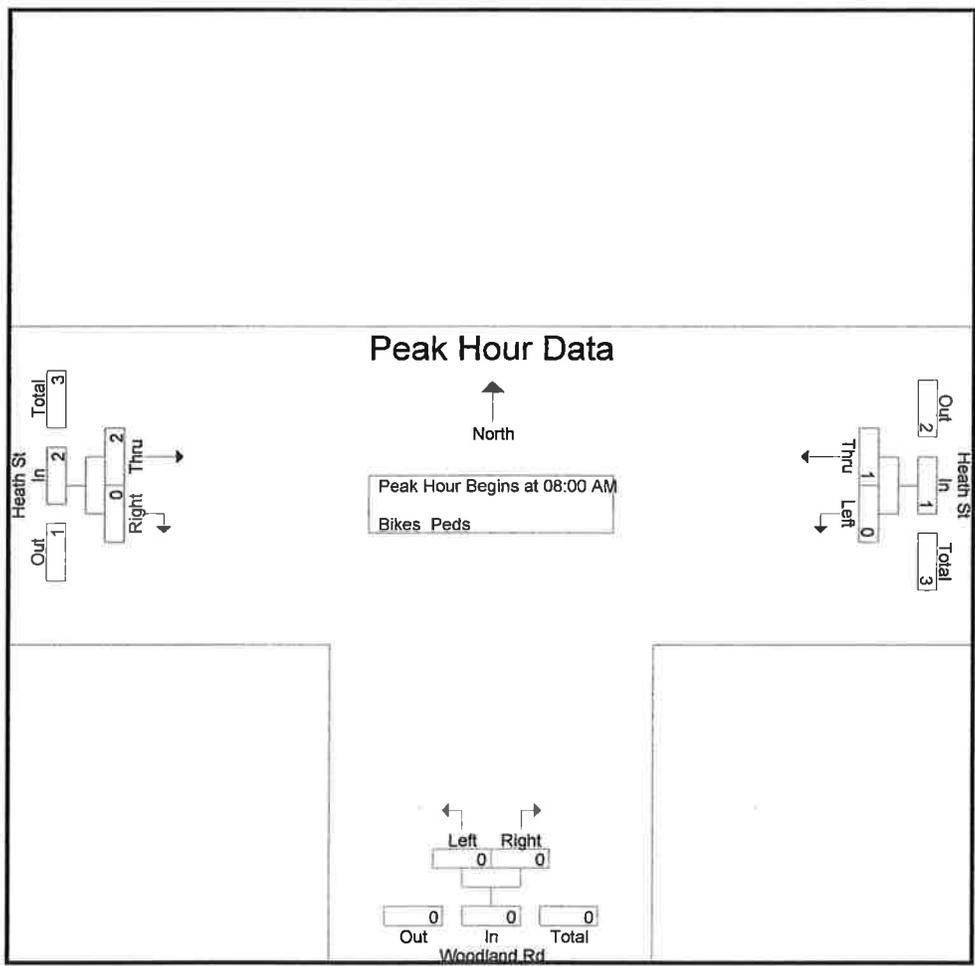
Groups Printed- Bikes Peds

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	2	0	0	0	0	0	0	2	1	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	1	0	0	0	0	0	0	1	0	1
<b>Total</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>4</b>
08:00 AM	0	0	3	0	0	0	0	0	0	3	0	3
08:15 AM	0	0	1	0	0	0	1	0	0	1	1	2
08:30 AM	0	0	1	0	0	0	0	0	0	1	0	1
08:45 AM	0	1	2	0	0	0	1	0	0	2	2	4
<b>Total</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>3</b>	<b>10</b>
09:00 AM	0	0	7	0	0	0	0	0	0	7	0	7
09:15 AM	0	0	2	0	0	0	0	0	0	2	0	2
<b>Grand Total</b>	<b>0</b>	<b>2</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>4</b>	<b>23</b>
Apprch %	0	100		0	0		100	0				
Total %	0	50		0	0		50	0		82.6	17.4	

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 11

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 09:15 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
08:15 AM	0	0	0	0	0	0	1	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	1	0	0	0	1	0	1	2
Total Volume	0	1	1	0	0	0	2	0	2	3
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.500	.000	.500	.375



**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

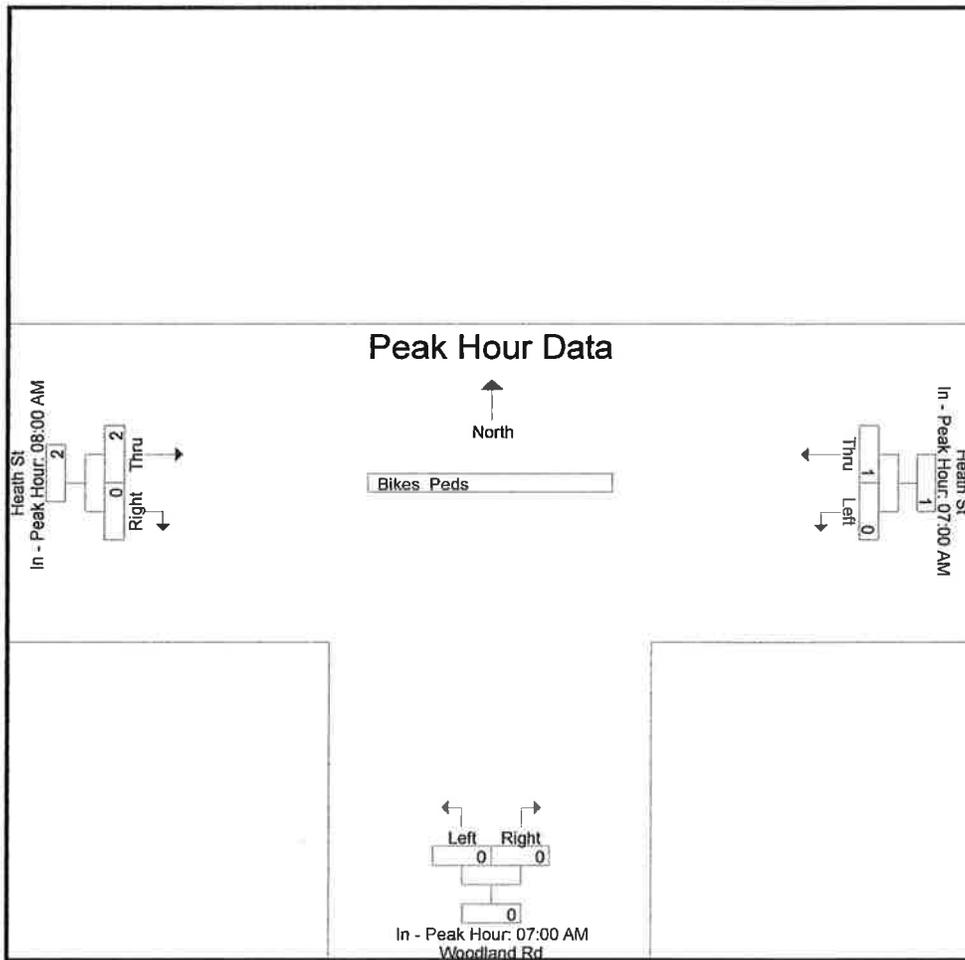
File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 12

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			08:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	1	1	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	0	1
Total Volume	0	1	1	0	0	0	2	0	2
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.500	.000	.500



**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 1

Groups Printed- Cars - Trucks

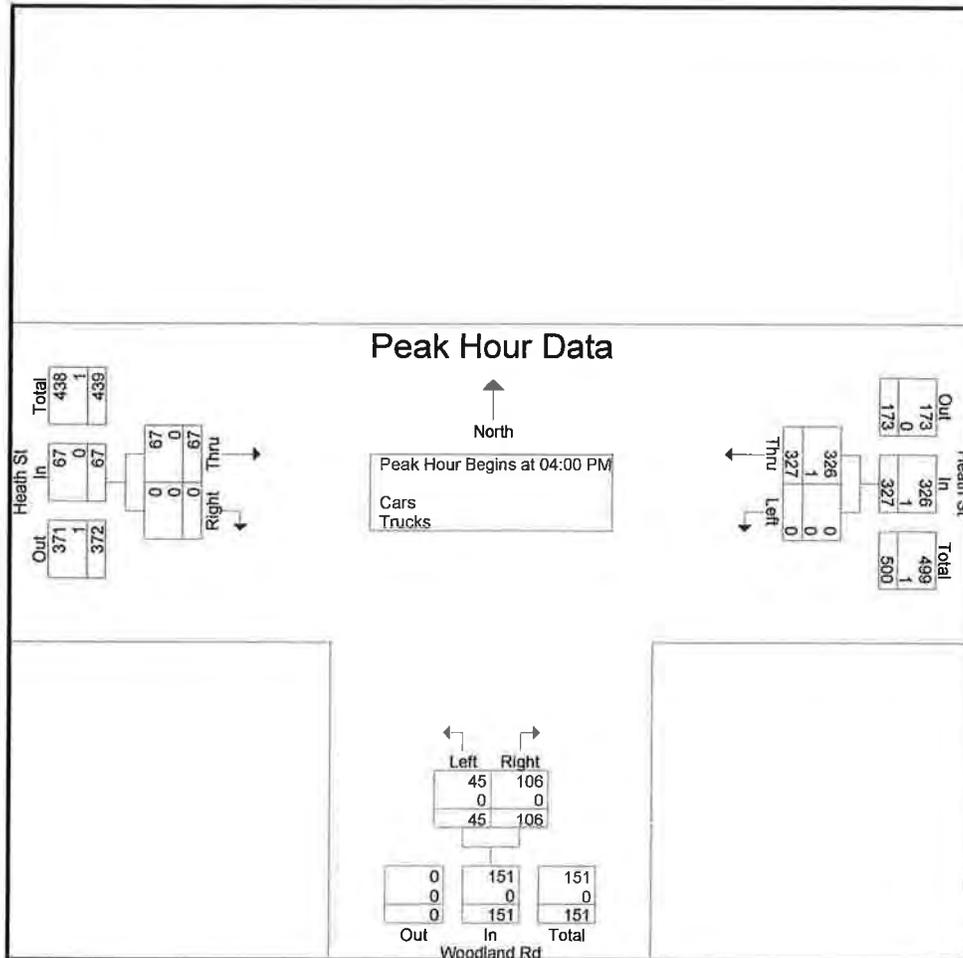
Start Time	Heath St From East		Woodland Rd From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:00 PM	0	51	7	23	9	0	90
02:15 PM	0	40	20	22	17	0	99
02:30 PM	0	39	15	20	10	0	84
02:45 PM	0	47	19	28	19	0	113
<b>Total</b>	<b>0</b>	<b>177</b>	<b>61</b>	<b>93</b>	<b>55</b>	<b>0</b>	<b>386</b>
03:00 PM	0	59	15	20	10	0	104
03:15 PM	0	63	22	25	22	0	132
03:30 PM	0	65	8	24	19	0	116
03:45 PM	0	67	11	18	16	0	112
<b>Total</b>	<b>0</b>	<b>254</b>	<b>56</b>	<b>87</b>	<b>67</b>	<b>0</b>	<b>464</b>
04:00 PM	0	73	7	30	15	0	125
04:15 PM	0	81	12	23	15	0	131
04:30 PM	0	79	14	27	17	0	137
04:45 PM	0	94	12	26	20	0	152
<b>Total</b>	<b>0</b>	<b>327</b>	<b>45</b>	<b>106</b>	<b>67</b>	<b>0</b>	<b>545</b>
<b>Grand Total</b>	<b>0</b>	<b>758</b>	<b>162</b>	<b>286</b>	<b>189</b>	<b>0</b>	<b>1395</b>
Apprch %	0	100	36.2	63.8	100	0	
Total %	0	54.3	11.6	20.5	13.5	0	
<b>Cars</b>	<b>0</b>	<b>749</b>	<b>162</b>	<b>282</b>	<b>187</b>	<b>0</b>	<b>1380</b>
<b>% Cars</b>	<b>0</b>	<b>98.8</b>	<b>100</b>	<b>98.6</b>	<b>98.9</b>	<b>0</b>	<b>98.9</b>
<b>Trucks</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>15</b>
<b>% Trucks</b>	<b>0</b>	<b>1.2</b>	<b>0</b>	<b>1.4</b>	<b>1.1</b>	<b>0</b>	<b>1.1</b>

**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 2

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	73	73	7	30	37	15	0	15	125
04:15 PM	0	81	81	12	23	35	15	0	15	131
04:30 PM	0	79	79	14	27	41	17	0	17	137
04:45 PM	0	94	94	12	26	38	20	0	20	152
Total Volume	0	327	327	45	106	151	67	0	67	545
% App. Total	0	100		29.8	70.2		100	0		
PHF	.000	.870	.870	.804	.883	.921	.838	.000	.838	.896
Cars	0	326	326	45	106	151	67	0	67	544
% Cars	0	99.7	99.7	100	100	100	100	0	100	99.8
Trucks	0	1	1	0	0	0	0	0	0	1
% Trucks	0	0.3	0.3	0	0	0	0	0	0	0.2



**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

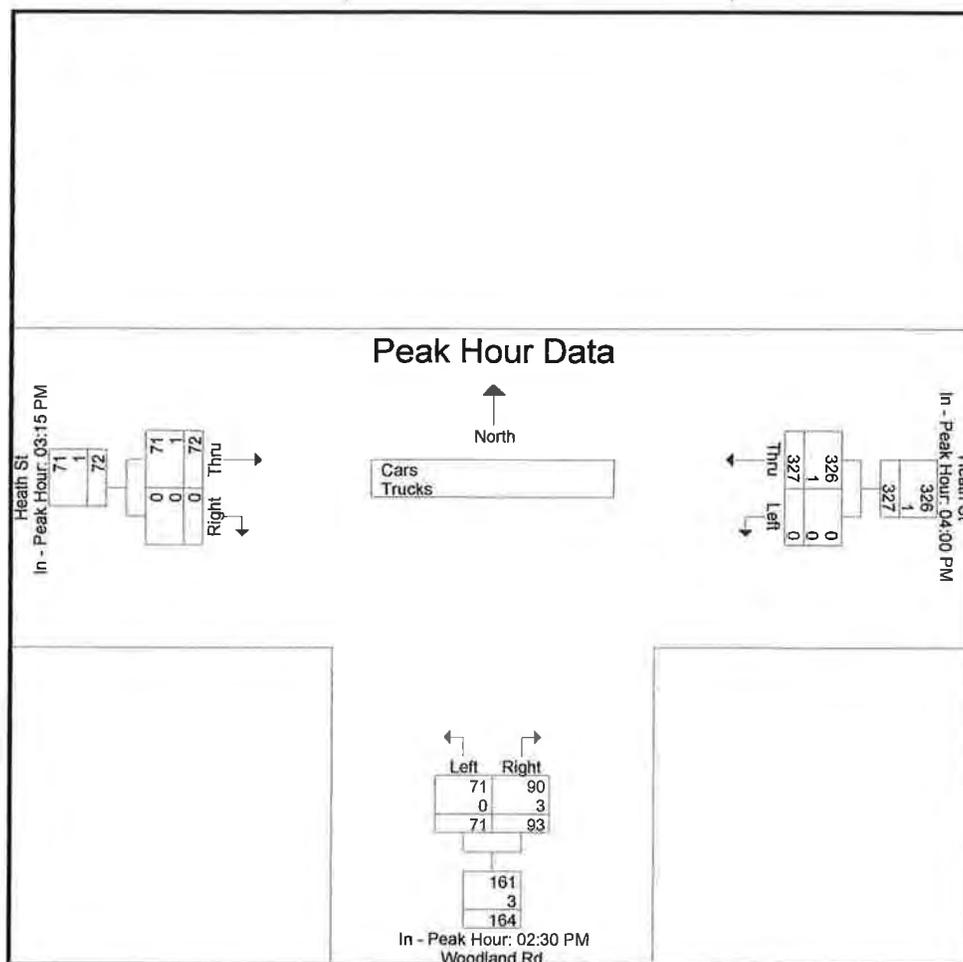
File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 3

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			02:30 PM			03:15 PM		
+0 mins.	0	73	73	15	20	35	22	0	22
+15 mins.	0	81	81	19	28	47	19	0	19
+30 mins.	0	79	79	15	20	35	16	0	16
+45 mins.	0	94	94	22	25	47	15	0	15
Total Volume	0	327	327	71	93	164	72	0	72
% App. Total	0	100		43.3	56.7		100	0	
PHF	.000	.870	.870	.807	.830	.872	.818	.000	.818
Cars	0	326	326	71	90	161	71	0	71
% Cars	0	99.7	99.7	100	96.8	98.2	98.6	0	98.6
Trucks	0	1	1	0	3	3	1	0	1
% Trucks	0	0.3	0.3	0	3.2	1.8	1.4	0	1.4



**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 4

Groups Printed- Cars

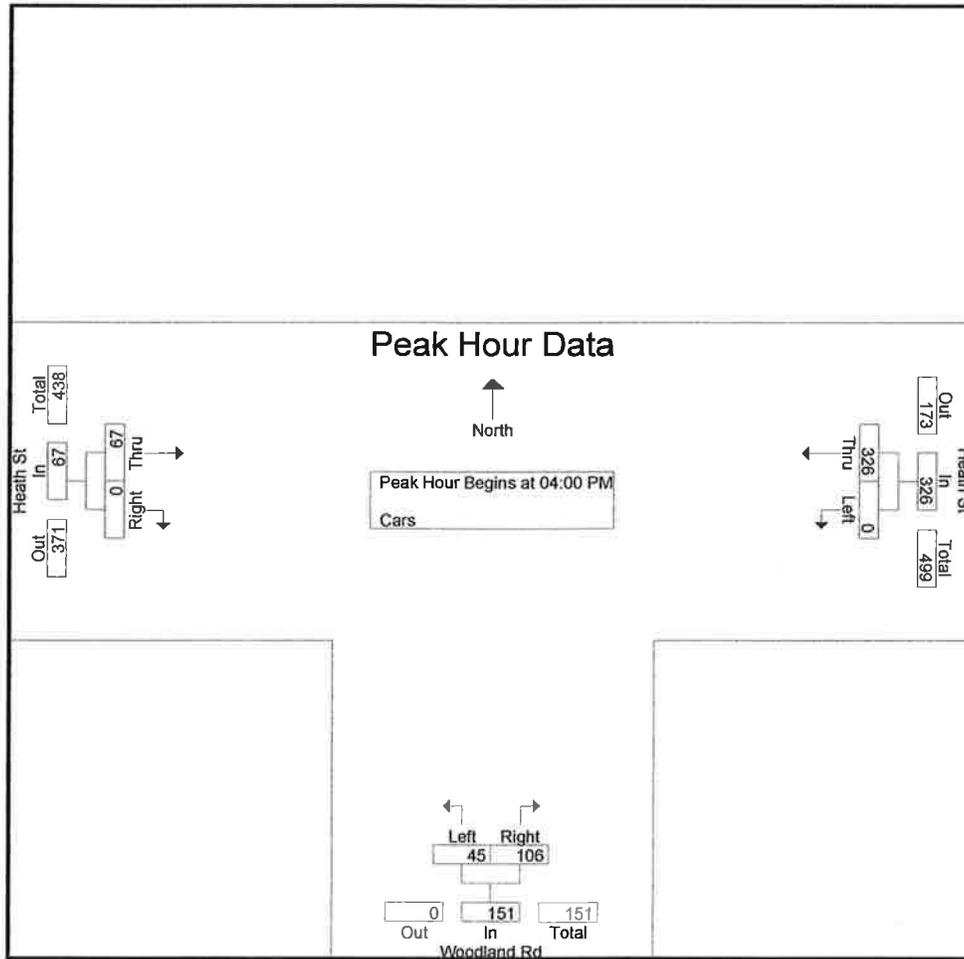
Start Time	Heath St From East		Woodland Rd From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:00 PM	0	50	7	22	9	0	88
02:15 PM	0	40	20	22	16	0	98
02:30 PM	0	36	15	20	10	0	81
02:45 PM	0	47	19	27	19	0	112
<b>Total</b>	<b>0</b>	<b>173</b>	<b>61</b>	<b>91</b>	<b>54</b>	<b>0</b>	<b>379</b>
03:00 PM	0	59	15	18	10	0	102
03:15 PM	0	62	22	25	22	0	131
03:30 PM	0	65	8	24	18	0	115
03:45 PM	0	64	11	18	16	0	109
<b>Total</b>	<b>0</b>	<b>250</b>	<b>56</b>	<b>85</b>	<b>66</b>	<b>0</b>	<b>457</b>
04:00 PM	0	72	7	30	15	0	124
04:15 PM	0	81	12	23	15	0	131
04:30 PM	0	79	14	27	17	0	137
04:45 PM	0	94	12	26	20	0	152
<b>Total</b>	<b>0</b>	<b>326</b>	<b>45</b>	<b>106</b>	<b>67</b>	<b>0</b>	<b>544</b>
<b>Grand Total</b>	<b>0</b>	<b>749</b>	<b>162</b>	<b>282</b>	<b>187</b>	<b>0</b>	<b>1380</b>
Apprch %	0	100	36.5	63.5	100	0	
Total %	0	54.3	11.7	20.4	13.6	0	

**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 5

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	72	72	7	30	37	15	0	15	124
04:15 PM	0	81	81	12	23	35	15	0	15	131
04:30 PM	0	79	79	14	27	41	17	0	17	137
04:45 PM	0	94	94	12	26	38	20	0	20	152
Total Volume	0	326	326	45	106	151	67	0	67	544
% App. Total	0	100		29.8	70.2		100	0		
PHF	.000	.867	.867	.804	.883	.921	.838	.000	.838	.895



**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

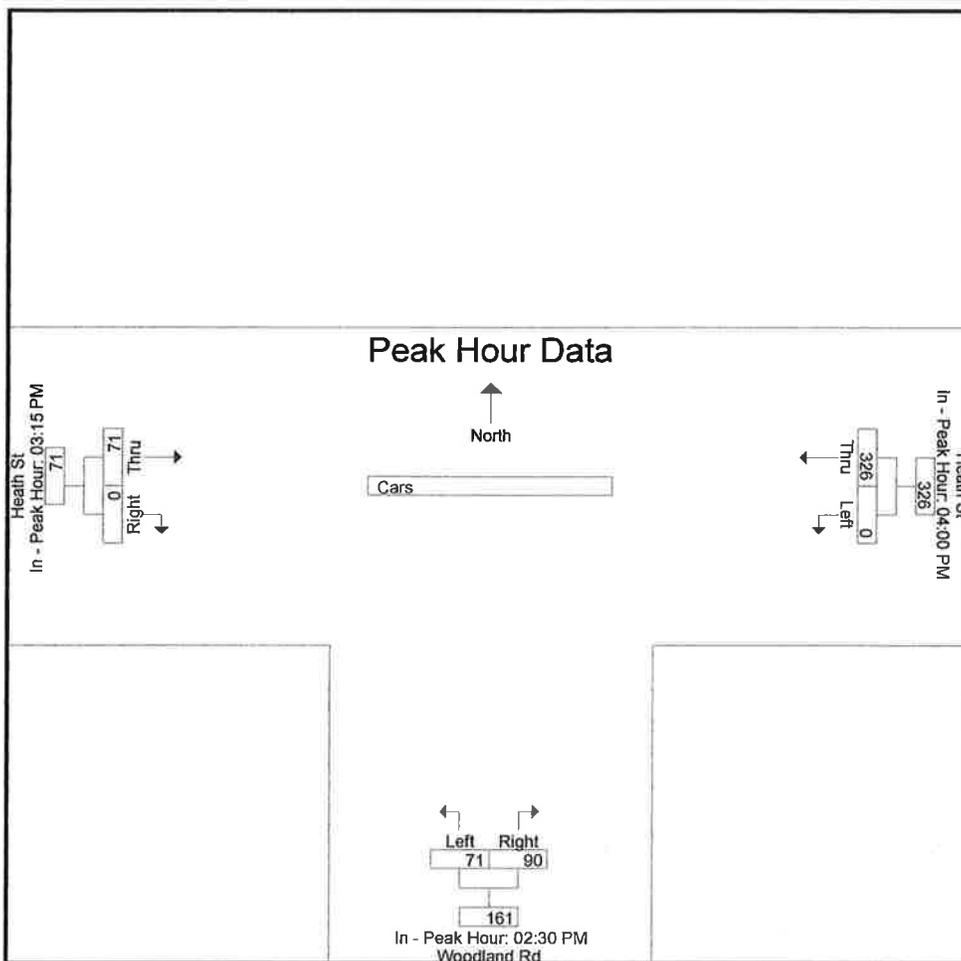
File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 6

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			02:30 PM			03:15 PM		
+0 mins.	0	72	72	15	20	35	22	0	22
+15 mins.	0	81	81	19	27	46	18	0	18
+30 mins.	0	79	79	15	18	33	16	0	16
+45 mins.	0	94	94	22	25	47	15	0	15
Total Volume	0	326	326	71	90	161	71	0	71
% App. Total	0	100		44.1	55.9		100	0	
PHF	.000	.867	.867	.807	.833	.856	.807	.000	.807



# Accurate Counts

978-664-2565

N/S Street : Heath Street  
 E/W Street: Woodland Road  
 City/State : Brookline, MA  
 Weather : Clear

File Name : 7382N009  
 Site Code : 73820009  
 Start Date : 11/17/2016  
 Page No : 7

## Groups Printed- Trucks

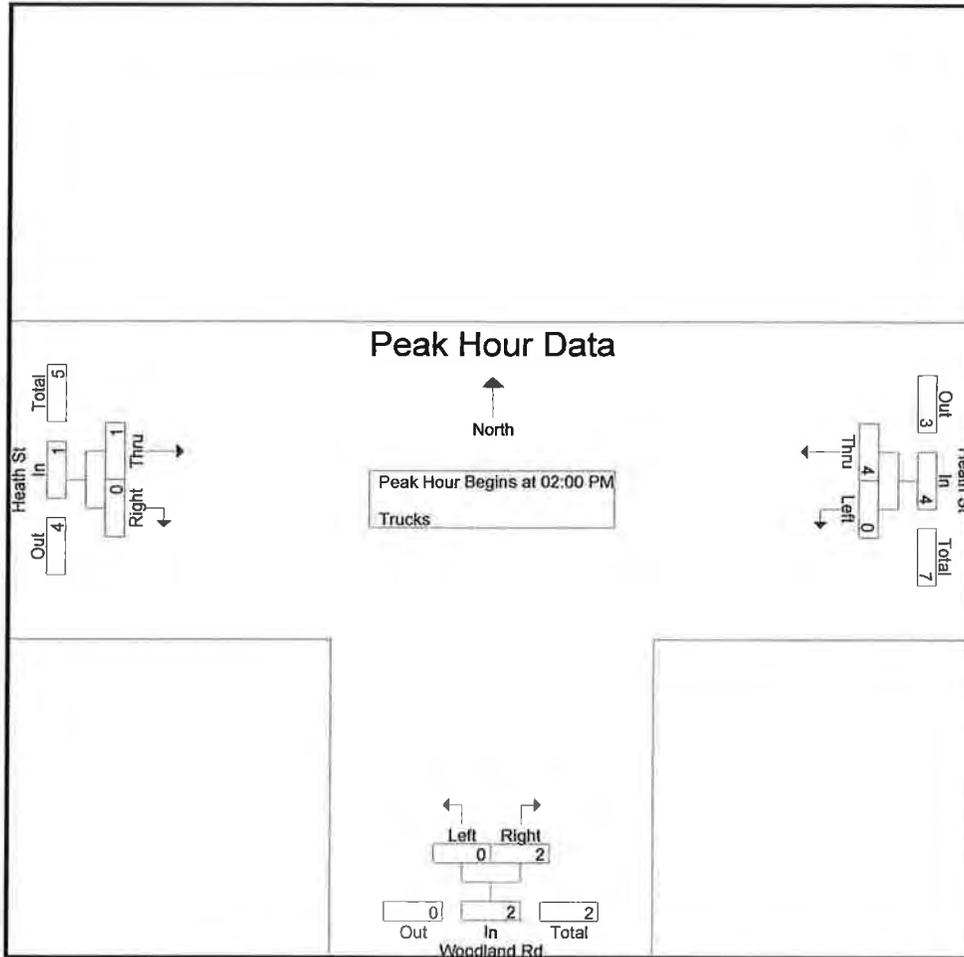
Start Time	Heath St From East		Woodland Rd From South		Heath St From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:00 PM	0	1	0	1	0	0	2
02:15 PM	0	0	0	0	1	0	1
02:30 PM	0	3	0	0	0	0	3
02:45 PM	0	0	0	1	0	0	1
<b>Total</b>	0	4	0	2	1	0	7
03:00 PM	0	0	0	2	0	0	2
03:15 PM	0	1	0	0	0	0	1
03:30 PM	0	0	0	0	1	0	1
03:45 PM	0	3	0	0	0	0	3
<b>Total</b>	0	4	0	2	1	0	7
04:00 PM	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0
<b>Total</b>	0	1	0	0	0	0	1
<b>Grand Total</b>	0	9	0	4	2	0	15
Aprch %	0	100	0	100	100	0	
Total %	0	60	0	26.7	13.3	0	

**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 8

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	0	1	1	0	1	1	0	0	0	2
02:15 PM	0	0	0	0	0	0	1	0	1	1
02:30 PM	0	3	3	0	0	0	0	0	0	3
02:45 PM	0	0	0	0	1	1	0	0	0	1
Total Volume	0	4	4	0	2	2	1	0	1	7
% App. Total	0	100		0	100		100	0		
PHF	.000	.333	.333	.000	.500	.500	.250	.000	.250	.583



**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

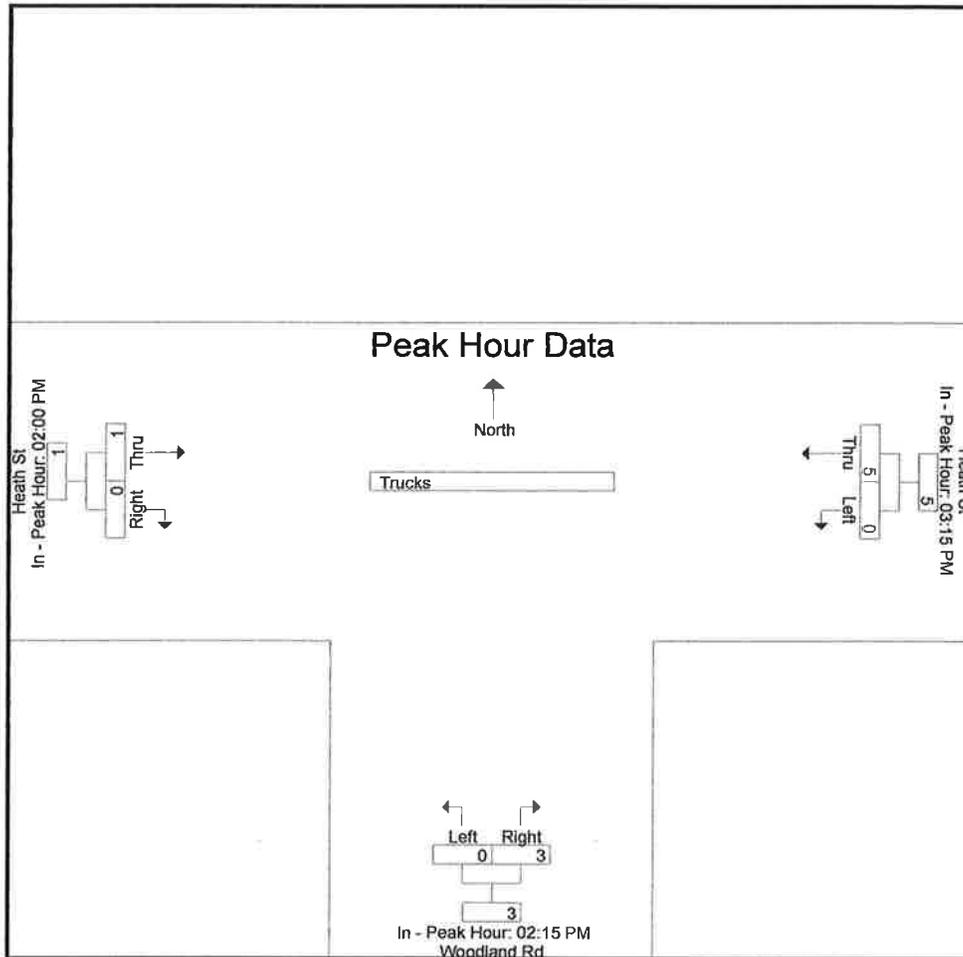
File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 9

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:15 PM			02:15 PM			02:00 PM		
+0 mins.	0	1	1	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	1	0	1
+30 mins.	0	3	3	0	1	1	0	0	0
+45 mins.	0	1	1	0	2	2	0	0	0
Total Volume	0	5	5	0	3	3	1	0	1
% App. Total	0	100		0	100		100	0	
PHF	.000	.417	.417	.000	.375	.375	.250	.000	.250



# Accurate Counts

978-664-2565

N/S Street : Heath Street  
 E/W Street: Woodland Road  
 City/State : Brookline, MA  
 Weather : Clear

File Name : 7382N009  
 Site Code : 73820009  
 Start Date : 11/17/2016  
 Page No : 10

## Groups Printed- Bikes Peds

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
02:00 PM	0	0	1	0	0	1	0	0	0	2	0	2
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	1	1	0	0	0	0	0	0	1	1	2
02:45 PM	0	0	1	0	0	0	0	0	0	1	0	1
<b>Total</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>5</b>
03:00 PM	0	0	2	0	0	0	0	0	0	2	0	2
03:15 PM	0	0	1	0	0	1	0	0	0	2	0	2
03:30 PM	0	0	3	0	0	0	0	0	0	3	0	3
03:45 PM	0	0	12	0	0	0	0	0	0	12	0	12
<b>Total</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>19</b>
04:00 PM	0	0	2	0	0	2	0	0	0	4	0	4
04:15 PM	0	0	3	0	0	0	0	0	0	3	0	3
04:30 PM	0	0	1	0	0	0	0	0	0	1	0	1
04:45 PM	0	0	1	0	0	0	0	0	0	1	0	1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>9</b>
<b>Grand Total</b>	<b>0</b>	<b>1</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>1</b>	<b>33</b>
Apprch %	0	100		0	0		0	0				
Total %	0	100		0	0		0	0		97	3	

# Accurate Counts

978-664-2565

N/S Street : Heath Street  
 E/W Street: Woodland Road  
 City/State : Brookline, MA  
 Weather : Clear

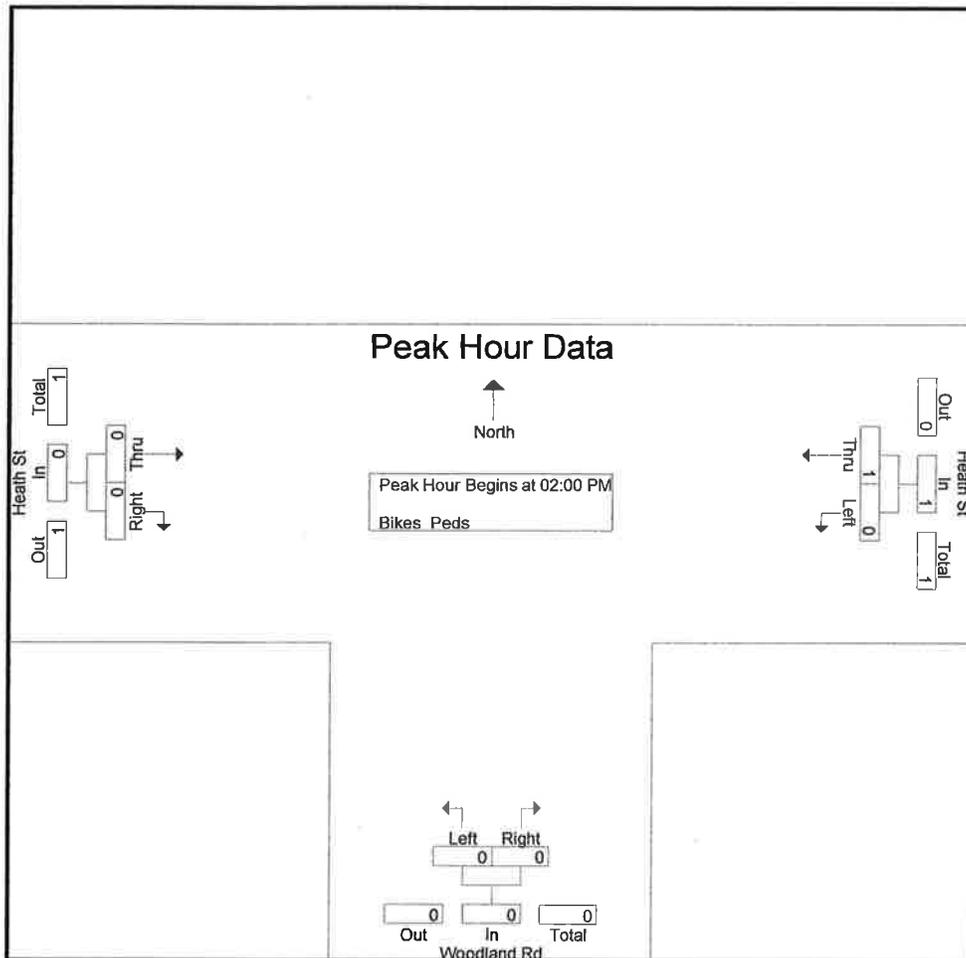
File Name : 7382N009  
 Site Code : 73820009  
 Start Date : 11/17/2016  
 Page No : 11

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 02:00 PM

02:00 PM	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	1	1	0	0	0	0	0	0	1
02:45 PM	0	0	0	0	0	0	0	0	0	0
<b>Total Volume</b>	0	1	1	0	0	0	0	0	0	1
<b>% App. Total</b>	0	100		0	0		0	0		
<b>PHF</b>	.000	.250	.250	.000	.000	.000	.000	.000	.000	.250



**Accurate Counts**  
978-664-2565

N/S Street : Heath Street  
E/W Street: Woodland Road  
City/State : Brookline, MA  
Weather : Clear

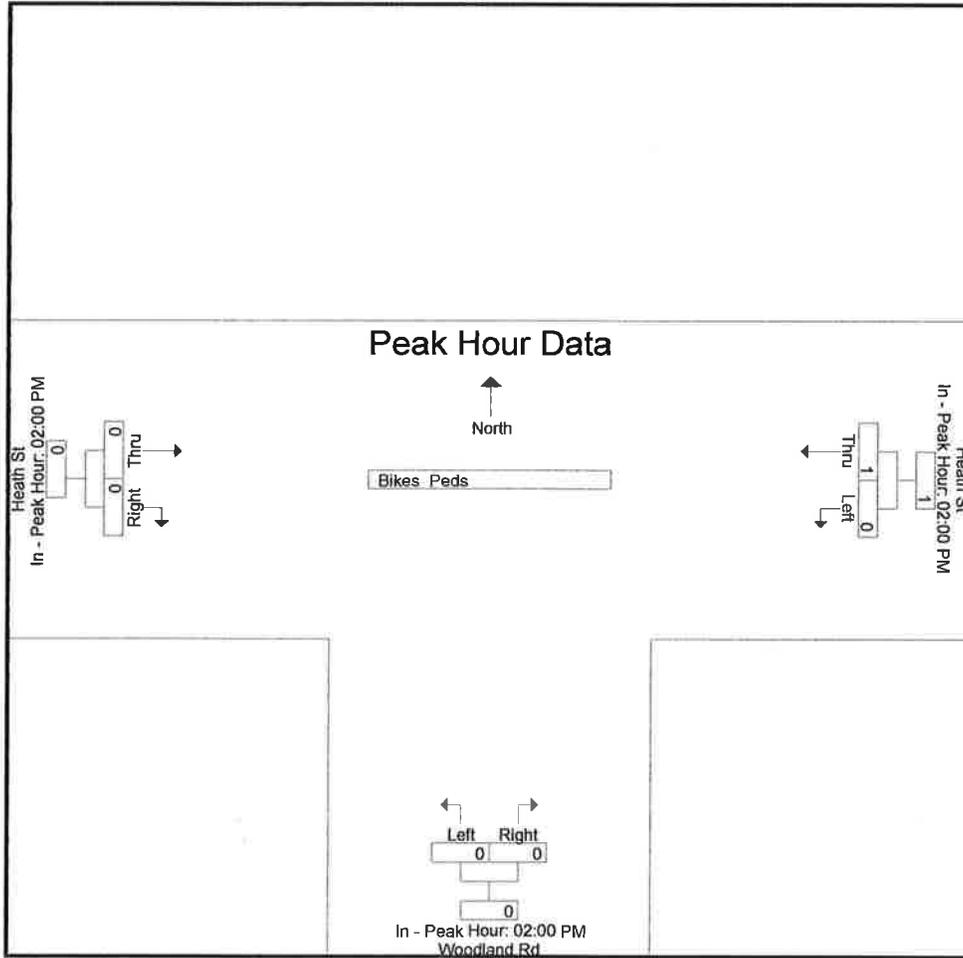
File Name : 7382N009  
Site Code : 73820009  
Start Date : 11/17/2016  
Page No : 12

Start Time	Heath St From East			Woodland Rd From South			Heath St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:00 PM			02:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	0	0	0
% App. Total	0	100		0	0		0	0	
PHF	.000	.250	.250	.000	.000	.000	.000	.000	.000



# Accurate Counts

978-664-2565

N/S Street : Hammond Street  
 E/W Street : Horace James Circle  
 City/State : Brookline, MA  
 Weather : Rain

File Name : 73820001  
 Site Code : 73820001  
 Start Date : 1/18/2017  
 Page No : 1

## Groups Printed- Cars - Trucks

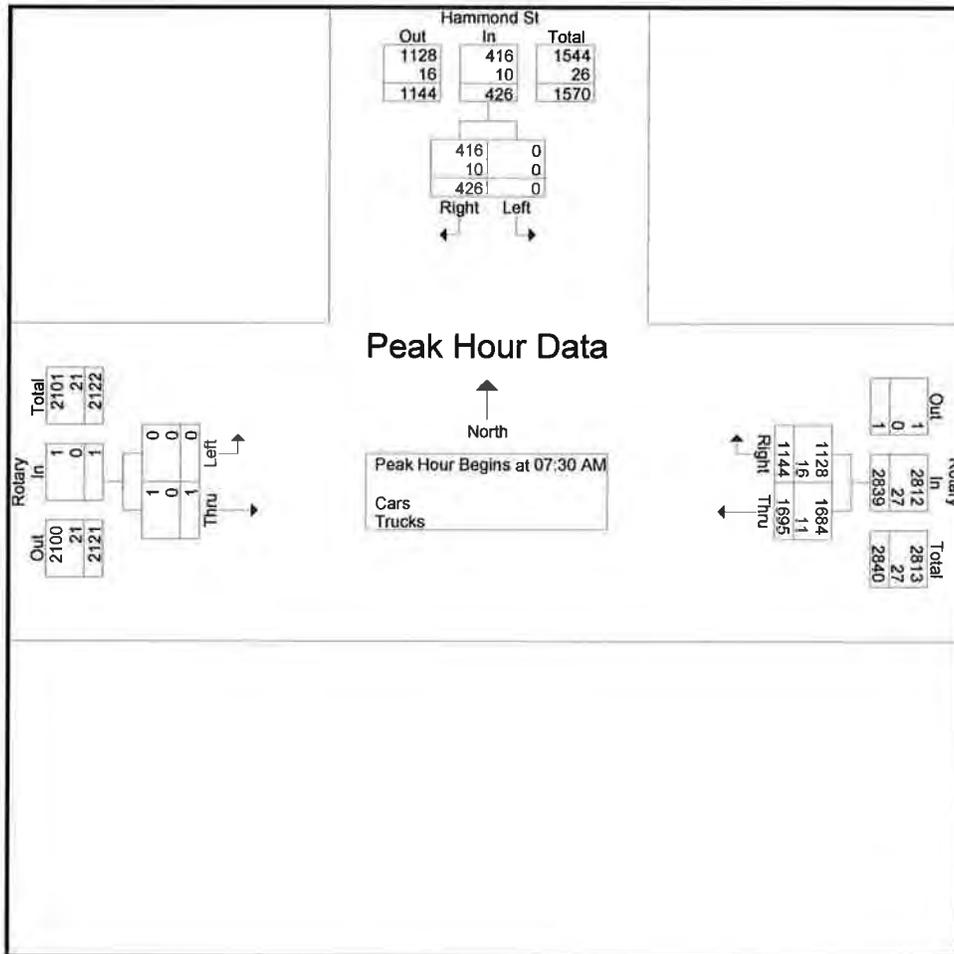
Start Time	Hammond St From North		Rotary From East		Rotary From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	0	56	383	218	0	0	657
07:15 AM	0	96	420	219	0	0	735
07:30 AM	0	101	429	280	0	1	811
07:45 AM	0	118	428	313	0	0	859
<b>Total</b>	<b>0</b>	<b>371</b>	<b>1660</b>	<b>1030</b>	<b>0</b>	<b>1</b>	<b>3062</b>
08:00 AM	0	123	416	285	0	0	824
08:15 AM	0	84	422	266	0	0	772
08:30 AM	0	66	426	228	0	0	720
08:45 AM	0	98	432	222	0	0	752
<b>Total</b>	<b>0</b>	<b>371</b>	<b>1696</b>	<b>1001</b>	<b>0</b>	<b>0</b>	<b>3068</b>
<b>Grand Total</b>	<b>0</b>	<b>742</b>	<b>3356</b>	<b>2031</b>	<b>0</b>	<b>1</b>	<b>6130</b>
Apprch %	0	100	62.3	37.7	0	100	
Total %	0	12.1	54.7	33.1	0	0	
<b>Cars</b>	<b>0</b>	<b>720</b>	<b>3324</b>	<b>2012</b>	<b>0</b>	<b>1</b>	<b>6057</b>
<b>% Cars</b>	<b>0</b>	<b>97</b>	<b>99</b>	<b>99.1</b>	<b>0</b>	<b>100</b>	<b>98.8</b>
<b>Trucks</b>	<b>0</b>	<b>22</b>	<b>32</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>73</b>
<b>% Trucks</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>0.9</b>	<b>0</b>	<b>0</b>	<b>1.2</b>

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 2

Start Time	Hammond St From North			Rotary From East			Rotary From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	101	101	429	280	709	0	1	1	811
07:45 AM	0	118	118	428	313	741	0	0	0	859
08:00 AM	0	123	123	416	285	701	0	0	0	824
08:15 AM	0	84	84	422	266	688	0	0	0	772
<b>Total Volume</b>	0	426	426	1695	1144	2839	0	1	1	3266
% App. Total	0	100		59.7	40.3		0	100		
PHF	.000	.866	.866	.988	.914	.958	.000	.250	.250	.951
Cars	0	416	416	1684	1128	2812	0	1	1	3229
% Cars	0	97.7	97.7	99.4	98.6	99.0	0	100	100	98.9
Trucks	0	10	10	11	16	27	0	0	0	37
% Trucks	0	2.3	2.3	0.6	1.4	1.0	0	0	0	1.1



# Accurate Counts

978-664-2565

N/S Street : Hammond Street  
 E/W Street : Horace James Circle  
 City/State : Brookline, MA  
 Weather : Rain

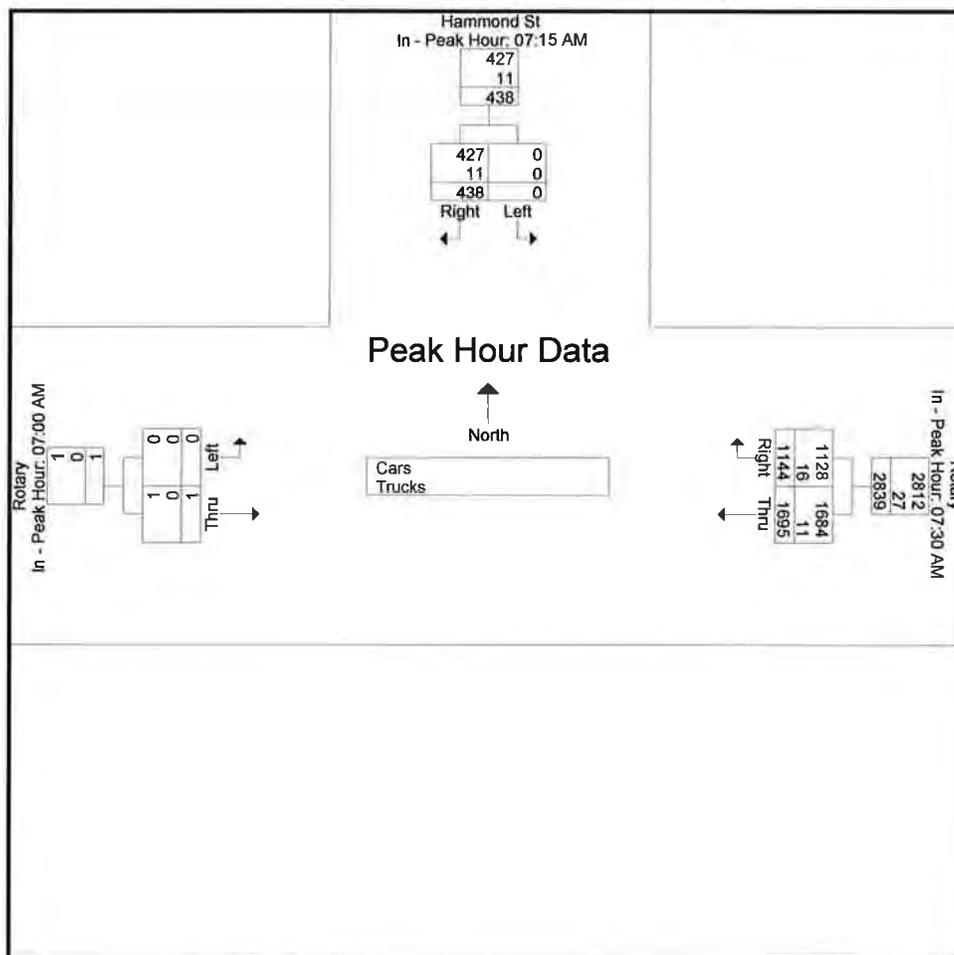
File Name : 73820001  
 Site Code : 73820001  
 Start Date : 1/18/2017  
 Page No : 3

Start Time	Hammond St From North			Rotary From East			Rotary From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:15 AM			07:30 AM			07:00 AM		
+0 mins.	0	96	96	429	280	709	0	0	0
+15 mins.	0	101	101	428	313	741	0	0	0
+30 mins.	0	118	118	416	285	701	0	1	1
+45 mins.	0	123	123	422	266	688	0	0	0
Total Volume	0	438	438	1695	1144	2839	0	1	1
% App. Total	0	100		59.7	40.3		0	100	
PHF	.000	.890	.890	.988	.914	.958	.000	.250	.250
Cars	0	427	427	1684	1128	2812	0	1	1
% Cars	0	97.5	97.5	99.4	98.6	99	0	100	100
Trucks	0	11	11	11	16	27	0	0	0
% Trucks	0	2.5	2.5	0.6	1.4	1	0	0	0



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 4

Groups Printed- Cars

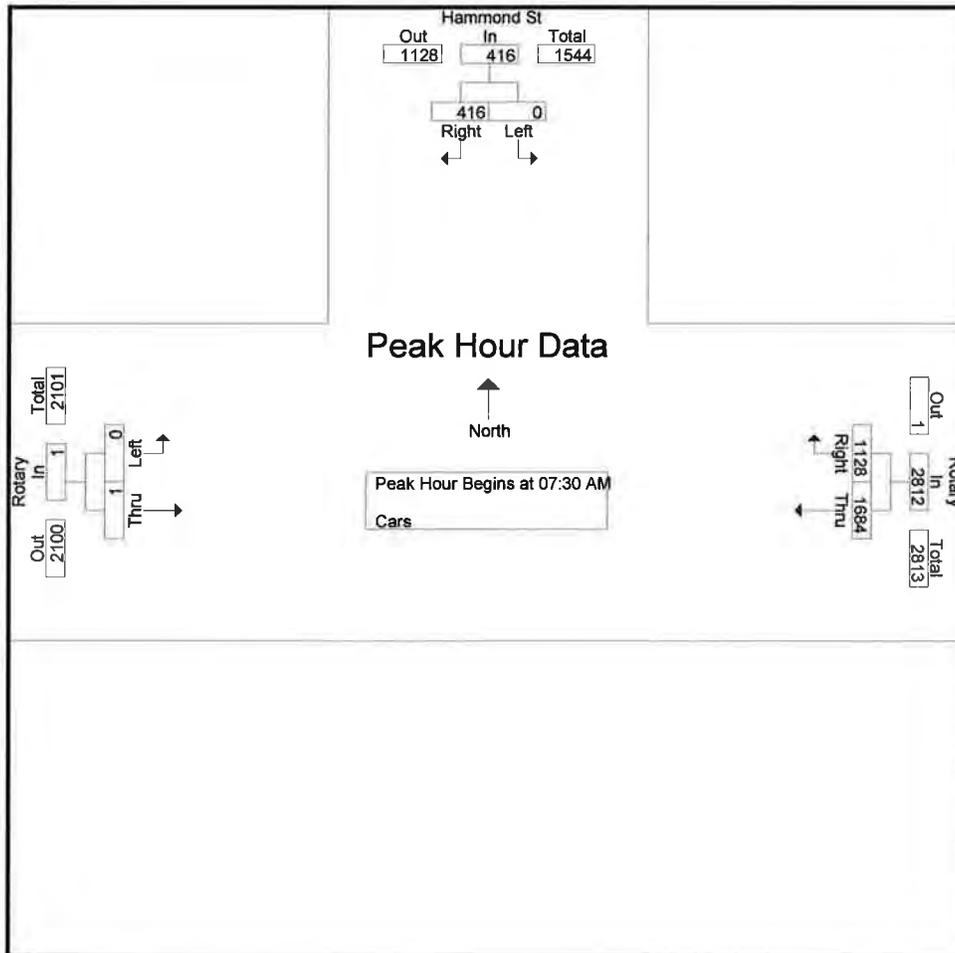
Start Time	Hammond St From North		Rotary From East		Rotary From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	0	55	374	218	0	0	647
07:15 AM	0	92	412	219	0	0	723
07:30 AM	0	98	422	278	0	1	799
07:45 AM	0	116	425	308	0	0	849
<b>Total</b>	<b>0</b>	<b>361</b>	<b>1633</b>	<b>1023</b>	<b>0</b>	<b>1</b>	<b>3018</b>
08:00 AM	0	121	415	282	0	0	818
08:15 AM	0	81	422	260	0	0	763
08:30 AM	0	65	422	226	0	0	713
08:45 AM	0	92	432	221	0	0	745
<b>Total</b>	<b>0</b>	<b>359</b>	<b>1691</b>	<b>989</b>	<b>0</b>	<b>0</b>	<b>3039</b>
<b>Grand Total</b>	<b>0</b>	<b>720</b>	<b>3324</b>	<b>2012</b>	<b>0</b>	<b>1</b>	<b>6057</b>
Apprch %	0	100	62.3	37.7	0	100	
Total %	0	11.9	54.9	33.2	0	0	

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 5

Start Time	Hammond St From North			Rotary From East			Rotary From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	98	98	422	278	700	0	1	1	799
07:45 AM	0	116	116	425	308	733	0	0	0	849
08:00 AM	0	121	121	415	282	697	0	0	0	818
08:15 AM	0	81	81	422	260	682	0	0	0	763
Total Volume	0	416	416	1684	1128	2812	0	1	1	3229
% App. Total	0	100		59.9	40.1		0	100		
PHF	.000	.860	.860	.991	.916	.959	.000	.250	.250	.951



# Accurate Counts

978-664-2565

N/S Street : Hammond Street  
 E/W Street : Horace James Circle  
 City/State : Brookline, MA  
 Weather : Rain

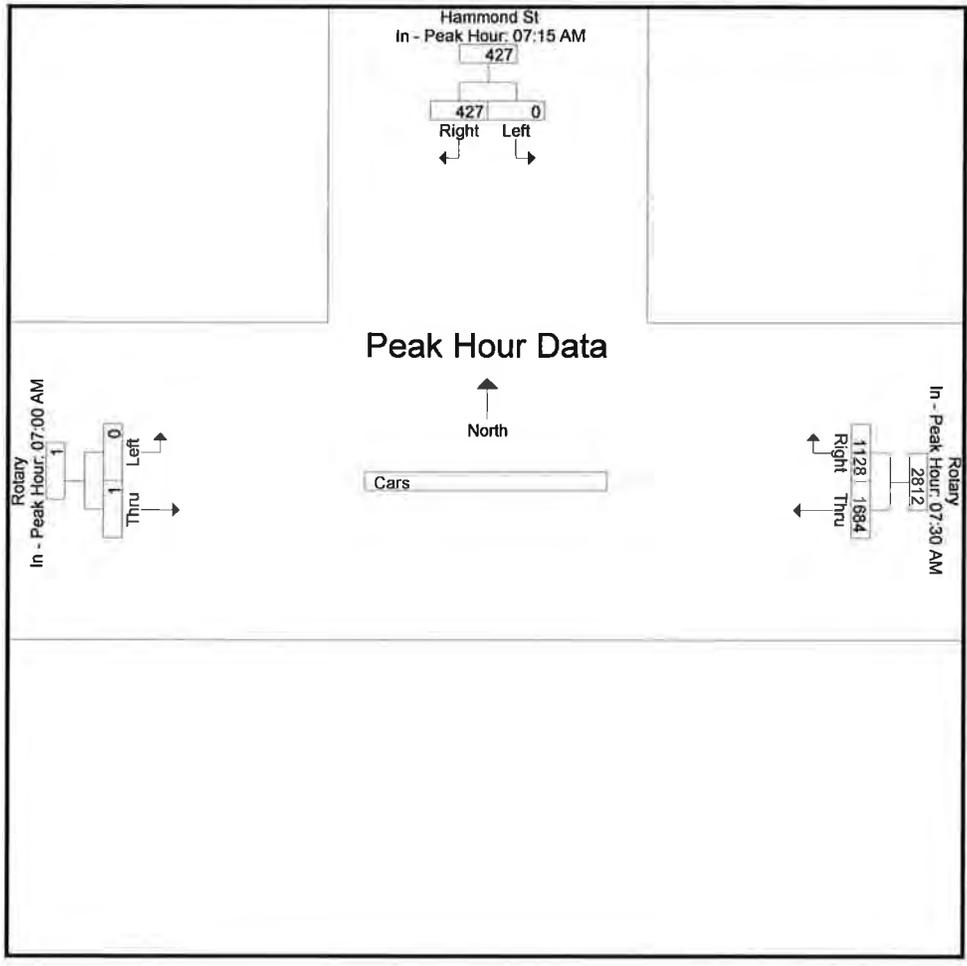
File Name : 73820001  
 Site Code : 73820001  
 Start Date : 1/18/2017  
 Page No : 6

Start Time	Hammond St From North			Rotary From East			Rotary From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:15 AM			07:30 AM			07:00 AM		
+0 mins.	0	92	92	422	278	700	0	0	0
+15 mins.	0	98	98	425	308	733	0	0	0
+30 mins.	0	116	116	415	282	697	0	1	1
+45 mins.	0	121	121	422	260	682	0	0	0
Total Volume	0	427	427	1684	1128	2812	0	1	1
% App. Total	0	100		59.9	40.1		0	100	
PHF	.000	.882	.882	.991	.916	.959	.000	.250	.250



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 7

Groups Printed- Trucks

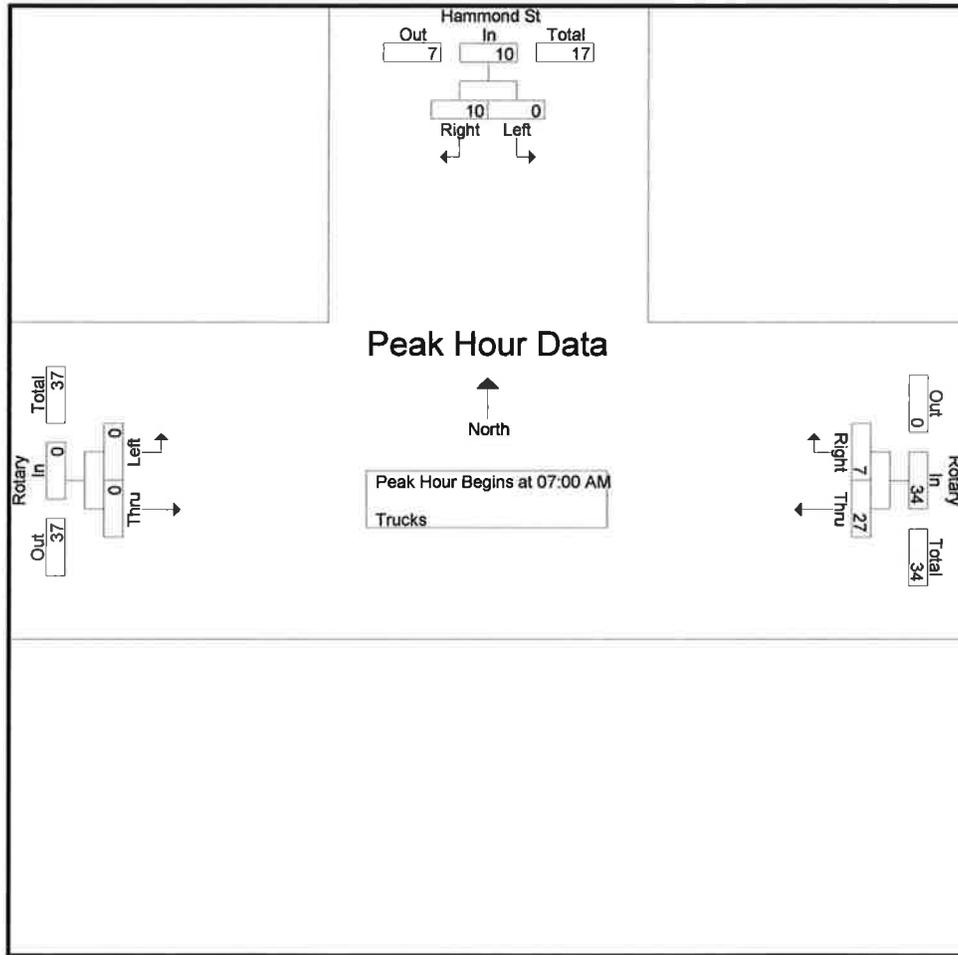
Start Time	Hammond St From North		Rotary From East		Rotary From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
07:00 AM	0	1	9	0	0	0	10
07:15 AM	0	4	8	0	0	0	12
07:30 AM	0	3	7	2	0	0	12
07:45 AM	0	2	3	5	0	0	10
<b>Total</b>	<b>0</b>	<b>10</b>	<b>27</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>44</b>
08:00 AM	0	2	1	3	0	0	6
08:15 AM	0	3	0	6	0	0	9
08:30 AM	0	1	4	2	0	0	7
08:45 AM	0	6	0	1	0	0	7
<b>Total</b>	<b>0</b>	<b>12</b>	<b>5</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>29</b>
<b>Grand Total</b>	<b>0</b>	<b>22</b>	<b>32</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>73</b>
Apprch %	0	100	62.7	37.3	0	0	
Total %	0	30.1	43.8	26	0	0	

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 8

Start Time	Hammond St From North			Rotary From East			Rotary From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	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	0	1	1	9	0	9	0	0	0	10
07:15 AM	0	4	4	8	0	8	0	0	0	12
07:30 AM	0	3	3	7	2	9	0	0	0	12
07:45 AM	0	2	2	3	5	8	0	0	0	10
Total Volume	0	10	10	27	7	34	0	0	0	44
% App. Total	0	100		79.4	20.6		0	0		
PHF	.000	.625	.625	.750	.350	.944	.000	.000	.000	.917



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

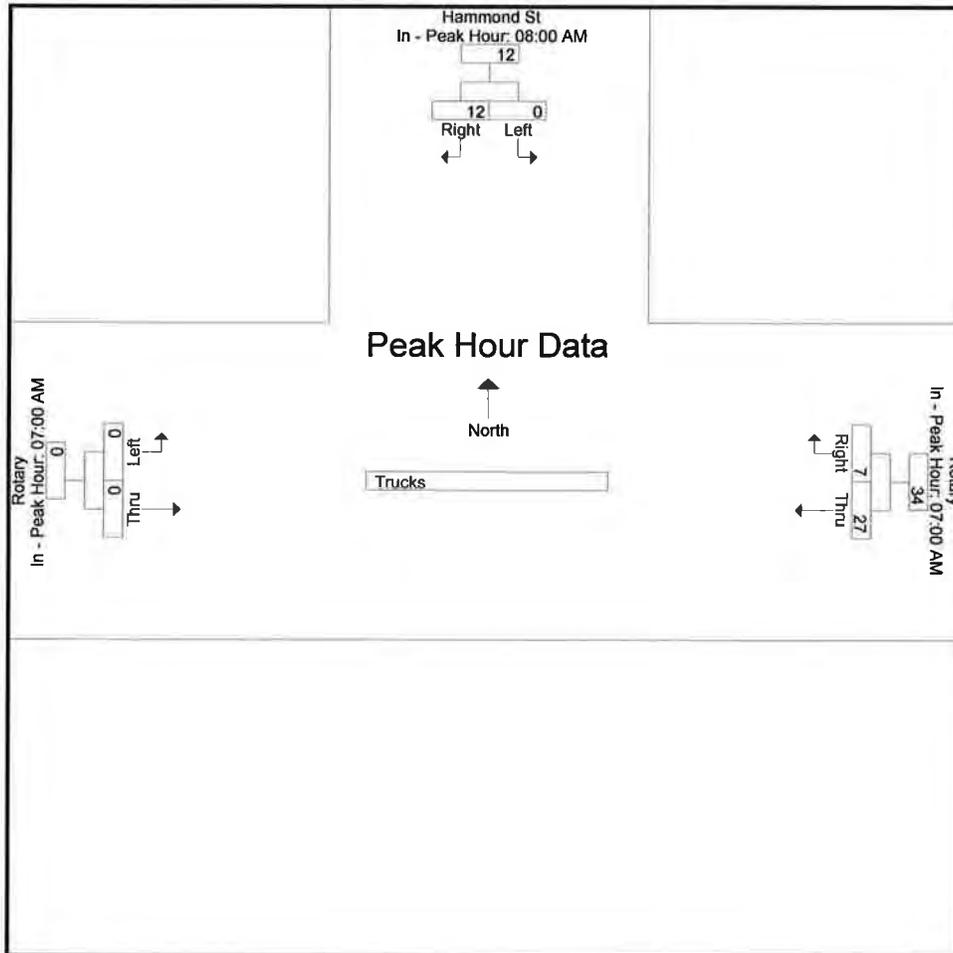
File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 9

Start Time	Hammond St From North			Rotary From East			Rotary From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	

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

Peak Hour for Each Approach Begins at:

	08:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	2	2	9	0	9	0	0	0
+15 mins.	0	3	3	8	0	8	0	0	0
+30 mins.	0	1	1	7	2	9	0	0	0
+45 mins.	0	6	6	3	5	8	0	0	0
Total Volume	0	12	12	27	7	34	0	0	0
% App. Total	0	100		79.4	20.6		0	0	
PHF	.000	.500	.500	.750	.350	.944	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 10

Groups Printed- Bikes Peds

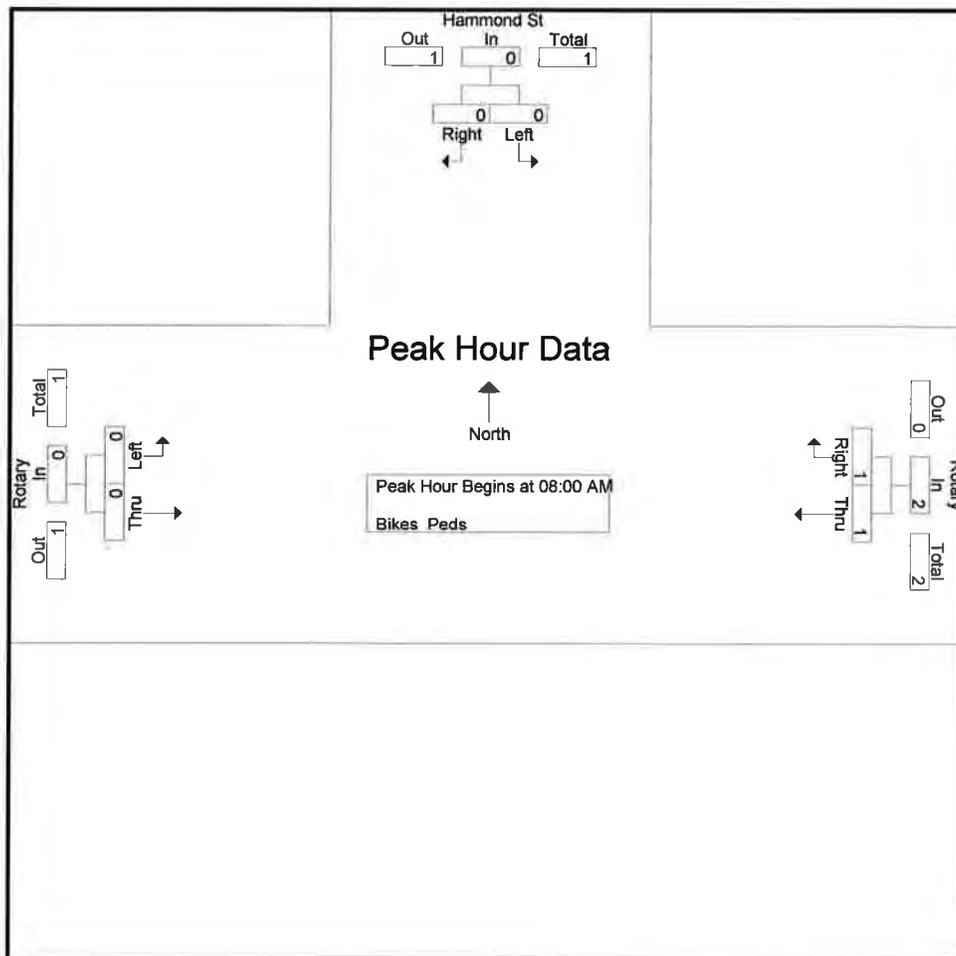
Start Time	Hammond St From North			Rotary From East			Rotary From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	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
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	1	0	0	0	0	0	0	1	1
08:45 AM	0	0	0	0	1	0	0	0	0	0	1	1
<b>Total</b>	0	0	0	1	1	0	0	0	0	0	2	2
<b>Grand Total</b>	0	0	0	1	1	0	0	0	0	0	2	2
Apprch %	0	0		50	50		0	0				
Total %	0	0		50	50		0	0		0	100	

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 11

Start Time	Hammond St From North			Rotary From East			Rotary From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. 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
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	1	0	1	0	0	0	1
08:45 AM	0	0	0	0	1	1	0	0	0	1
Total Volume	0	0	0	1	1	2	0	0	0	2
% App. Total	0	0		50	50		0	0		
PHF	.000	.000	.000	.250	.250	.500	.000	.000	.000	.500



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

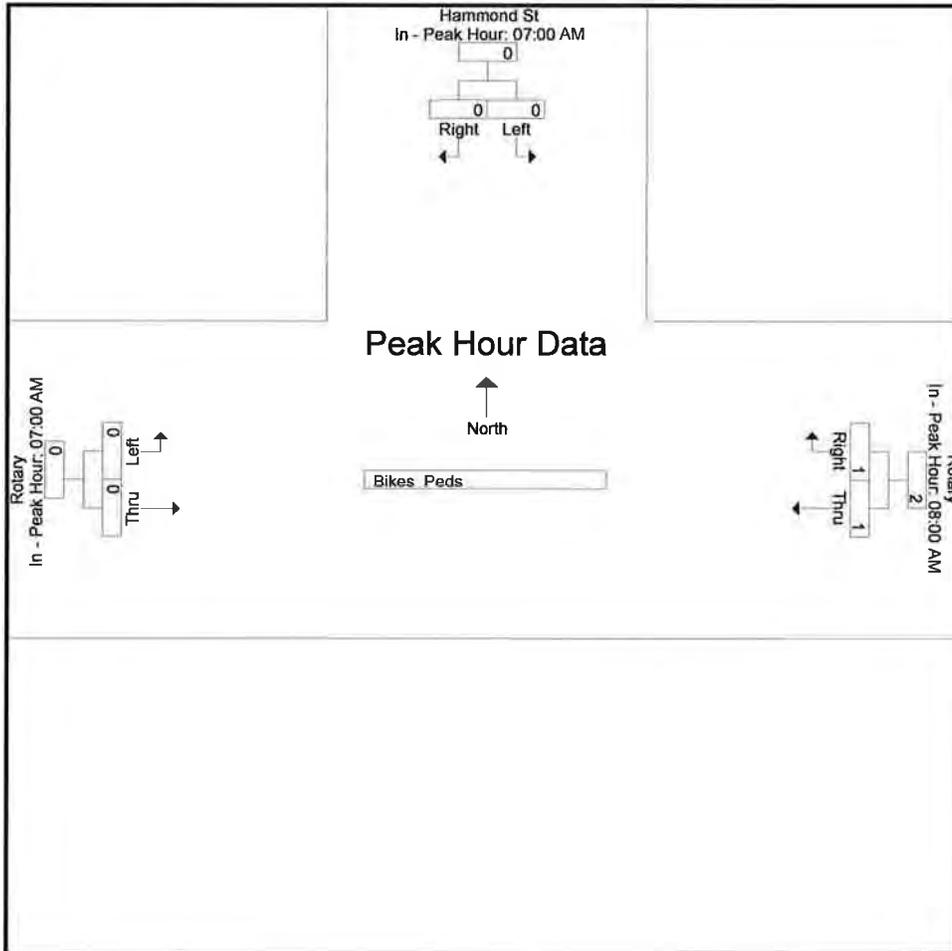
File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 12

Start Time	Hammond St From North			Rotary From East			Rotary From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:00 AM			08:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	1	0	1	0	0	0
+45 mins.	0	0	0	0	1	1	0	0	0
Total Volume	0	0	0	1	1	2	0	0	0
% App. Total	0	0		50	50		0	0	
PHF	.000	.000	.000	.250	.250	.500	.000	.000	.000



# Accurate Counts

978-664-2565

N/S Street : Hammond Street  
 E/W Street : Horace James Circle  
 City/State : Brookline, MA  
 Weather : Rain

File Name : 73820001  
 Site Code : 73820001  
 Start Date : 1/18/2017  
 Page No : 1

## Groups Printed- Cars - Trucks

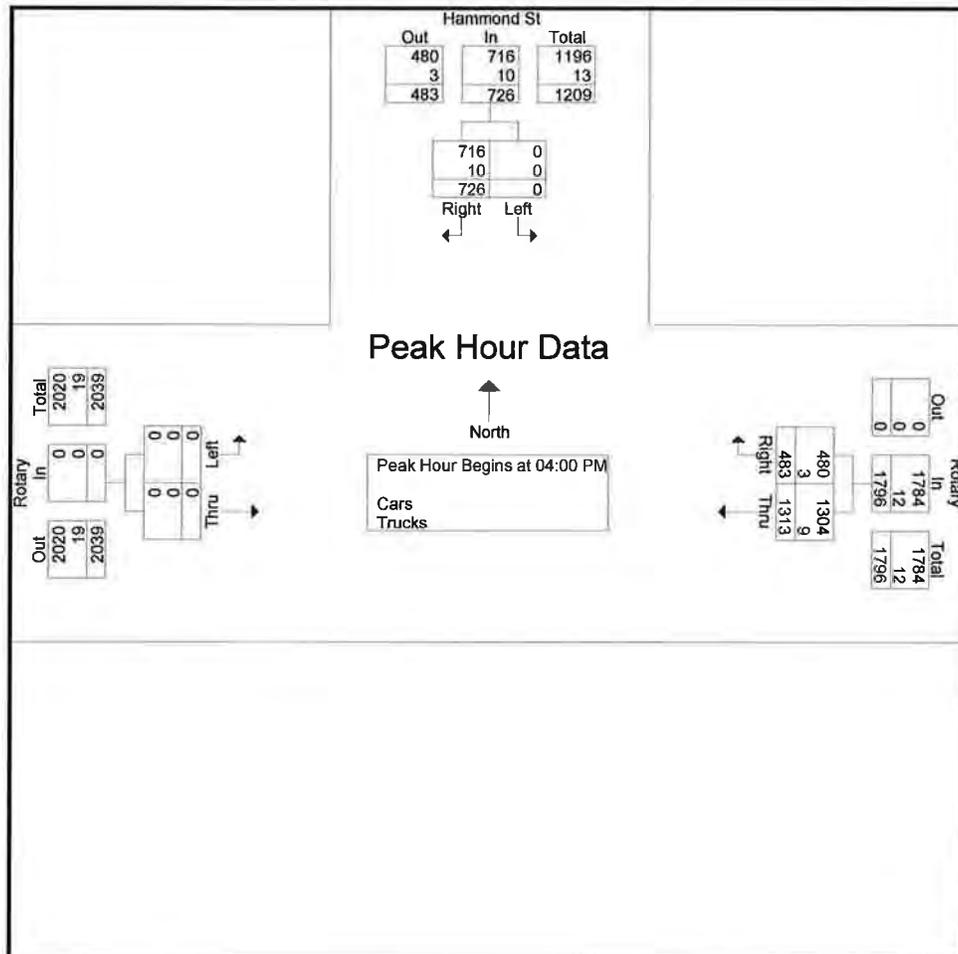
Start Time	Hammond St From North		Rotary From East		Rotary From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
02:00 PM	0	102	237	128	0	0	467
02:15 PM	0	87	253	116	0	0	456
02:30 PM	2	104	278	126	0	0	510
02:45 PM	2	130	261	120	0	0	513
<b>Total</b>	<b>4</b>	<b>423</b>	<b>1029</b>	<b>490</b>	<b>0</b>	<b>0</b>	<b>1946</b>
03:00 PM	0	196	287	108	0	0	591
03:15 PM	0	157	328	109	0	0	594
03:30 PM	0	151	297	114	0	0	562
03:45 PM	0	124	354	121	0	0	599
<b>Total</b>	<b>0</b>	<b>628</b>	<b>1266</b>	<b>452</b>	<b>0</b>	<b>0</b>	<b>2346</b>
04:00 PM	0	204	327	91	0	0	622
04:15 PM	0	187	298	131	0	0	616
04:30 PM	0	165	325	125	0	0	615
04:45 PM	0	170	363	136	0	0	669
<b>Total</b>	<b>0</b>	<b>726</b>	<b>1313</b>	<b>483</b>	<b>0</b>	<b>0</b>	<b>2522</b>
<b>Grand Total</b>	<b>4</b>	<b>1777</b>	<b>3608</b>	<b>1425</b>	<b>0</b>	<b>0</b>	<b>6814</b>
Apprch %	0.2	99.8	71.7	28.3	0	0	
Total %	0.1	26.1	52.9	20.9	0	0	
Cars	4	1753	3573	1410	0	0	6740
% Cars	100	98.6	99	98.9	0	0	98.9
Trucks	0	24	35	15	0	0	74
% Trucks	0	1.4	1	1.1	0	0	1.1

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 2

Start Time	Hammond St From North			Rotary From East			Rotary From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	204	204	327	91	418	0	0	0	622
04:15 PM	0	187	187	298	131	429	0	0	0	616
04:30 PM	0	165	165	325	125	450	0	0	0	615
04:45 PM	0	170	170	<b>363</b>	<b>136</b>	<b>499</b>	0	0	0	<b>669</b>
Total Volume	0	726	726	1313	483	1796	0	0	0	2522
% App. Total	0	100		73.1	26.9		0	0		
PHF	.000	.890	.890	.904	.888	.900	.000	.000	.000	.942
Cars	0	716	716	1304	480	1784	0	0	0	2500
% Cars	0	98.6	98.6	99.3	99.4	99.3	0	0	0	99.1
Trucks	0	10	10	9	3	12	0	0	0	22
% Trucks	0	1.4	1.4	0.7	0.6	0.7	0	0	0	0.9



# Accurate Counts

978-664-2565

N/S Street : Hammond Street  
 E/W Street : Horace James Circle  
 City/State : Brookline, MA  
 Weather : Rain

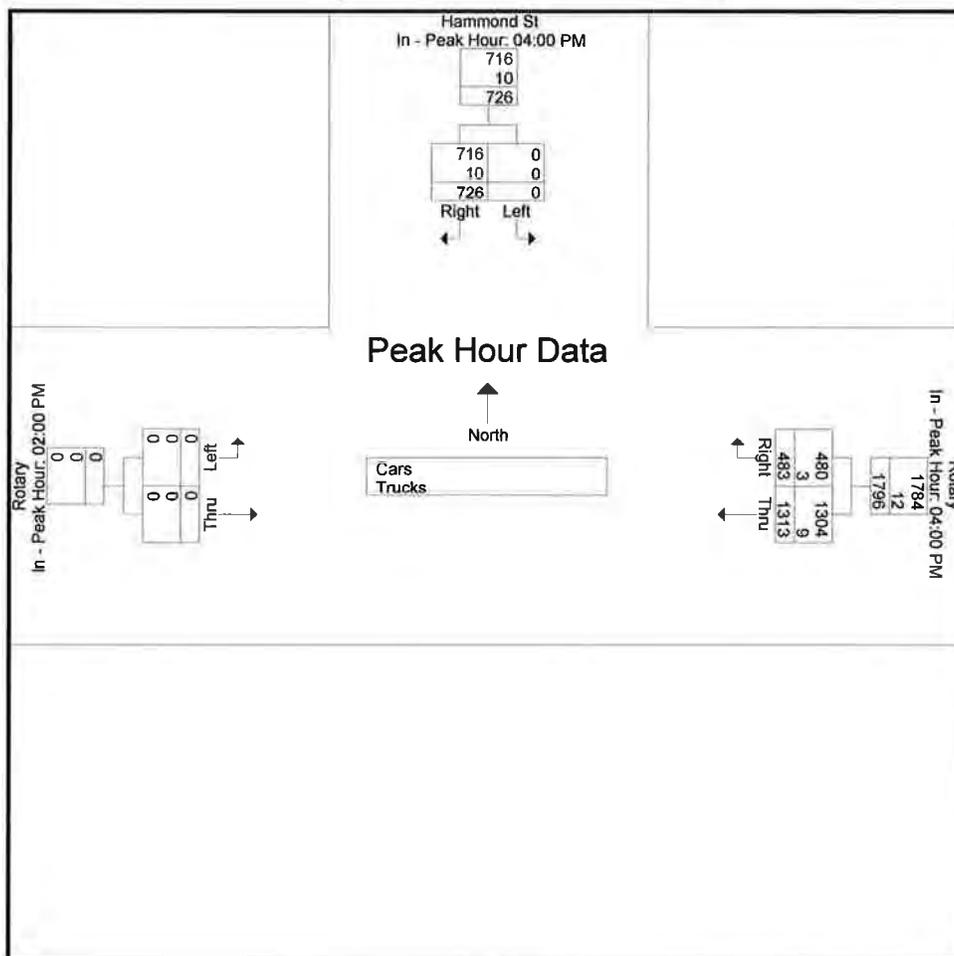
File Name : 73820001  
 Site Code : 73820001  
 Start Date : 1/18/2017  
 Page No : 3

Start Time	Hammond St From North			Rotary From East			Rotary From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			02:00 PM		
+0 mins.	0	204	204	327	91	418	0	0	0
+15 mins.	0	187	187	298	131	429	0	0	0
+30 mins.	0	165	165	325	125	450	0	0	0
+45 mins.	0	170	170	363	136	499	0	0	0
Total Volume	0	726	726	1313	483	1796	0	0	0
% App. Total	0	100		73.1	26.9		0	0	
PHF	.000	.890	.890	.904	.888	.900	.000	.000	.000
Cars	0	716	716	1304	480	1784	0	0	0
% Cars	0	98.6	98.6	99.3	99.4	99.3	0	0	0
Trucks	0	10	10	9	3	12	0	0	0
% Trucks	0	1.4	1.4	0.7	0.6	0.7	0	0	0



# Accurate Counts

978-664-2565

N/S Street : Hammond Street  
 E/W Street : Horace James Circle  
 City/State : Brookline, MA  
 Weather : Rain

File Name : 73820001  
 Site Code : 73820001  
 Start Date : 1/18/2017  
 Page No : 4

## Groups Printed- Cars

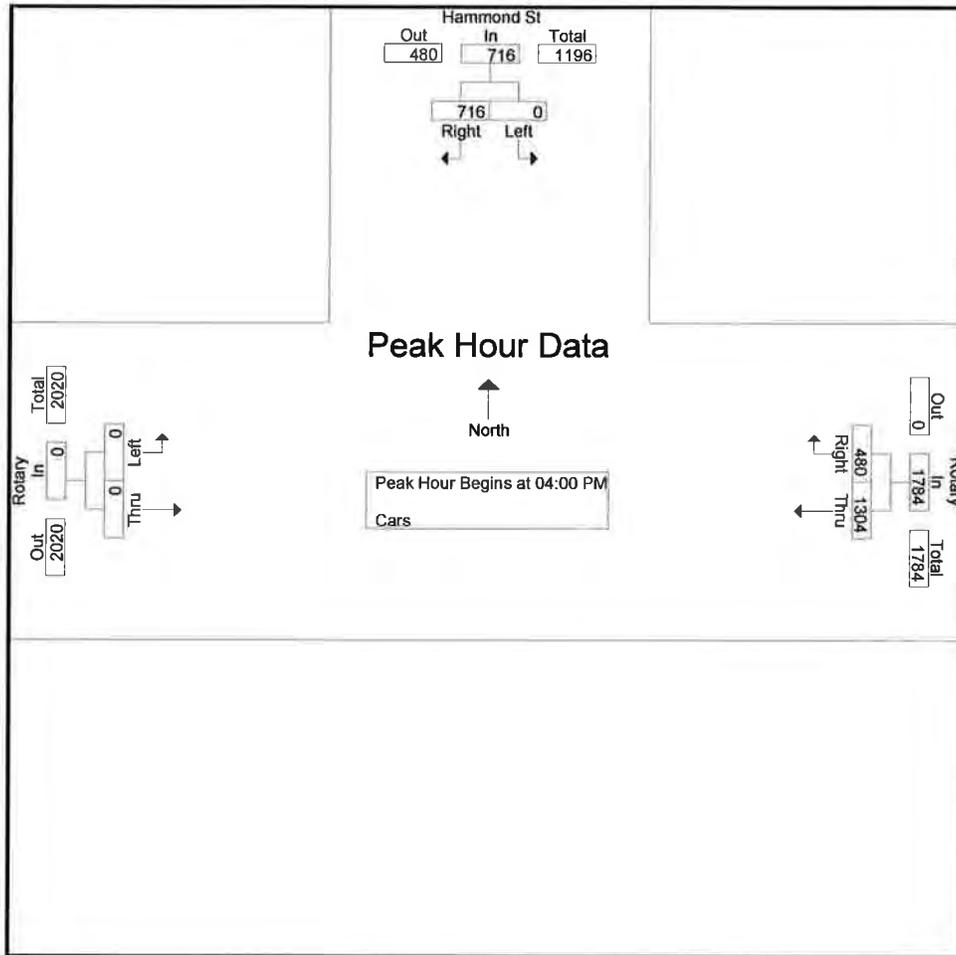
Start Time	Hammond St From North		Rotary From East		Rotary From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
02:00 PM	0	99	233	127	0	0	459
02:15 PM	0	82	251	115	0	0	448
02:30 PM	2	104	271	123	0	0	500
02:45 PM	2	129	259	116	0	0	506
Total	4	414	1014	481	0	0	1913
03:00 PM	0	196	286	107	0	0	589
03:15 PM	0	157	323	108	0	0	588
03:30 PM	0	149	295	114	0	0	558
03:45 PM	0	121	351	120	0	0	592
Total	0	623	1255	449	0	0	2327
04:00 PM	0	200	323	91	0	0	614
04:15 PM	0	183	297	131	0	0	611
04:30 PM	0	163	323	124	0	0	610
04:45 PM	0	170	361	134	0	0	665
Total	0	716	1304	480	0	0	2500
Grand Total	4	1753	3573	1410	0	0	6740
Apprch %	0.2	99.8	71.7	28.3	0	0	
Total %	0.1	26	53	20.9	0	0	

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 5

Start Time	Hammond St From North			Rotary From East			Rotary From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	200	200	323	91	414	0	0	0	614
04:15 PM	0	183	183	297	131	428	0	0	0	611
04:30 PM	0	163	163	323	124	447	0	0	0	610
04:45 PM	0	170	170	361	134	495	0	0	0	665
Total Volume	0	716	716	1304	480	1784	0	0	0	2500
% App. Total	0	100		73.1	26.9		0	0		
PHF	.000	.895	.895	.903	.896	.901	.000	.000	.000	.940



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

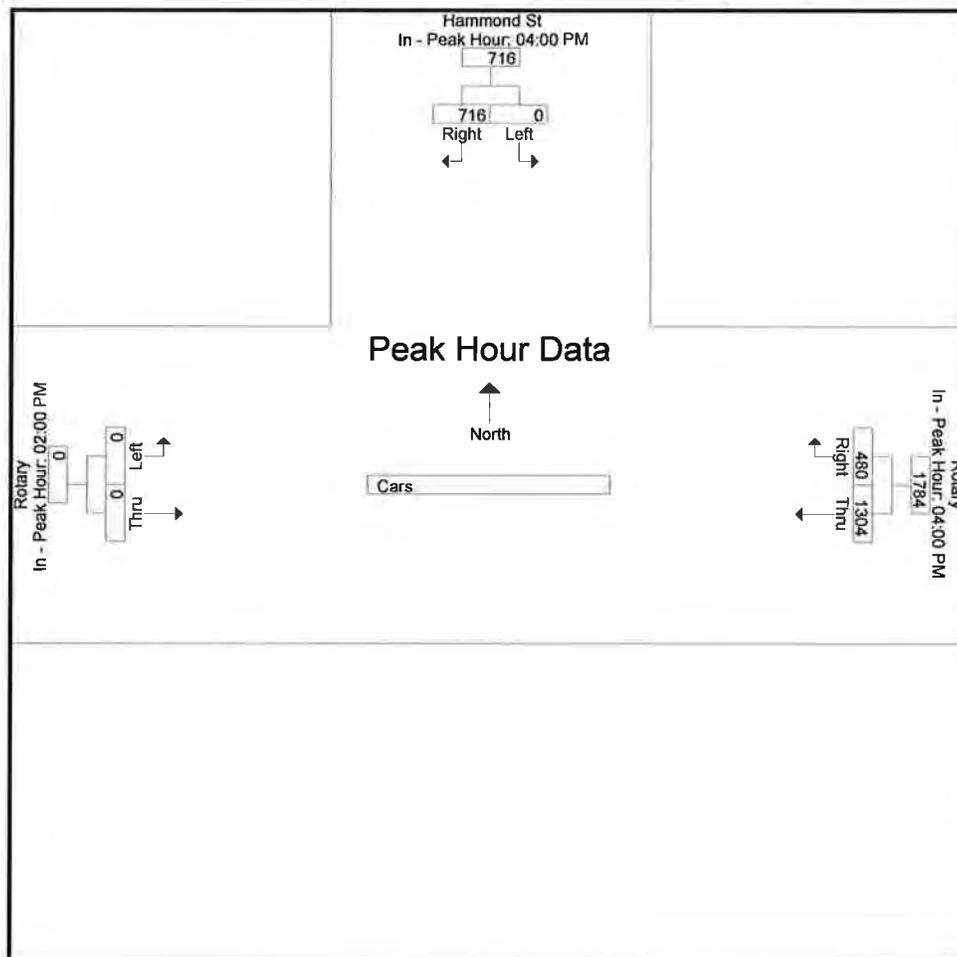
File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 6

Start Time	Hammond St From North			Rotary From East			Rotary From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			02:00 PM		
+0 mins.	0	200	200	323	91	414	0	0	0
+15 mins.	0	183	183	297	131	428	0	0	0
+30 mins.	0	163	163	323	124	447	0	0	0
+45 mins.	0	170	170	361	134	495	0	0	0
Total Volume	0	716	716	1304	480	1784	0	0	0
% App. Total	0	100		73.1	26.9		0	0	
PHF	.000	.895	.895	.903	.896	.901	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 7

Groups Printed- Trucks

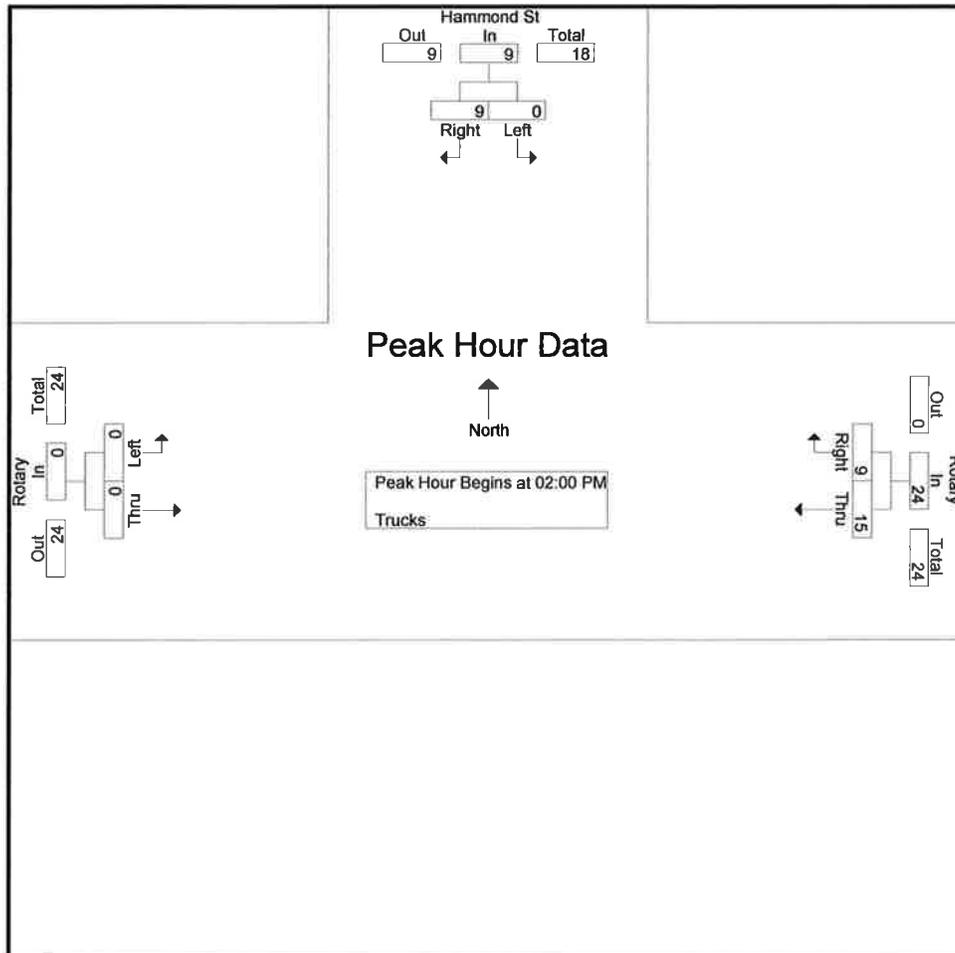
Start Time	Hammond St From North		Rotary From East		Rotary From West		Int. Total
	Left	Right	Thru	Right	Left	Thru	
02:00 PM	0	3	4	1	0	0	8
02:15 PM	0	5	2	1	0	0	8
02:30 PM	0	0	7	3	0	0	10
02:45 PM	0	1	2	4	0	0	7
<b>Total</b>	<b>0</b>	<b>9</b>	<b>15</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>33</b>
03:00 PM	0	0	1	1	0	0	2
03:15 PM	0	0	5	1	0	0	6
03:30 PM	0	2	2	0	0	0	4
03:45 PM	0	3	3	1	0	0	7
<b>Total</b>	<b>0</b>	<b>5</b>	<b>11</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>19</b>
04:00 PM	0	4	4	0	0	0	8
04:15 PM	0	4	1	0	0	0	5
04:30 PM	0	2	2	1	0	0	5
04:45 PM	0	0	2	2	0	0	4
<b>Total</b>	<b>0</b>	<b>10</b>	<b>9</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>22</b>
<b>Grand Total</b>	<b>0</b>	<b>24</b>	<b>35</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>74</b>
<b>Apprch %</b>	<b>0</b>	<b>100</b>	<b>70</b>	<b>30</b>	<b>0</b>	<b>0</b>	
<b>Total %</b>	<b>0</b>	<b>32.4</b>	<b>47.3</b>	<b>20.3</b>	<b>0</b>	<b>0</b>	

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 8

Start Time	Hammond St From North			Rotary From East			Rotary From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	0	3	3	4	1	5	0	0	0	8
02:15 PM	0	5	5	2	1	3	0	0	0	8
02:30 PM	0	0	0	7	3	10	0	0	0	10
02:45 PM	0	1	1	2	4	6	0	0	0	7
Total Volume	0	9	9	15	9	24	0	0	0	33
% App. Total	0	100		62.5	37.5		0	0		
PHF	.000	.450	.450	.536	.563	.600	.000	.000	.000	.825



# Accurate Counts

978-664-2565

N/S Street : Hammond Street  
 E/W Street : Horace James Circle  
 City/State : Brookline, MA  
 Weather : Rain

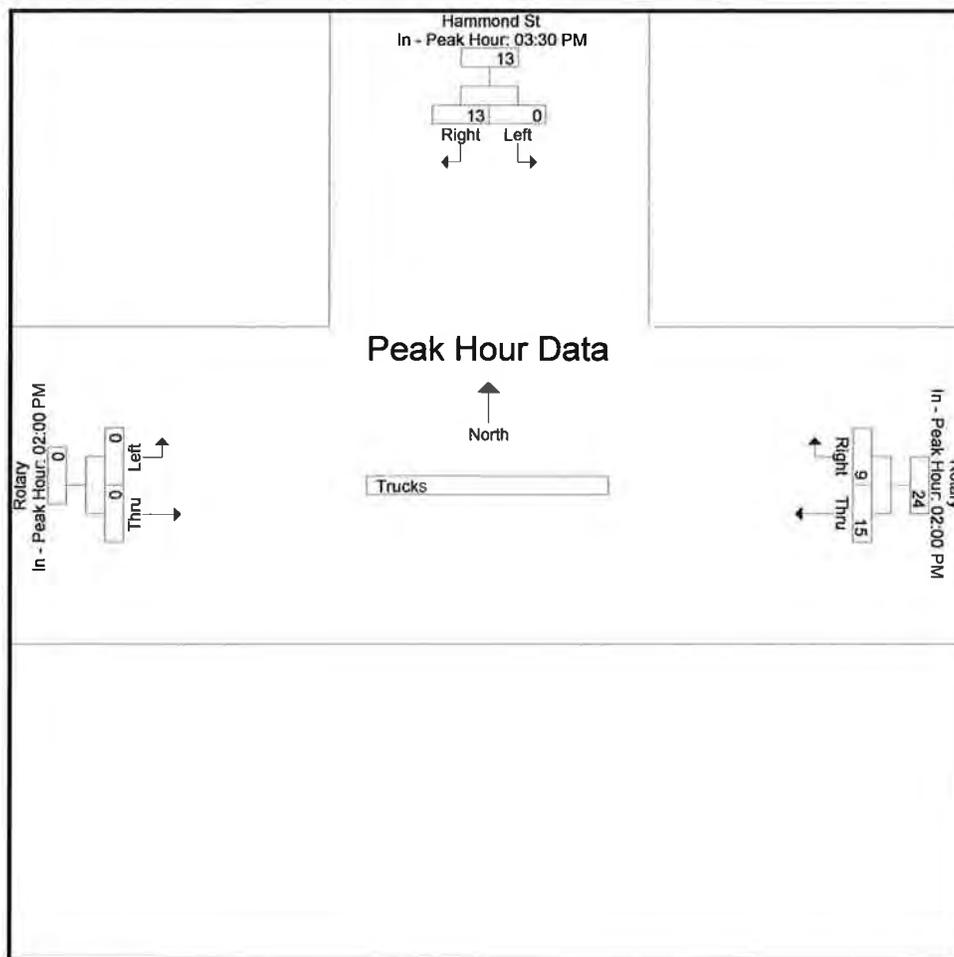
File Name : 73820001  
 Site Code : 73820001  
 Start Date : 1/18/2017  
 Page No : 9

Start Time	Hammond St From North			Rotary From East			Rotary From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:30 PM			02:00 PM			02:00 PM		
+0 mins.	0	2	2	4	1	5	0	0	0
+15 mins.	0	3	3	2	1	3	0	0	0
+30 mins.	0	4	4	7	3	10	0	0	0
+45 mins.	0	4	4	2	4	6	0	0	0
Total Volume	0	13	13	15	9	24	0	0	0
% App. Total	0	100		62.5	37.5		0	0	
PHF	.000	.813	.813	.536	.563	.600	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 10

Groups Printed- Bikes Peds

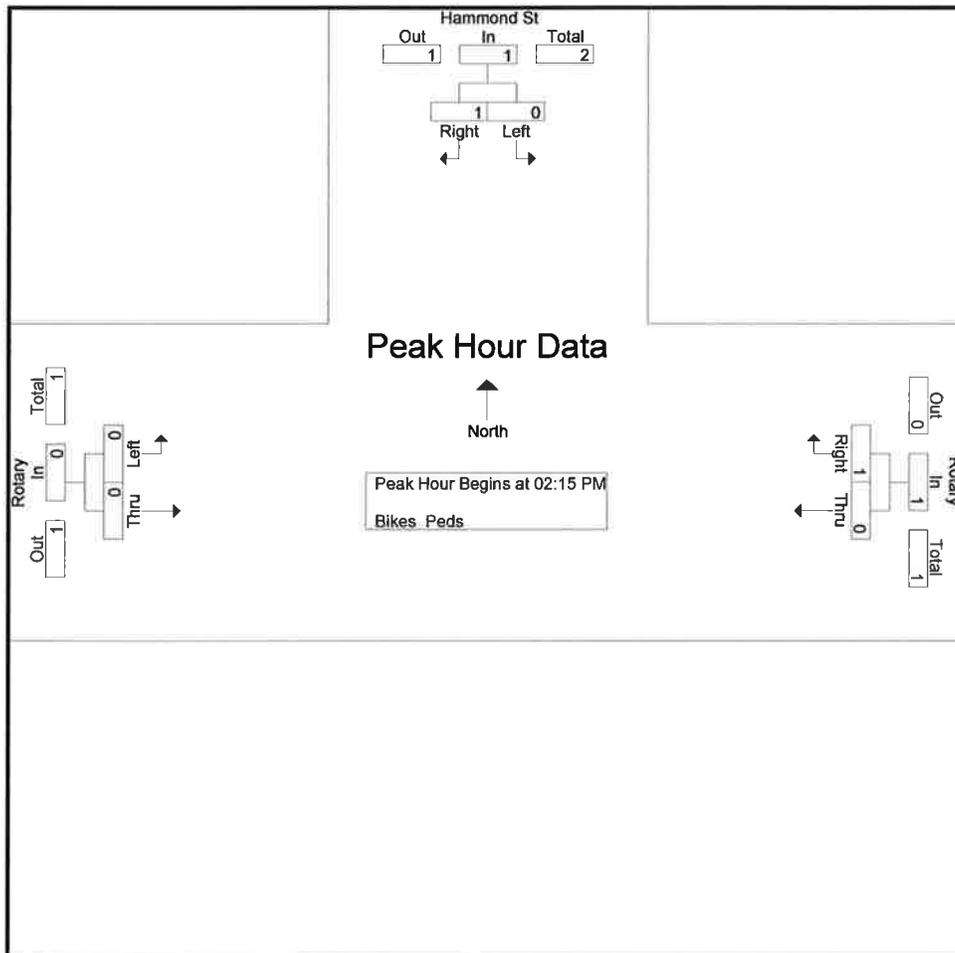
Start Time	Hammond St From North			Rotary From East			Rotary From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	1	0	0	0	0	0	0	0	0	1	1
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>
03:00 PM	0	0	0	0	1	0	0	0	0	0	1	1
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>
04:00 PM	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
04:30 PM	0	1	0	0	0	0	0	0	0	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>Grand Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>
Apprch %	0	100		0	100		0	0				
Total %	0	66.7		0	33.3		0	0		0	100	

**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 11

Start Time	Hammond St From North			Rotary From East			Rotary From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:15 PM										
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	1	1	0	0	0	0	0	0	1
02:45 PM	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	1	1	0	0	0	1
Total Volume	0	1	1	0	1	1	0	0	0	2
% App. Total	0	100		0	100		0	0		
PHF	.000	.250	.250	.000	.250	.250	.000	.000	.000	.500



**Accurate Counts**  
978-664-2565

N/S Street : Hammond Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

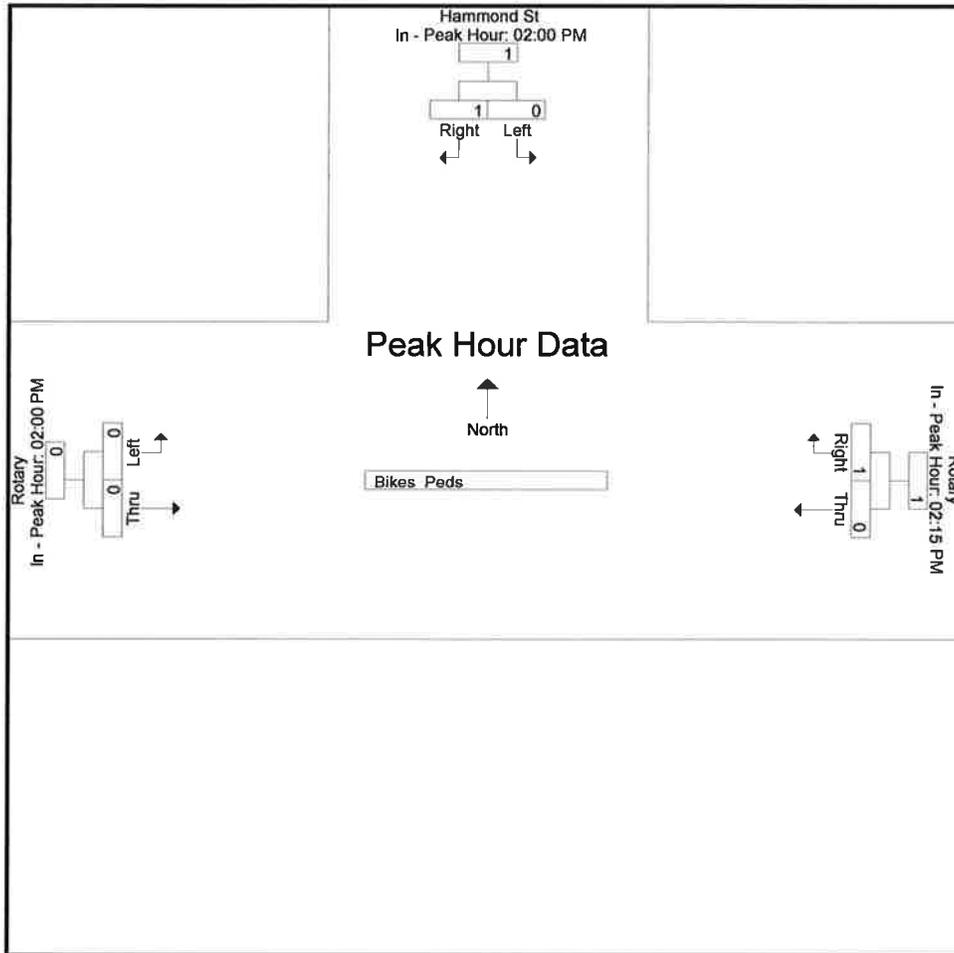
File Name : 73820001  
Site Code : 73820001  
Start Date : 1/18/2017  
Page No : 12

Start Time	Hammond St From North			Rotary From East			Rotary From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:15 PM			02:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	0	0	0	1	1	0	0	0
Total Volume	0	1	1	0	1	1	0	0	0
% App. Total	0	100		0	100		0	0	
PHF	.000	.250	.250	.000	.250	.250	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 1

Groups Printed- Cars - Trucks

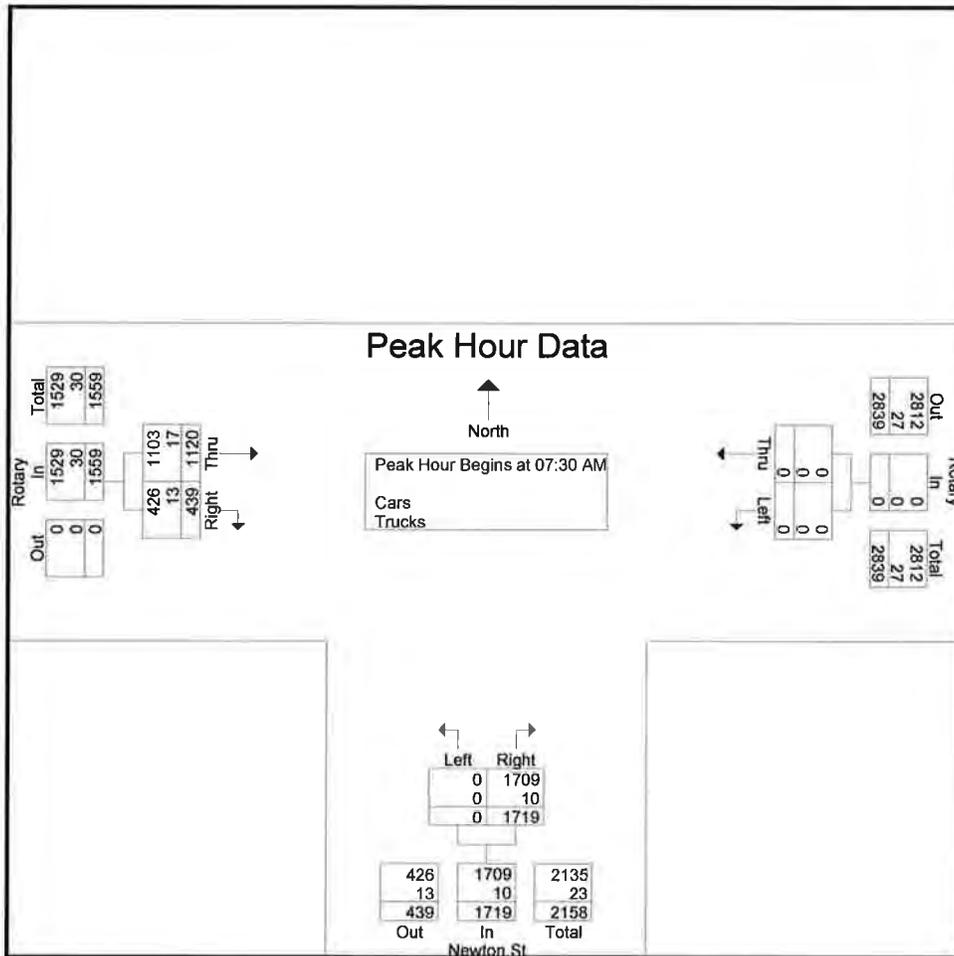
Start Time	Rotary From East		Newton St From South		Rotary From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	0	0	298	303	45	646
07:15 AM	0	0	0	335	304	75	714
07:30 AM	0	0	0	410	299	91	800
07:45 AM	0	0	0	464	277	114	855
Total	0	0	0	1507	1183	325	3015
08:00 AM	0	0	0	442	259	140	841
08:15 AM	0	0	0	403	285	94	782
08:30 AM	0	0	0	354	300	67	721
08:45 AM	0	0	0	335	319	71	725
Total	0	0	0	1534	1163	372	3069
Grand Total	0	0	0	3041	2346	697	6084
Apprch %	0	0	0	100	77.1	22.9	
Total %	0	0	0	50	38.6	11.5	
Cars	0	0	0	3011	2325	671	6007
% Cars	0	0	0	99	99.1	96.3	98.7
Trucks	0	0	0	30	21	26	77
% Trucks	0	0	0	1	0.9	3.7	1.3

**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 7382002  
Site Code : 7382002  
Start Date : 1/18/2017  
Page No : 2

Start Time	Rotary From East			Newton St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	0	0	0	410	410	299	91	390	800
07:45 AM	0	0	0	0	464	464	277	114	391	855
08:00 AM	0	0	0	0	442	442	259	140	399	841
08:15 AM	0	0	0	0	403	403	285	94	379	782
Total Volume	0	0	0	0	1719	1719	1120	439	1559	3278
% App. Total	0	0		0	100		71.8	28.2		
PHF	.000	.000	.000	.000	.926	.926	.936	.784	.977	.958
Cars	0	0	0	0	1709	1709	1103	426	1529	3238
% Cars	0	0	0	0	99.4	99.4	98.5	97.0	98.1	98.8
Trucks	0	0	0	0	10	10	17	13	30	40
% Trucks	0	0	0	0	0.6	0.6	1.5	3.0	1.9	1.2



**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

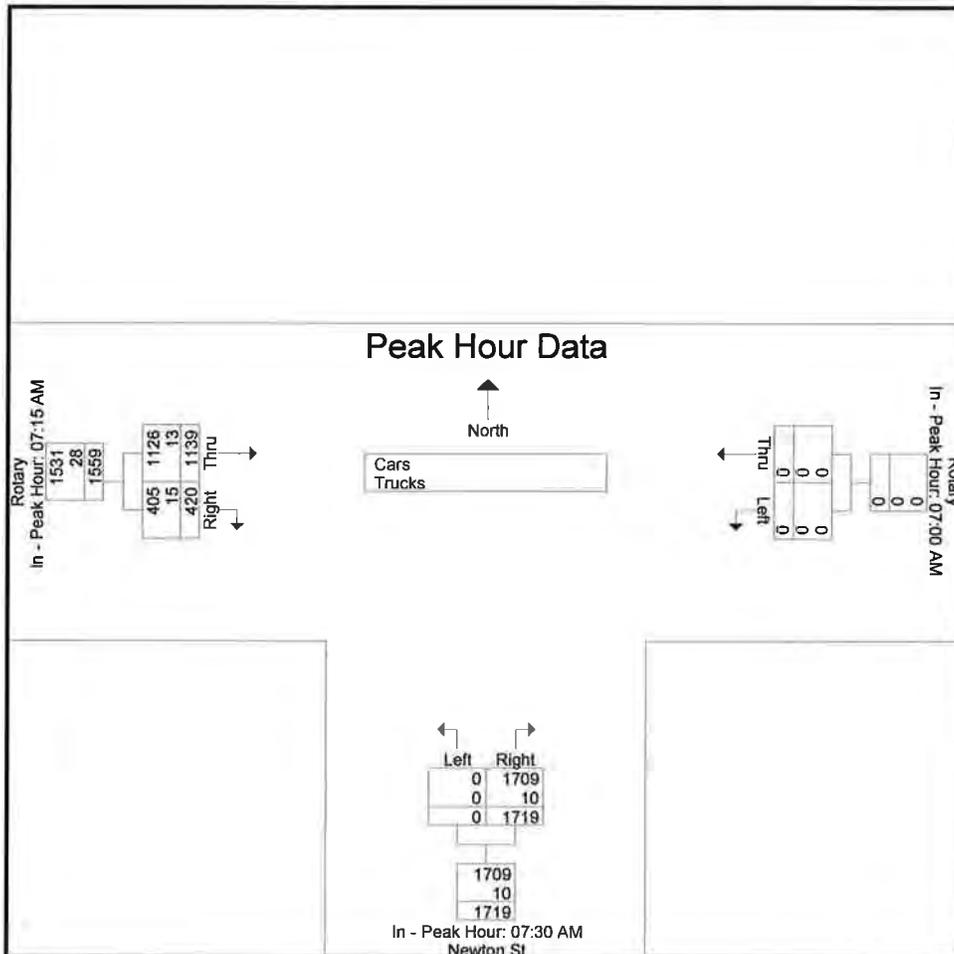
File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 3

Start Time	Rotary From East			Newton St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			07:15 AM		
+0 mins.	0	0	0	0	410	410	304	75	379
+15 mins.	0	0	0	0	464	464	299	91	390
+30 mins.	0	0	0	0	442	442	277	114	391
+45 mins.	0	0	0	0	403	403	259	140	399
Total Volume	0	0	0	0	1719	1719	1139	420	1559
% App. Total	0	0		0	100		73.1	26.9	
PHF	.000	.000	.000	.000	.926	.926	.937	.750	.977
Cars	0	0	0	0	1709	1709	1126	405	1531
% Cars	0	0	0	0	99.4	99.4	98.9	96.4	98.2
Trucks	0	0	0	0	10	10	13	15	28
% Trucks	0	0	0	0	0.6	0.6	1.1	3.6	1.8



**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 4

Groups Printed- Cars

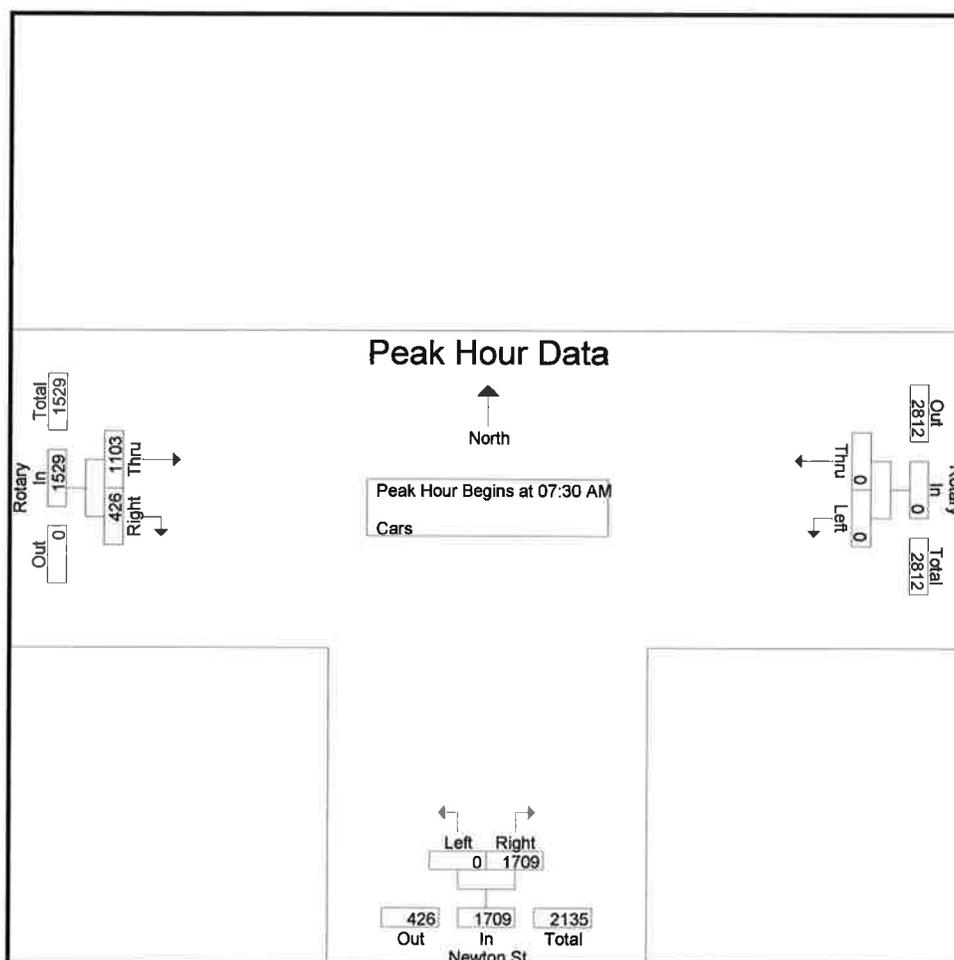
Start Time	Rotary From East		Newton St From South		Rotary From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	0	0	289	303	40	632
07:15 AM	0	0	0	328	303	73	704
07:30 AM	0	0	0	406	294	86	786
07:45 AM	0	0	0	460	273	108	841
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1483</b>	<b>1173</b>	<b>307</b>	<b>2963</b>
08:00 AM	0	0	0	441	256	138	835
08:15 AM	0	0	0	402	280	94	776
08:30 AM	0	0	0	351	297	65	713
08:45 AM	0	0	0	334	319	67	720
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1528</b>	<b>1152</b>	<b>364</b>	<b>3044</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3011</b>	<b>2325</b>	<b>671</b>	<b>6007</b>
Apprch %	0	0	0	100	77.6	22.4	
Total %	0	0	0	50.1	38.7	11.2	

**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 5

Start Time	Rotary From East			Newton St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	0	0	0	406	406	294	86	380	786
07:45 AM	0	0	0	0	460	460	273	108	381	841
08:00 AM	0	0	0	0	441	441	256	138	394	835
08:15 AM	0	0	0	0	402	402	280	94	374	776
Total Volume	0	0	0	0	1709	1709	1103	426	1529	3238
% App. Total	0	0		0	100		72.1	27.9		
PHF	.000	.000	.000	.000	.929	.929	.938	.772	.970	.963



# Accurate Counts

978-664-2565

N/S Street : Newton Street  
 E/W Street : Horace James Circle  
 City/State : Brookline, MA  
 Weather : Rain

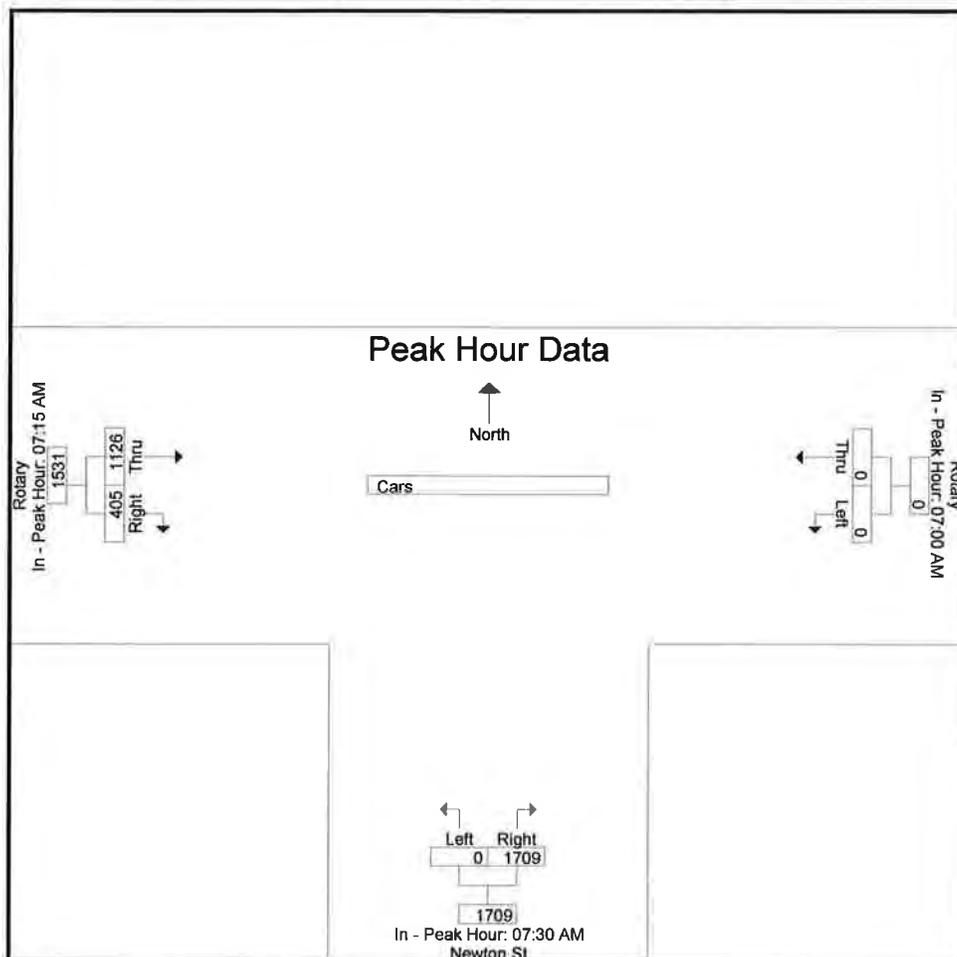
File Name : 73820002  
 Site Code : 73820002  
 Start Date : 1/18/2017  
 Page No : 6

Start Time	Rotary From East			Newton St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			07:15 AM		
+0 mins.	0	0	0	0	406	406	303	73	376
+15 mins.	0	0	0	0	460	460	294	86	380
+30 mins.	0	0	0	0	441	441	273	108	381
+45 mins.	0	0	0	0	402	402	256	138	394
Total Volume	0	0	0	0	1709	1709	1126	405	1531
% App. Total	0	0		0	100		73.5	26.5	
PHF	.000	.000	.000	.000	.929	.929	.929	.734	.971



**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 7

Groups Printed- Trucks

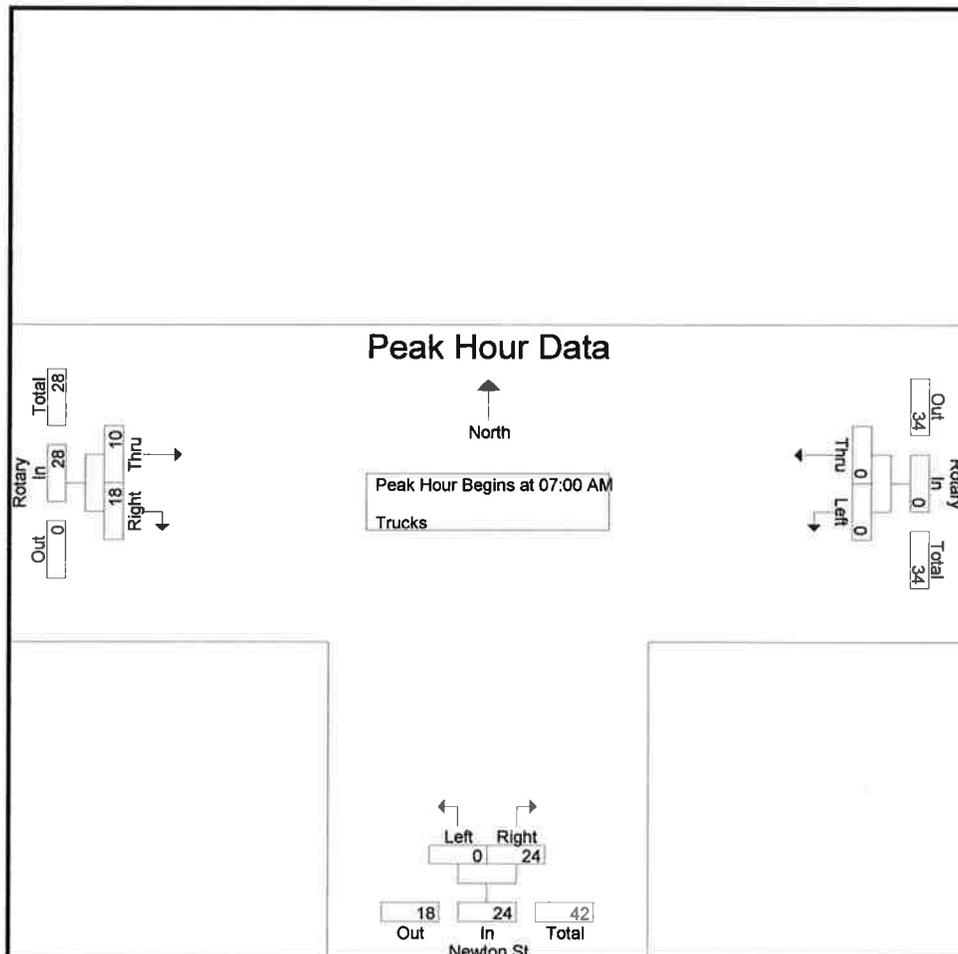
Start Time	Rotary From East		Newton St From South		Rotary From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	0	0	9	0	5	14
07:15 AM	0	0	0	7	1	2	10
07:30 AM	0	0	0	4	5	5	14
07:45 AM	0	0	0	4	4	6	14
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>10</b>	<b>18</b>	<b>52</b>
08:00 AM	0	0	0	1	3	2	6
08:15 AM	0	0	0	1	5	0	6
08:30 AM	0	0	0	3	3	2	8
08:45 AM	0	0	0	1	0	4	5
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>11</b>	<b>8</b>	<b>25</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>21</b>	<b>26</b>	<b>77</b>
Apprch %	0	0	0	100	44.7	55.3	
Total %	0	0	0	39	27.3	33.8	

**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 8

Start Time	Rotary From East			Newton St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	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	0	0	0	0	9	9	0	5	5	14
07:15 AM	0	0	0	0	7	7	1	2	3	10
07:30 AM	0	0	0	0	4	4	5	5	10	14
07:45 AM	0	0	0	0	4	4	4	6	10	14
Total Volume	0	0	0	0	24	24	10	18	28	52
% App. Total	0	0		0	100		35.7	64.3		
PHF	.000	.000	.000	.000	.667	.667	.500	.750	.700	.929



# Accurate Counts

978-664-2565

N/S Street : Newton Street  
 E/W Street : Horace James Circle  
 City/State : Brookline, MA  
 Weather : Rain

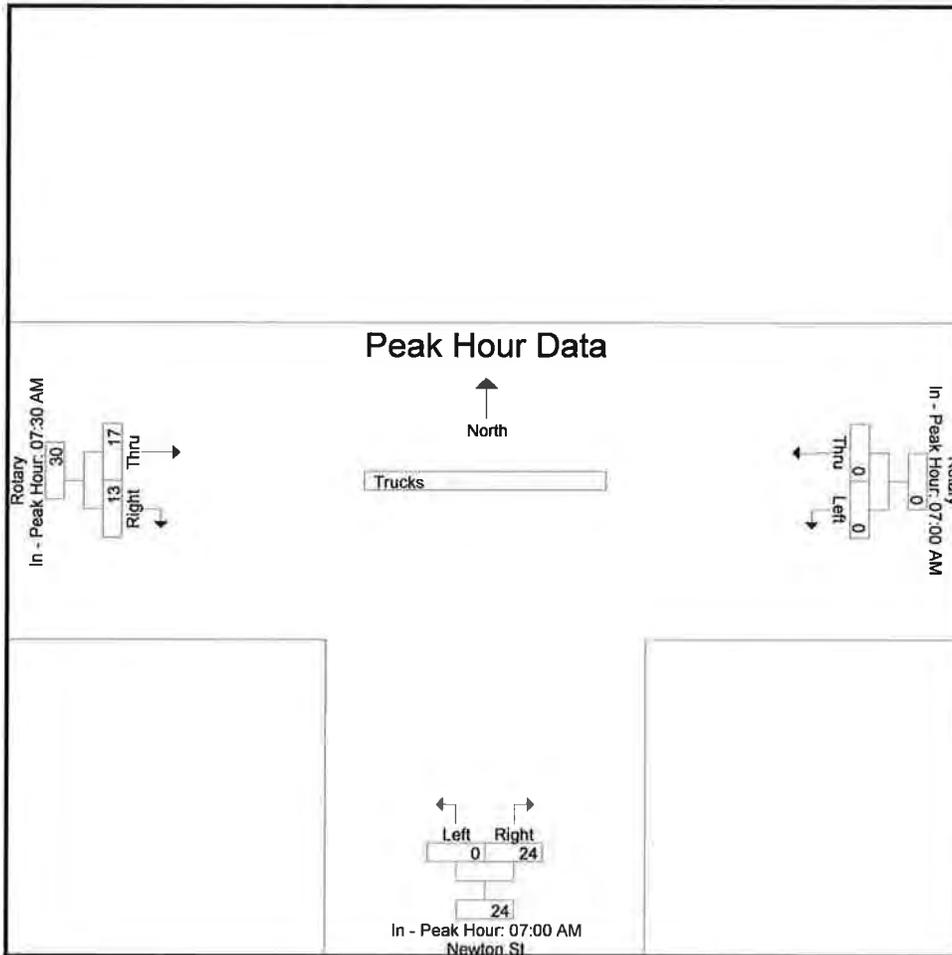
File Name : 73820002  
 Site Code : 73820002  
 Start Date : 1/18/2017  
 Page No : 9

Start Time	Rotary From East			Newton St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:30 AM		
+0 mins.	0	0	0	0	9	9	5	5	10
+15 mins.	0	0	0	0	7	7	4	6	10
+30 mins.	0	0	0	0	4	4	3	2	5
+45 mins.	0	0	0	0	4	4	5	0	5
Total Volume	0	0	0	0	24	24	17	13	30
% App. Total	0	0		0	100		56.7	43.3	
PHF	.000	.000	.000	.000	.667	.667	.850	.542	.750



# Accurate Counts

978-664-2565

N/S Street : Newton Street  
 E/W Street : Horace James Circle  
 City/State : Brookline, MA  
 Weather : Rain

File Name : 73820002  
 Site Code : 73820002  
 Start Date : 1/18/2017  
 Page No : 10

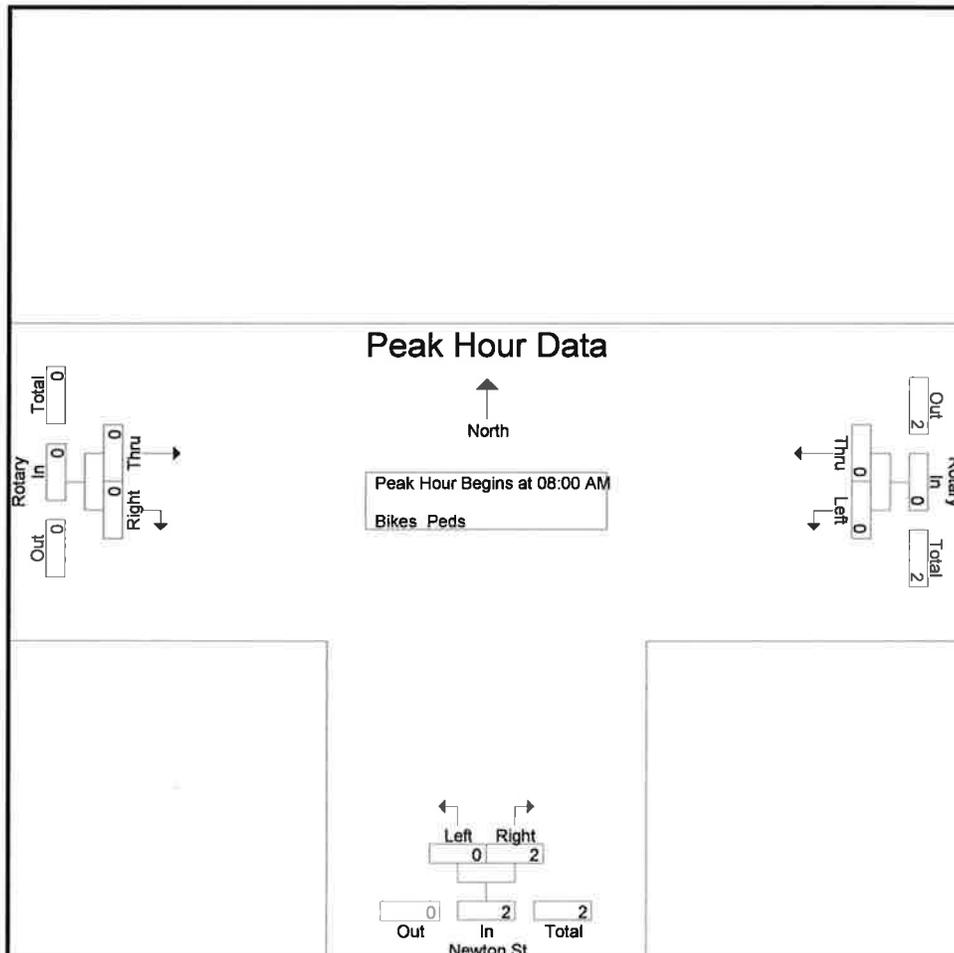
## Groups Printed- Bikes Peds

Start Time	Rotary From East			Newton St From South			Rotary From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	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
07:30 AM	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
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
08:00 AM	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
08:30 AM	0	0	0	0	1	0	0	0	0	0	1	1
08:45 AM	0	0	0	0	1	0	0	0	0	0	1	1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>
Apprch %	0	0		0	100		0	0				
Total %	0	0		0	100		0	0		0	100	

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 11

Start Time	Rotary From East			Newton St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. 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
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	1	1	0	0	0	1
08:45 AM	0	0	0	0	1	1	0	0	0	1
Total Volume	0	0	0	0	2	2	0	0	0	2
% App. Total	0	0		0	100		0	0		
PHF	.000	.000	.000	.000	.500	.500	.000	.000	.000	.500



# Accurate Counts

978-664-2565

N/S Street : Newton Street  
 E/W Street : Horace James Circle  
 City/State : Brookline, MA  
 Weather : Rain

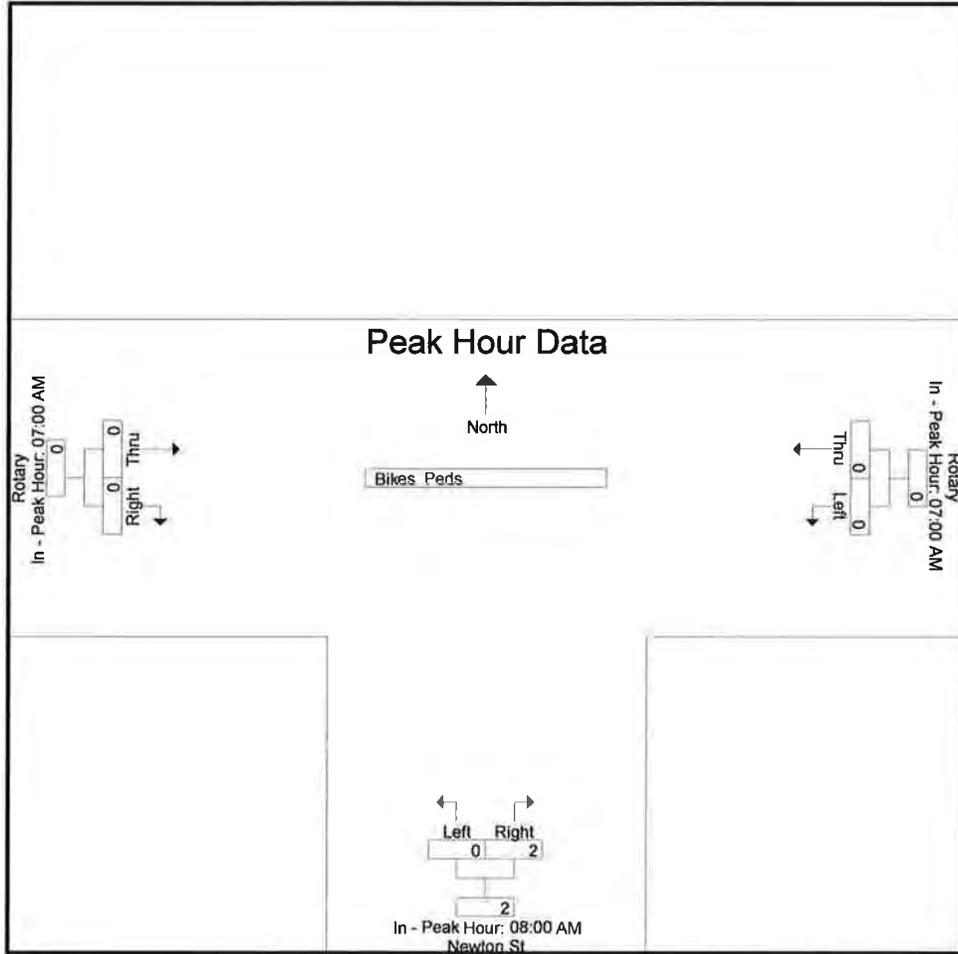
File Name : 73820002  
 Site Code : 73820002  
 Start Date : 1/18/2017  
 Page No : 12

Start Time	Rotary From East			Newton St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:00 AM			08:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	1	1	0	0	0
+45 mins.	0	0	0	0	1	1	0	0	0
Total Volume	0	0	0	0	2	2	0	0	0
% App. Total	0	0		0	100		0	0	
PHF	.000	.000	.000	.000	.500	.500	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 1

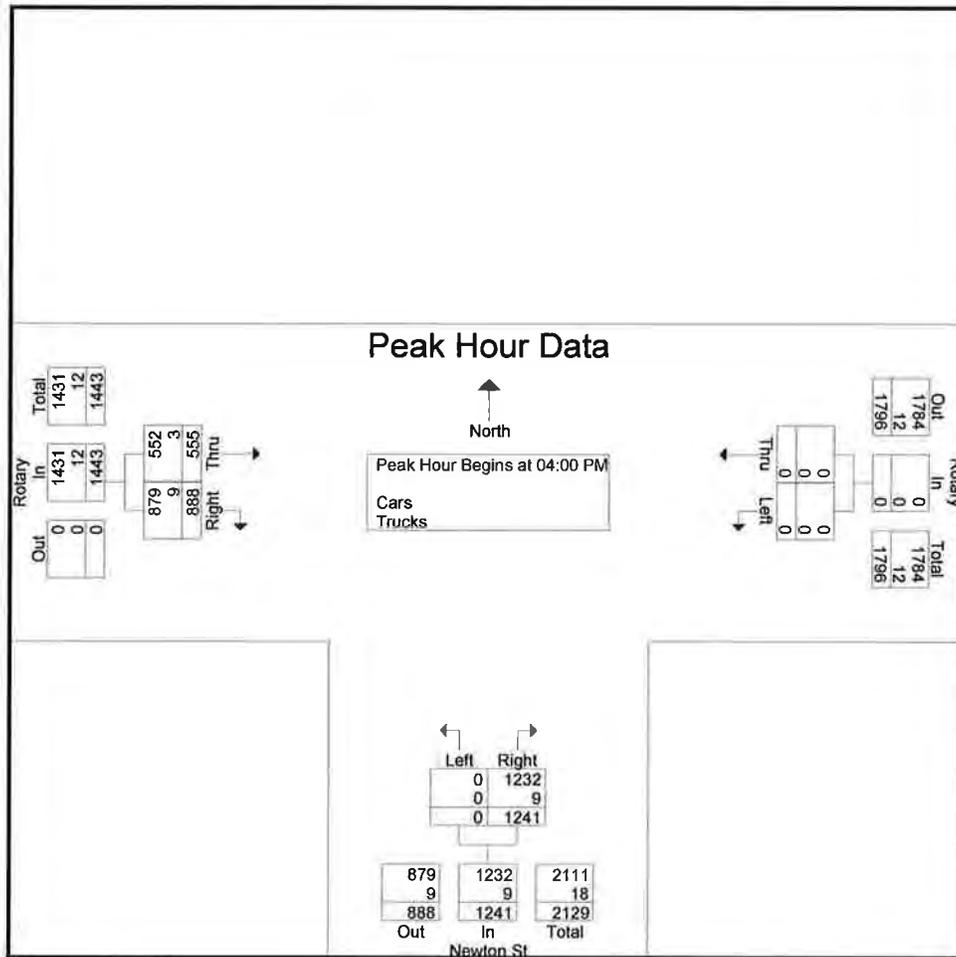
Groups Printed- Cars - Trucks

Start Time	Rotary From East		Newton St From South		Rotary From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:00 PM	0	0	0	229	136	149	514
02:15 PM	0	0	0	223	146	116	485
02:30 PM	0	0	0	249	155	169	573
02:45 PM	0	0	0	254	127	188	569
Total	0	0	0	955	564	622	2141
03:00 PM	0	0	0	279	117	254	650
03:15 PM	0	0	0	286	150	215	651
03:30 PM	0	0	0	255	155	178	588
03:45 PM	0	0	0	336	142	177	655
Total	0	0	0	1156	564	824	2544
04:00 PM	0	0	0	283	135	240	658
04:15 PM	0	0	0	292	138	169	599
04:30 PM	0	0	0	314	136	244	694
04:45 PM	0	0	0	352	146	235	733
Total	0	0	0	1241	555	888	2684
Grand Total	0	0	0	3352	1683	2334	7369
Apprch %	0	0	0	100	41.9	58.1	
Total %	0	0	0	45.5	22.8	31.7	
Cars	0	0	0	3312	1671	2298	7281
% Cars	0	0	0	98.8	99.3	98.5	98.8
Trucks	0	0	0	40	12	36	88
% Trucks	0	0	0	1.2	0.7	1.5	1.2

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 7382002  
Site Code : 7382002  
Start Date : 1/18/2017  
Page No : 2

Start Time	Rotary From East			Newton St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	283	283	135	240	375	658
04:15 PM	0	0	0	0	292	292	138	169	307	599
04:30 PM	0	0	0	0	314	314	136	244	380	694
04:45 PM	0	0	0	0	352	352	146	235	381	733
Total Volume	0	0	0	0	1241	1241	555	888	1443	2684
% App. Total	0	0		0	100		38.5	61.5		
PHF	.000	.000	.000	.000	.881	.881	.950	.910	.947	.915
Cars	0	0	0	0	1232	1232	552	879	1431	2663
% Cars	0	0	0	0	99.3	99.3	99.5	99.0	99.2	99.2
Trucks	0	0	0	0	9	9	3	9	12	21
% Trucks	0	0	0	0	0.7	0.7	0.5	1.0	0.8	0.8



**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

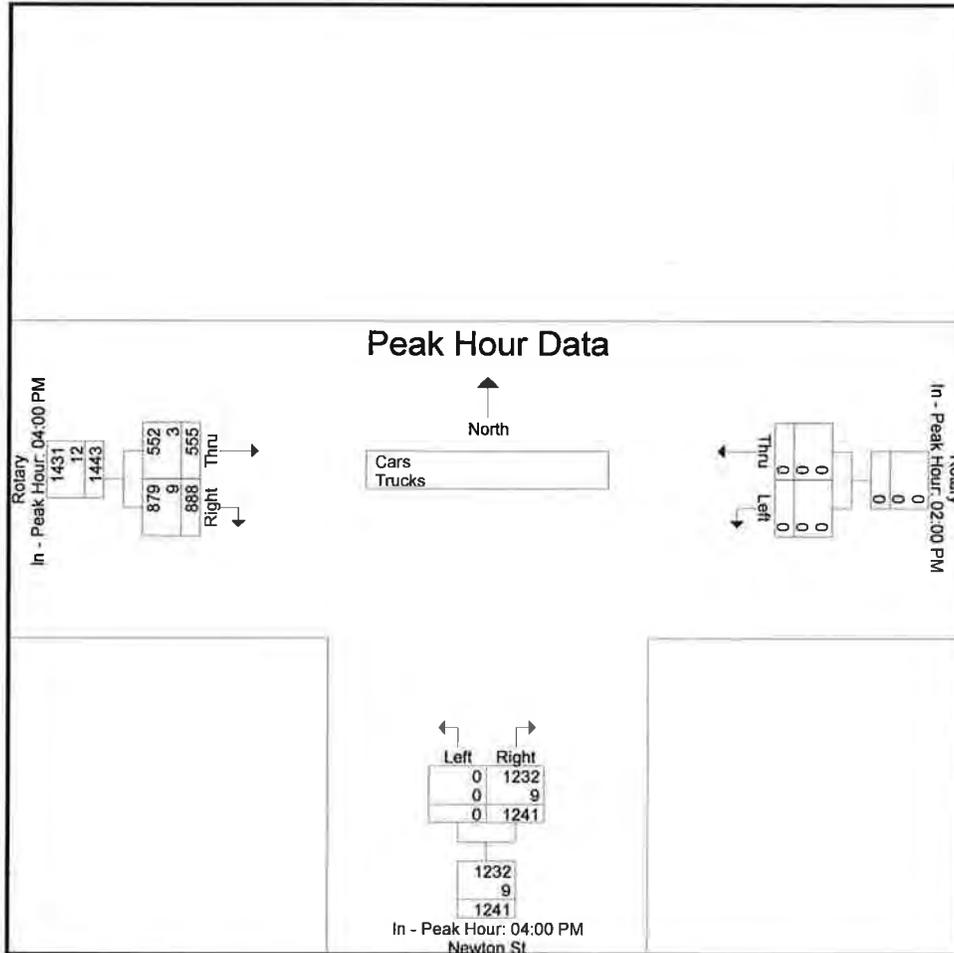
File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 3

Start Time	Rotary From East			Newton St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	283	283	135	240	375
+15 mins.	0	0	0	0	292	292	138	169	307
+30 mins.	0	0	0	0	314	314	136	244	380
+45 mins.	0	0	0	0	352	352	146	235	381
Total Volume	0	0	0	0	1241	1241	555	888	1443
% App. Total	0	0		0	100		38.5	61.5	
PHF	.000	.000	.000	.000	.881	.881	.950	.910	.947
Cars	0	0	0	0	1232	1232	552	879	1431
% Cars	0	0	0	0	99.3	99.3	99.5	99	99.2
Trucks	0	0	0	0	9	9	3	9	12
% Trucks	0	0	0	0	0.7	0.7	0.5	1	0.8



**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 4

Groups Printed- Cars

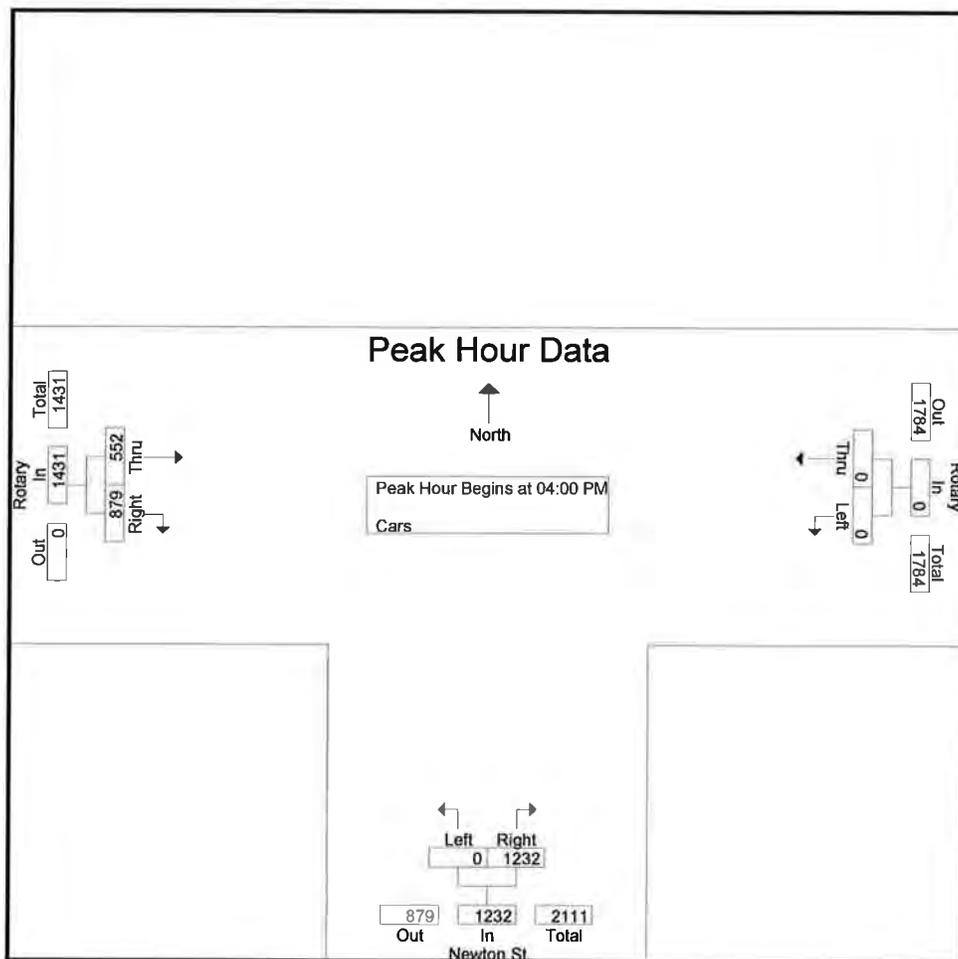
Start Time	Rotary From East		Newton St From South		Rotary From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:00 PM	0	0	0	225	135	143	503
02:15 PM	0	0	0	220	146	113	479
02:30 PM	0	0	0	242	152	169	563
02:45 PM	0	0	0	250	125	185	560
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>937</b>	<b>558</b>	<b>610</b>	<b>2105</b>
03:00 PM	0	0	0	278	115	251	644
03:15 PM	0	0	0	282	149	213	644
03:30 PM	0	0	0	254	155	172	581
03:45 PM	0	0	0	329	142	173	644
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1143</b>	<b>561</b>	<b>809</b>	<b>2513</b>
04:00 PM	0	0	0	280	134	236	650
04:15 PM	0	0	0	290	138	165	593
04:30 PM	0	0	0	312	135	244	691
04:45 PM	0	0	0	350	145	234	729
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1232</b>	<b>552</b>	<b>879</b>	<b>2663</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3312</b>	<b>1671</b>	<b>2298</b>	<b>7281</b>
<b>Apprch %</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>42.1</b>	<b>57.9</b>	
<b>Total %</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>45.5</b>	<b>23</b>	<b>31.6</b>	

**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 5

Start Time	Rotary From East			Newton St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	280	280	134	236	370	650
04:15 PM	0	0	0	0	290	290	138	165	303	593
04:30 PM	0	0	0	0	312	312	135	244	379	691
04:45 PM	0	0	0	0	350	350	145	234	379	729
Total Volume	0	0	0	0	1232	1232	552	879	1431	2663
% App. Total	0	0		0	100		38.6	61.4		
PHF	.000	.000	.000	.000	.880	.880	.952	.901	.944	.913



**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

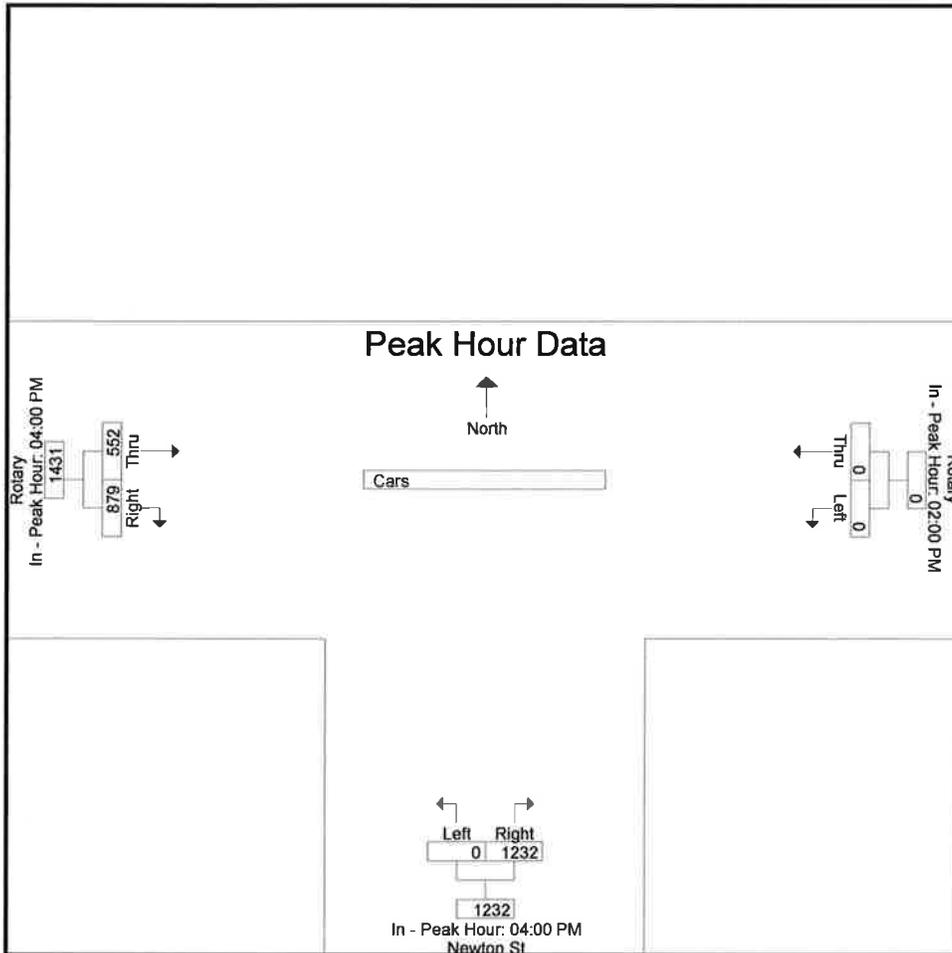
File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 6

Start Time	Rotary From East			Newton St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	280	280	134	236	370
+15 mins.	0	0	0	0	290	290	138	165	303
+30 mins.	0	0	0	0	312	312	135	<b>244</b>	<b>379</b>
+45 mins.	0	0	0	0	<b>350</b>	<b>350</b>	<b>145</b>	234	379
Total Volume	0	0	0	0	1232	1232	552	879	1431
% App. Total	0	0		0	100		38.6	61.4	
PHF	.000	.000	.000	.000	.880	.880	.952	.901	.944



**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 7

Groups Printed- Trucks

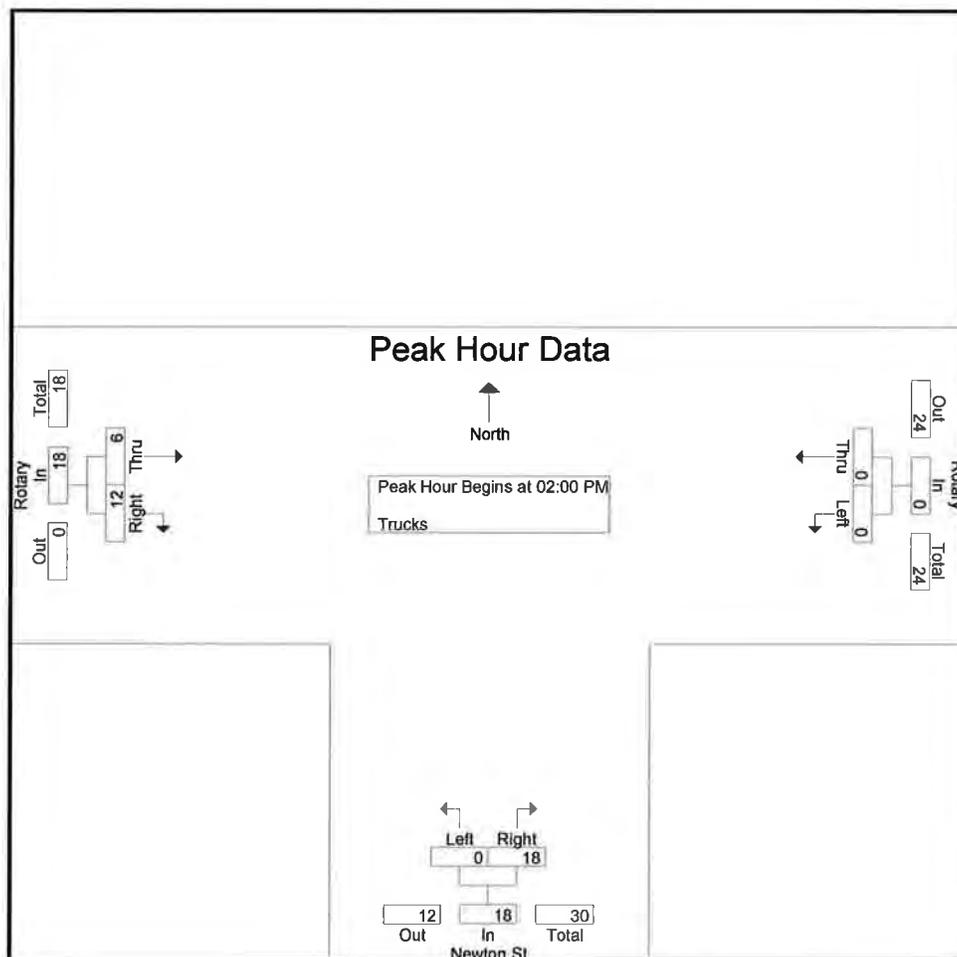
Start Time	Rotary From East		Newton St From South		Rotary From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:00 PM	0	0	0	4	1	6	11
02:15 PM	0	0	0	3	0	3	6
02:30 PM	0	0	0	7	3	0	10
02:45 PM	0	0	0	4	2	3	9
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>6</b>	<b>12</b>	<b>36</b>
03:00 PM	0	0	0	1	2	3	6
03:15 PM	0	0	0	4	1	2	7
03:30 PM	0	0	0	1	0	6	7
03:45 PM	0	0	0	7	0	4	11
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>3</b>	<b>15</b>	<b>31</b>
04:00 PM	0	0	0	3	1	4	8
04:15 PM	0	0	0	2	0	4	6
04:30 PM	0	0	0	2	1	0	3
04:45 PM	0	0	0	2	1	1	4
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>3</b>	<b>9</b>	<b>21</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>12</b>	<b>36</b>	<b>88</b>
<b>Apprch %</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>25</b>	<b>75</b>	
<b>Total %</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>45.5</b>	<b>13.6</b>	<b>40.9</b>	

**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 8

Start Time	Rotary From East			Newton St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	0	0	0	0	4	4	1	6	7	11
02:15 PM	0	0	0	0	3	3	0	3	3	6
02:30 PM	0	0	0	0	7	7	3	0	3	10
02:45 PM	0	0	0	0	4	4	2	3	5	9
Total Volume	0	0	0	0	18	18	6	12	18	36
% App. Total	0	0		0	100		33.3	66.7		
PHF	.000	.000	.000	.000	.643	.643	.500	.500	.643	.818



**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

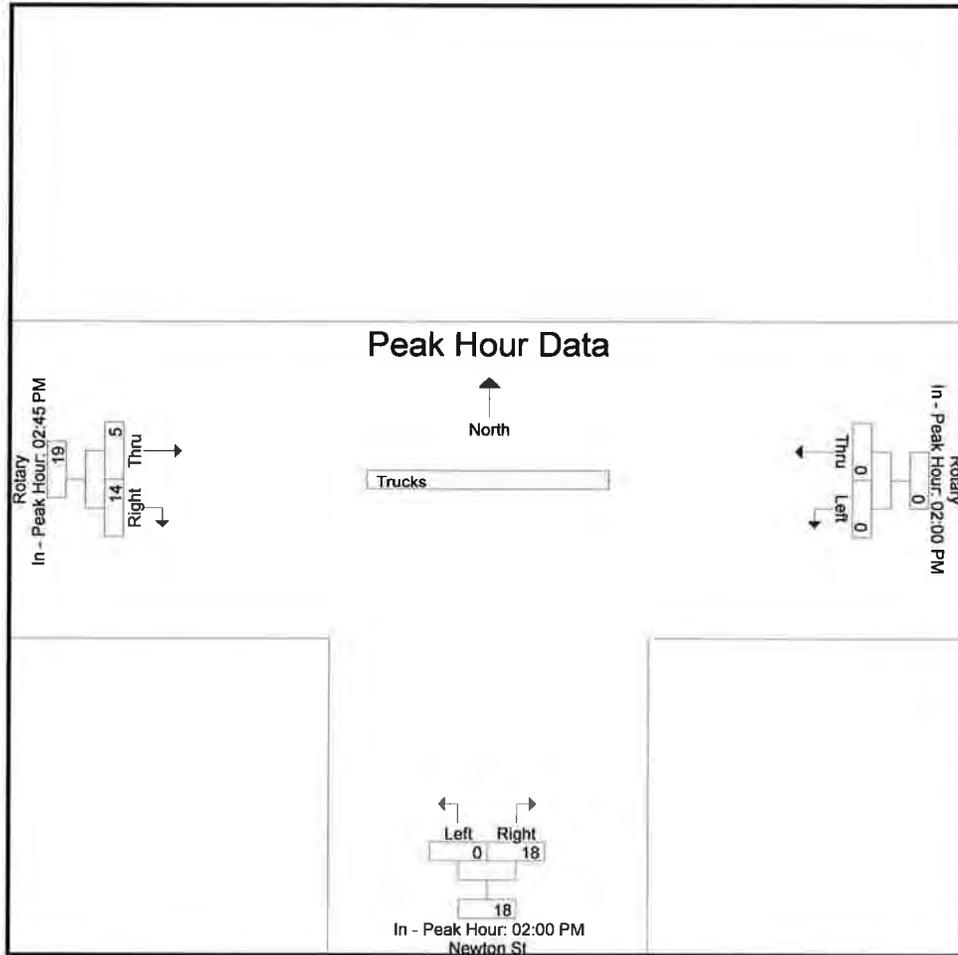
File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 9

Start Time	Rotary From East			Newton St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:00 PM			02:45 PM		
+0 mins.	0	0	0	0	4	4	2	3	5
+15 mins.	0	0	0	0	3	3	2	3	5
+30 mins.	0	0	0	0	7	7	1	2	3
+45 mins.	0	0	0	0	4	4	0	6	6
Total Volume	0	0	0	0	18	18	5	14	19
% App. Total	0	0		0	100		26.3	73.7	
PHF	.000	.000	.000	.000	.643	.643	.625	.583	.792



**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 10

Groups Printed- Bikes Peds

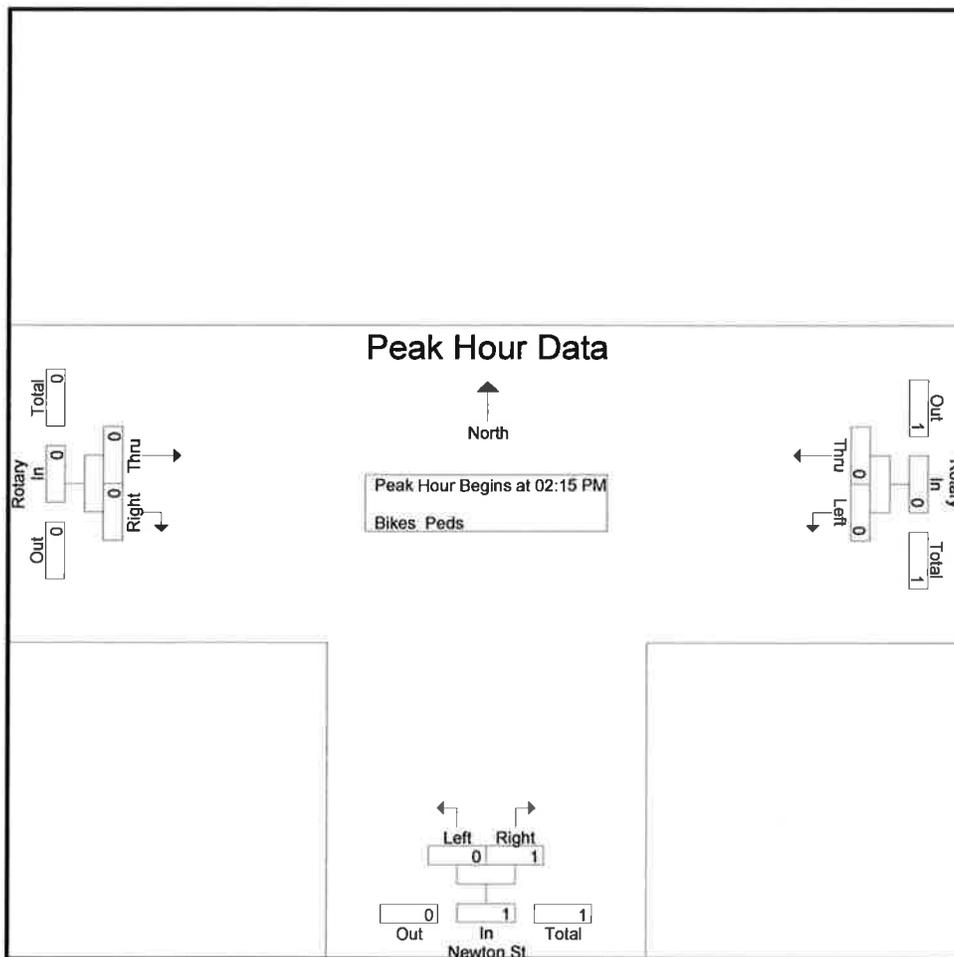
Start Time	Rotary From East			Newton St From South			Rotary From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
03:00 PM	0	0	0	0	1	0	0	0	0	0	1	1
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>
04:00 PM	0	0	0	0	0	0	1	0	0	0	1	1
04:15 PM	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
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>
Apprch %	0	0		0	100		100	0				
Total %	0	0		0	50		50	0			100	

**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 11

Start Time	Rotary From East			Newton St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:15 PM										
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	1	1	0	0	0	1
Total Volume	0	0	0	0	1	1	0	0	0	1
% App. Total	0	0		0	100		0	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250



**Accurate Counts**  
978-664-2565

N/S Street : Newton Street  
E/W Street : Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

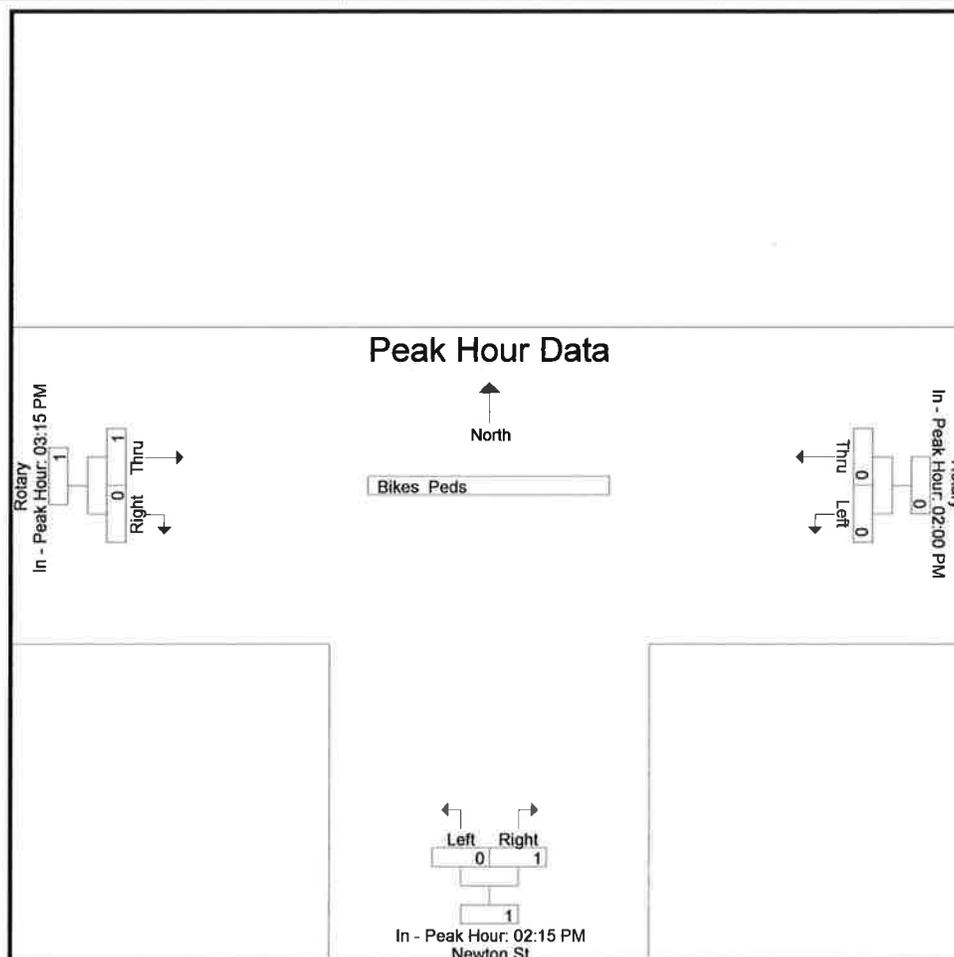
File Name : 73820002  
Site Code : 73820002  
Start Date : 1/18/2017  
Page No : 12

Start Time	Rotary From East			Newton St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:15 PM			03:15 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	1	1	1	0	1
Total Volume	0	0	0	0	1	1	1	0	1
% App. Total	0	0		0	100		100	0	
PHF	.000	.000	.000	.000	.250	.250	.250	.000	.250



**Accurate Counts**  
978-664-2565

N/S Street : Lagrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 1

Groups Printed- Cars - Trucks

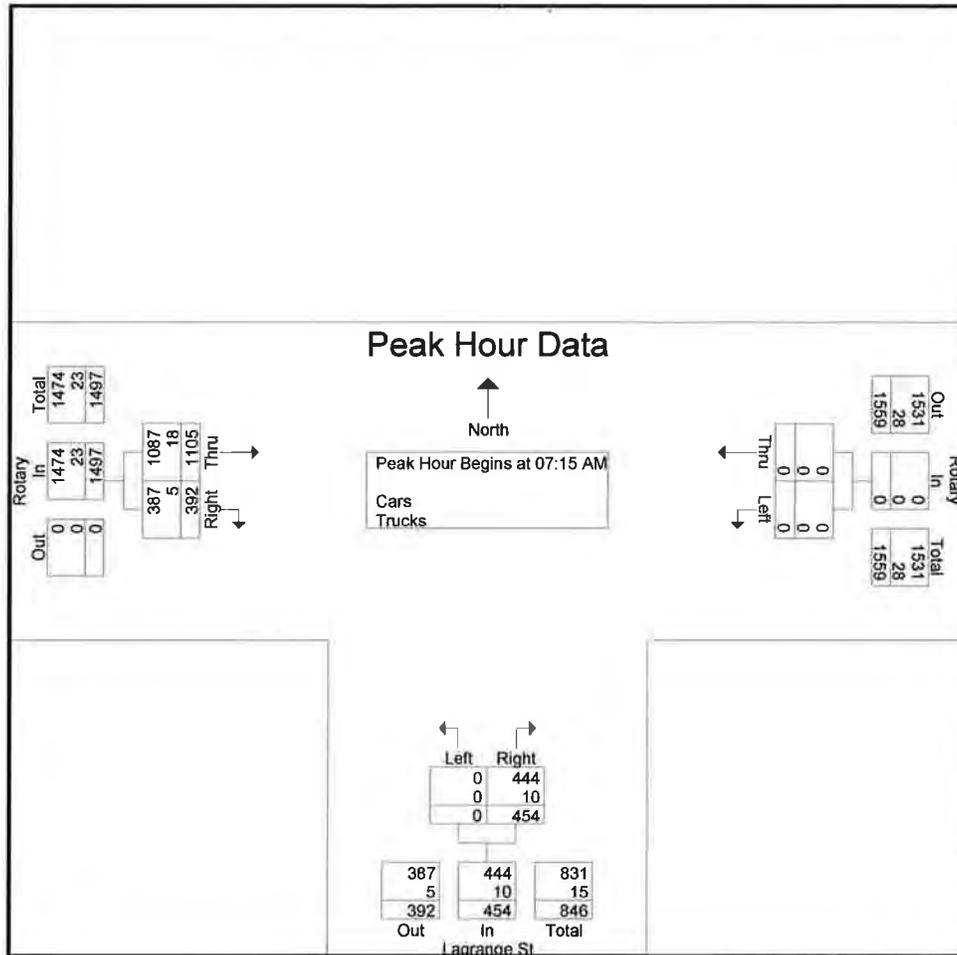
Start Time	Rotary From East		Lagrange St From South		Rotary From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	0	0	121	227	47	395
07:15 AM	0	0	0	136	243	85	464
07:30 AM	0	0	0	110	280	105	495
07:45 AM	0	0	0	106	285	115	506
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>473</b>	<b>1035</b>	<b>352</b>	<b>1860</b>
08:00 AM	0	0	0	102	297	87	486
08:15 AM	0	0	0	102	274	63	439
08:30 AM	0	0	0	91	276	49	416
08:45 AM	0	0	0	109	281	61	451
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>404</b>	<b>1128</b>	<b>260</b>	<b>1792</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>877</b>	<b>2163</b>	<b>612</b>	<b>3652</b>
Apprch %	0	0	0	100	77.9	22.1	
Total %	0	0	0	24	59.2	16.8	
Cars	0	0	0	860	2136	599	3595
% Cars	0	0	0	98.1	98.8	97.9	98.4
Trucks	0	0	0	17	27	13	57
% Trucks	0	0	0	1.9	1.2	2.1	1.6

**Accurate Counts**  
978-664-2565

N/S Street : Lagrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 2

Start Time	Rotary From East			Lagrange St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	0	136	136	243	85	328	464
07:30 AM	0	0	0	0	110	110	280	105	385	495
07:45 AM	0	0	0	0	106	106	285	115	400	506
08:00 AM	0	0	0	0	102	102	297	87	384	486
Total Volume	0	0	0	0	454	454	1105	392	1497	1951
% App. Total	0	0		0	100		73.8	26.2		
PHF	.000	.000	.000	.000	.835	.835	.930	.852	.936	.964
Cars	0	0	0	0	444	444	1087	387	1474	1918
% Cars	0	0	0	0	97.8	97.8	98.4	98.7	98.5	98.3
Trucks	0	0	0	0	10	10	18	5	23	33
% Trucks	0	0	0	0	2.2	2.2	1.6	1.3	1.5	1.7



# Accurate Counts

978-664-2565

N/S Street : Lgrange Street  
 E/W Street: Horace James Circle  
 City/State : Brookline, MA  
 Weather : Rain

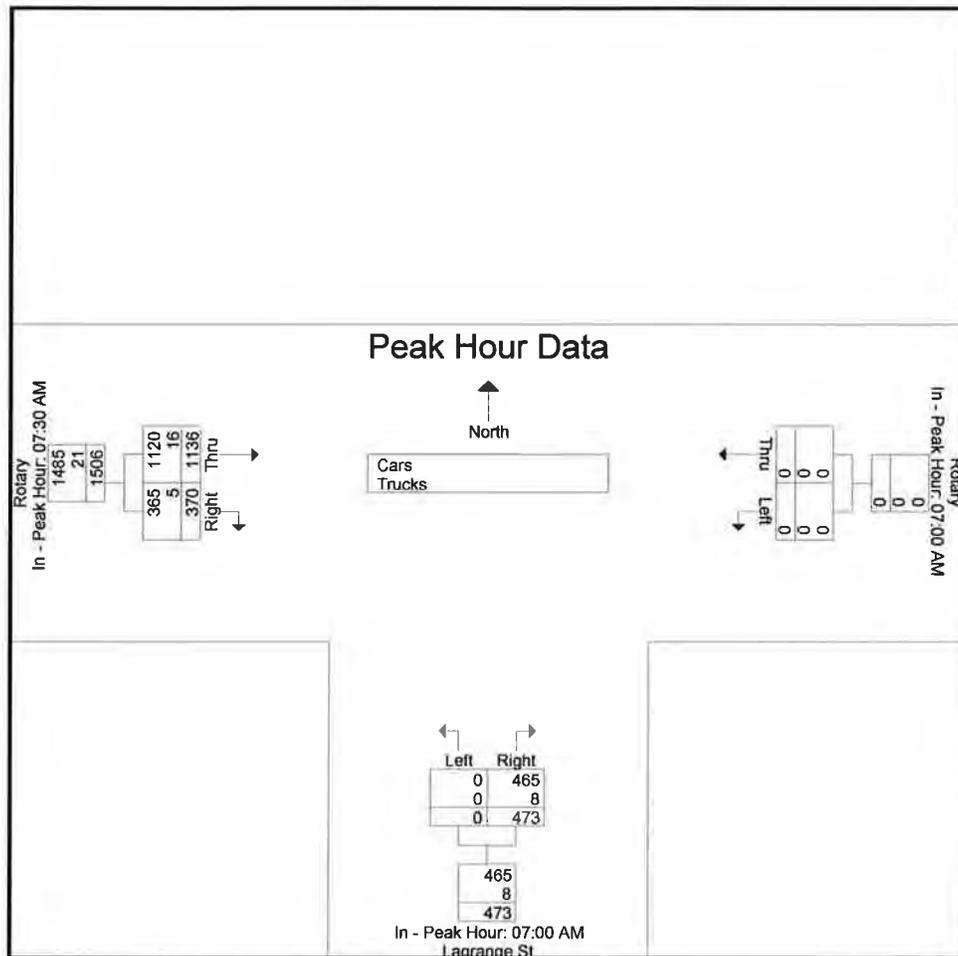
File Name : 73820003  
 Site Code : 73820003  
 Start Date : 1/18/2017  
 Page No : 3

Start Time	Rotary From East			Lgrange St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:30 AM		
+0 mins.	0	0	0	0	121	121	280	105	385
+15 mins.	0	0	0	0	136	136	285	115	400
+30 mins.	0	0	0	0	110	110	297	87	384
+45 mins.	0	0	0	0	106	106	274	63	337
Total Volume	0	0	0	0	473	473	1136	370	1506
% App. Total	0	0		0	100		75.4	24.6	
PHF	.000	.000	.000	.000	.869	.869	.956	.804	.941
Cars	0	0	0	0	465	465	1120	365	1485
% Cars	0	0	0	0	98.3	98.3	98.6	98.6	98.6
Trucks	0	0	0	0	8	8	16	5	21
% Trucks	0	0	0	0	1.7	1.7	1.4	1.4	1.4



**Accurate Counts**  
978-664-2565

N/S Street : Lgrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 4

Groups Printed- Cars

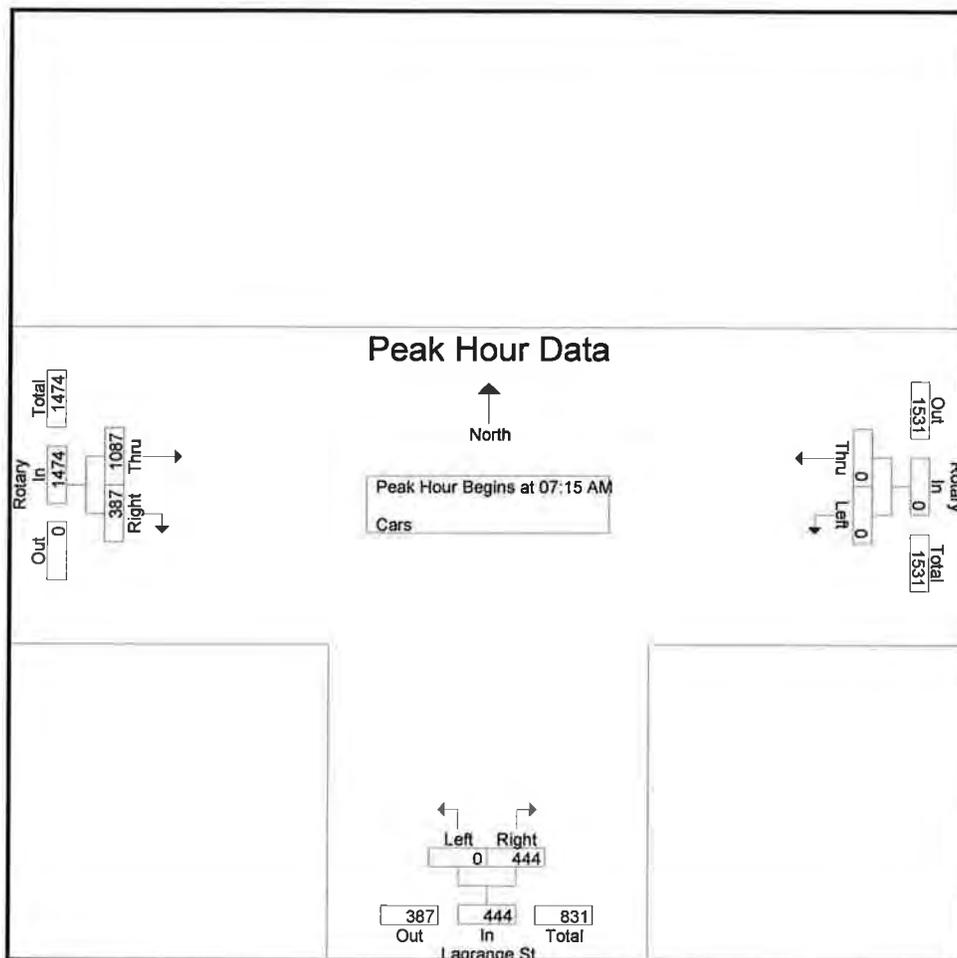
Start Time	Rotary From East		Lgrange St From South		Rotary From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	0	0	120	223	47	390
07:15 AM	0	0	0	135	241	82	458
07:30 AM	0	0	0	107	273	105	485
07:45 AM	0	0	0	103	278	114	495
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>465</b>	<b>1015</b>	<b>348</b>	<b>1828</b>
08:00 AM	0	0	0	99	295	86	480
08:15 AM	0	0	0	100	274	60	434
08:30 AM	0	0	0	87	275	46	408
08:45 AM	0	0	0	109	277	59	445
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>395</b>	<b>1121</b>	<b>251</b>	<b>1767</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>860</b>	<b>2136</b>	<b>599</b>	<b>3595</b>
<b>Apprch %</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>78.1</b>	<b>21.9</b>	
<b>Total %</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23.9</b>	<b>59.4</b>	<b>16.7</b>	

**Accurate Counts**  
978-664-2565

N/S Street : Lorange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 5

Start Time	Rotary From East			Lorange St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	0	135	135	241	82	323	458
07:30 AM	0	0	0	0	107	107	273	105	378	485
07:45 AM	0	0	0	0	103	103	278	114	392	495
08:00 AM	0	0	0	0	99	99	295	86	381	480
Total Volume	0	0	0	0	444	444	1087	387	1474	1918
% App. Total	0	0		0	100		73.7	26.3		
PHF	.000	.000	.000	.000	.822	.822	.921	.849	.940	.969



**Accurate Counts**  
978-664-2565

N/S Street : Lagrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

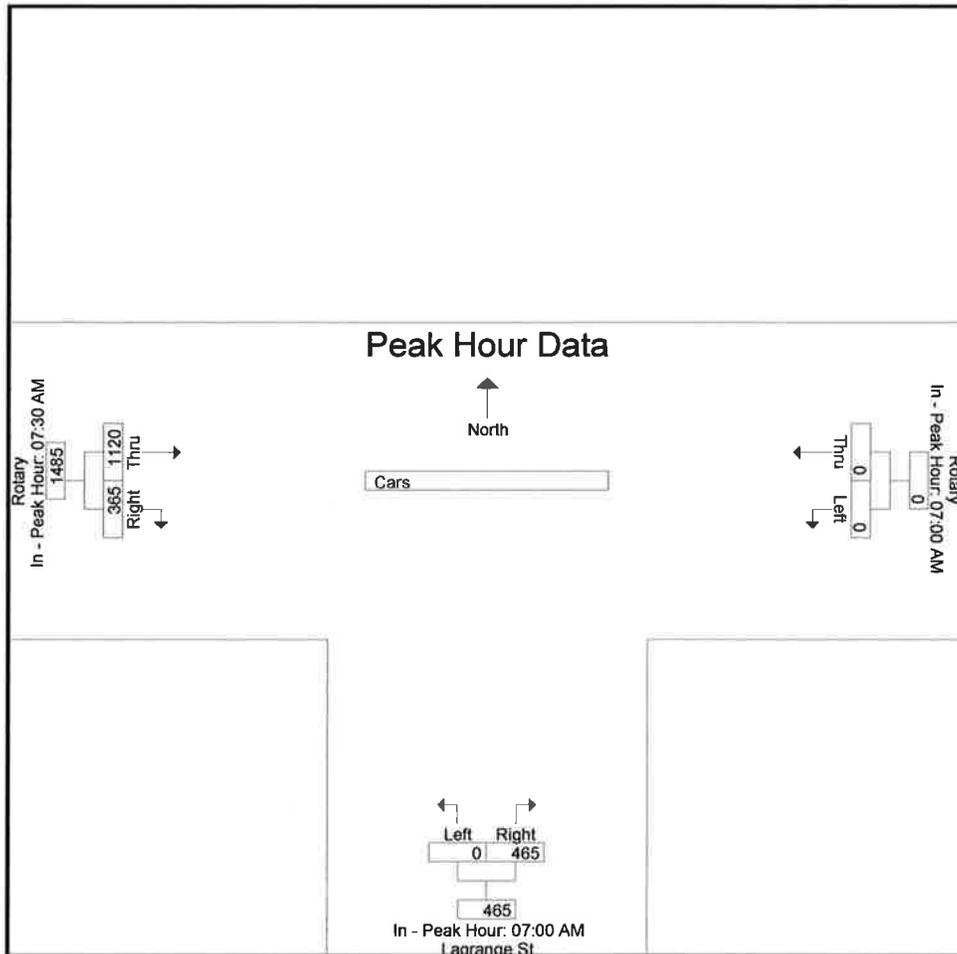
File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 6

Start Time	Rotary From East			Lagrange St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:30 AM		
+0 mins.	0	0	0	0	120	120	273	105	378
+15 mins.	0	0	0	0	135	135	278	114	392
+30 mins.	0	0	0	0	107	107	295	86	381
+45 mins.	0	0	0	0	103	103	274	60	334
Total Volume	0	0	0	0	465	465	1120	365	1485
% App. Total	0	0		0	100		75.4	24.6	
PHF	.000	.000	.000	.000	.861	.861	.949	.800	.947



**Accurate Counts**  
978-664-2565

N/S Street : Lagrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 7

Groups Printed- Trucks

Start Time	Rotary From East		Lagrange St From South		Rotary From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
07:00 AM	0	0	0	1	4	0	5
07:15 AM	0	0	0	1	2	3	6
07:30 AM	0	0	0	3	7	0	10
07:45 AM	0	0	0	3	7	1	11
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>20</b>	<b>4</b>	<b>32</b>
08:00 AM	0	0	0	3	2	1	6
08:15 AM	0	0	0	2	0	3	5
08:30 AM	0	0	0	4	1	3	8
08:45 AM	0	0	0	0	4	2	6
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>7</b>	<b>9</b>	<b>25</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>27</b>	<b>13</b>	<b>57</b>
<b>Apprch %</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>67.5</b>	<b>32.5</b>	
<b>Total %</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>29.8</b>	<b>47.4</b>	<b>22.8</b>	

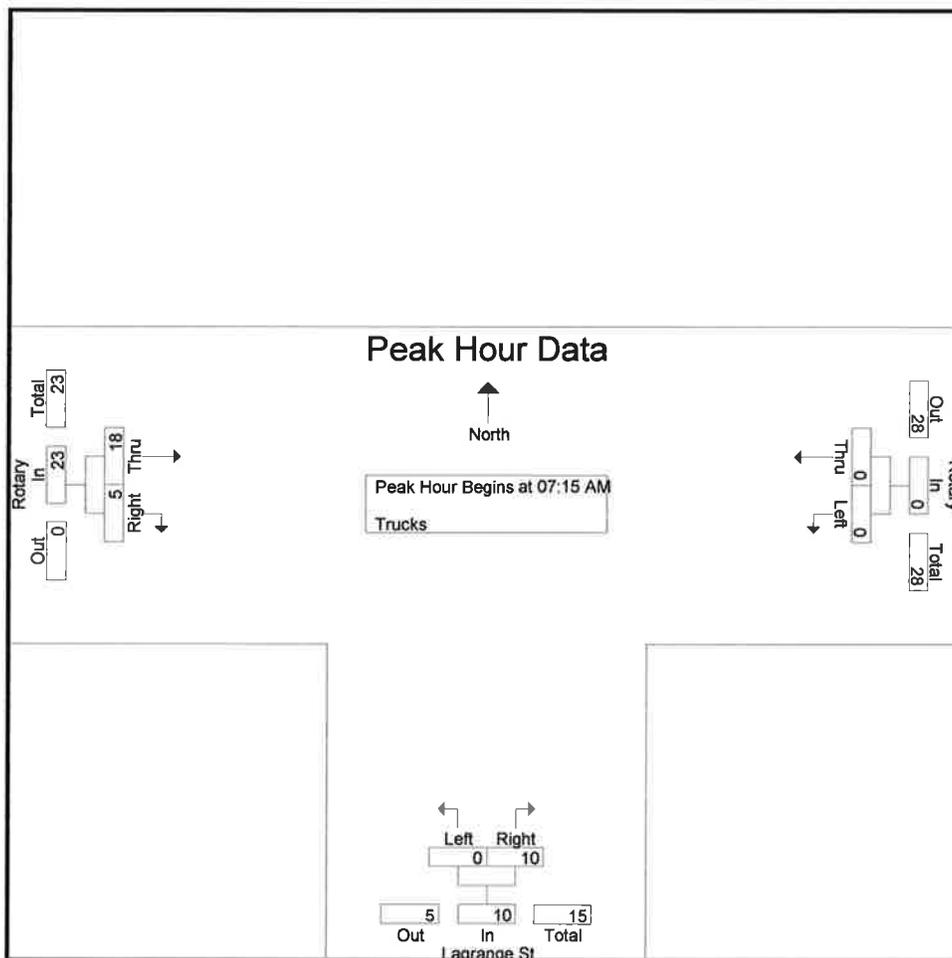
# Accurate Counts

978-664-2565

N/S Street : Lagrange Street  
 E/W Street: Horace James Circle  
 City/State : Brookline, MA  
 Weather : Rain

File Name : 73820003  
 Site Code : 73820003  
 Start Date : 1/18/2017  
 Page No : 8

Start Time	Rotary From East			Lagrange St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	0	1	1	2	3	5	6
07:30 AM	0	0	0	0	3	3	7	0	7	10
07:45 AM	0	0	0	0	3	3	7	1	8	11
08:00 AM	0	0	0	0	3	3	2	1	3	6
Total Volume	0	0	0	0	10	10	18	5	23	33
% App. Total	0	0		0	100		78.3	21.7		
PHF	.000	.000	.000	.000	.833	.833	.643	.417	.719	.750



**Accurate Counts**  
978-664-2565

N/S Street : Lagrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

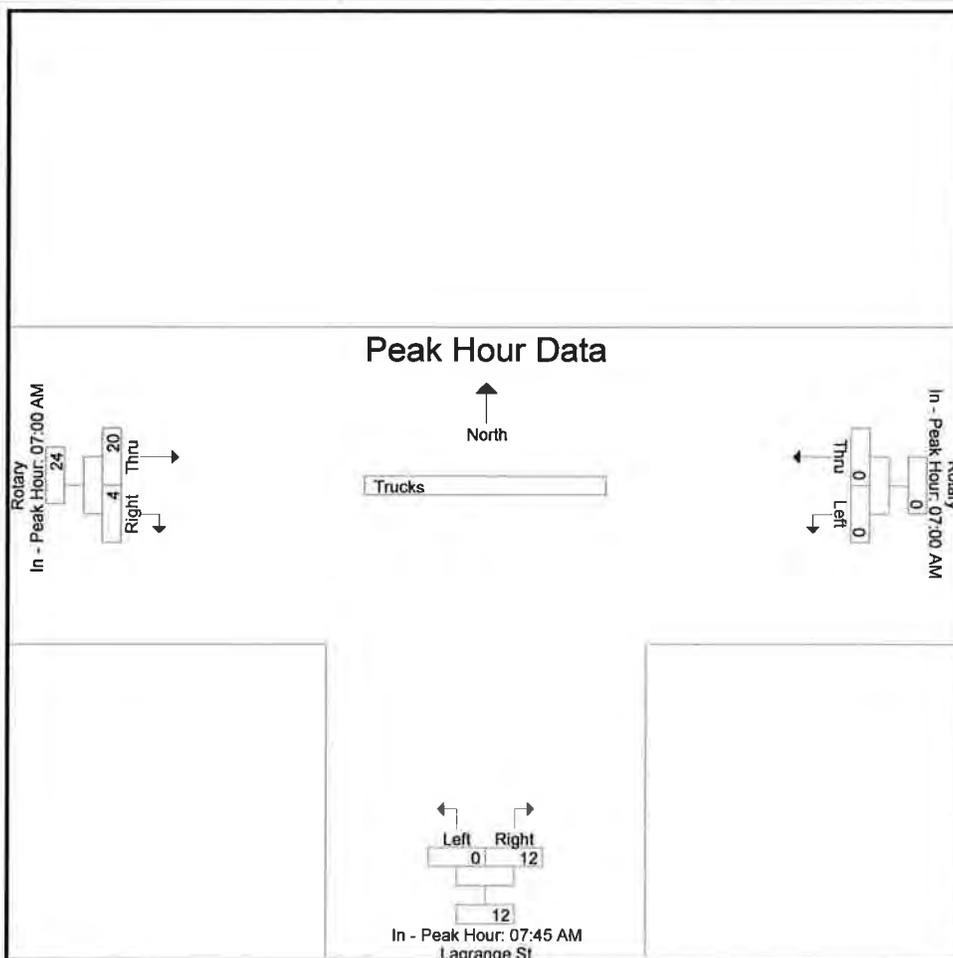
File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 9

Start Time	Rotary From East			Lagrange St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:00 AM			07:45 AM			07:00 AM		
+0 mins.	0	0	0	0	3	3	4	0	4
+15 mins.	0	0	0	0	3	3	2	3	5
+30 mins.	0	0	0	0	2	2	7	0	7
+45 mins.	0	0	0	0	4	4	7	1	8
Total Volume	0	0	0	0	12	12	20	4	24
% App. Total	0	0		0	100		83.3	16.7	
PHF	.000	.000	.000	.000	.750	.750	.714	.333	.750



**Accurate Counts**  
978-664-2565

N/S Street : Lagrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 10

Groups Printed- Bikes Peds

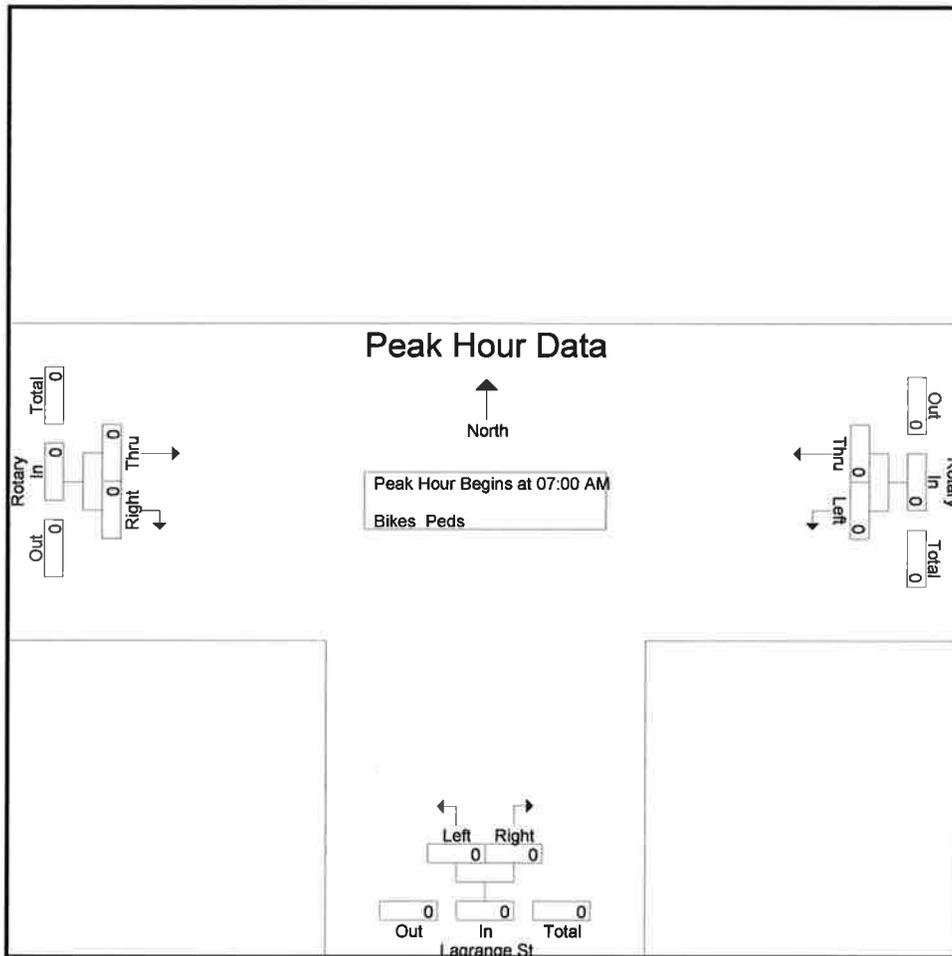
Start Time	Rotary From East			Lagrange St From South			Rotary From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
08:00 AM	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
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Apprch %</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>				
<b>Total %</b>										<b>0</b>	<b>0</b>	

**Accurate Counts**  
978-664-2565

N/S Street : Lagrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 11

Start Time	Rotary From East			Lagrange St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	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	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Lagrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

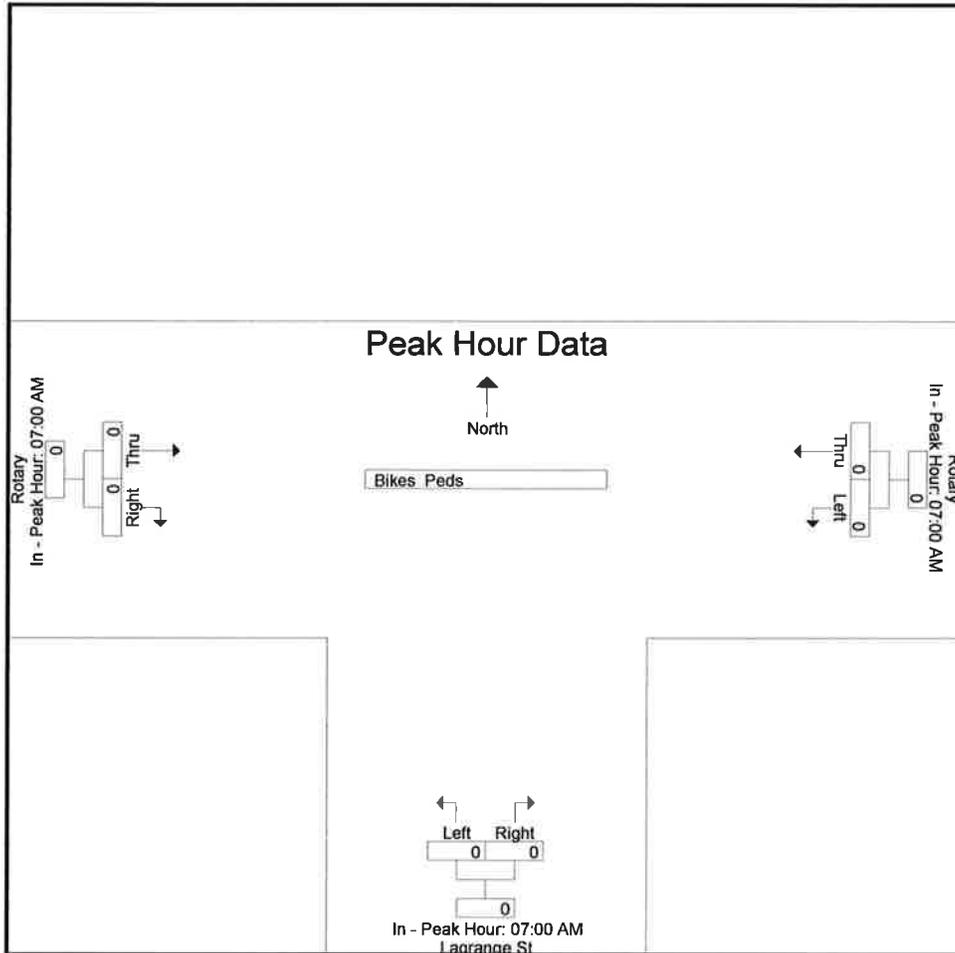
File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 12

Start Time	Rotary From East			Lagrange St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Lgrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 1

Groups Printed- Cars - Trucks

Start Time	Rotary From East		Lgrange St From South		Rotary From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:00 PM	0	0	0	83	202	98	383
02:15 PM	0	0	0	88	174	111	373
02:30 PM	0	0	0	110	212	117	439
02:45 PM	0	0	0	82	233	140	455
Total	0	0	0	363	821	466	1650
03:00 PM	0	0	0	61	310	175	546
03:15 PM	0	0	0	92	273	180	545
03:30 PM	0	0	0	75	258	150	483
03:45 PM	0	0	0	87	232	167	486
Total	0	0	0	315	1073	672	2060
04:00 PM	0	0	0	80	295	175	550
04:15 PM	0	0	0	73	234	188	495
04:30 PM	0	0	0	83	297	198	578
04:45 PM	0	0	0	95	286	185	566
Total	0	0	0	331	1112	746	2189
Grand Total	0	0	0	1009	3006	1884	5899
Apprch %	0	0	0	100	61.5	38.5	
Total %	0	0	0	17.1	51	31.9	
Cars	0	0	0	1004	2965	1875	5844
% Cars	0	0	0	99.5	98.6	99.5	99.1
Trucks	0	0	0	5	41	9	55
% Trucks	0	0	0	0.5	1.4	0.5	0.9

**Accurate Counts**  
978-664-2565

N/S Street : Lgrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

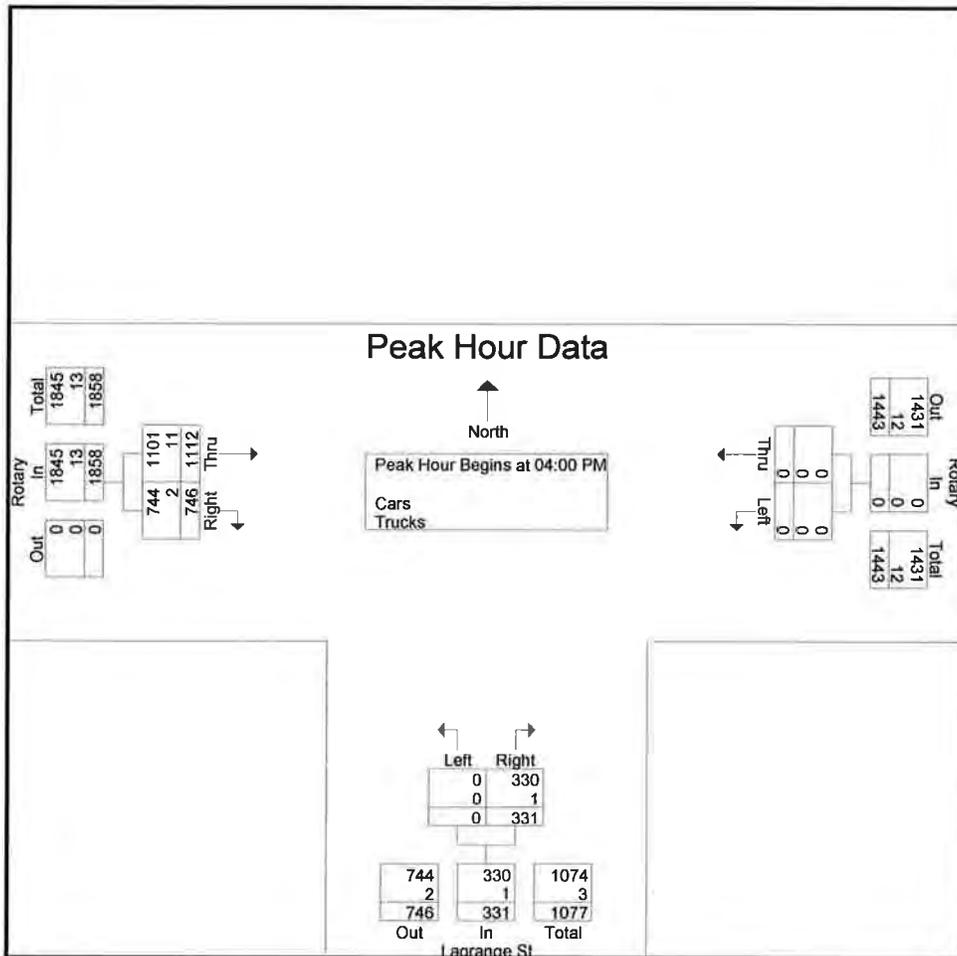
File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 2

Start Time	Rotary From East			Lgrange St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	0	0	0	0	80	80	295	175	470	550
04:15 PM	0	0	0	0	73	73	234	188	422	495
04:30 PM	0	0	0	0	83	83	297	198	495	578
04:45 PM	0	0	0	0	95	95	286	185	471	566
Total Volume	0	0	0	0	331	331	1112	746	1858	2189
% App. Total	0	0		0	100		59.8	40.2		
PHF	.000	.000	.000	.000	.871	.871	.936	.942	.938	.947
Cars	0	0	0	0	330	330	1101	744	1845	2175
% Cars	0	0	0	0	99.7	99.7	99.0	99.7	99.3	99.4
Trucks	0	0	0	0	1	1	11	2	13	14
% Trucks	0	0	0	0	0.3	0.3	1.0	0.3	0.7	0.6



**Accurate Counts**  
978-664-2565

N/S Street : Lgrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

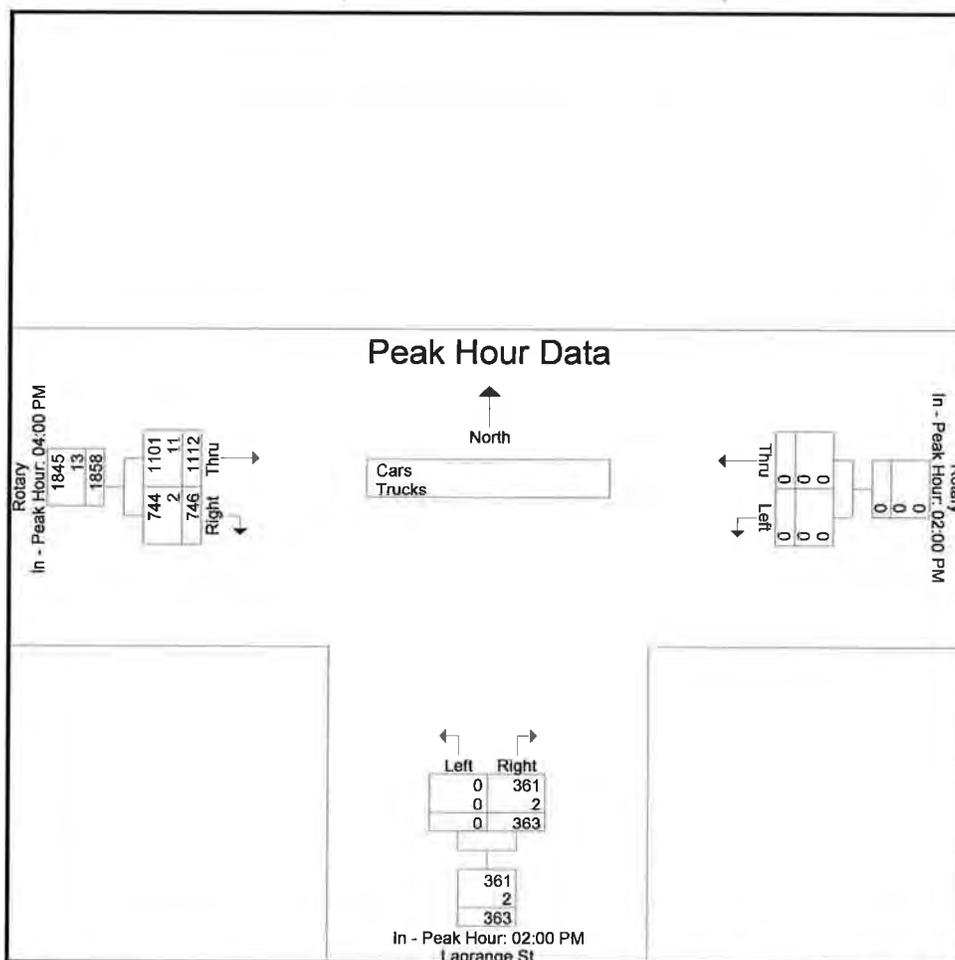
File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 3

Start Time	Rotary From East			Lgrange St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:00 PM			04:00 PM		
+0 mins.	0	0	0	0	83	83	295	175	470
+15 mins.	0	0	0	0	88	88	234	188	422
+30 mins.	0	0	0	0	110	110	297	198	495
+45 mins.	0	0	0	0	82	82	286	185	471
Total Volume	0	0	0	0	363	363	1112	746	1858
% App. Total	0	0		0	100		59.8	40.2	
PHF	.000	.000	.000	.000	.825	.825	.936	.942	.938
Cars	0	0	0	0	361	361	1101	744	1845
% Cars	0	0	0	0	99.4	99.4	99	99.7	99.3
Trucks	0	0	0	0	2	2	11	2	13
% Trucks	0	0	0	0	0.6	0.6	1	0.3	0.7



**Accurate Counts**  
978-664-2565

N/S Street : Lagrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 4

Groups Printed- Cars

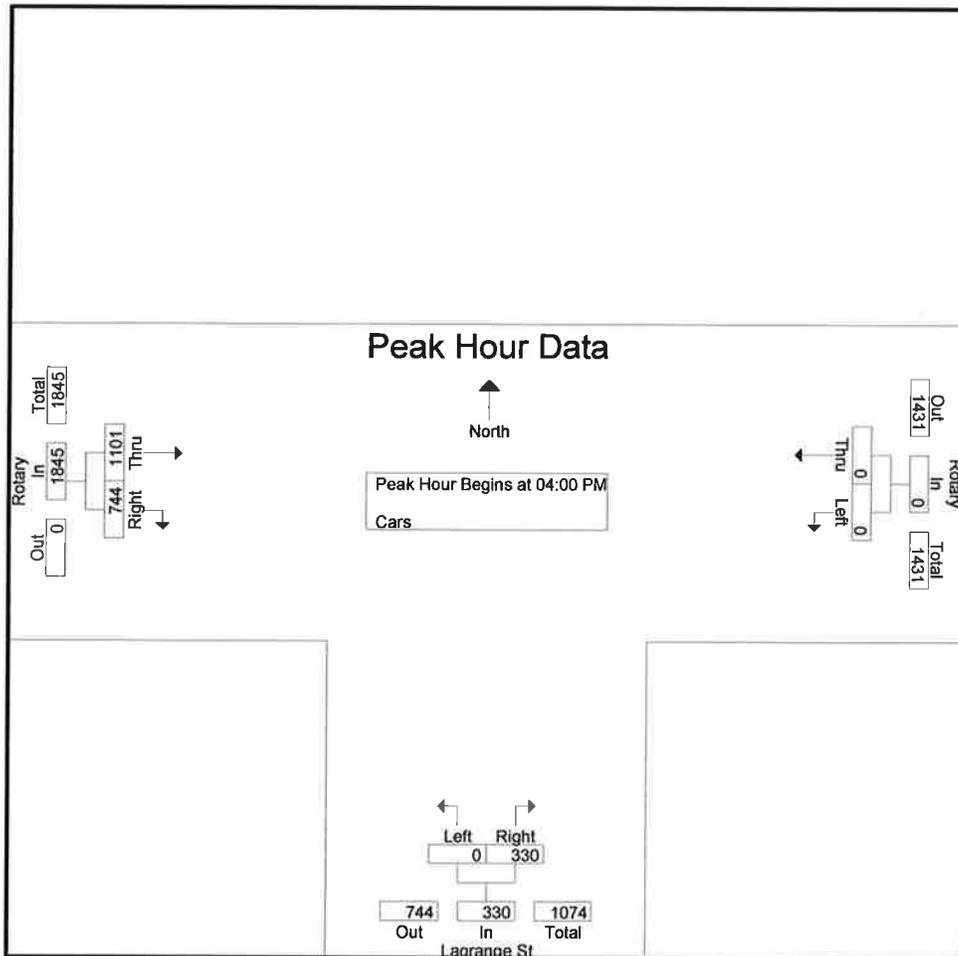
Start Time	Rotary From East		Lagrange St From South		Rotary From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:00 PM	0	0	0	82	196	97	375
02:15 PM	0	0	0	88	171	109	368
02:30 PM	0	0	0	110	211	117	438
02:45 PM	0	0	0	81	229	139	449
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>361</b>	<b>807</b>	<b>462</b>	<b>1630</b>
03:00 PM	0	0	0	59	307	175	541
03:15 PM	0	0	0	92	270	180	542
03:30 PM	0	0	0	75	252	148	475
03:45 PM	0	0	0	87	228	166	481
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>313</b>	<b>1057</b>	<b>669</b>	<b>2039</b>
04:00 PM	0	0	0	80	290	175	545
04:15 PM	0	0	0	73	230	187	490
04:30 PM	0	0	0	82	297	197	576
04:45 PM	0	0	0	95	284	185	564
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>330</b>	<b>1101</b>	<b>744</b>	<b>2175</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1004</b>	<b>2965</b>	<b>1875</b>	<b>5844</b>
Apprch %	0	0	0	100	61.3	38.7	
Total %	0	0	0	17.2	50.7	32.1	

**Accurate Counts**  
978-664-2565

N/S Street : Lagrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 5

Start Time	Rotary From East			Lagrange St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	80	80	290	175	465	545
04:15 PM	0	0	0	0	73	73	230	187	417	490
04:30 PM	0	0	0	0	82	82	297	197	494	576
04:45 PM	0	0	0	0	95	95	284	185	469	564
Total Volume	0	0	0	0	330	330	1101	744	1845	2175
% App. Total	0	0		0	100		59.7	40.3		
PHF	.000	.000	.000	.000	.868	.868	.927	.944	.934	.944



**Accurate Counts**  
978-664-2565

N/S Street : Lagrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

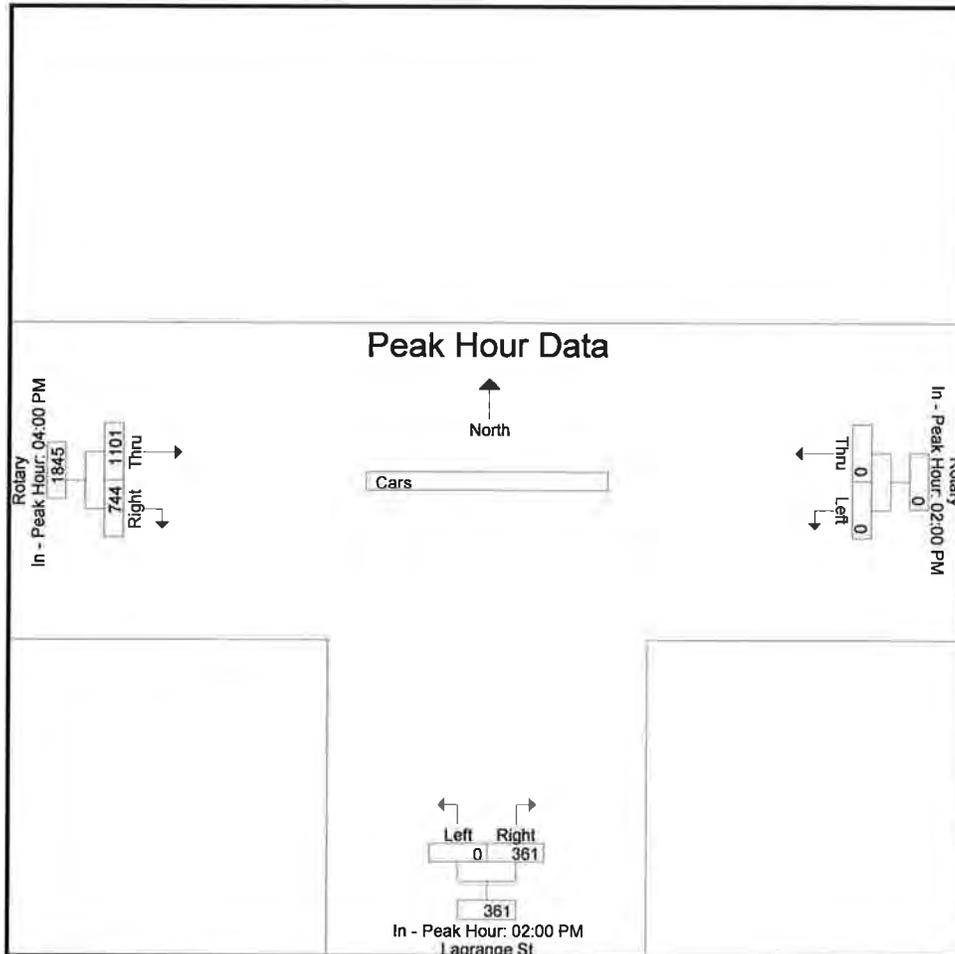
File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 6

Start Time	Rotary From East			Lagrange St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:00 PM			04:00 PM		
+0 mins.	0	0	0	0	82	82	290	175	465
+15 mins.	0	0	0	0	88	88	230	187	417
+30 mins.	0	0	0	0	110	110	297	197	494
+45 mins.	0	0	0	0	81	81	284	185	469
Total Volume	0	0	0	0	361	361	1101	744	1845
% App. Total	0	0		0	100		59.7	40.3	
PHF	.000	.000	.000	.000	.820	.820	.927	.944	.934



**Accurate Counts**  
978-664-2565

N/S Street : Lagrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 7

Groups Printed- Trucks

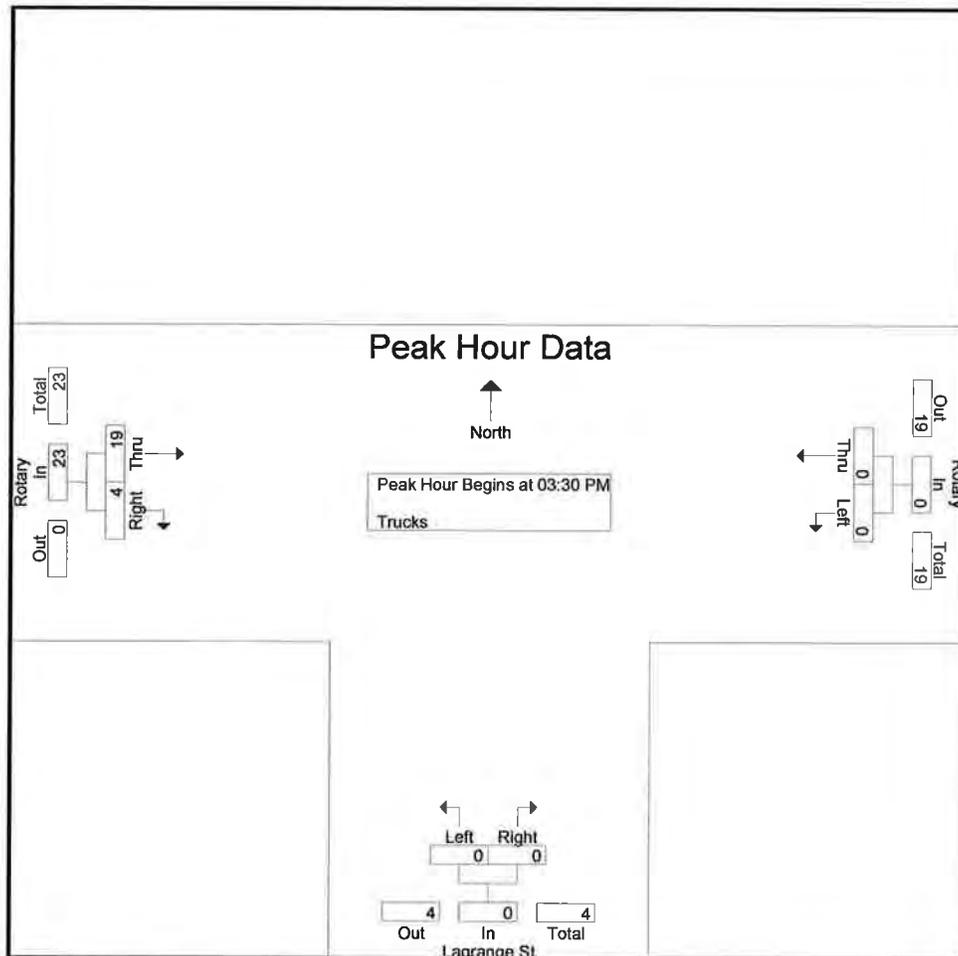
Start Time	Rotary From East		Lagrange St From South		Rotary From West		Int. Total
	Left	Thru	Left	Right	Thru	Right	
02:00 PM	0	0	0	1	6	1	8
02:15 PM	0	0	0	0	3	2	5
02:30 PM	0	0	0	0	1	0	1
02:45 PM	0	0	0	1	4	1	6
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>14</b>	<b>4</b>	<b>20</b>
03:00 PM	0	0	0	2	3	0	5
03:15 PM	0	0	0	0	3	0	3
03:30 PM	0	0	0	0	6	2	8
03:45 PM	0	0	0	0	4	1	5
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>16</b>	<b>3</b>	<b>21</b>
04:00 PM	0	0	0	0	5	0	5
04:15 PM	0	0	0	0	4	1	5
04:30 PM	0	0	0	1	0	1	2
04:45 PM	0	0	0	0	2	0	2
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>11</b>	<b>2</b>	<b>14</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>41</b>	<b>9</b>	<b>55</b>
<b>Apprch %</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>82</b>	<b>18</b>	
<b>Total %</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9.1</b>	<b>74.5</b>	<b>16.4</b>	

**Accurate Counts**  
978-664-2565

N/S Street : Lagrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 8

Start Time	Rotary From East			Lagrange St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:30 PM										
03:30 PM	0	0	0	0	0	0	6	2	8	8
03:45 PM	0	0	0	0	0	0	4	1	5	5
04:00 PM	0	0	0	0	0	0	5	0	5	5
04:15 PM	0	0	0	0	0	0	4	1	5	5
Total Volume	0	0	0	0	0	0	19	4	23	23
% App. Total	0	0		0	0		82.6	17.4		
PHF	.000	.000	.000	.000	.000	.000	.792	.500	.719	.719



**Accurate Counts**  
978-664-2565

N/S Street : Lorange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

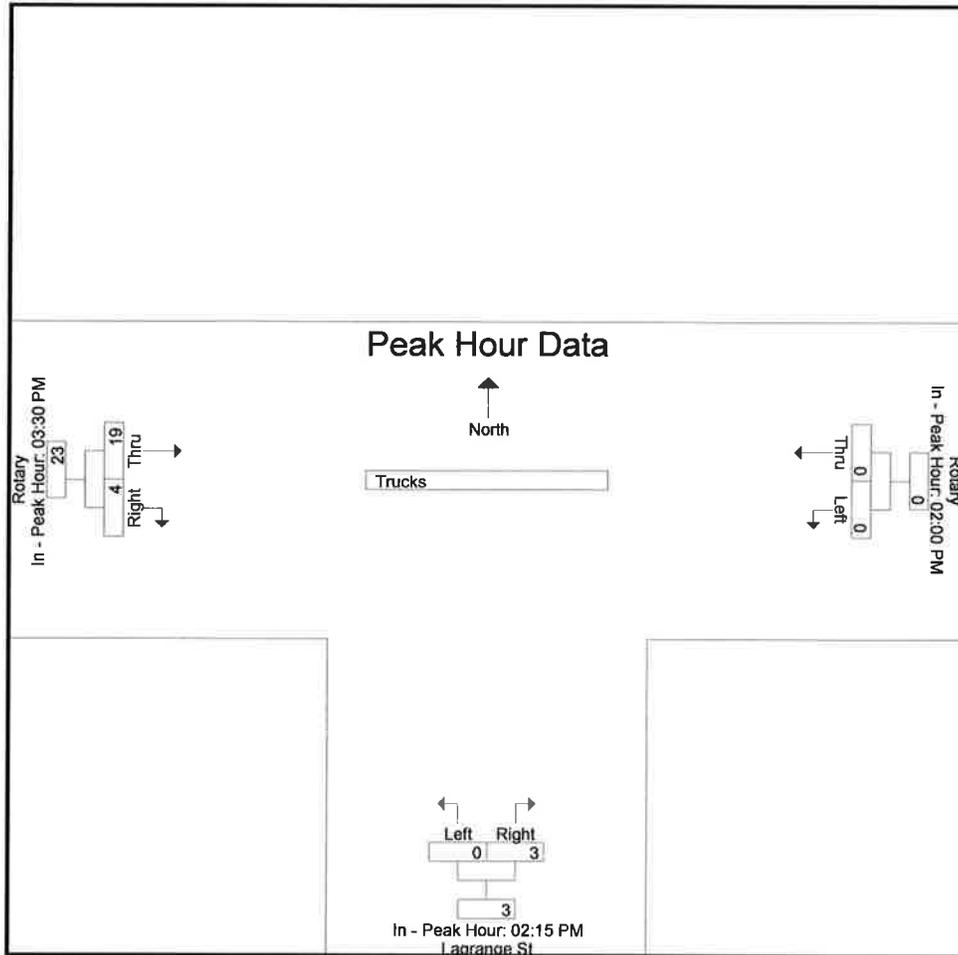
File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 9

Start Time	Rotary From East			Lorange St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:15 PM			03:30 PM		
+0 mins.	0	0	0	0	0	0	6	2	8
+15 mins.	0	0	0	0	0	0	4	1	5
+30 mins.	0	0	0	0	1	1	5	0	5
+45 mins.	0	0	0	0	2	2	4	1	5
Total Volume	0	0	0	0	3	3	19	4	23
% App. Total	0	0		0	100		82.6	17.4	
PHF	.000	.000	.000	.000	.375	.375	.792	.500	.719



**Accurate Counts**  
978-664-2565

N/S Street : Lagrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 10

Groups Printed- Bikes Peds

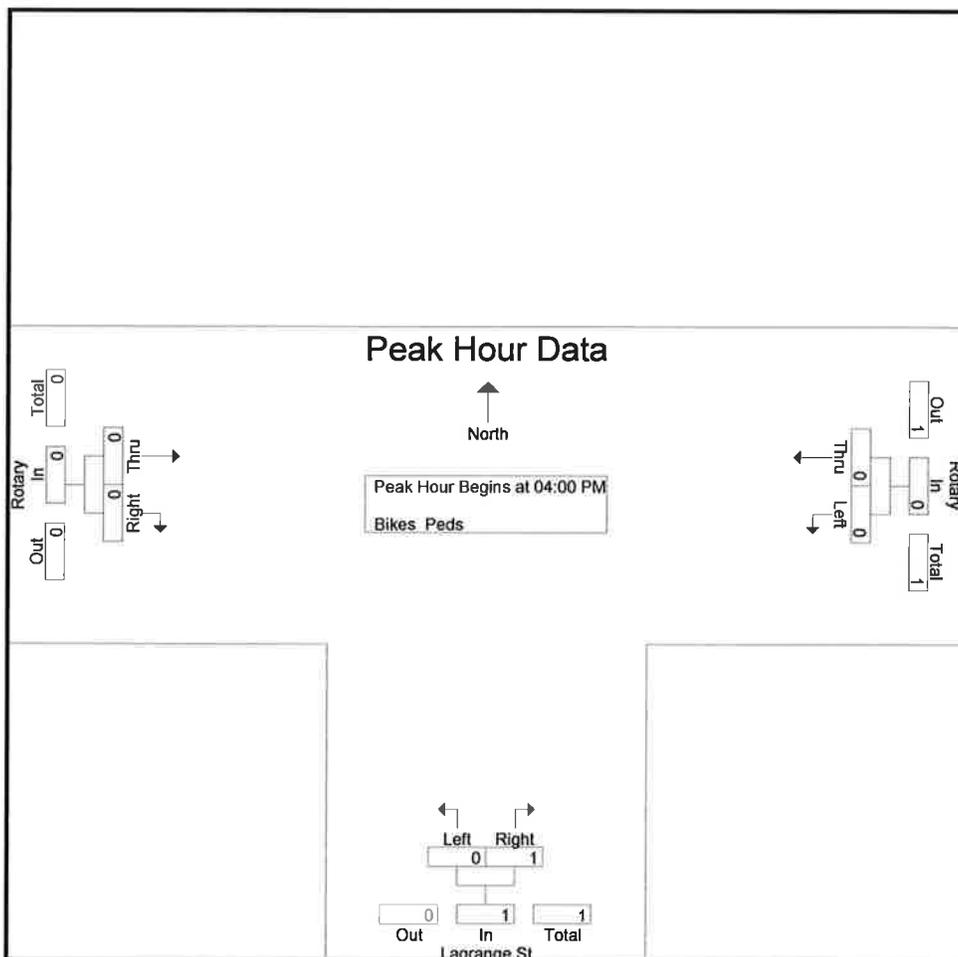
Start Time	Rotary From East			Lagrange St From South			Rotary From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	1	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	1	0	0	0	0	0	1	1
<b>Total</b>	0	0	0	0	1	1	0	0	0	1	1	2
<b>Grand Total</b>	0	0	0	0	1	1	0	0	0	1	1	2
Apprch %	0	0		0	100		0	0				
Total %	0	0		0	100		0	0		50	50	

**Accurate Counts**  
978-664-2565

N/S Street : Lorange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 11

Start Time	Rotary From East			Lorange St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
<b>Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1</b>										
<b>Peak Hour for Entire Intersection Begins at 04:00 PM</b>										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	1	1	0	0	0	1
<b>Total Volume</b>	0	0	0	0	1	1	0	0	0	1
<b>% App. Total</b>	0	0		0	100		0	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250



**Accurate Counts**  
978-664-2565

N/S Street : Lagrange Street  
E/W Street: Horace James Circle  
City/State : Brookline, MA  
Weather : Rain

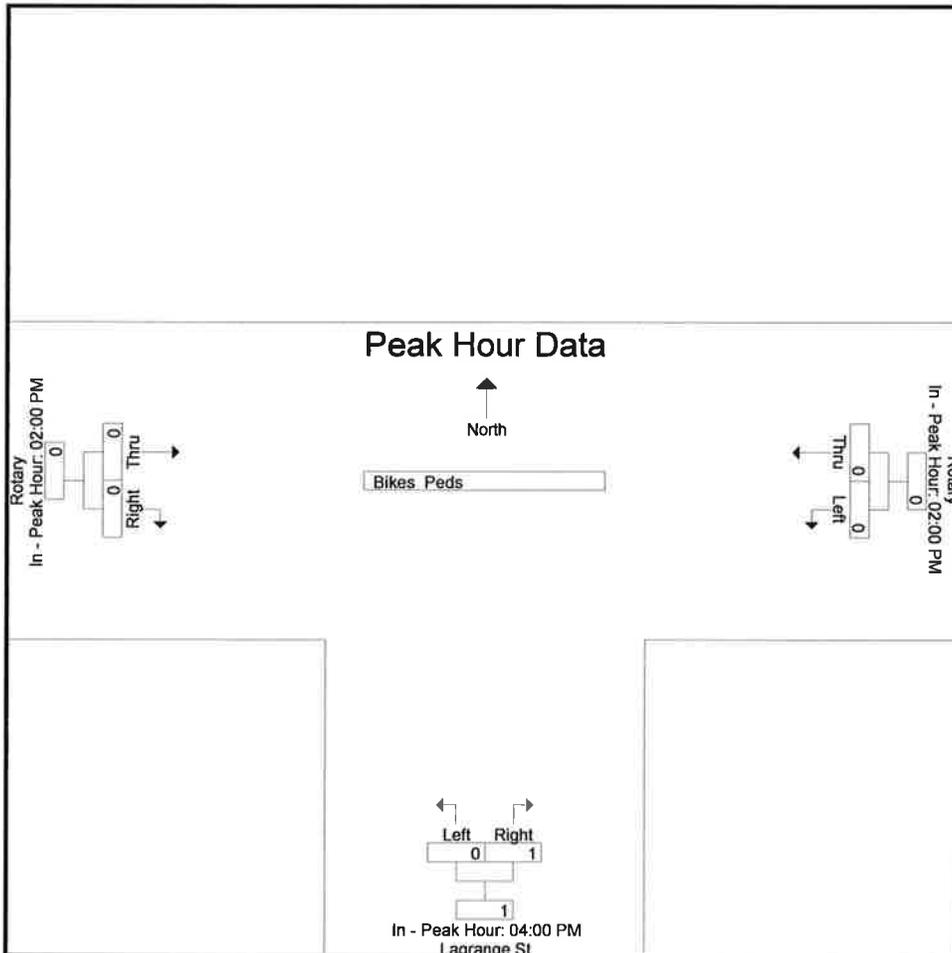
File Name : 73820003  
Site Code : 73820003  
Start Date : 1/18/2017  
Page No : 12

Start Time	Rotary From East			Lagrange St From South			Rotary From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			04:00 PM			02:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	1	1	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0
% App. Total	0	0		0	100		0	0	
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 1

Groups Printed- Cars - Trucks

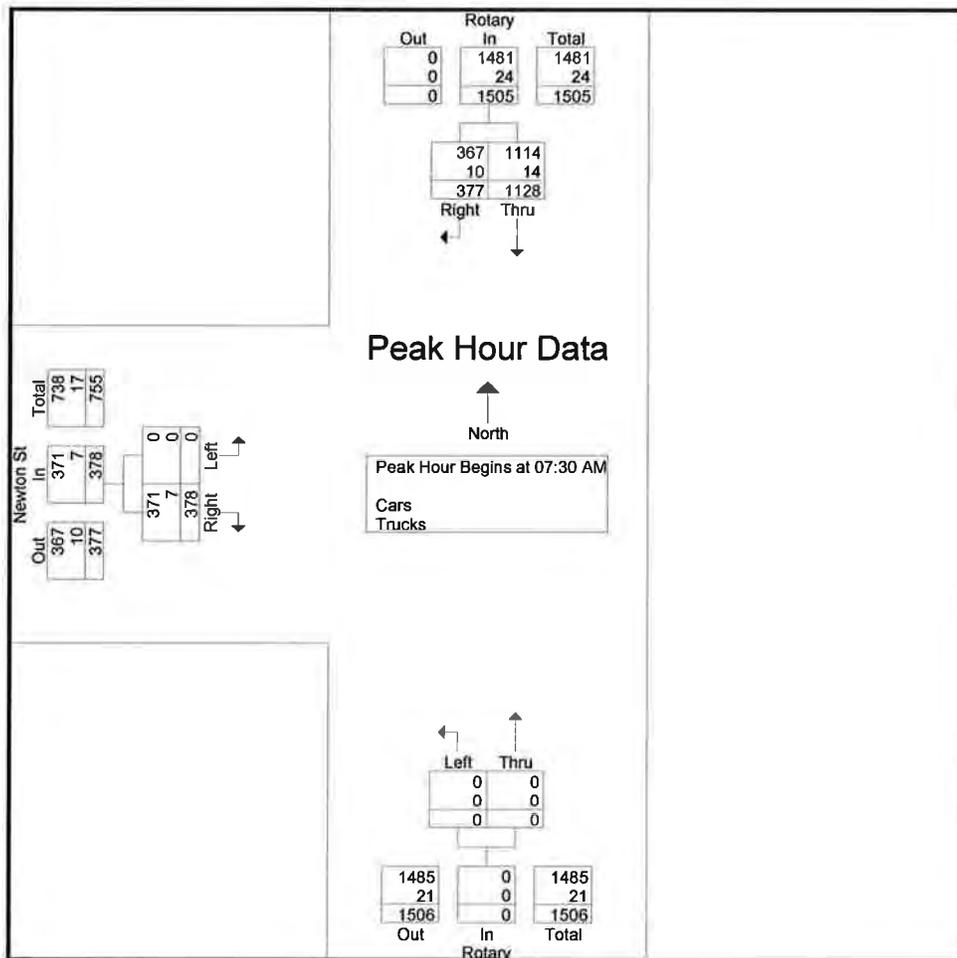
Start Time	Rotary From North		Rotary From South		Newton St From West		Int. Total
	Thru	Right	Left	Thru	Left	Right	
07:00 AM	169	57	0	0	0	105	331
07:15 AM	237	86	0	0	0	91	414
07:30 AM	290	83	0	0	0	95	468
07:45 AM	313	106	0	0	0	87	506
<b>Total</b>	<b>1009</b>	<b>332</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>378</b>	<b>1719</b>
08:00 AM	290	104	0	0	0	94	488
08:15 AM	235	84	0	0	0	102	421
08:30 AM	224	94	0	0	0	101	419
08:45 AM	244	95	0	0	0	98	437
<b>Total</b>	<b>993</b>	<b>377</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>395</b>	<b>1765</b>
<b>Grand Total</b>	<b>2002</b>	<b>709</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>773</b>	<b>3484</b>
Apprch %	73.8	26.2	0	0	0	100	
Total %	57.5	20.4	0	0	0	22.2	
Cars	1973	687	0	0	0	762	3422
% Cars	98.6	96.9	0	0	0	98.6	98.2
Trucks	29	22	0	0	0	11	62
% Trucks	1.4	3.1	0	0	0	1.4	1.8

**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 2

Start Time	Rotary From North			Rotary From South			Newton St From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	290	83	373	0	0	0	0	95	95	468
07:45 AM	313	106	419	0	0	0	0	87	87	506
08:00 AM	290	104	394	0	0	0	0	94	94	488
08:15 AM	235	84	319	0	0	0	0	102	102	421
Total Volume	1128	377	1505	0	0	0	0	378	378	1883
% App. Total	75	25		0	0		0	100		
PHF	.901	.889	.898	.000	.000	.000	.000	.926	.926	.930
Cars	1114	367	1481	0	0	0	0	371	371	1852
% Cars	98.8	97.3	98.4	0	0	0	0	98.1	98.1	98.4
Trucks	14	10	24	0	0	0	0	7	7	31
% Trucks	1.2	2.7	1.6	0	0	0	0	1.9	1.9	1.6



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

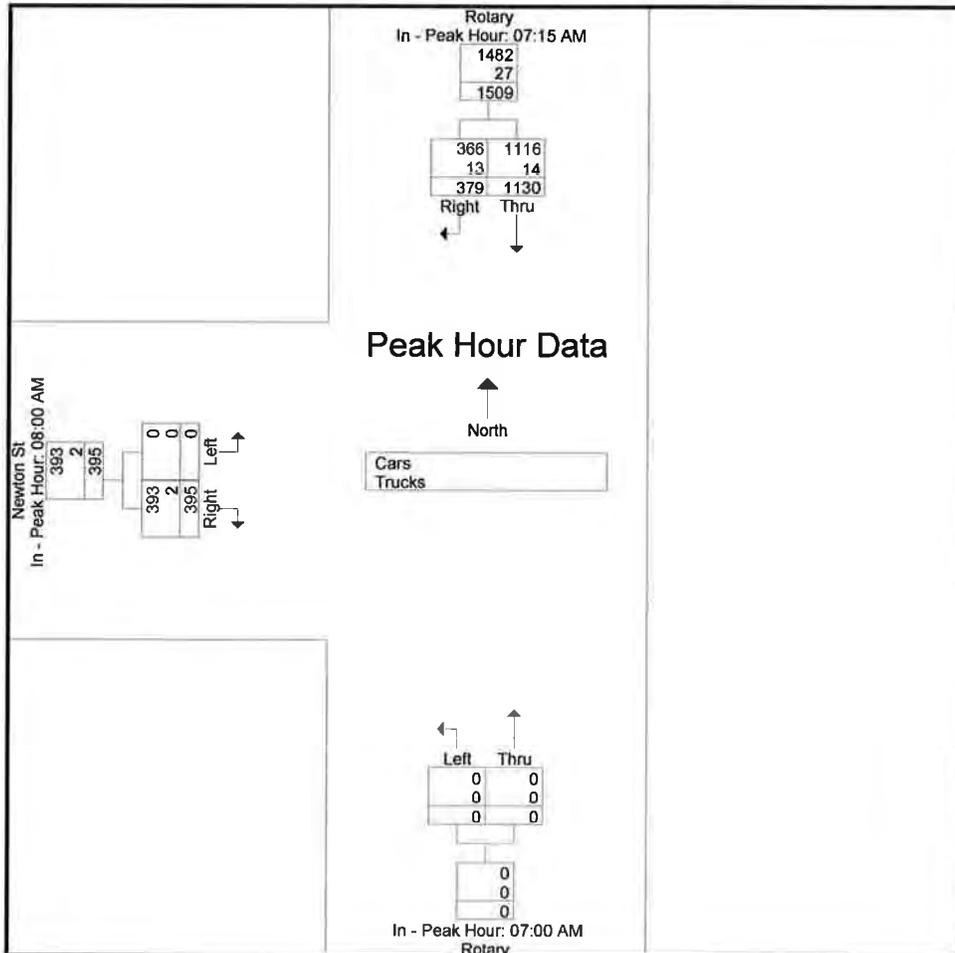
File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 3

Start Time	Rotary From North			Rotary From South			Newton St From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:15 AM			07:00 AM			08:00 AM		
+0 mins.	237	86	323	0	0	0	0	94	94
+15 mins.	290	83	373	0	0	0	0	102	102
+30 mins.	313	106	419	0	0	0	0	101	101
+45 mins.	290	104	394	0	0	0	0	98	98
Total Volume	1130	379	1509	0	0	0	0	395	395
% App. Total	74.9	25.1		0	0		0	100	
PHF	.903	.894	.900	.000	.000	.000	.000	.968	.968
Cars	1116	366	1482	0	0	0	0	393	393
% Cars	98.8	96.6	98.2	0	0	0	0	99.5	99.5
Trucks	14	13	27	0	0	0	0	2	2
% Trucks	1.2	3.4	1.8	0	0	0	0	0.5	0.5



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 4

Groups Printed- Cars

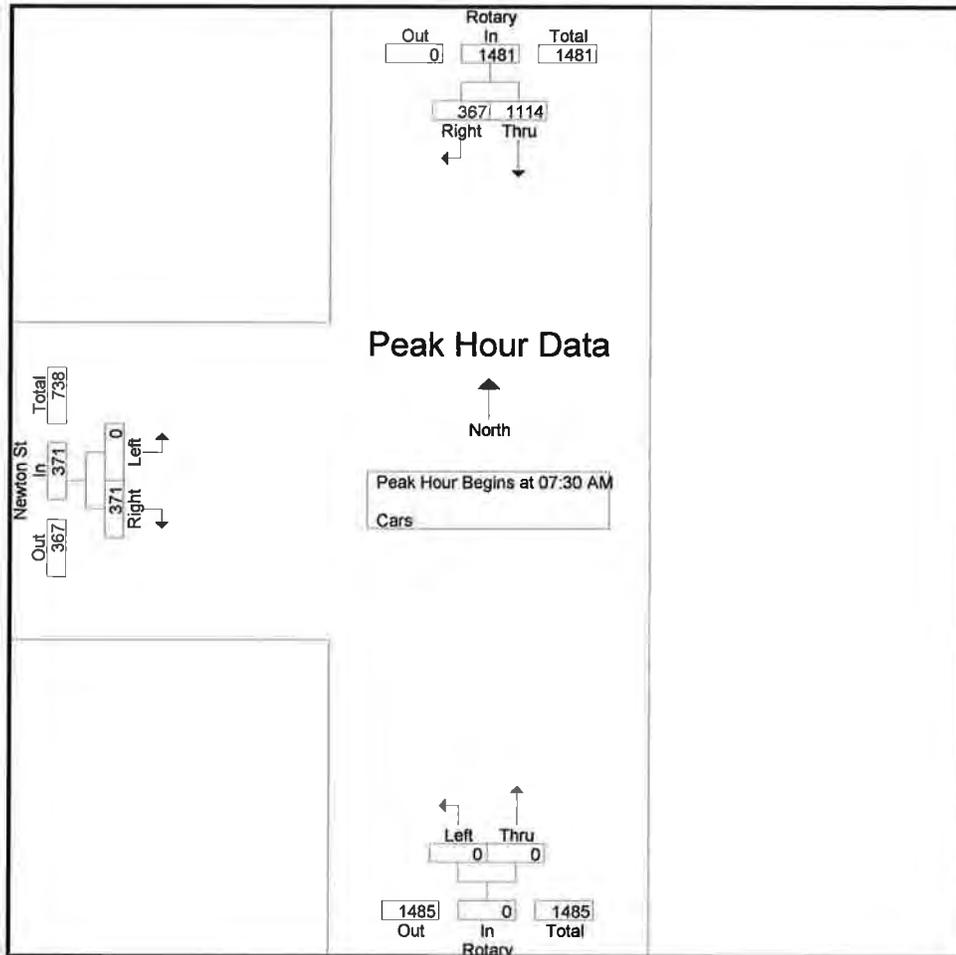
Start Time	Rotary From North		Rotary From South		Newton St From West		Int. Total
	Thru	Right	Left	Thru	Left	Right	
07:00 AM	166	53	0	0	0	104	323
07:15 AM	234	81	0	0	0	89	404
07:30 AM	285	80	0	0	0	93	458
07:45 AM	309	104	0	0	0	83	496
<b>Total</b>	<b>994</b>	<b>318</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>369</b>	<b>1681</b>
08:00 AM	288	101	0	0	0	93	482
08:15 AM	232	82	0	0	0	102	416
08:30 AM	220	93	0	0	0	101	414
08:45 AM	239	93	0	0	0	97	429
<b>Total</b>	<b>979</b>	<b>369</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>393</b>	<b>1741</b>
<b>Grand Total</b>	<b>1973</b>	<b>687</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>762</b>	<b>3422</b>
Apprch %	74.2	25.8	0	0	0	100	
Total %	57.7	20.1	0	0	0	22.3	

**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 5

Start Time	Rotary From North			Rotary From South			Newton St From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	285	80	365	0	0	0	0	93	93	458
07:45 AM	309	104	413	0	0	0	0	83	83	496
08:00 AM	288	101	389	0	0	0	0	93	93	482
08:15 AM	232	82	314	0	0	0	0	102	102	416
Total Volume	1114	367	1481	0	0	0	0	371	371	1852
% App. Total	75.2	24.8		0	0		0	100		
PHF	.901	.882	.896	.000	.000	.000	.000	.909	.909	.933



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

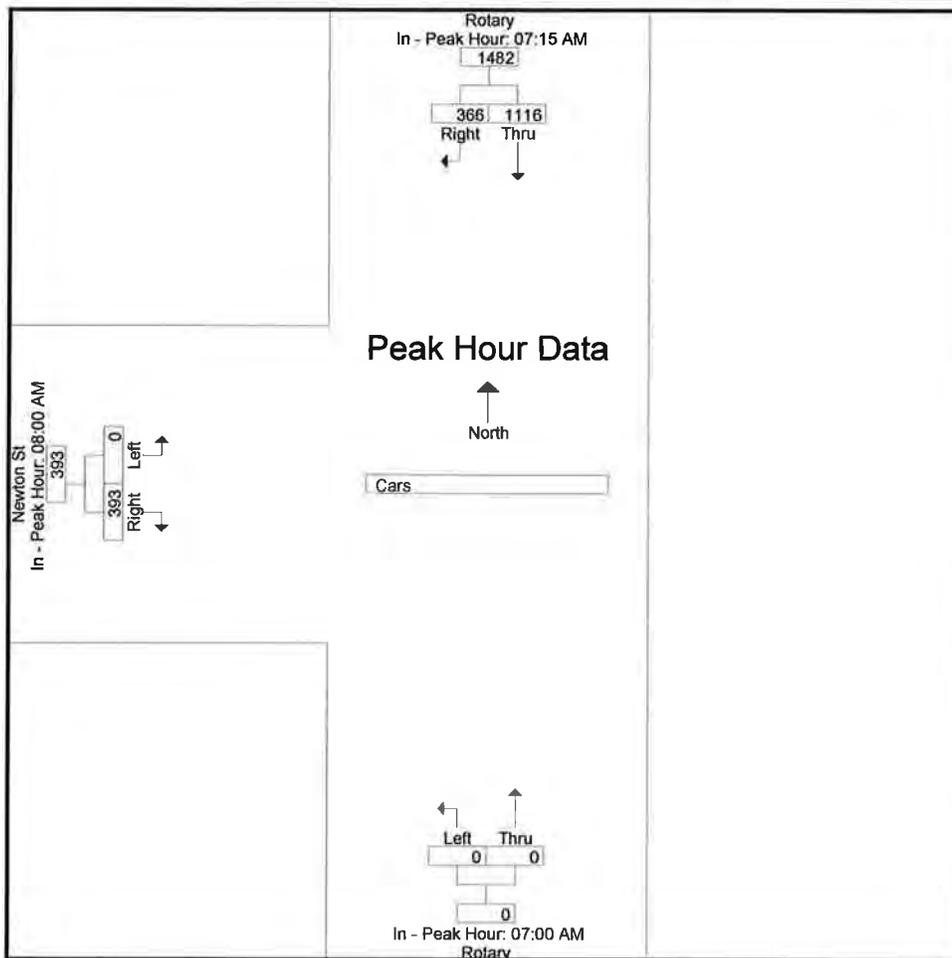
File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 6

Start Time	Rotary From North			Rotary From South			Newton St From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:15 AM			07:00 AM			08:00 AM		
+0 mins.	234	81	315	0	0	0	0	93	93
+15 mins.	285	80	365	0	0	0	0	102	102
+30 mins.	309	104	413	0	0	0	0	101	101
+45 mins.	288	101	389	0	0	0	0	97	97
Total Volume	1116	366	1482	0	0	0	0	393	393
% App. Total	75.3	24.7		0	0		0	100	
PHF	.903	.880	.897	.000	.000	.000	.000	.963	.963



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 7

Groups Printed- Trucks

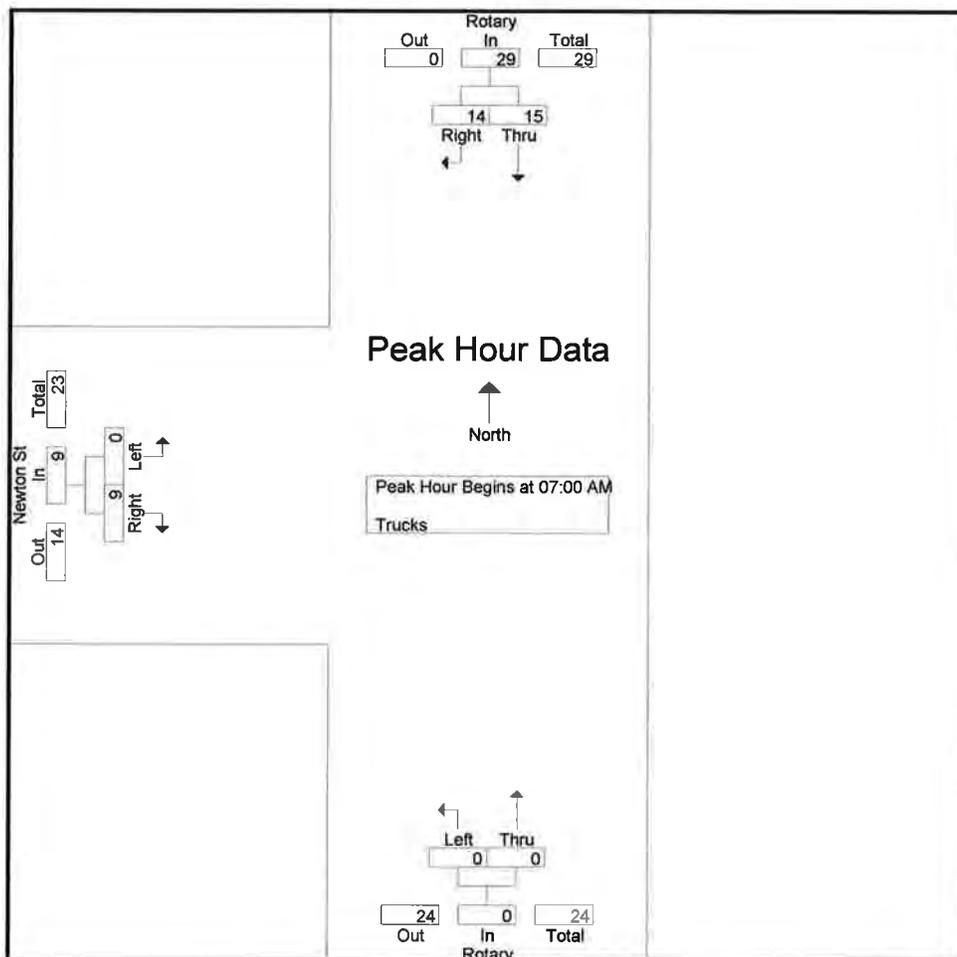
Start Time	Rotary From North		Rotary From South		Newton St From West		Int. Total
	Thru	Right	Left	Thru	Left	Right	
07:00 AM	3	4	0	0	0	1	8
07:15 AM	3	5	0	0	0	2	10
07:30 AM	5	3	0	0	0	2	10
07:45 AM	4	2	0	0	0	4	10
<b>Total</b>	<b>15</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>38</b>
08:00 AM	2	3	0	0	0	1	6
08:15 AM	3	2	0	0	0	0	5
08:30 AM	4	1	0	0	0	0	5
08:45 AM	5	2	0	0	0	1	8
<b>Total</b>	<b>14</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>24</b>
<b>Grand Total</b>	<b>29</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>62</b>
Apprch %	56.9	43.1	0	0	0	100	
Total %	46.8	35.5	0	0	0	17.7	

**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 8

Start Time	Rotary From North			Rotary From South			Newton St From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	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	3	4	7	0	0	0	0	1	1	8
07:15 AM	3	5	8	0	0	0	0	2	2	10
07:30 AM	5	3	8	0	0	0	0	2	2	10
07:45 AM	4	2	6	0	0	0	0	4	4	10
Total Volume	15	14	29	0	0	0	0	9	9	38
% App. Total	51.7	48.3		0	0		0	100		
PHF	.750	.700	.906	.000	.000	.000	.000	.563	.563	.950



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

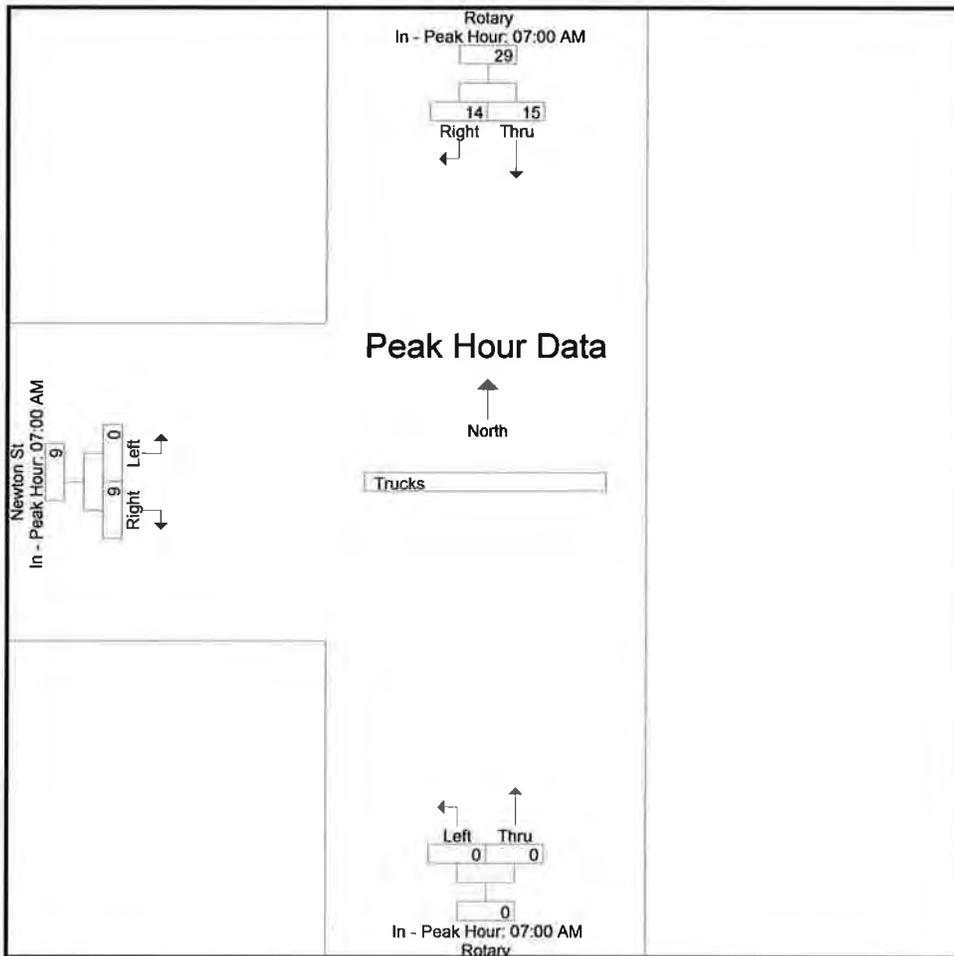
File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 9

Start Time	Rotary From North			Rotary From South			Newton St From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	3	4	7	0	0	0	0	1	1
+15 mins.	3	5	8	0	0	0	0	2	2
+30 mins.	5	3	8	0	0	0	0	2	2
+45 mins.	4	2	6	0	0	0	0	4	4
Total Volume	15	14	29	0	0	0	0	9	9
% App. Total	51.7	48.3		0	0		0	100	
PHF	.750	.700	.906	.000	.000	.000	.000	.563	.563



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 10

Groups Printed- Bikes Peds

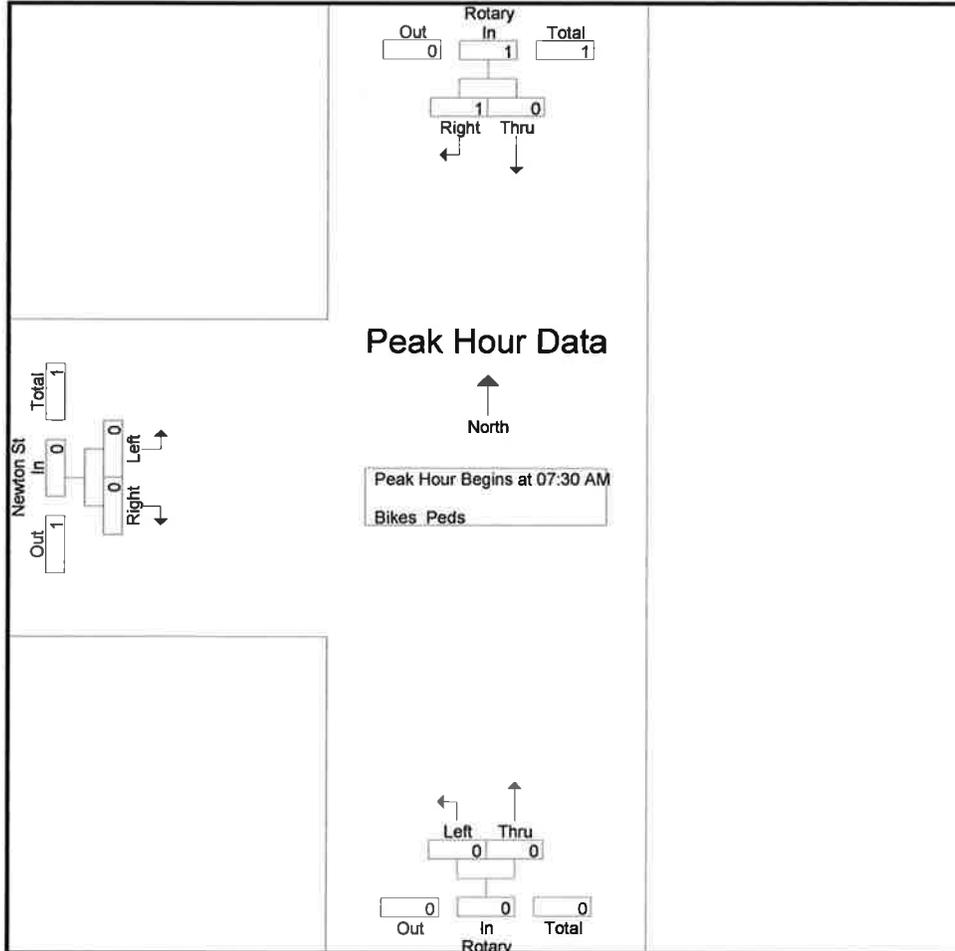
Start Time	Rotary From North			Rotary From South			Newton St From West			Exclu. Total	Inclu. Total	Int. Total
	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	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
08:15 AM	0	1	0	0	0	0	0	0	0	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	1	0	0	0	0	0	0	0	0	1	1
<b>Grand Total</b>	0	1	0	0	0	0	0	0	0	0	1	1
Approch %	0	100		0	0		0	0				
Total %	0	100		0	0		0	0		0	100	

**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 11

Start Time	Rotary From North			Rotary From South			Newton St From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	1	0	0	0	0	0	0	1
Total Volume	0	1	1	0	0	0	0	0	0	1
% App. Total	0	100		0	0		0	0		
PHF	.000	.250	.250	.000	.000	.000	.000	.000	.000	.250



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

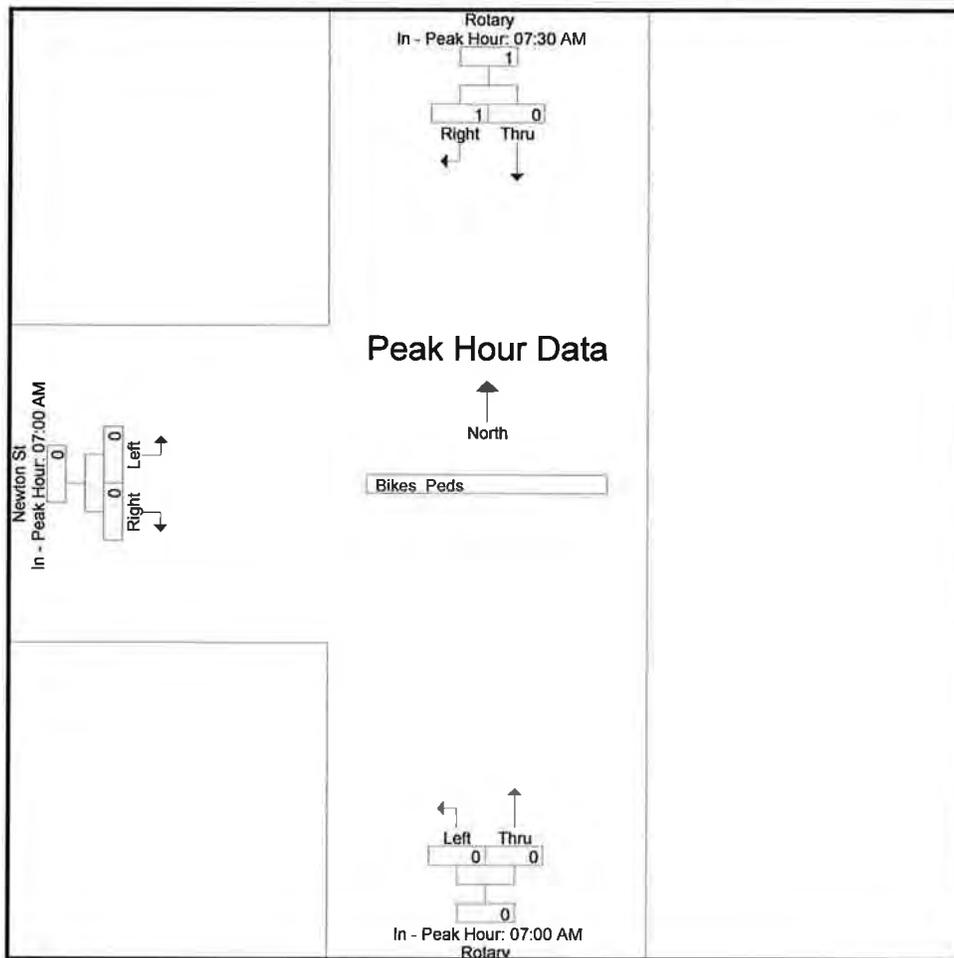
File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 12

Start Time	Rotary From North			Rotary From South			Newton St From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:30 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	1	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	0	0	0
% App. Total	0	100		0	0		0	0	
PHF	.000	.250	.250	.000	.000	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 1

Groups Printed- Cars - Trucks

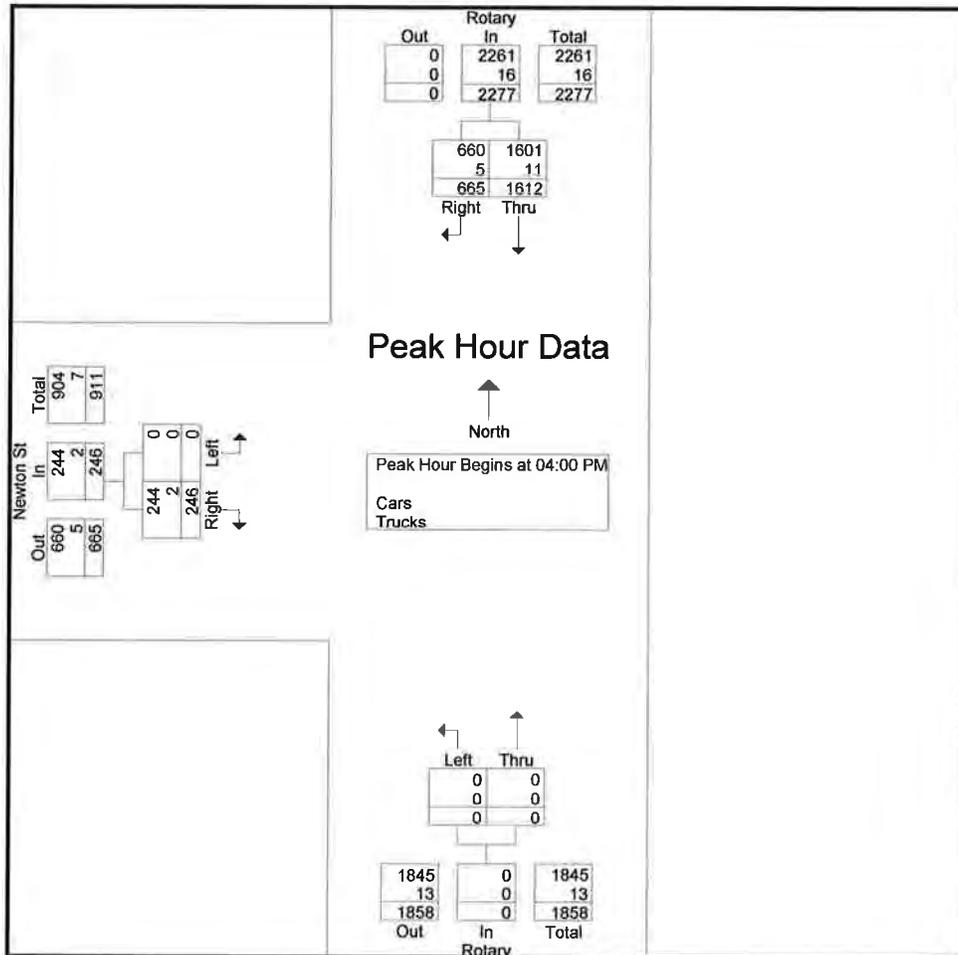
Start Time	Rotary From North		Rotary From South		Newton St From West		Int. Total
	Thru	Right	Left	Thru	Left	Right	
02:00 PM	254	141	0	0	0	46	441
02:15 PM	235	131	0	0	0	50	416
02:30 PM	275	151	0	0	0	54	480
02:45 PM	308	182	0	0	0	65	555
<b>Total</b>	<b>1072</b>	<b>605</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>215</b>	<b>1892</b>
03:00 PM	422	159	0	0	0	63	644
03:15 PM	390	165	0	0	0	63	618
03:30 PM	328	177	0	0	0	80	585
03:45 PM	331	200	0	0	0	68	599
<b>Total</b>	<b>1471</b>	<b>701</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>274</b>	<b>2446</b>
04:00 PM	414	163	0	0	0	56	633
04:15 PM	362	186	0	0	0	60	608
04:30 PM	424	164	0	0	0	71	659
04:45 PM	412	152	0	0	0	59	623
<b>Total</b>	<b>1612</b>	<b>665</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>246</b>	<b>2523</b>
<b>Grand Total</b>	<b>4155</b>	<b>1971</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>735</b>	<b>6861</b>
<b>Apprch %</b>	<b>67.8</b>	<b>32.2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	
<b>Total %</b>	<b>60.6</b>	<b>28.7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10.7</b>	
<b>Cars</b>	<b>4117</b>	<b>1945</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>723</b>	<b>6785</b>
<b>% Cars</b>	<b>99.1</b>	<b>98.7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>98.4</b>	<b>98.9</b>
<b>Trucks</b>	<b>38</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>76</b>
<b>% Trucks</b>	<b>0.9</b>	<b>1.3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.6</b>	<b>1.1</b>

**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 2

Start Time	Rotary From North			Rotary From South			Newton St From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	414	163	577	0	0	0	0	56	56	633
04:15 PM	362	<b>186</b>	548	0	0	0	0	60	60	608
04:30 PM	<b>424</b>	164	<b>588</b>	0	0	0	0	<b>71</b>	<b>71</b>	<b>659</b>
04:45 PM	412	152	564	0	0	0	0	59	59	623
Total Volume	1612	665	2277	0	0	0	0	246	246	2523
% App. Total	70.8	29.2		0	0		0	100		
PHF	.950	.894	.968	.000	.000	.000	.000	.866	.866	.957
Cars	1601	660	2261	0	0	0	0	244	244	2505
% Cars	99.3	99.2	99.3	0	0	0	0	99.2	99.2	99.3
Trucks	11	5	16	0	0	0	0	2	2	18
% Trucks	0.7	0.8	0.7	0	0	0	0	0.8	0.8	0.7



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

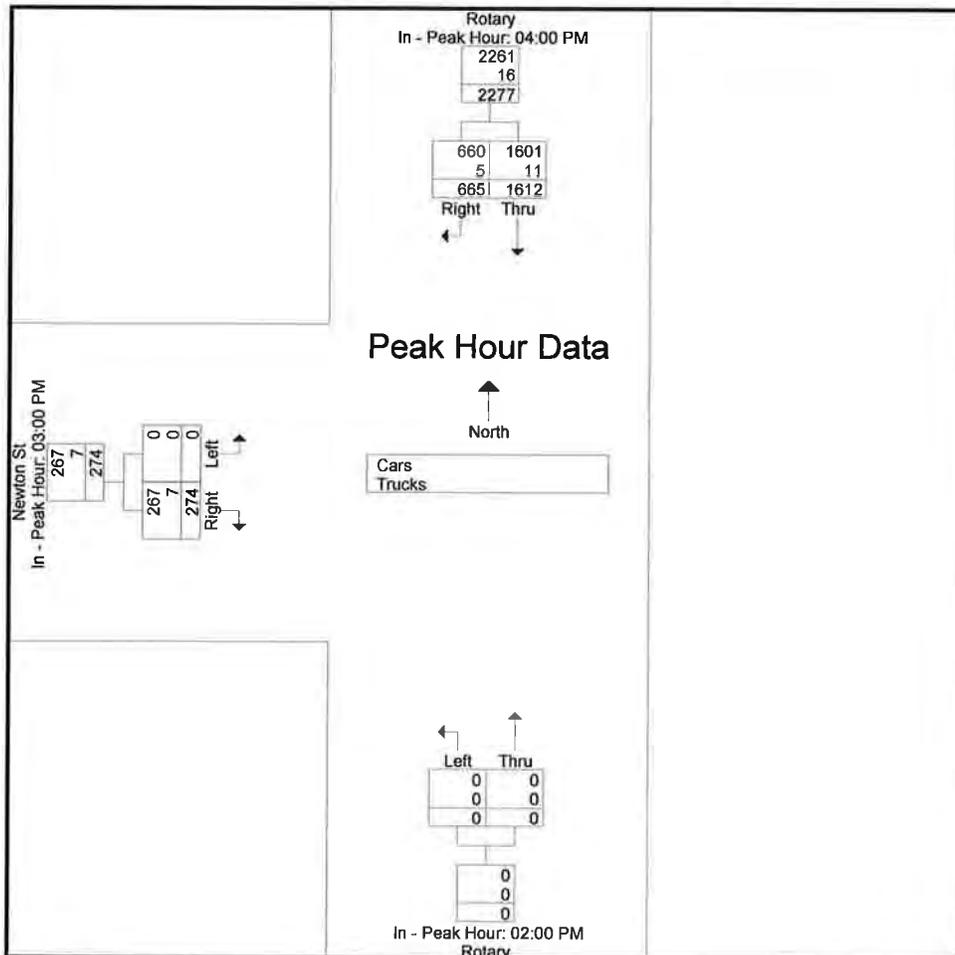
File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 3

Start Time	Rotary From North			Rotary From South			Newton St From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			02:00 PM			03:00 PM		
+0 mins.	414	163	577	0	0	0	0	63	63
+15 mins.	362	186	548	0	0	0	0	63	63
+30 mins.	424	164	588	0	0	0	0	80	80
+45 mins.	412	152	564	0	0	0	0	68	68
Total Volume	1612	665	2277	0	0	0	0	274	274
% App. Total	70.8	29.2		0	0		0	100	
PHF	.950	.894	.968	.000	.000	.000	.000	.856	.856
Cars	1601	660	2261	0	0	0	0	267	267
% Cars	99.3	99.2	99.3	0	0	0	0	97.4	97.4
Trucks	11	5	16	0	0	0	0	7	7
% Trucks	0.7	0.8	0.7	0	0	0	0	2.6	2.6



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 4

Groups Printed- Cars

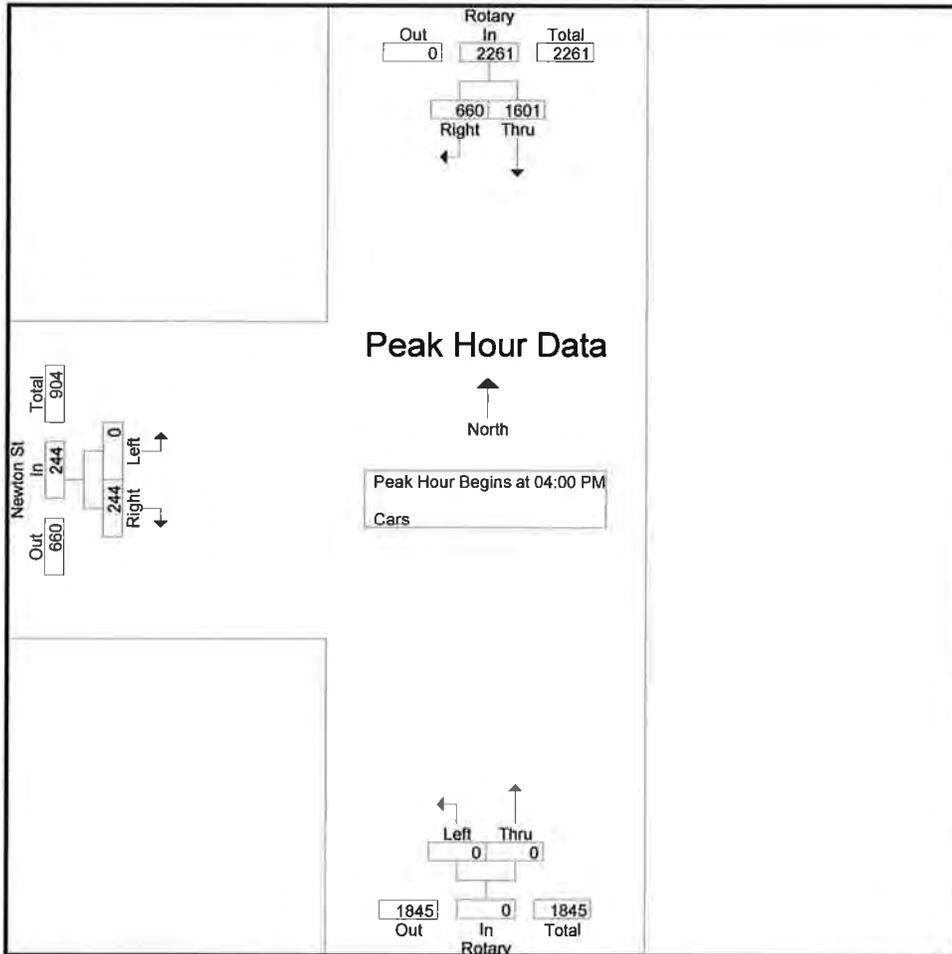
Start Time	Rotary From North		Rotary From South		Newton St From West		Int. Total
	Thru	Right	Left	Thru	Left	Right	
02:00 PM	248	139	0	0	0	45	432
02:15 PM	231	127	0	0	0	49	407
02:30 PM	275	147	0	0	0	53	475
02:45 PM	303	179	0	0	0	65	547
<b>Total</b>	<b>1057</b>	<b>592</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>212</b>	<b>1861</b>
03:00 PM	420	158	0	0	0	62	640
03:15 PM	388	163	0	0	0	62	613
03:30 PM	325	174	0	0	0	75	574
03:45 PM	326	198	0	0	0	68	592
<b>Total</b>	<b>1459</b>	<b>693</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>267</b>	<b>2419</b>
04:00 PM	410	160	0	0	0	55	625
04:15 PM	357	184	0	0	0	60	601
04:30 PM	423	164	0	0	0	71	658
04:45 PM	411	152	0	0	0	58	621
<b>Total</b>	<b>1601</b>	<b>660</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>244</b>	<b>2505</b>
<b>Grand Total</b>	<b>4117</b>	<b>1945</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>723</b>	<b>6785</b>
Apprch %	67.9	32.1	0	0	0	100	
Total %	60.7	28.7	0	0	0	10.7	

**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 5

Start Time	Rotary From North			Rotary From South			Newton St From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	410	160	570	0	0	0	0	55	55	625
04:15 PM	357	184	541	0	0	0	0	60	60	601
04:30 PM	423	164	587	0	0	0	0	71	71	658
04:45 PM	411	152	563	0	0	0	0	58	58	621
Total Volume	1601	660	2261	0	0	0	0	244	244	2505
% App. Total	70.8	29.2		0	0		0	100		
PHF	.946	.897	.963	.000	.000	.000	.000	.859	.859	.952



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

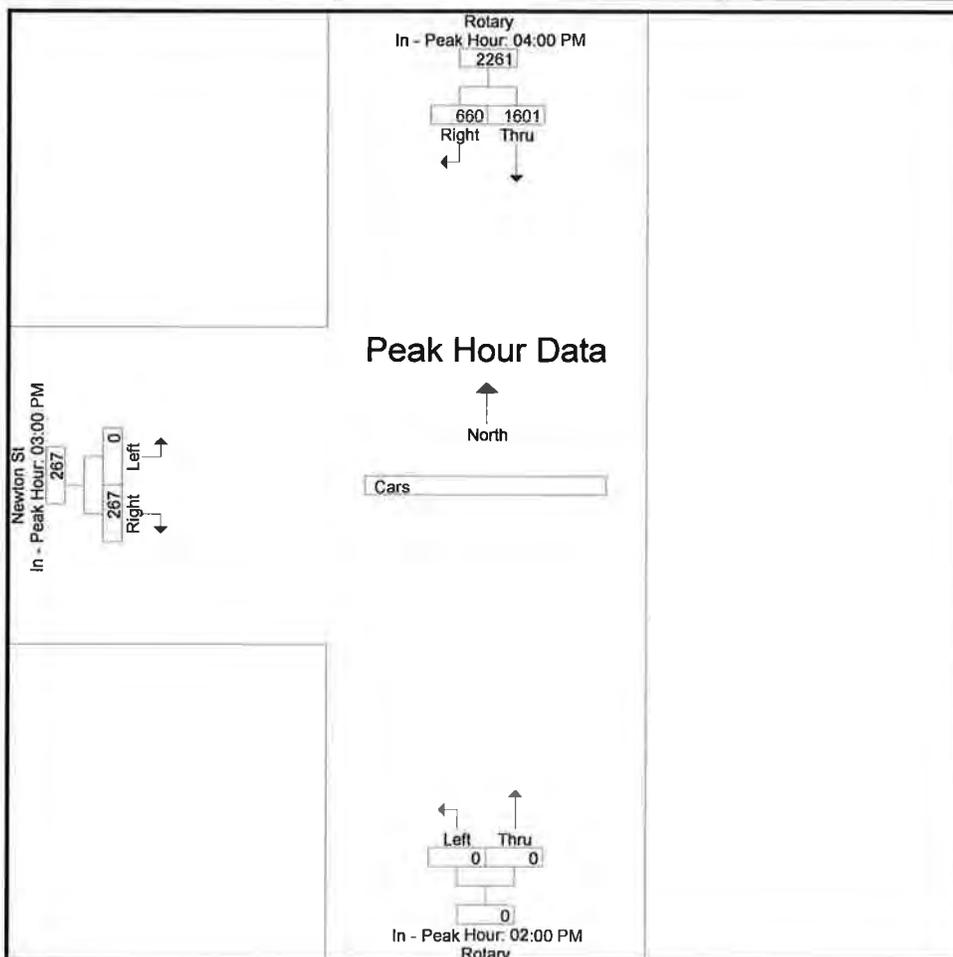
File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 6

Start Time	Rotary From North			Rotary From South			Newton St From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			02:00 PM			03:00 PM		
+0 mins.	410	160	570	0	0	0	0	62	62
+15 mins.	357	184	541	0	0	0	0	62	62
+30 mins.	423	164	587	0	0	0	0	75	75
+45 mins.	411	152	563	0	0	0	0	68	68
Total Volume	1601	660	2261	0	0	0	0	267	267
% App. Total	70.8	29.2		0	0		0	100	
PHF	.946	.897	.963	.000	.000	.000	.000	.890	.890



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 7

Groups Printed- Trucks

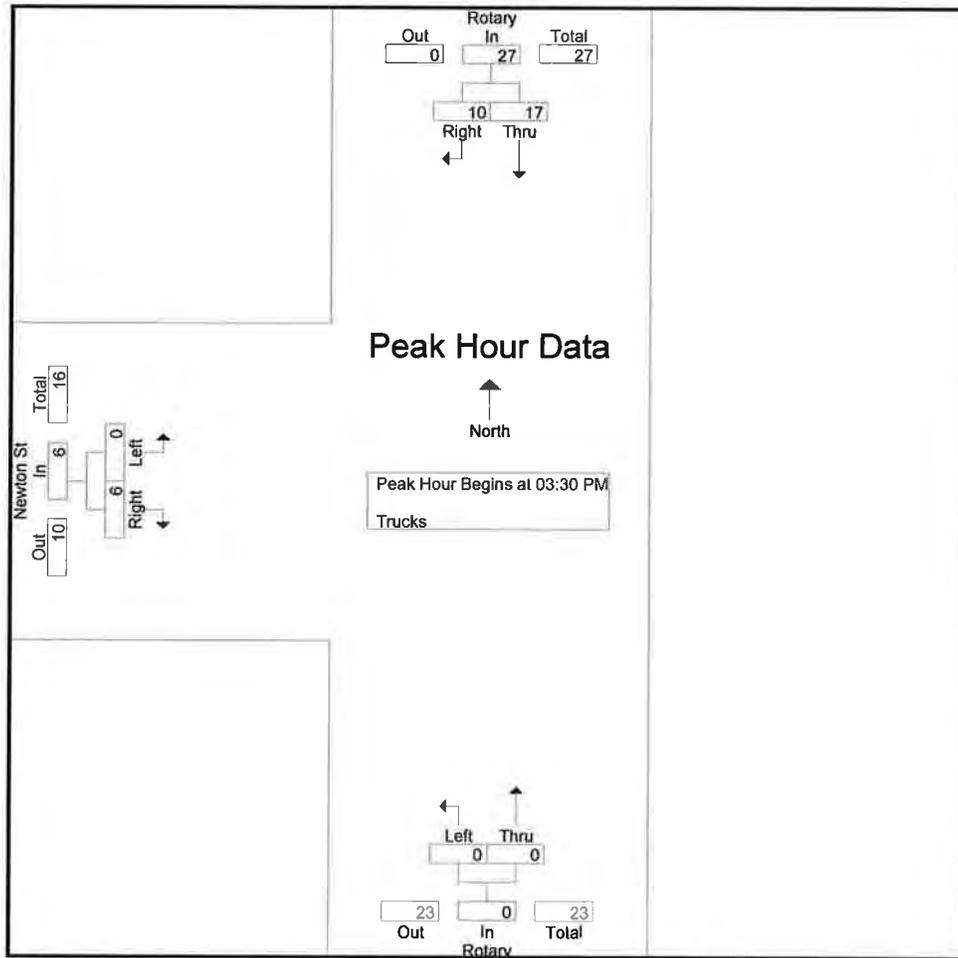
Start Time	Rotary From North		Rotary From South		Newton St From West		Int. Total
	Thru	Right	Left	Thru	Left	Right	
02:00 PM	6	2	0	0	0	1	9
02:15 PM	4	4	0	0	0	1	9
02:30 PM	0	4	0	0	0	1	5
02:45 PM	5	3	0	0	0	0	8
<b>Total</b>	<b>15</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>31</b>
03:00 PM	2	1	0	0	0	1	4
03:15 PM	2	2	0	0	0	1	5
03:30 PM	3	3	0	0	0	5	11
03:45 PM	5	2	0	0	0	0	7
<b>Total</b>	<b>12</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>27</b>
04:00 PM	4	3	0	0	0	1	8
04:15 PM	5	2	0	0	0	0	7
04:30 PM	1	0	0	0	0	0	1
04:45 PM	1	0	0	0	0	1	2
<b>Total</b>	<b>11</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>18</b>
<b>Grand Total</b>	<b>38</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>76</b>
Apprch %	59.4	40.6	0	0	0	100	
Total %	50	34.2	0	0	0	15.8	

**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 8

Start Time	Rotary From North			Rotary From South			Newton St From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:30 PM										
03:30 PM	3	3	6	0	0	0	0	5	5	11
03:45 PM	5	2	7	0	0	0	0	0	0	7
04:00 PM	4	3	7	0	0	0	0	1	1	8
04:15 PM	5	2	7	0	0	0	0	0	0	7
Total Volume	17	10	27	0	0	0	0	6	6	33
% App. Total	63	37		0	0		0	100		
PHF	.850	.833	.964	.000	.000	.000	.000	.300	.300	.750



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

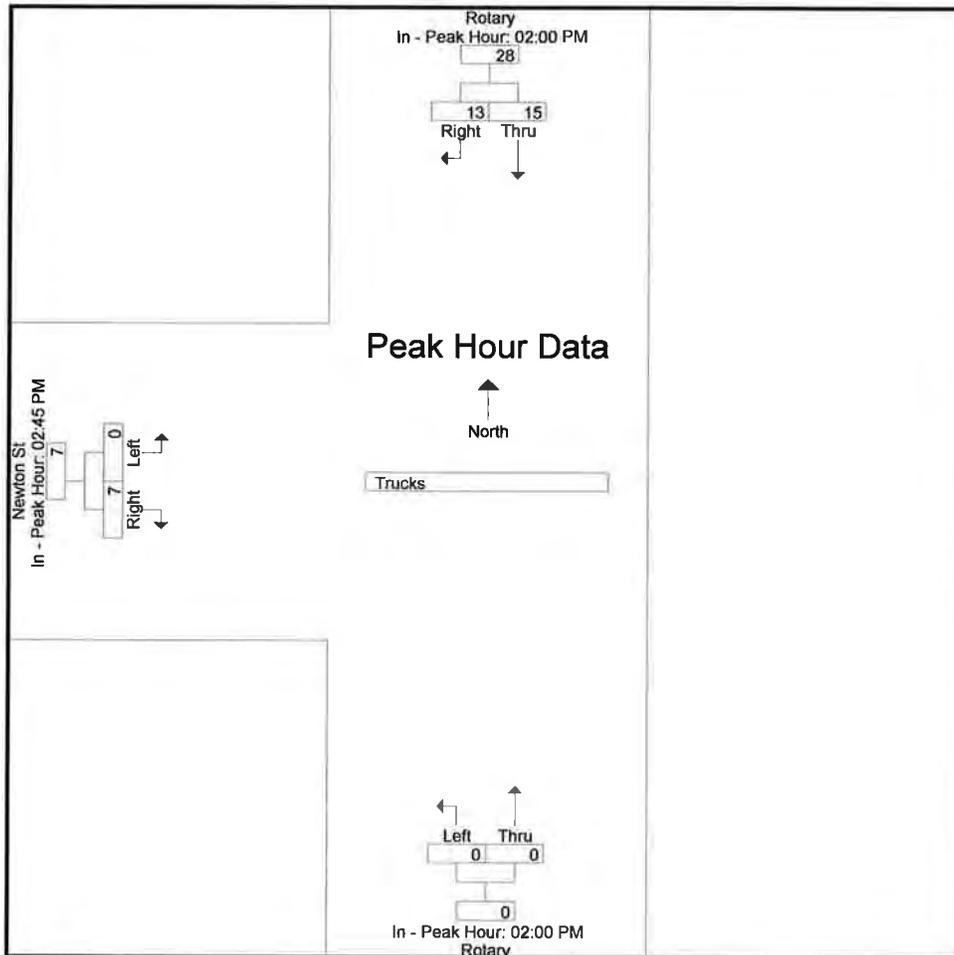
File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 9

Start Time	Rotary From North			Rotary From South			Newton St From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:00 PM			02:45 PM		
+0 mins.	6	2	8	0	0	0	0	0	0
+15 mins.	4	4	8	0	0	0	0	1	1
+30 mins.	0	4	4	0	0	0	0	1	1
+45 mins.	5	3	8	0	0	0	0	5	5
Total Volume	15	13	28	0	0	0	0	7	7
% App. Total	53.6	46.4		0	0		0	100	
PHF	.625	.813	.875	.000	.000	.000	.000	.350	.350



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 10

Groups Printed- Bikes Peds

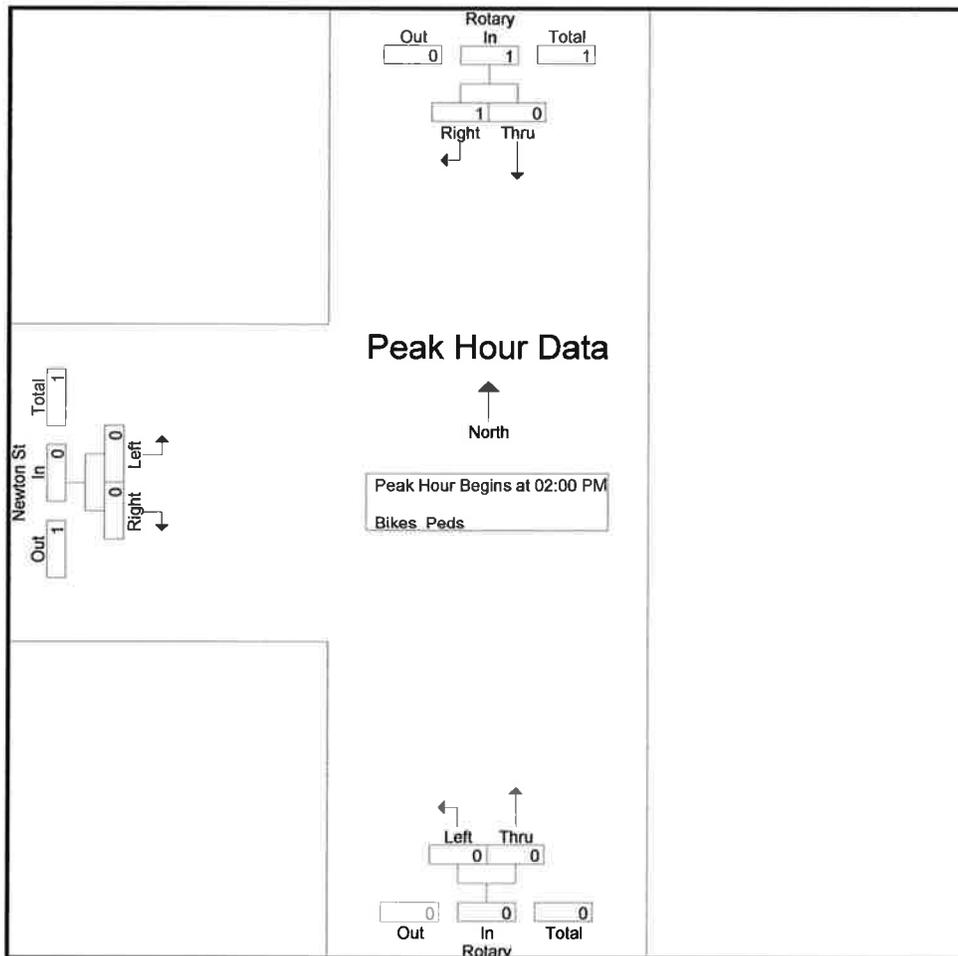
Start Time	Rotary From North			Rotary From South			Newton St From West			Exclu. Total	Inclu. Total	Int. Total
	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds			
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	1	0	0	0	0	0	0	0	0	1	1
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
04:00 PM	0	0	0	0	0	0	0	1	0	0	1	1
04:15 PM	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
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>Grand Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>
Apprch %	0	100		0	0		0	100				
Total %	0	50		0	0		0	50		0	100	

**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 11

Start Time	Rotary From North			Rotary From South			Newton St From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	1	1	0	0	0	0	0	0	1
02:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	0	0	0	1
% App. Total	0	100		0	0		0	0		
PHF	.000	.250	.250	.000	.000	.000	.000	.000	.000	.250



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Newton Street  
City/State : Brookline, MA  
Weather : Rain

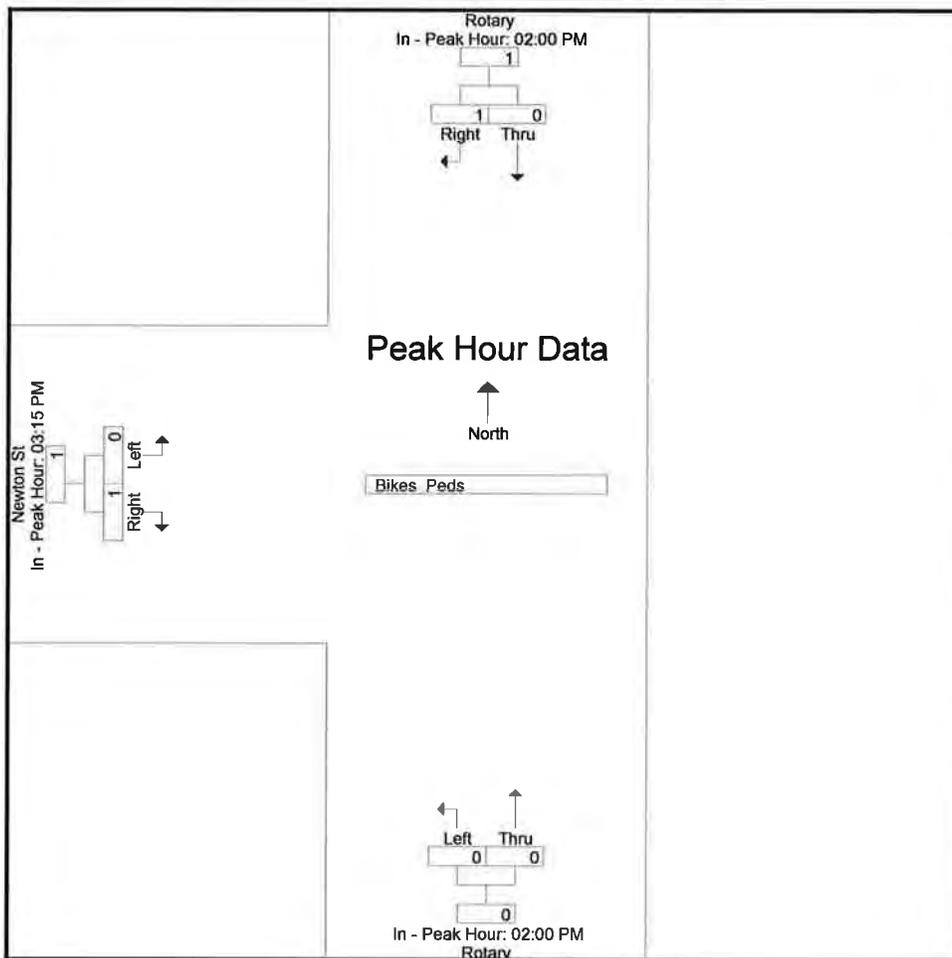
File Name : 73820004  
Site Code : 73820004  
Start Date : 1/18/2017  
Page No : 12

Start Time	Rotary From North			Rotary From South			Newton St From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:00 PM			03:15 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	0	1	1	0	0	0	0	1	1
% App. Total	0	100		0	0		0	100	
PHF	.000	.250	.250	.000	.000	.000	.000	.250	.250



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 1

Groups Printed- Cars - Trucks

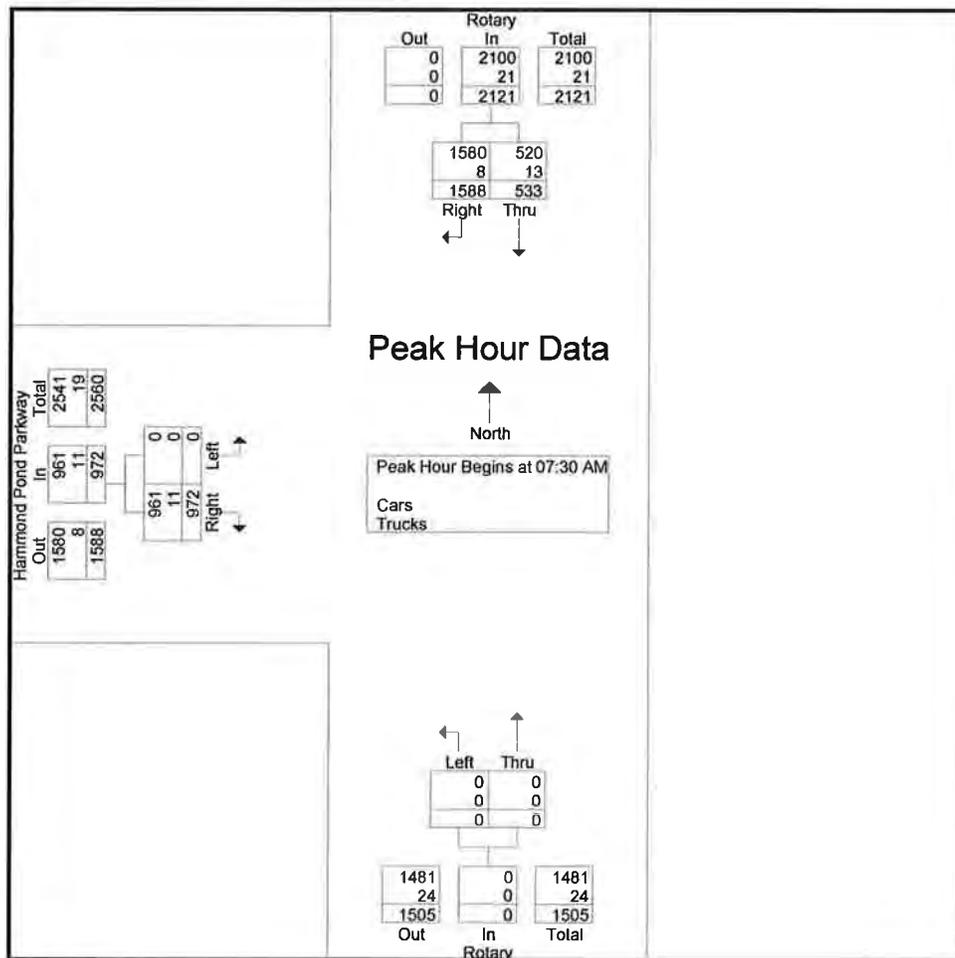
Start Time	Rotary From North		Rotary From South		Hammond Pond Parkway From West		Int. Total
	Thru	Right	Left	Thru	Left	Right	
07:00 AM	67	372	0	0	0	159	598
07:15 AM	125	391	0	0	0	198	714
07:30 AM	130	400	0	0	0	243	773
07:45 AM	161	385	0	0	0	258	804
<b>Total</b>	<b>483</b>	<b>1548</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>858</b>	<b>2889</b>
08:00 AM	137	402	0	0	0	257	796
08:15 AM	105	401	0	0	0	214	720
08:30 AM	122	370	0	0	0	196	688
08:45 AM	145	385	0	0	0	194	724
<b>Total</b>	<b>509</b>	<b>1558</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>861</b>	<b>2928</b>
<b>Grand Total</b>	<b>992</b>	<b>3106</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1719</b>	<b>5817</b>
Apprch %	24.2	75.8	0	0	0	100	
Total %	17.1	53.4	0	0	0	29.6	
Cars	958	3086	0	0	0	1702	5746
% Cars	96.6	99.4	0	0	0	99	98.8
Trucks	34	20	0	0	0	17	71
% Trucks	3.4	0.6	0	0	0	1	1.2

**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 2

Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	130	400	530	0	0	0	0	243	243	773
07:45 AM	161	385	546	0	0	0	0	258	258	804
08:00 AM	137	402	539	0	0	0	0	257	257	796
08:15 AM	105	401	506	0	0	0	0	214	214	720
Total Volume	533	1588	2121	0	0	0	0	972	972	3093
% App. Total	25.1	74.9		0	0		0	100		
PHF	.828	.988	.971	.000	.000	.000	.000	.942	.942	.962
Cars	520	1580	2100	0	0	0	0	961	961	3061
% Cars	97.6	99.5	99.0	0	0	0	0	98.9	98.9	99.0
Trucks	13	8	21	0	0	0	0	11	11	32
% Trucks	2.4	0.5	1.0	0	0	0	0	1.1	1.1	1.0





**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 4

Groups Printed- Cars

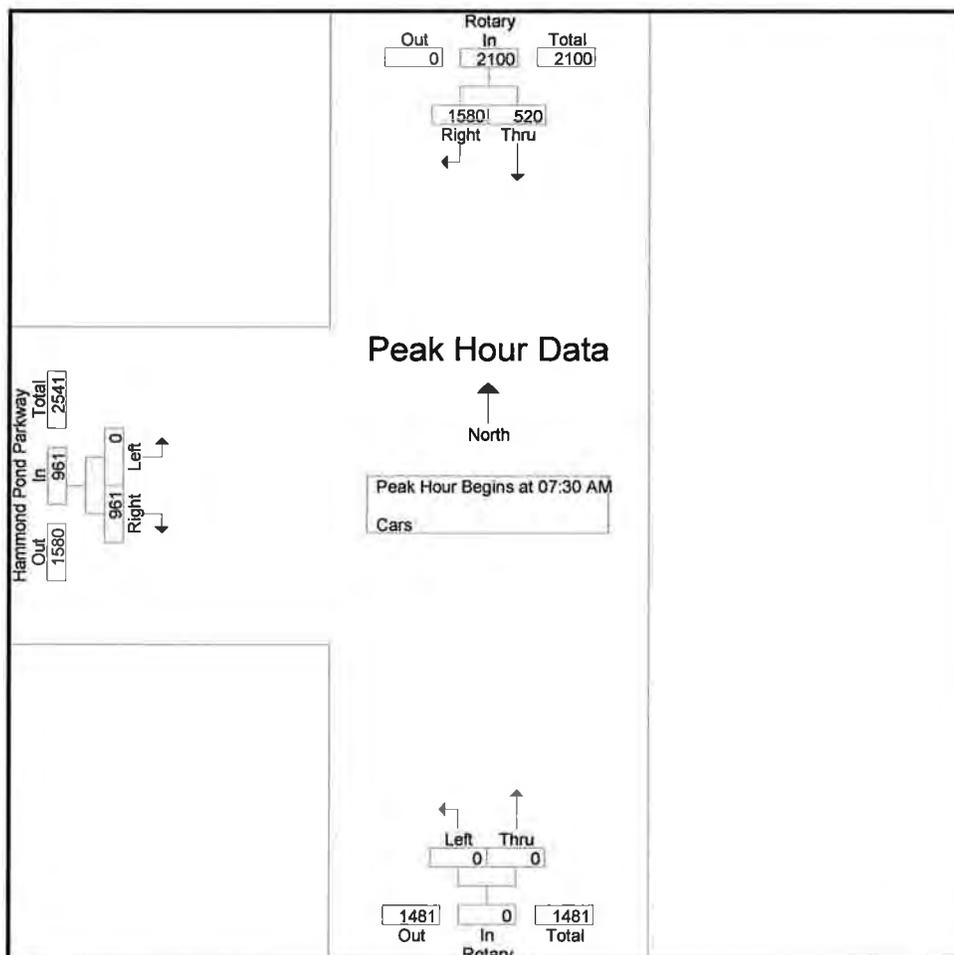
Start Time	Rotary From North		Rotary From South		Hammond Pond Parkway From West		Int. Total
	Thru	Right	Left	Thru	Left	Right	
07:00 AM	61	368	0	0	0	158	587
07:15 AM	119	385	0	0	0	196	700
07:30 AM	124	396	0	0	0	241	761
07:45 AM	158	383	0	0	0	255	796
<b>Total</b>	<b>462</b>	<b>1532</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>850</b>	<b>2844</b>
08:00 AM	136	400	0	0	0	253	789
08:15 AM	102	401	0	0	0	212	715
08:30 AM	119	368	0	0	0	194	681
08:45 AM	139	385	0	0	0	193	717
<b>Total</b>	<b>496</b>	<b>1554</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>852</b>	<b>2902</b>
<b>Grand Total</b>	<b>958</b>	<b>3086</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1702</b>	<b>5746</b>
Apprch %	23.7	76.3	0	0	0	100	
Total %	16.7	53.7	0	0	0	29.6	

**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 5

Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	124	396	520	0	0	0	0	241	241	761
07:45 AM	158	383	541	0	0	0	0	255	255	796
08:00 AM	136	400	536	0	0	0	0	253	253	789
08:15 AM	102	401	503	0	0	0	0	212	212	715
Total Volume	520	1580	2100	0	0	0	0	961	961	3061
% App. Total	24.8	75.2		0	0		0	100		
PHF	.823	.985	.970	.000	.000	.000	.000	.942	.942	.961



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

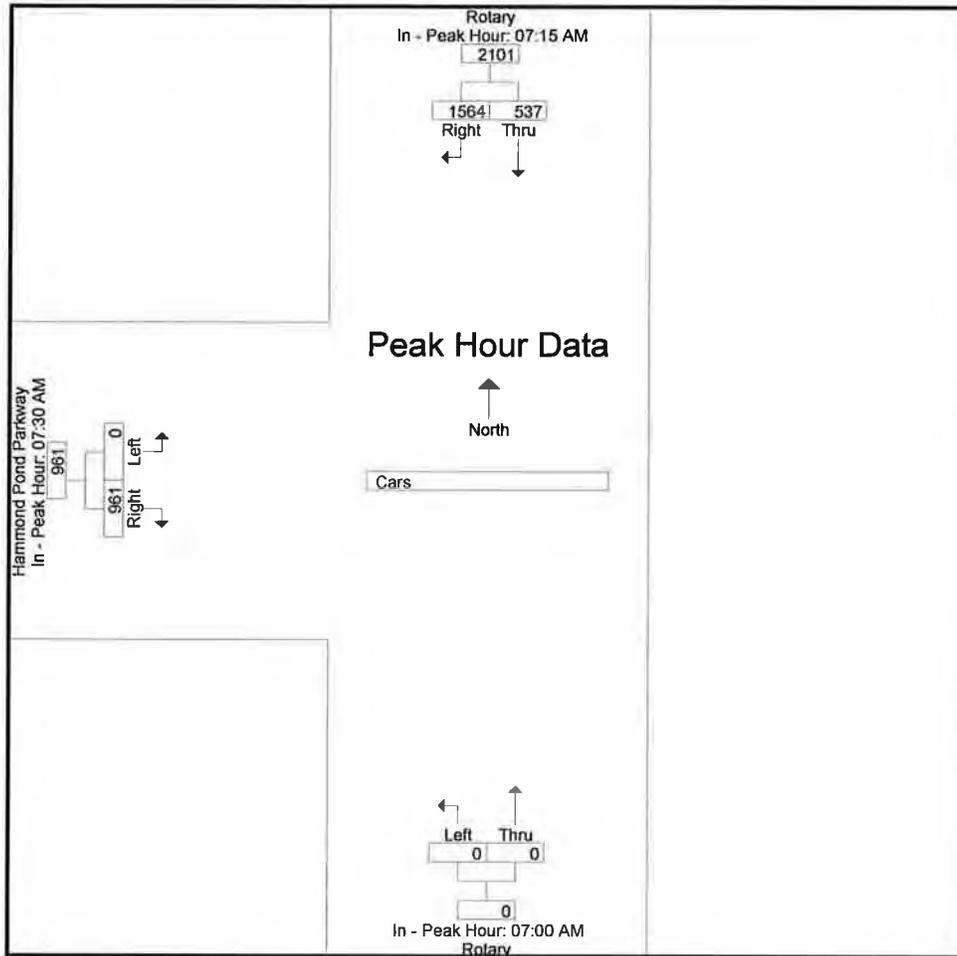
File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 6

Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:15 AM			07:00 AM			07:30 AM		
+0 mins.	119	385	504	0	0	0	0	241	241
+15 mins.	124	396	520	0	0	0	0	255	255
+30 mins.	158	383	541	0	0	0	0	253	253
+45 mins.	136	400	536	0	0	0	0	212	212
Total Volume	537	1564	2101	0	0	0	0	961	961
% App. Total	25.6	74.4		0	0		0	100	
PHF	.850	.978	.971	.000	.000	.000	.000	.942	.942



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 7

Groups Printed- Trucks

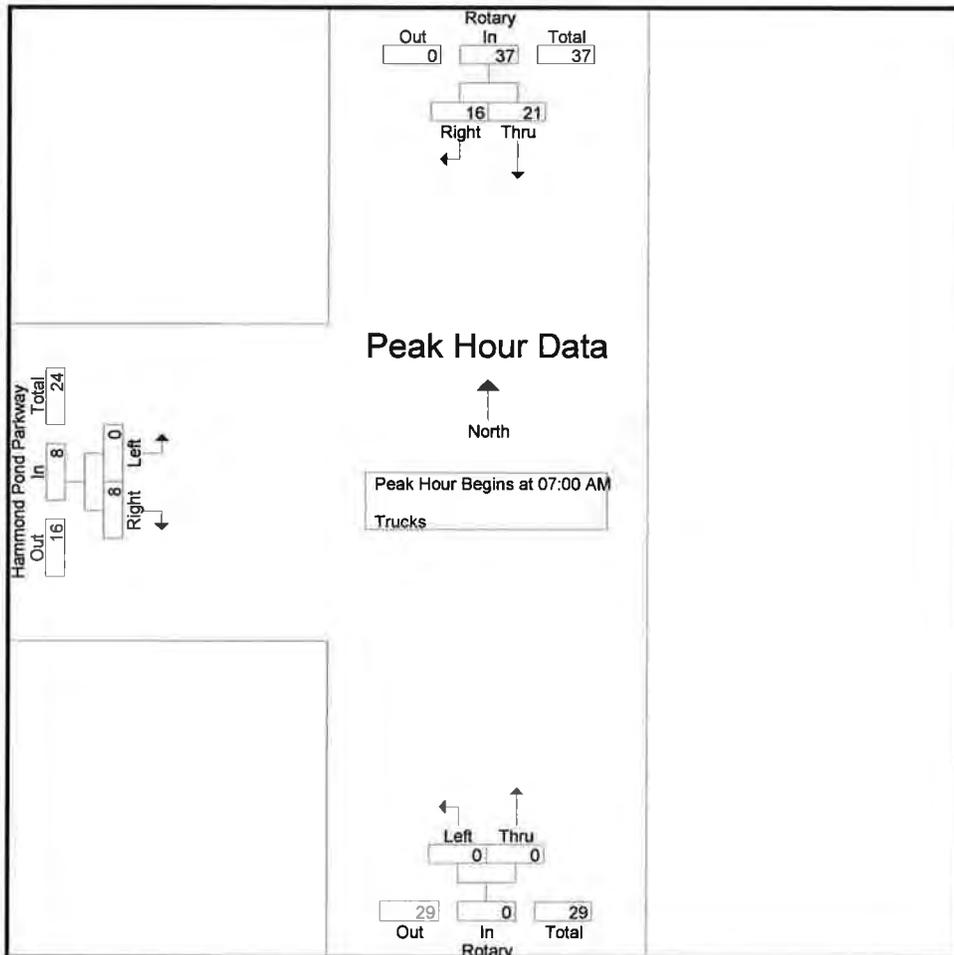
Start Time	Rotary From North		Rotary From South		Hammond Pond Parkway From West		Int. Total
	Thru	Right	Left	Thru	Left	Right	
07:00 AM	6	4	0	0	0	1	11
07:15 AM	6	6	0	0	0	2	14
07:30 AM	6	4	0	0	0	2	12
07:45 AM	3	2	0	0	0	3	8
<b>Total</b>	<b>21</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>45</b>
08:00 AM	1	2	0	0	0	4	7
08:15 AM	3	0	0	0	0	2	5
08:30 AM	3	2	0	0	0	2	7
08:45 AM	6	0	0	0	0	1	7
<b>Total</b>	<b>13</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>26</b>
<b>Grand Total</b>	<b>34</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>71</b>
Apprch %	63	37	0	0	0	100	
Total %	47.9	28.2	0	0	0	23.9	

**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 8

Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	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	6	4	10	0	0	0	0	1	1	11
07:15 AM	6	6	12	0	0	0	0	2	2	14
07:30 AM	6	4	10	0	0	0	0	2	2	12
07:45 AM	3	2	5	0	0	0	0	3	3	8
Total Volume	21	16	37	0	0	0	0	8	8	45
% App. Total	56.8	43.2		0	0		0	100		
PHF	.875	.667	.771	.000	.000	.000	.000	.667	.667	.804



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

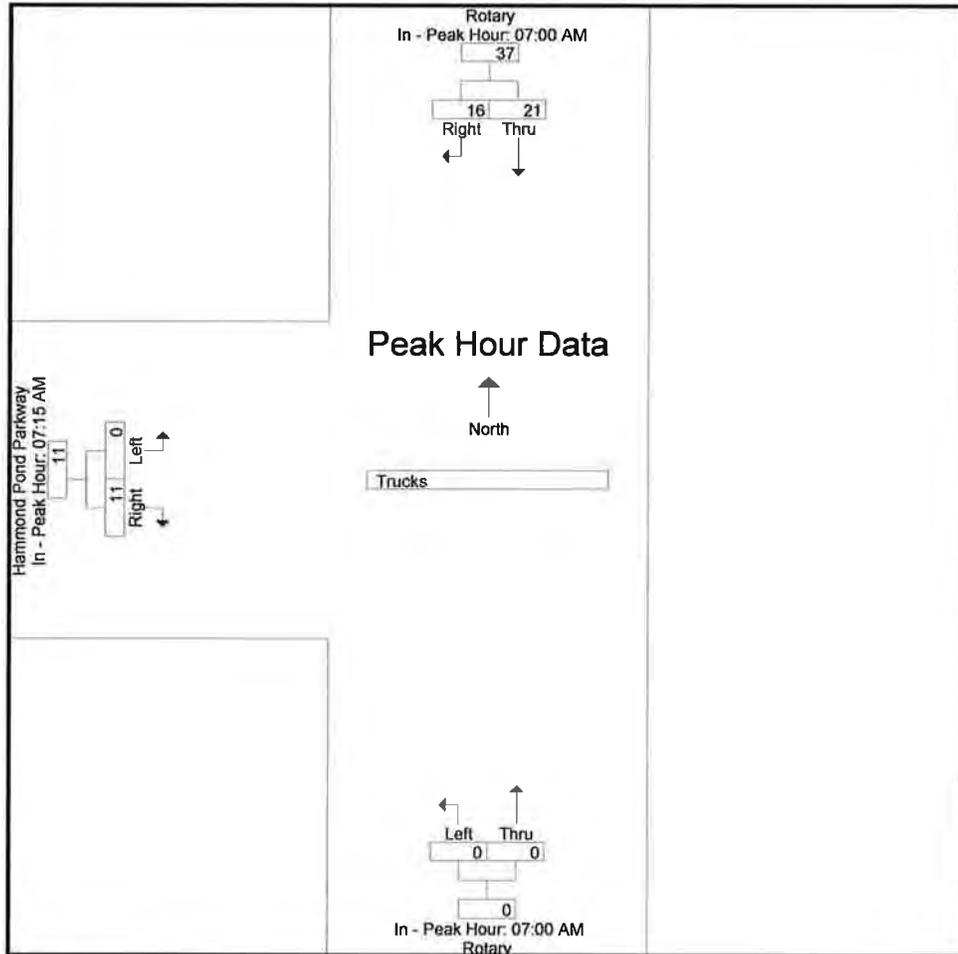
File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 9

Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:15 AM		
+0 mins.	6	4	10	0	0	0	0	2	2
+15 mins.	6	6	12	0	0	0	0	2	2
+30 mins.	6	4	10	0	0	0	0	3	3
+45 mins.	3	2	5	0	0	0	0	4	4
Total Volume	21	16	37	0	0	0	0	11	11
% App. Total	56.8	43.2		0	0		0	100	
PHF	.875	.667	.771	.000	.000	.000	.000	.688	.688



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 10

Groups Printed- Bikes Peds

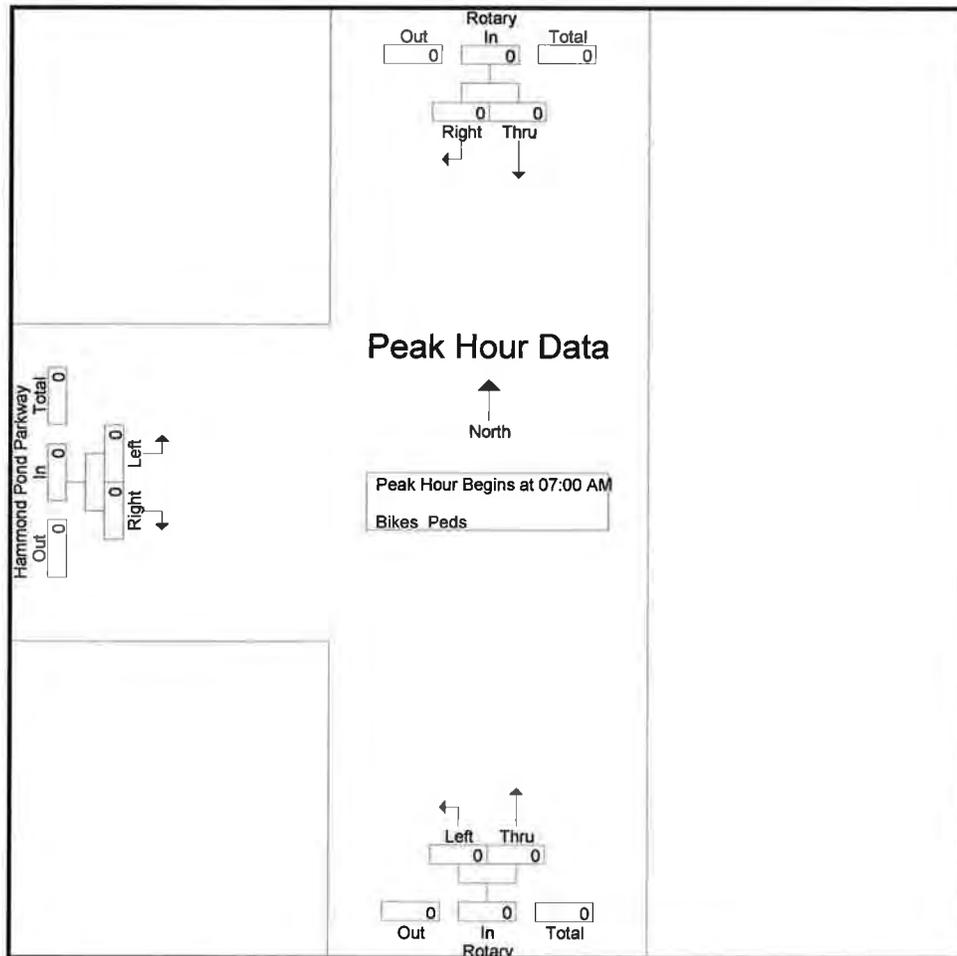
Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Exclu. Total	Inclu. Total	Int. Total
	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
08:00 AM	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
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Apprch %	0	0		0	0		0	0				
Total %										0	0	

**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 11

Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	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	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

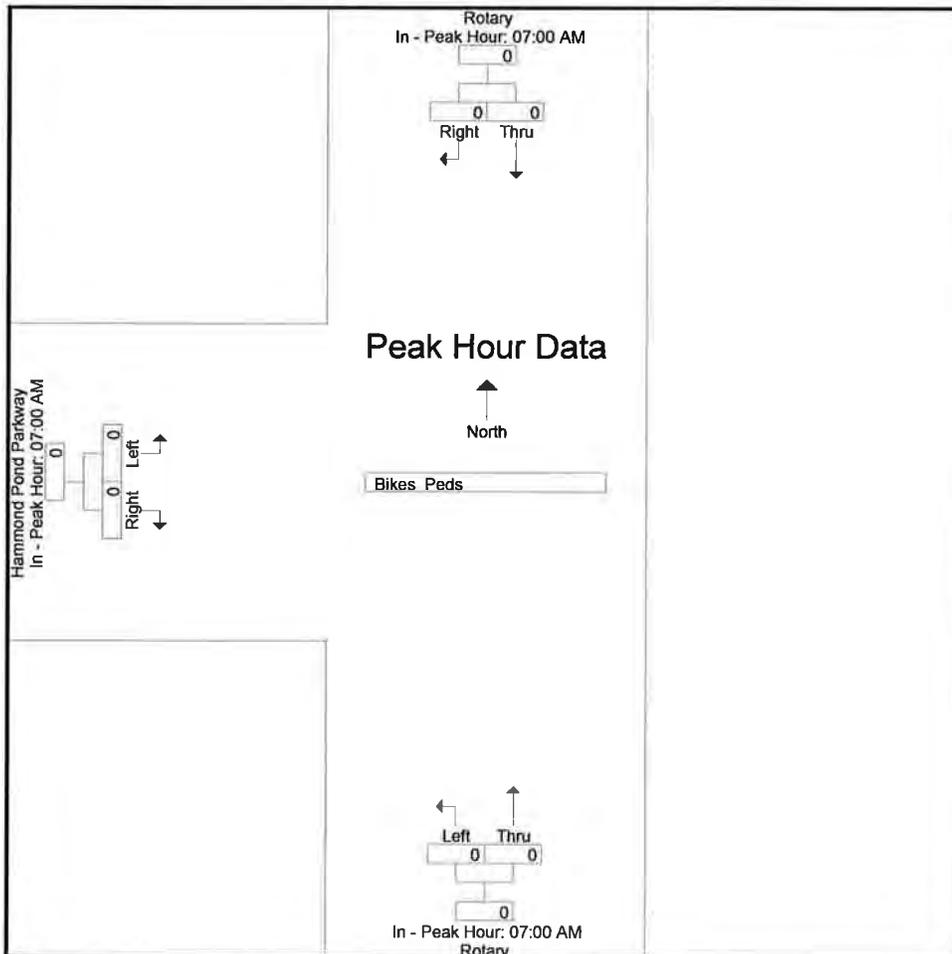
File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 12

Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	

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

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 1

Groups Printed- Cars - Trucks

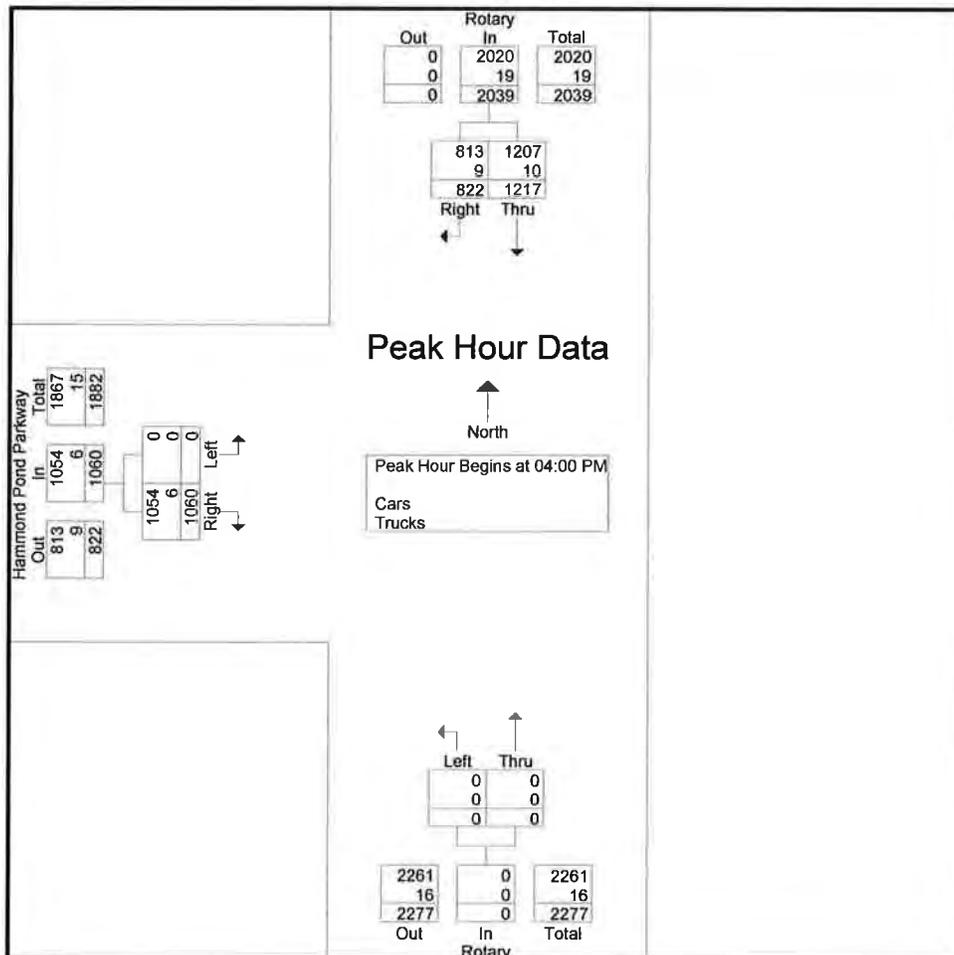
Start Time	Rotary From North		Rotary From South		Hammond Pond Parkway From West		Int. Total
	Thru	Right	Left	Thru	Left	Right	
02:00 PM	141	198	0	0	0	254	593
02:15 PM	154	186	0	0	0	212	552
02:30 PM	162	220	0	0	0	262	644
02:45 PM	204	187	0	0	0	286	677
<b>Total</b>	<b>661</b>	<b>791</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1014</b>	<b>2466</b>
03:00 PM	272	211	0	0	0	309	792
03:15 PM	255	230	0	0	0	300	785
03:30 PM	247	201	0	0	0	258	706
03:45 PM	247	231	0	0	0	284	762
<b>Total</b>	<b>1021</b>	<b>873</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1151</b>	<b>3045</b>
04:00 PM	300	231	0	0	0	277	808
04:15 PM	285	200	0	0	0	263	748
04:30 PM	311	179	0	0	0	277	767
04:45 PM	321	212	0	0	0	243	776
<b>Total</b>	<b>1217</b>	<b>822</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1060</b>	<b>3099</b>
<b>Grand Total</b>	<b>2899</b>	<b>2486</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3225</b>	<b>8610</b>
Apprch %	53.8	46.2	0	0	0	100	
Total %	33.7	28.9	0	0	0	37.5	
<b>Cars</b>	<b>2860</b>	<b>2466</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3202</b>	<b>8528</b>
% Cars	98.7	99.2	0	0	0	99.3	99
<b>Trucks</b>	<b>39</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>82</b>
% Trucks	1.3	0.8	0	0	0	0.7	1

**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 2

Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	300	231	531	0	0	0	0	277	277	808
04:15 PM	285	200	485	0	0	0	0	263	263	748
04:30 PM	311	179	490	0	0	0	0	277	277	767
04:45 PM	321	212	533	0	0	0	0	243	243	776
Total Volume	1217	822	2039	0	0	0	0	1060	1060	3099
% App. Total	59.7	40.3		0	0		0	100		
PHF	.948	.890	.956	.000	.000	.000	.000	.957	.957	.959
Cars	1207	813	2020	0	0	0	0	1054	1054	3074
% Cars	99.2	98.9	99.1	0	0	0	0	99.4	99.4	99.2
Trucks	10	9	19	0	0	0	0	6	6	25
% Trucks	0.8	1.1	0.9	0	0	0	0	0.6	0.6	0.8



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

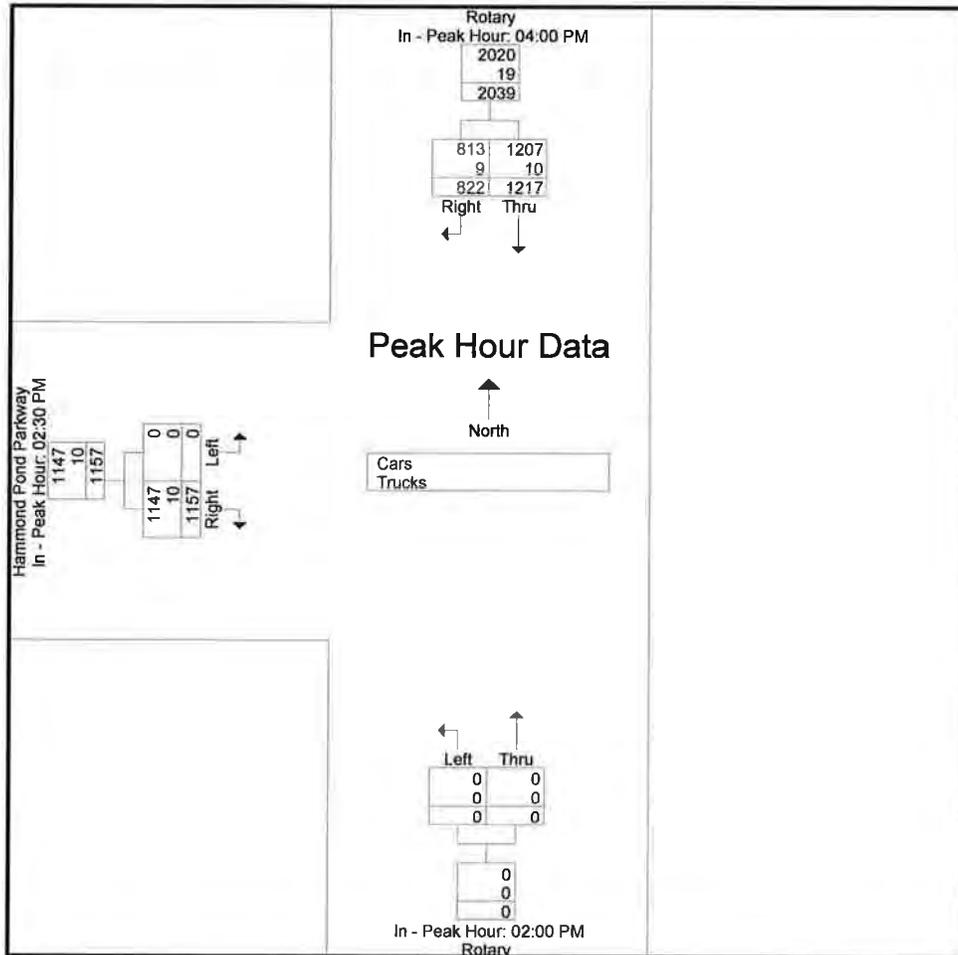
File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 3

Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			02:00 PM			02:30 PM		
+0 mins.	300	231	531	0	0	0	0	262	262
+15 mins.	285	200	485	0	0	0	0	286	286
+30 mins.	311	179	490	0	0	0	0	309	309
+45 mins.	321	212	533	0	0	0	0	300	300
Total Volume	1217	822	2039	0	0	0	0	1157	1157
% App. Total	59.7	40.3		0	0		0	100	
PHF	.948	.890	.956	.000	.000	.000	.000	.936	.936
Cars	1207	813	2020	0	0	0	0	1147	1147
% Cars	99.2	98.9	99.1	0	0	0	0	99.1	99.1
Trucks	10	9	19	0	0	0	0	10	10
% Trucks	0.8	1.1	0.9	0	0	0	0	0.9	0.9



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 4

Groups Printed- Cars

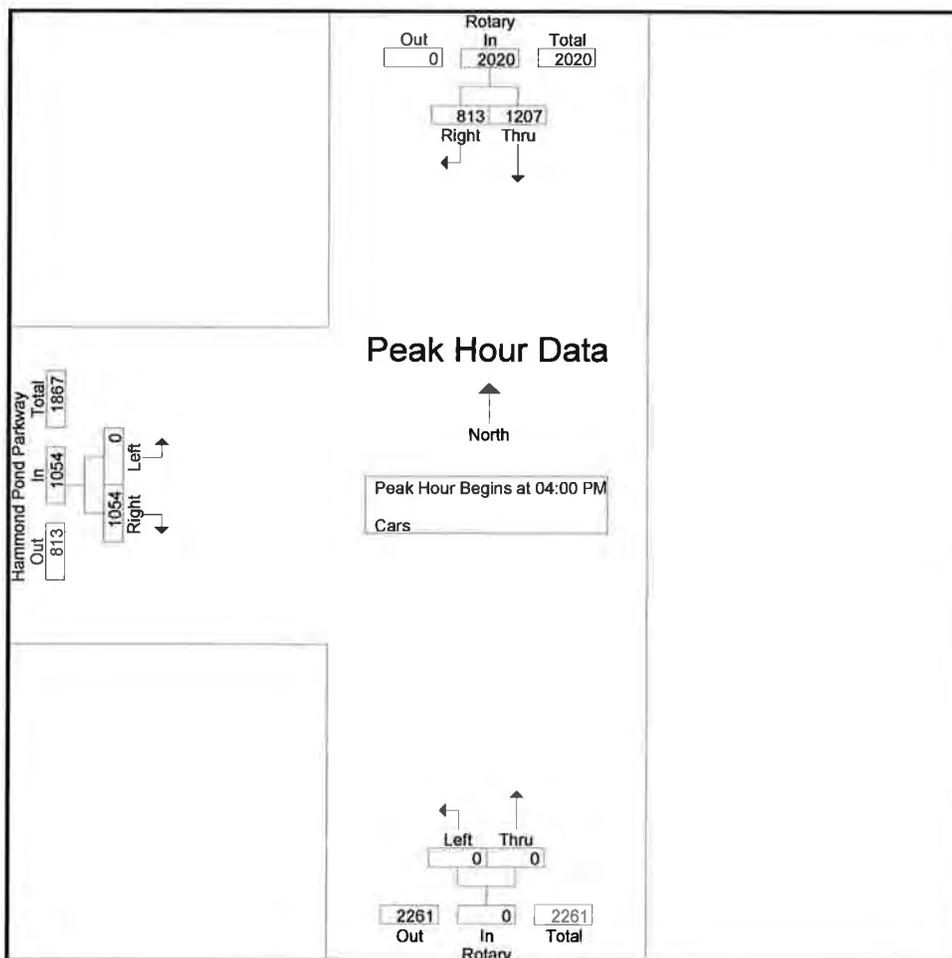
Start Time	Rotary From North		Rotary From South		Hammond Pond Parkway From West		Int. Total
	Thru	Right	Left	Thru	Left	Right	
02:00 PM	135	197	0	0	0	252	584
02:15 PM	147	186	0	0	0	211	544
02:30 PM	160	215	0	0	0	262	637
02:45 PM	202	186	0	0	0	280	668
<b>Total</b>	<b>644</b>	<b>784</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1005</b>	<b>2433</b>
03:00 PM	271	211	0	0	0	307	789
03:15 PM	253	227	0	0	0	298	778
03:30 PM	243	201	0	0	0	256	700
03:45 PM	242	230	0	0	0	282	754
<b>Total</b>	<b>1009</b>	<b>869</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1143</b>	<b>3021</b>
04:00 PM	295	228	0	0	0	275	798
04:15 PM	281	199	0	0	0	260	740
04:30 PM	310	176	0	0	0	277	763
04:45 PM	321	210	0	0	0	242	773
<b>Total</b>	<b>1207</b>	<b>813</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1054</b>	<b>3074</b>
<b>Grand Total</b>	<b>2860</b>	<b>2466</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3202</b>	<b>8528</b>
<b>Apprch %</b>	<b>53.7</b>	<b>46.3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	
<b>Total %</b>	<b>33.5</b>	<b>28.9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>37.5</b>	

**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 5

Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	295	228	523	0	0	0	0	275	275	798
04:15 PM	281	199	480	0	0	0	0	260	260	740
04:30 PM	310	176	486	0	0	0	0	277	277	763
04:45 PM	321	210	531	0	0	0	0	242	242	773
Total Volume	1207	813	2020	0	0	0	0	1054	1054	3074
% App. Total	59.8	40.2		0	0		0	100		
PHF	.940	.891	.951	.000	.000	.000	.000	.951	.951	.963



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

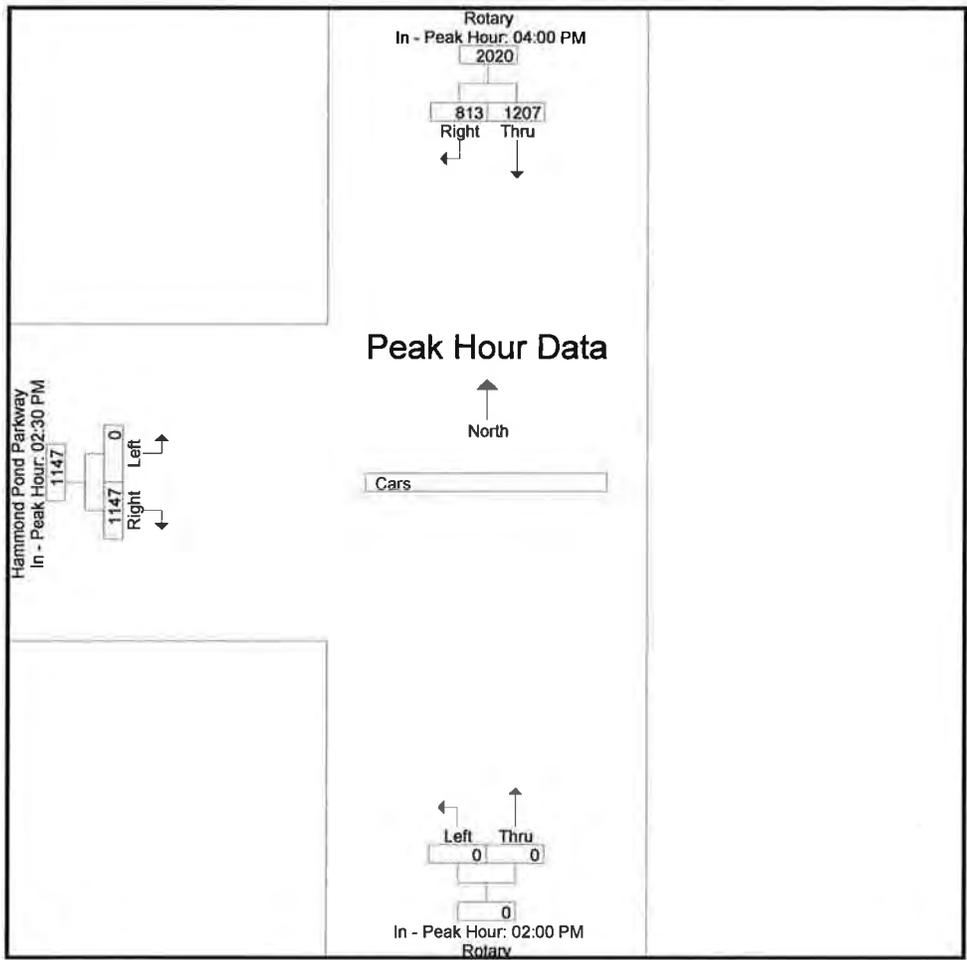
File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 6

Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			02:00 PM			02:30 PM		
+0 mins.	295	228	523	0	0	0	0	262	262
+15 mins.	281	199	480	0	0	0	0	280	280
+30 mins.	310	176	486	0	0	0	0	307	307
+45 mins.	321	210	531	0	0	0	0	298	298
Total Volume	1207	813	2020	0	0	0	0	1147	1147
% App. Total	59.8	40.2		0	0		0	100	
PHF	.940	.891	.951	.000	.000	.000	.000	.934	.934



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 7

Groups Printed- Trucks

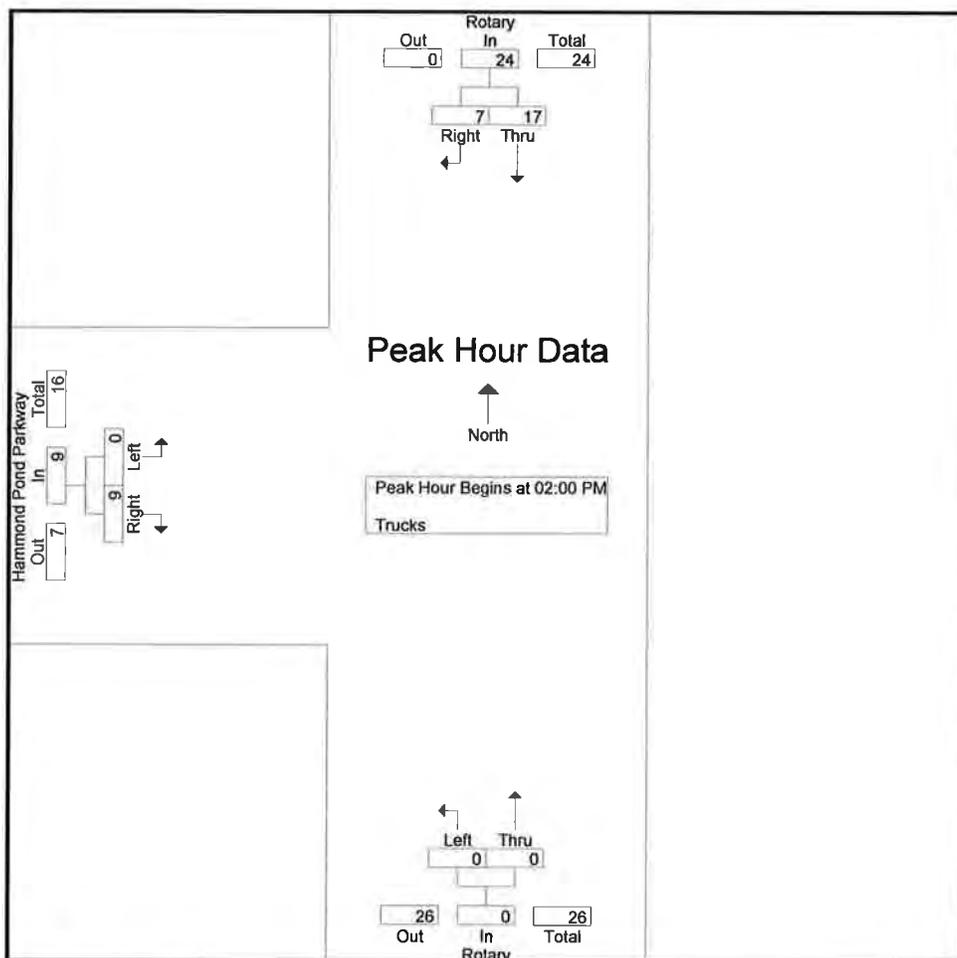
Start Time	Rotary From North		Rotary From South		Hammond Pond Parkway From West		Int. Total
	Thru	Right	Left	Thru	Left	Right	
02:00 PM	6	1	0	0	0	2	9
02:15 PM	7	0	0	0	0	1	8
02:30 PM	2	5	0	0	0	0	7
02:45 PM	2	1	0	0	0	6	9
<b>Total</b>	<b>17</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>33</b>
03:00 PM	1	0	0	0	0	2	3
03:15 PM	2	3	0	0	0	2	7
03:30 PM	4	0	0	0	0	2	6
03:45 PM	5	1	0	0	0	2	8
<b>Total</b>	<b>12</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>24</b>
04:00 PM	5	3	0	0	0	2	10
04:15 PM	4	1	0	0	0	3	8
04:30 PM	1	3	0	0	0	0	4
04:45 PM	0	2	0	0	0	1	3
<b>Total</b>	<b>10</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>25</b>
<b>Grand Total</b>	<b>39</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>82</b>
<b>Apprch %</b>	<b>66.1</b>	<b>33.9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	
<b>Total %</b>	<b>47.6</b>	<b>24.4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>28</b>	

**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 8

Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	6	1	7	0	0	0	0	2	2	9
02:15 PM	7	0	7	0	0	0	0	1	1	8
02:30 PM	2	5	7	0	0	0	0	0	0	7
02:45 PM	2	1	3	0	0	0	0	6	6	9
Total Volume	17	7	24	0	0	0	0	9	9	33
% App. Total	70.8	29.2		0	0		0	100		
PHF	.607	.350	.857	.000	.000	.000	.000	.375	.375	.917



**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

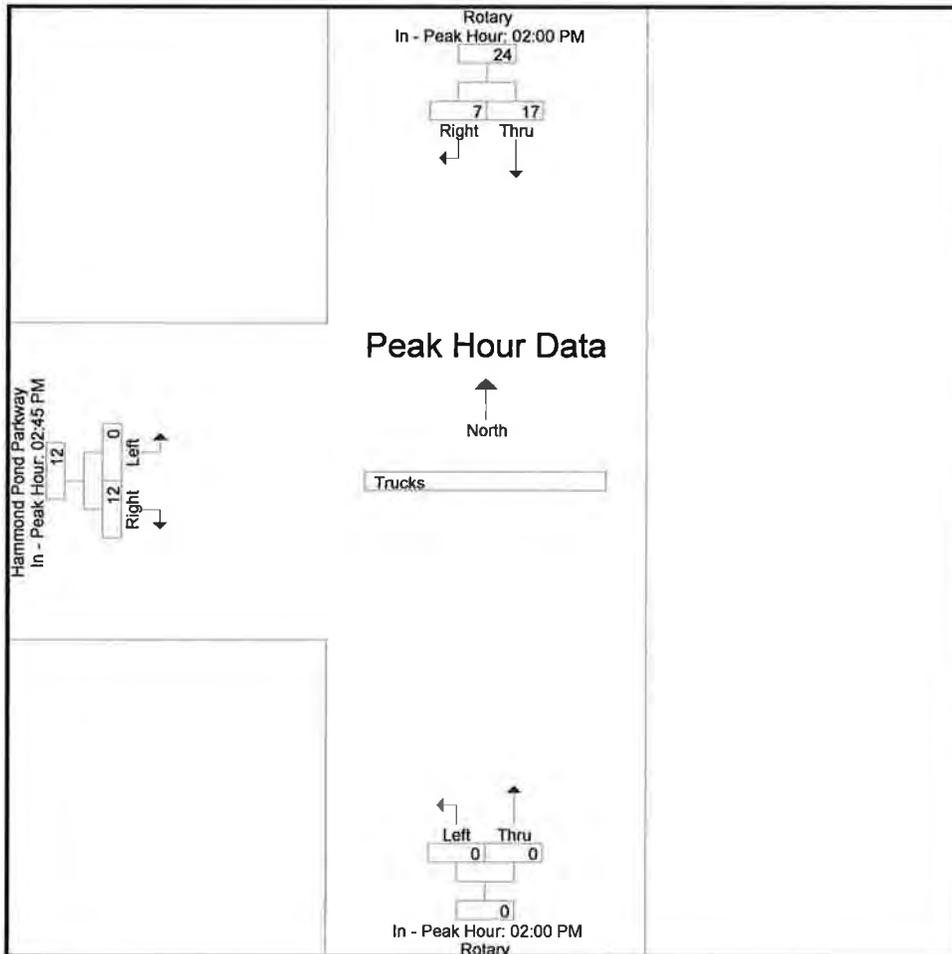
File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 9

Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:00 PM			02:45 PM		
+0 mins.	6	1	7	0	0	0	0	6	6
+15 mins.	7	0	7	0	0	0	0	2	2
+30 mins.	2	5	7	0	0	0	0	2	2
+45 mins.	2	1	3	0	0	0	0	2	2
Total Volume	17	7	24	0	0	0	0	12	12
% App. Total	70.8	29.2		0	0		0	100	
PHF	.607	.350	.857	.000	.000	.000	.000	.500	.500



# Accurate Counts

978-664-2565

N/S Street : Horace James Circle  
 E/W Street : Hammond Pond Parkway  
 City/State : Brookline, MA  
 Weather : Rain

File Name : 73820005  
 Site Code : 73820005  
 Start Date : 1/18/2017  
 Page No : 10

## Groups Printed- Bikes Peds

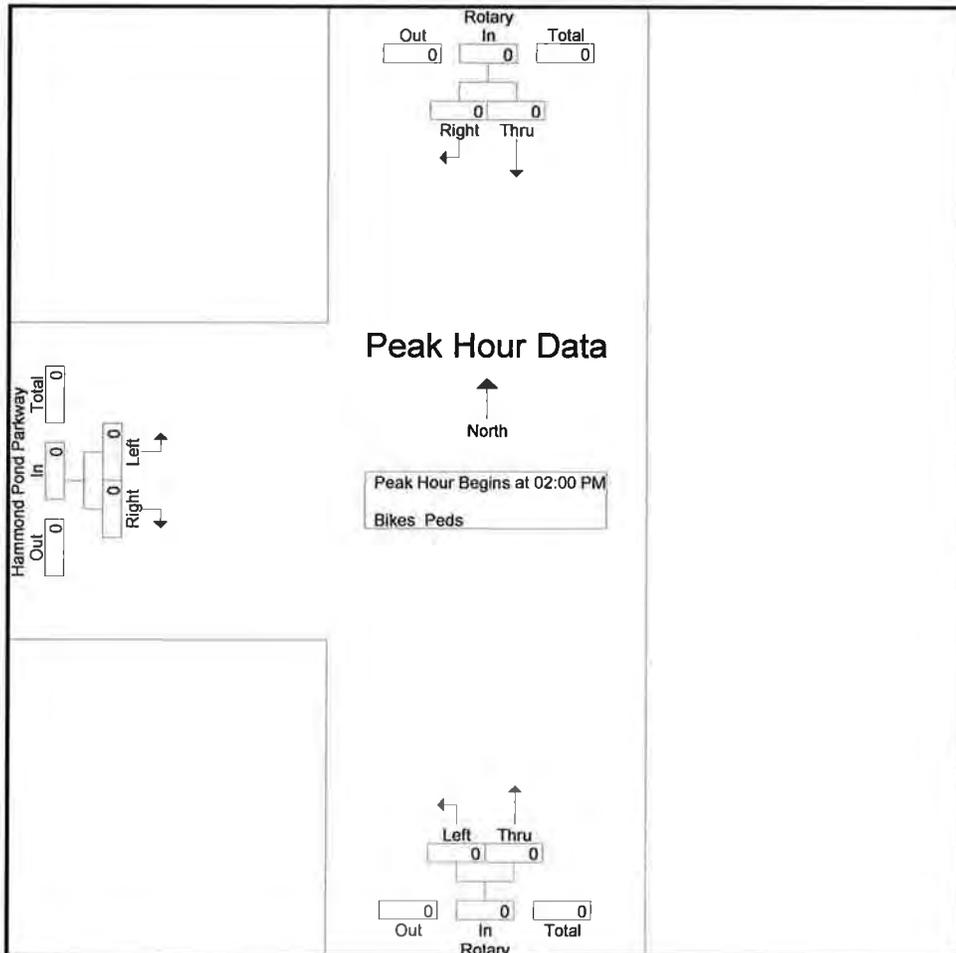
Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Exclu. Total	Inclu. Total	Int. Total
	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds			
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	1	1	0	1
<b>Total</b>	0	0	0	0	0	0	0	0	1	1	0	1
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	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
04:30 PM	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
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0
<b>Grand Total</b>	0	0	0	0	0	0	0	0	1	1	0	1
Apprch %	0	0		0	0		0	0				
Total %										100	0	

**Accurate Counts**  
978-664-2565

N/S Street : Horace James Circle  
E/W Street : Hammond Pond Parkway  
City/State : Brookline, MA  
Weather : Rain

File Name : 73820005  
Site Code : 73820005  
Start Date : 1/18/2017  
Page No : 11

Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



# Accurate Counts

978-664-2565

N/S Street : Horace James Circle  
 E/W Street : Hammond Pond Parkway  
 City/State : Brookline, MA  
 Weather : Rain

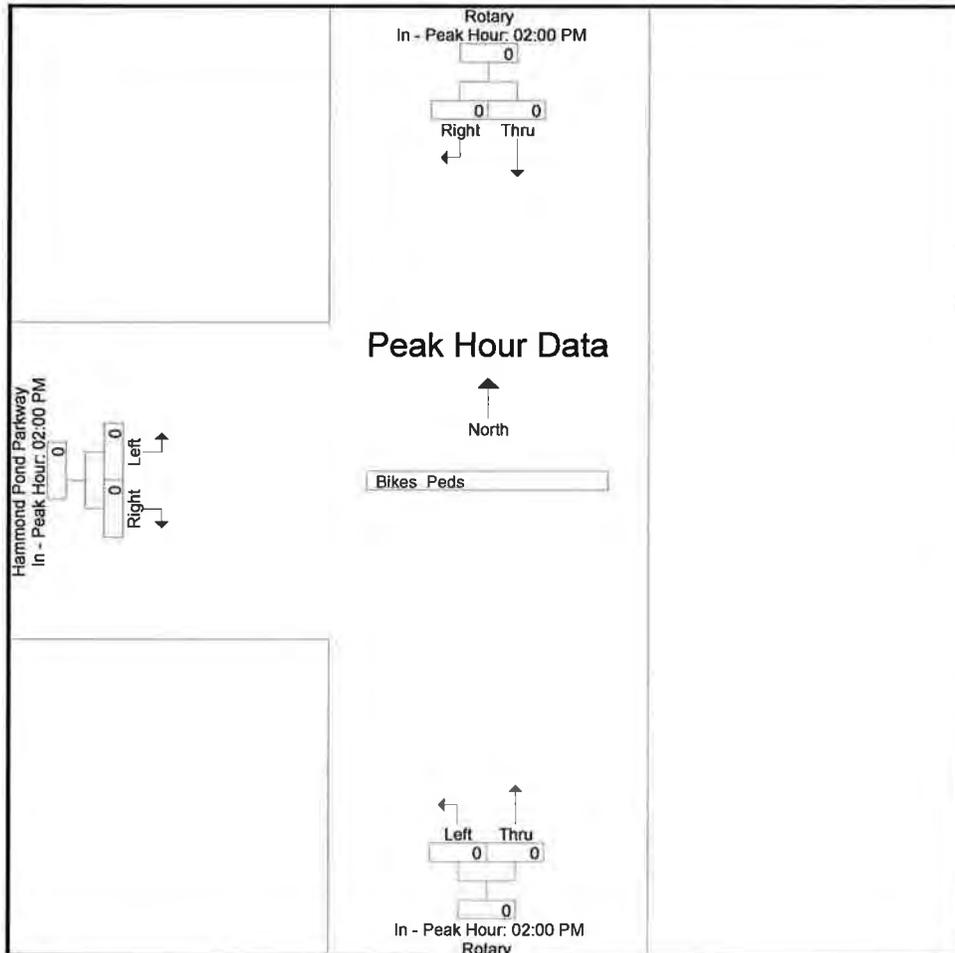
File Name : 73820005  
 Site Code : 73820005  
 Start Date : 1/18/2017  
 Page No : 12

Start Time	Rotary From North			Rotary From South			Hammond Pond Parkway From West			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	

Peak Hour Analysis From 02:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			02:00 PM			02:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000



AUTOMATIC TRAFFIC RECORDER COUNTS

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# Vanasse & Associates

Vanasse & Associates  
 Location: Beverly Rd  
 Location: SE of Baker School  
 City: Brookline, MA

35 New England Business Center Dr, Suite 140  
 Andover, MA 01810

Site Code: 00738204

Start Time	07-Dec-16 Wed	Westbound		Hour Totals		Eastbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		*	*			*	*				
12:15		*	*			*	*				
12:30		*	*			*	*				
12:45		*	*	0	0	*	*	0	0	0	0
01:00		*	*			*	*				
01:15		*	*			*	*				
01:30		*	*			*	*				
01:45		*	9	0	9	*	8	0	8	0	17
02:00		*	28			*	19				
02:15		*	17			*	26				
02:30		*	17			*	29				
02:45		*	9	0	71	*	21	0	95	0	166
03:00		*	8			*	23				
03:15		*	13			*	21				
03:30		*	15			*	22				
03:45		*	13	0	49	*	17	0	83	0	132
04:00		*	11			*	23				
04:15		*	12			*	19				
04:30		*	19			*	24				
04:45		*	11	0	53	*	23	0	89	0	142
05:00		*	16			*	19				
05:15		*	28			*	21				
05:30		*	29			*	48				
05:45		*	15	0	88	*	37	0	125	0	213
06:00		*	9			*	28				
06:15		*	4			*	15				
06:30		*	10			*	21				
06:45		*	13	0	36	*	19	0	83	0	119
07:00		*	7			*	9				
07:15		*	6			*	12				
07:30		*	3			*	8				
07:45		*	7	0	23	*	14	0	43	0	66
08:00		*	7			*	18				
08:15		*	2			*	10				
08:30		*	1			*	6				
08:45		*	3	0	13	*	2	0	36	0	49
09:00		*	2			*	8				
09:15		*	2			*	9				
09:30		*	1			*	3				
09:45		*	2	0	7	*	7	0	27	0	34
10:00		*	1			*	5				
10:15		*	1			*	3				
10:30		*	1			*	1				
10:45		*	0	0	3	*	3	0	12	0	15
11:00		*	0			*	1				
11:15		*	1			*	0				
11:30		*	2			*	1				
11:45		*	0	0	3	*	0	0	2	0	5
<b>Total</b>		0	355			0	603			0	958
<b>Percent</b>		0.0%	100.0%			0.0%	100.0%			0.0%	100.0%

# Vanasse & Associates

Vanasse & Associates  
 Location: Beverly Rd  
 Location: SE of Baker School  
 City: Brookline, MA

35 New England Business Center Dr, Suite 140  
 Andover, MA 01810

Site Code: 00738204

Start Time	08-Dec-16 Thu	Westbound		Hour Totals		Eastbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	3			1	10				
12:15		0	4			0	10				
12:30		1	2			2	9				
12:45		0	10	1	29	0	18	3	47	4	76
01:00		0	6			0	8				
01:15		1	6			0	11				
01:30		0	11			0	8				
01:45		0	10	1	33	0	11	0	38	1	71
02:00		1	22			0	10				
02:15		0	26			0	8				
02:30		0	18			0	45				
02:45		0	15	1	81	0	31	0	94	1	175
03:00		0	9			0	27				
03:15		0	15			0	18				
03:30		0	13			0	29				
03:45		0	13	0	50	0	27	0	101	0	151
04:00		0	12			0	16				
04:15		0	14			0	18				
04:30		0	15			0	14				
04:45		0	12	0	53	0	16	0	64	0	117
05:00		1	15			2	27				
05:15		3	30			0	21				
05:30		0	16			0	39				
05:45		0	26	4	87	2	45	4	132	8	219
06:00		2	10			1	33				
06:15		5	10			4	23				
06:30		5	5			8	26				
06:45		7	7	19	32	8	15	21	97	40	129
07:00		8	5			8	15				
07:15		25	13			14	6				
07:30		35	7			48	16				
07:45		76	3	144	28	72	10	142	47	286	75
08:00		8	2			39	13				
08:15		7	4			14	12				
08:30		8	4			13	3				
08:45		3	8	26	18	9	5	75	33	101	51
09:00		9	5			8	13				
09:15		6	5			7	10				
09:30		2	2			8	5				
09:45		3	1	20	13	10	8	33	36	53	49
10:00		6	2			5	1				
10:15		13	1			11	3				
10:30		8	1			10	2				
10:45		8	1	35	5	10	1	36	7	71	12
11:00		7	0			11	2				
11:15		8	0			8	1				
11:30		7	0			10	1				
11:45		9	3	31	3	9	2	38	6	69	9
<b>Total</b>		<b>282</b>	<b>432</b>			<b>352</b>	<b>702</b>			<b>634</b>	<b>1134</b>
<b>Percent</b>		<b>39.5%</b>	<b>60.5%</b>			<b>33.4%</b>	<b>66.6%</b>			<b>35.9%</b>	<b>64.1%</b>

# Vanasse & Associates

Vanasse & Associates  
 Location: Beverly Rd  
 Location: SE of Baker School  
 City: Brookline, MA

35 New England Business Center Dr, Suite 140  
 Andover, MA 01810

Site Code: 00738204

Start Time	09-Dec-16 Fri	Westbound		Hour Totals		Eastbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	*			0	*				
12:15		1	*			0	*				
12:30		1	*			0	*				
12:45		0	*	2	0	0	*	0	0	2	0
01:00		0	*			1	*				
01:15		0	*			1	*				
01:30		0	*			0	*				
01:45		0	*	0	0	0	*	2	0	2	0
02:00		0	*			0	*				
02:15		0	*			0	*				
02:30		0	*			0	*				
02:45		0	*	0	0	0	*	0	0	0	0
03:00		0	*			0	*				
03:15		0	*			0	*				
03:30		0	*			0	*				
03:45		0	*	0	0	0	*	0	0	0	0
04:00		0	*			0	*				
04:15		0	*			0	*				
04:30		0	*			0	*				
04:45		1	*	1	0	0	*	0	0	1	0
05:00		0	*			0	*				
05:15		1	*			0	*				
05:30		2	*			1	*				
05:45		0	*	3	0	3	*	4	0	7	0
06:00		0	*			2	*				
06:15		5	*			7	*				
06:30		4	*			2	*				
06:45		6	*	15	0	9	*	20	0	35	0
07:00		14	*			6	*				
07:15		17	*			10	*				
07:30		35	*			41	*				
07:45		63	*	129	0	64	*	121	0	250	0
08:00		13	*			28	*				
08:15		11	*			11	*				
08:30		9	*			28	*				
08:45		4	*	37	0	13	*	80	0	117	0
09:00		9	*			16	*				
09:15		4	*			9	*				
09:30		9	*			9	*				
09:45		15	*	37	0	18	*	52	0	89	0
10:00		7	*			9	*				
10:15		6	*			9	*				
10:30		9	*			7	*				
10:45		7	*	29	0	14	*	39	0	68	0
11:00		14	*			10	*				
11:15		12	*			10	*				
11:30		6	*			7	*				
11:45		*	*	32	0	*	*	27	0	59	0
<b>Total</b>		<b>285</b>	<b>0</b>			<b>345</b>	<b>0</b>			<b>630</b>	<b>0</b>
<b>Percent</b>		<b>100.0%</b>	<b>0.0%</b>			<b>100.0%</b>	<b>0.0%</b>			<b>100.0%</b>	<b>0.0%</b>
<b>Grand Total</b>		<b>567</b>	<b>787</b>			<b>697</b>	<b>1305</b>			<b>1264</b>	<b>2092</b>
<b>Percent</b>		<b>41.9%</b>	<b>58.1%</b>			<b>34.8%</b>	<b>65.2%</b>			<b>37.7%</b>	<b>62.3%</b>

ADT                      ADT 1,731                      AADT 1,731

# Vanasse & Associates

Vannase & Associates  
 Location: Beverly Rd  
 Location: NW of Baker School  
 City: Brookline, MA

35 New England Business Center Dr, Suite 140  
 Andover, MA 01810

Site Code: 00738205

Start Time	07-Dec-16 Wed	Westbound		Hour Totals		Eastbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		*	*			*	*				
12:15		*	*			*	*				
12:30		*	*			*	*				
12:45		*	*	0	0	*	*	0	0	0	0
01:00		*	*			*	*				
01:15		*	*			*	*				
01:30		*	*			*	*				
01:45		*	*	0	0	*	*	0	0	0	0
02:00		*	27			*	23				
02:15		*	10			*	33				
02:30		*	34			*	17				
02:45		*	23	0	94	*	17	0	90	0	184
03:00		*	12			*	16				
03:15		*	14			*	10				
03:30		*	21			*	21				
03:45		*	23	0	70	*	18	0	65	0	135
04:00		*	15			*	14				
04:15		*	10			*	18				
04:30		*	20			*	25				
04:45		*	17	0	62	*	27	0	84	0	146
05:00		*	17			*	11				
05:15		*	13			*	26				
05:30		*	20			*	32				
05:45		*	15	0	65	*	19	0	88	0	153
06:00		*	21			*	22				
06:15		*	9			*	19				
06:30		*	11			*	15				
06:45		*	9	0	50	*	20	0	76	0	126
07:00		*	4			*	12				
07:15		*	8			*	14				
07:30		*	6			*	6				
07:45		*	5	0	23	*	16	0	48	0	71
08:00		*	12			*	14				
08:15		*	3			*	11				
08:30		*	3			*	8				
08:45		*	2	0	20	*	3	0	36	0	56
09:00		*	3			*	8				
09:15		*	3			*	9				
09:30		*	1			*	5				
09:45		*	1	0	8	*	10	0	32	0	40
10:00		*	2			*	4				
10:15		*	0			*	2				
10:30		*	1			*	3				
10:45		*	0	0	3	*	2	0	11	0	14
11:00		*	0			*	0				
11:15		*	1			*	0				
11:30		*	1			*	1				
11:45		*	0	0	2	*	0	0	1	0	3
<b>Total</b>		0	397			0	531			0	928
<b>Percent</b>		0.0%	100.0%			0.0%	100.0%			0.0%	100.0%

# Vanasse & Associates

Vannase & Associates  
 Location: Beverly Rd  
 Location: NW of Baker School  
 City: Brookline, MA

35 New England Business Center Dr, Suite 140  
 Andover, MA 01810

Site Code: 00738205

Start Time	08-Dec-16 Thu	Westbound		Hour Totals		Eastbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	7			1	13				
12:15		0	6			0	8				
12:30		0	5			2	22				
12:45		0	12	0	30	0	20	3	63	3	93
01:00		0	6			0	11				
01:15		1	6			0	13				
01:30		0	7			0	9				
01:45		1	9	2	28	1	17	1	50	3	78
02:00		1	7			0	4				
02:15		0	17			0	22				
02:30		0	24			0	24				
02:45		0	23	1	71	0	21	0	71	1	142
03:00		0	15			0	18				
03:15		0	19			0	14				
03:30		0	32			0	13				
03:45		0	20	0	86	0	19	0	64	0	150
04:00		0	18			0	15				
04:15		0	24			0	14				
04:30		0	18			0	9				
04:45		0	14	0	74	0	19	0	57	0	131
05:00		1	9			2	19				
05:15		4	12			0	18				
05:30		0	16			0	41				
05:45		1	15	6	52	2	24	4	102	10	154
06:00		1	22			2	24				
06:15		7	13			5	23				
06:30		4	9			10	25				
06:45		4	8	16	52	20	23	37	95	53	147
07:00		5	3			21	18				
07:15		12	9			33	3				
07:30		14	10			64	8				
07:45		22	5	53	27	77	12	195	41	248	68
08:00		24	3			35	12				
08:15		10	1			22	13				
08:30		12	4			21	7				
08:45		6	6	52	14	14	9	92	41	144	55
09:00		11	6			10	10				
09:15		6	9			10	15				
09:30		5	2			8	7				
09:45		5	2	27	19	9	8	37	40	64	59
10:00		7	1			7	2				
10:15		13	0			11	4				
10:30		9	1			11	2				
10:45		10	2	39	4	7	3	36	11	75	15
11:00		10	1			12	3				
11:15		9	0			10	1				
11:30		10	0			15	1				
11:45		5	4	34	5	10	2	47	7	81	12
<b>Total</b>		<b>230</b>	<b>462</b>			<b>452</b>	<b>642</b>			<b>682</b>	<b>1104</b>
<b>Percent</b>		<b>33.2%</b>	<b>66.8%</b>			<b>41.3%</b>	<b>58.7%</b>			<b>38.2%</b>	<b>61.8%</b>

# Vanasse & Associates

Vanasse & Associates  
 Location: Beverly Rd  
 Location: NW of Baker School  
 City: Brookline, MA

35 New England Business Center Dr, Suite 140  
 Andover, MA 01810

Site Code: 00738205

Start Time	09-Dec-16 Fri	Westbound		Hour Totals		Eastbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	*			0	*				
12:15		1	*			0	*				
12:30		1	*			0	*				
12:45		0	*	2	0	0	*	0	0	2	0
01:00		0	*			0	*				
01:15		0	*			1	*				
01:30		0	*			0	*				
01:45		0	*	0	0	0	*	1	0	1	0
02:00		0	*			0	*				
02:15		0	*			0	*				
02:30		0	*			0	*				
02:45		0	*	0	0	0	*	0	0	0	0
03:00		0	*			0	*				
03:15		0	*			0	*				
03:30		0	*			0	*				
03:45		0	*	0	0	0	*	0	0	0	0
04:00		0	*			0	*				
04:15		0	*			0	*				
04:30		0	*			0	*				
04:45		1	*	1	0	0	*	0	0	1	0
05:00		0	*			0	*				
05:15		1	*			0	*				
05:30		2	*			2	*				
05:45		2	*	5	0	2	*	4	0	9	0
06:00		0	*			4	*				
06:15		6	*			9	*				
06:30		2	*			4	*				
06:45		6	*	14	0	17	*	34	0	48	0
07:00		8	*			16	*				
07:15		8	*			21	*				
07:30		17	*			69	*				
07:45		17	*	50	0	62	*	168	0	218	0
08:00		12	*			36	*				
08:15		17	*			14	*				
08:30		12	*			18	*				
08:45		14	*	55	0	9	*	77	0	132	0
09:00		9	*			13	*				
09:15		12	*			14	*				
09:30		11	*			9	*				
09:45		13	*	45	0	23	*	59	0	104	0
10:00		12	*			11	*				
10:15		11	*			5	*				
10:30		5	*			5	*				
10:45		9	*	37	0	17	*	38	0	75	0
11:00		13	*			9	*				
11:15		13	*			9	*				
11:30		8	*			12	*				
11:45		*	*	*	*	*	*	*	*	*	*
<b>Total</b>		<b>243</b>	<b>0</b>			<b>411</b>	<b>0</b>			<b>590</b>	<b>0</b>
<b>Percent</b>		<b>100.0%</b>	<b>0.0%</b>			<b>100.0%</b>	<b>0.0%</b>			<b>100.0%</b>	<b>0.0%</b>
<b>Grand Total</b>		<b>473</b>	<b>859</b>			<b>863</b>	<b>1173</b>			<b>1272</b>	<b>2032</b>
<b>Percent</b>		<b>35.5%</b>	<b>64.5%</b>			<b>42.4%</b>	<b>57.6%</b>			<b>38.5%</b>	<b>61.5%</b>
<b>ADT</b>		<b>ADT 1,760</b>				<b>AADT 1,760</b>					

**SEASONAL ADJUSTMENTS**

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**Table 2.1: MassDOT Highway Division - Statewide Traffic Data Collection: 2013 Adjustment Factors**



2013 Weekday Seasonal Factors Factor Group	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Group 2: Rural Major Collector, R5, R6 & R0	1.12	1.12	1.07	0.99	0.91	0.90	0.86	0.86	0.92	0.93	1.01	1.05
Group 4: I-495 Interstate	1.02	1.00	1.00	0.96	0.92	0.89	0.85	0.85	0.93	0.96	1.01	1.03
Group 6: Urban Arterials, Collectors, & Rural Arterials, U2, U3, U5, U6, R2, R3	1.03	1.01	0.96	0.92	0.91	0.90	0.92	0.92	0.93	0.92	0.97	0.97

3% below average

3% above average

**SPEEDS**

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# Vanasse & Associates

35 New England Business Center Dr, Suite 140  
Andover, MA 01810

Vanasse & Associates  
Location: Heath Street  
Location: E of Soule Rear Dwy  
City: Brookline, MA

Site Code: 00738201

Westbound		1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace	Number	
Start	Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		Speed	in Pace	
11/21/16	01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	13:00	2	5	36	92	45	5	0	0	0	0	0	0	0	0	185	26-35	137	
	14:00	0	1	37	135	40	7	0	0	0	0	0	0	0	0	220	26-35	175	
	15:00	5	8	55	224	81	3	1	0	0	0	0	0	0	0	377	26-35	305	
	16:00	0	2	80	274	55	3	0	0	0	0	0	0	0	0	414	21-30	354	
	17:00	0	3	57	237	66	4	0	0	0	0	0	0	0	0	367	26-35	303	
	18:00	0	1	47	136	49	2	0	0	0	0	0	0	0	0	235	26-35	185	
	19:00	0	2	15	69	35	0	0	0	0	0	0	0	0	0	121	26-35	104	
	20:00	0	1	8	49	13	7	1	0	0	0	0	0	0	0	79	26-35	62	
	21:00	0	1	11	24	11	1	0	0	0	0	0	0	0	0	48	21-30	35	
	22:00	0	1	7	16	9	1	0	0	0	0	0	0	0	0	34	25-34	25	
	23:00	0	0	5	13	7	3	0	0	0	0	0	0	0	0	28	25-34	20	
	Total	7	25	358	1269	411	36	2	0	0	0	0	0	0	0	2108			
	Percent AM Peak	0.3%	1.2%	17.0%	60.2%	19.5%	1.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%				
	Vol.																		
	PM Peak	15:00	15:00	16:00	16:00	15:00	14:00	15:00	16:00	15:00	16:00	15:00	16:00	15:00	16:00	16:00			
	Vol.	5	8	80	274	81	7	1								414			







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Site Code: 00738201

Eastbound		1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace	Number
Start	Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		Speed	In
		0	0	0	0	0	0	0	0	0	0	0	0	0	0			Pace
11/22/16	01:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	15-24	2
	02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
	03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
	04:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	9-18	1
	05:00	0	0	1	2	1	1	0	0	0	0	0	0	0	0	2	20-29	2
	06:00	0	1	4	11	10	2	0	0	0	0	0	0	0	0	5	26-35	3
	07:00	1	2	9	21	12	4	0	0	0	0	0	0	0	0	28	26-35	21
	08:00	3	7	15	37	15	1	0	0	0	0	0	0	0	0	49	26-35	33
	09:00	3	2	10	23	13	1	0	0	0	0	0	0	0	0	78	26-35	52
	10:00	1	2	14	24	10	1	0	0	0	0	0	0	0	0	51	26-35	36
	11:00	1	3	14	21	14	2	0	0	0	0	0	0	0	0	52	21-30	38
	12 PM	1	0	13	35	20	1	0	0	0	0	0	0	0	0	55	21-30	35
	13:00	0	2	9	29	14	0	0	0	0	0	0	0	0	0	70	26-35	55
	14:00	2	0	12	24	13	2	0	0	0	0	0	0	0	0	54	26-35	43
	15:00	1	4	16	30	18	1	0	0	0	0	0	0	0	0	53	26-35	37
	16:00	3	12	16	16	7	1	0	0	0	0	0	0	0	0	70	26-35	48
	17:00	2	5	12	17	6	0	0	0	0	0	0	0	0	0	55	21-30	32
	18:00	1	0	8	20	15	4	0	0	0	0	0	0	0	0	42	21-30	29
	19:00	0	3	4	15	9	1	0	0	0	0	0	0	0	0	48	26-35	35
	20:00	4	1	3	15	9	1	0	0	0	0	0	0	0	0	32	26-35	24
	21:00	1	0	3	11	5	0	0	0	0	0	0	0	0	0	33	26-35	24
	22:00	0	1	1	5	4	0	0	0	0	0	0	0	0	0	20	25-34	16
	23:00	0	0	2	3	2	1	0	0	0	0	0	0	0	0	11	26-35	9
	Total	24	46	168	362	197	23	0	0	0	0	0	0	0	0	820		5
	Percent	2.9%	5.6%	20.5%	44.1%	24.0%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
	AM Peak	08:00	08:00	08:00	08:00	08:00	07:00									08:00		
	Vol.	3	7	15	37	15	4									78		
	PM Peak	20:00	16:00	15:00	12:00	12:00	18:00									12:00		
	Vol.	4	12	16	35	20	4									70		

# Vanasse & Associates

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Site Code: 00738201

Eastbound		16	21	26	31	36	41	46	51	56	61	66	71	76	76	999	Total	Pace	Number	
Start	Time	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90		Speed	in Pace	
11/23/16	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	20-29	2	
01:00	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	26-35	3	
02:00	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3	24-33	2	
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	19-28	1	
05:00	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	5	26-35	3	
06:00	0	1	4	5	3	2	0	0	0	0	0	0	0	0	0	15	21-30	9		
07:00	0	0	15	21	7	4	0	0	0	0	0	0	0	0	0	47	21-30	36		
08:00	0	5	21	28	5	0	0	0	0	0	0	0	0	0	0	59	21-30	49		
09:00	1	1	6	18	10	1	0	0	0	0	0	0	0	0	0	37	26-35	28		
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
<b>Total</b>	<b>1</b>	<b>8</b>	<b>47</b>	<b>78</b>	<b>30</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>172</b>											
<b>Percent</b>	<b>0.6%</b>	<b>4.7%</b>	<b>27.3%</b>	<b>45.3%</b>	<b>17.4%</b>	<b>4.1%</b>	<b>0.6%</b>	<b>0.0%</b>												
<b>AM Peak</b>	<b>09:00</b>	<b>08:00</b>	<b>08:00</b>	<b>08:00</b>	<b>09:00</b>	<b>07:00</b>	<b>02:00</b>													
<b>Vol.</b>	<b>1</b>	<b>5</b>	<b>21</b>	<b>28</b>	<b>10</b>	<b>4</b>	<b>1</b>										<b>08:00</b>			<b>59</b>
<b>PM Peak</b>																				
<b>Vol.</b>																				
<b>Total</b>	<b>26</b>	<b>65</b>	<b>290</b>	<b>608</b>	<b>321</b>	<b>42</b>	<b>3</b>	<b>0</b>	<b>1355</b>											
<b>Percent</b>	<b>1.9%</b>	<b>4.8%</b>	<b>21.4%</b>	<b>44.9%</b>	<b>23.7%</b>	<b>3.1%</b>	<b>0.2%</b>	<b>0.0%</b>												
<b>15th Percentile :</b>																				
<b>50th Percentile :</b>																				
<b>85th Percentile :</b>																				
<b>95th Percentile :</b>																				

Stats  
 10 MPH Pace Speed : 26-35 MPH  
 Number in Pace : 929  
 Percent in Pace : 68.6%  
 Number of Vehicles > 55 MPH : 0  
 Percent of Vehicles > 55 MPH : 0.0%  
 Mean Speed(Average) : 28 MPH



**Job**  
**Location**  
**Calculated By:**  
**Checked By:**

**Brookline, MA**  
**S of Heath St**  
**S.R.F.**

**Job # 7382**  
**Date 1/27/2017**

**Street: Woodland Road**  
**Direction: Northbound**

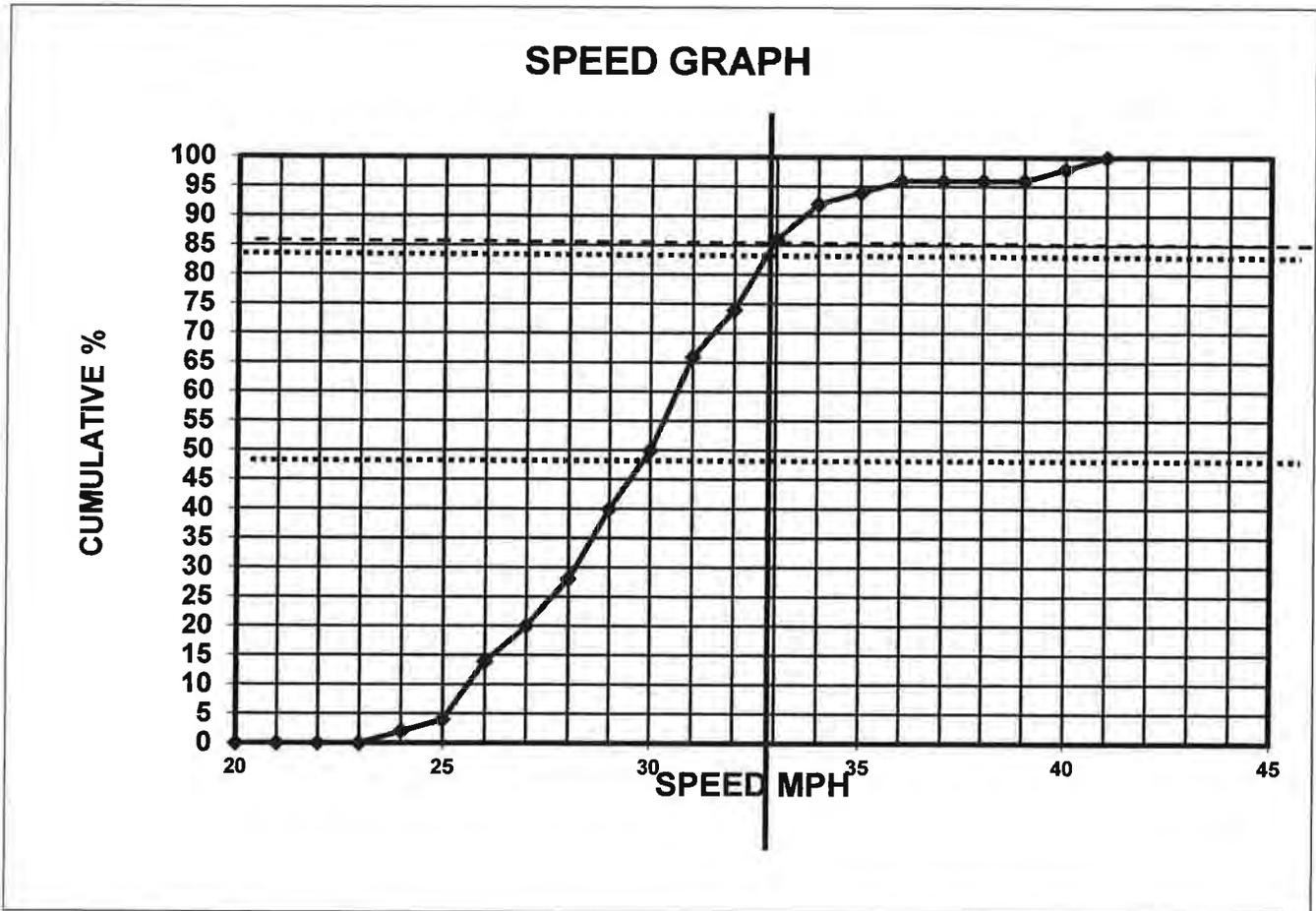
**Speed Limit: 25**  
**Time of Day 8:45 a.m.**  
**Observations 50**

Speed	# of Observation	CUM. # Of OBS	% OF TOTAL OBS	CUM %
55				
54				
53				
52				
51				
50				
49				
48				
47				
46				
45				
44				
43				
42				
41	1	1	2	100
40	1	2	2	98
39	0	2	0	96
38	0	2	0	96
37	0	2	0	96
36	1	3	2	96
35	1	4	2	94
34	3	7	6	92
33	6	13	12	86
32	4	17	8	74
31	8	25	16	66
30	5	30	10	50
29	6	36	12	40
28	4	40	8	28
27	3	43	6	20
26	5	48	10	14
25	1	49	2	4
24	1	50	2	2
23				
22				
21				
20				

**Average: 30.48**  
**Comments: 85% = 32.9 m.p.h.**

Street: Woodland Road  
Direction: Northbound

Job # 7382  
Date 1/27/2017



TRANSIT INFORMATION

---



**Massachusetts Bay  
Transportation Authority**

## Green Line Schedule

Weekday	First Trip	Rush Hour	Midday	Evening	Late Night	Last Trip	Last Trip (Friday)
<b>"B"</b>							
LV Boston College	5:01AM	7 Mins.	8 Mins.	8 Mins.	9 Mins.	12:10AM	1:30AM
LV Park Street	5:39AM	7 Mins.	8 Mins.	8 Mins.	9 Mins.	<sup>w</sup> 12:52AM	<sup>w</sup> 2:10AM
<b>"C"</b>							
LV Cleveland Circle	* 5:01AM	6 Mins.	8 Mins.	7 Mins.	9 Mins.	12:10AM	1:10AM
LV North Station	5:55AM	6 Mins.	8 Mins.	7 Mins.	9 Mins.	<sup>w</sup> 12:46AM	<sup>w</sup> 1:46AM
<b>"D"</b>							
LV Riverside	4:56AM	7 Mins.	8 Mins.	8 Mins.	10 Mins.	12:05AM	1:05AM
LV Park Street	5:36AM	7 Mins.	8 Mins.	8 Mins.	10 Mins.	<sup>w</sup> 12:49AM	<sup>w</sup> 1:49AM
<b>"E"</b>							
LV Lechmere	5:01AM	6 Mins.	7 Mins.	9 Mins.	9 Mins.	12:30AM	1:59AM
LV Heath Street	5:30AM	6 Mins.	7 Mins.	9 Mins.	9 Mins.	<sup>w</sup> 12:45AM	<sup>w</sup> 2:04AM
Saturday	First Trip	A.M. Peak	P.M. Peak	Evening	Late Night	Last Trip	
<b>"B"</b>							
LV Boston College	<sup>†</sup> 4:45AM	7 Mins.	7 Mins.	7 Mins.	11 Mins.	1:30AM	
LV Park Street	5:33AM	7 Mins.	7 Mins.	7 Mins.	11 Mins.	<sup>w</sup> 2:10AM	
<b>"C"</b>							
LV Cleveland Circle	<sup>‡</sup> 4:50AM	10 Mins.	8 Mins.	8 Mins.	10 Mins.	1:10AM	
LV North Station	5:30AM	10 Mins.	8 Mins.	8 Mins.	10 Mins.	<sup>w</sup> 1:46AM	
<b>"D"</b>							
LV Riverside	4:55AM	10 Mins.	8 Mins.	10 Mins.	10 Mins.	1:05AM	
LV Park Street	5:39AM	10 Mins.	8 Mins.	10 Mins.	10 Mins.	<sup>w</sup> 1:49AM	
<b>"E"</b>							
LV Lechmere	5:01AM	10 Mins.	9 Mins.	10 Mins.	10 Mins.	1:59AM	

*w*

		10 Mins.	9 Mins.	10 Mins.	10 Mins.	2:04AM
	<b>Sunday</b>	<b>First Trip</b>	<b>A.M. Peak</b>	<b>P.M. Peak</b>	<b>Evening</b>	<b>Late Night</b>
<b>"B"</b>						
<b>LV Heath Street</b>	<b>5:30AM</b>					
<b>LV Boston College</b>	<b>†</b> <b>5:20AM</b>	10 Mins.	9 Mins.	7 Mins.	10 Mins.	12:10AM
<b>LV Park Street</b>	<b>6:06AM</b>	10 Mins.	9 Mins.	7 Mins.	10 Mins.	<sup>w</sup> 12:48AM
<b>"C"</b>						
<b>LV Cleveland Circle</b>	<b>‡</b> <b>5:30AM</b>	10 Mins.	10 Mins.	10 Mins.	10 Mins.	12:10AM
<b>LV North Station</b>	<b>6:06AM</b>	10 Mins.	10 Mins.	10 Mins.	10 Mins.	<sup>w</sup> 12:48AM
<b>"D"</b>						
<b>LV Riverside</b>	<b>5:25AM</b>	10 Mins.	10 Mins.	10 Mins.	10 Mins.	12:00AM
<b>LV Park Street</b>	<b>6:09AM</b>	10 Mins.	10 Mins.	10 Mins.	10 Mins.	<sup>w</sup> 12:45AM
<b>"E"</b>						
<b>LV Lechmere</b>	<b>5:35AM</b>	12 Mins.	12 Mins.	12 Mins.	12 Mins.	12:30AM
<b>LV Heath Street</b>	<b>6:15AM</b>	12 Mins.	12 Mins.	12 Mins.	12 Mins.	<sup>w</sup> 12:47AM

## Notes

- \* - The first 2 "C" Line AM inbound trips run through to Lechmere Station on Weekdays.
- † - The first "B" Line AM inbound trips run through to Lechmere Station on Saturday and Sunday.
- ‡ - The second "C" Line AM inbound trips run through to Lechmere Station on Saturday and Sunday.

*w* - Last trips wait for connecting trains in Downtown area. Departure times are approximate.

## Schedule Periods

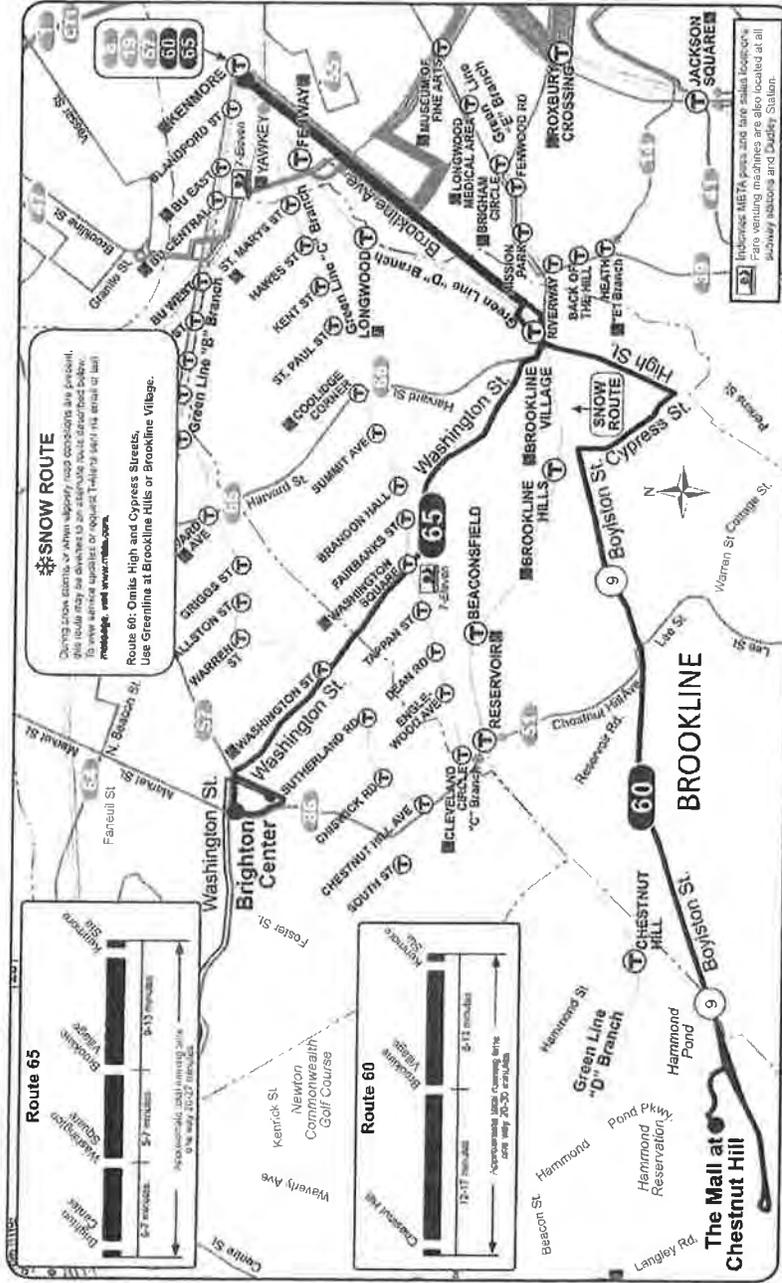
- Rush Hour AM: approx. 6:30AM - 9:00AM
- Midday: approx. 9:00AM - 3:30PM
- Rush Hour PM: approx. 3:30PM - 6:30PM
- Evening: approx. 6:30PM - 8:00PM
- Late Night: approx. 8:00PM - Close



**65** **Weekday**

Inbound			Outbound		
Leave Brighton Center	Arrive Brookline Village	Arrive Kenmore Station	Leave Kenmore Station	Arrive Brookline Village	Arrive Brighton Center
6:20A	6:33A	6:45A	6:47A	6:57A	7:00A
6:42	6:55	7:11	7:15	7:26	7:27
7:06	7:23	7:41	7:45	7:56	7:57
7:30	7:49	8:09	8:13	8:24	8:25
7:54	8:15	8:37	8:41	8:52	8:53
8:18	8:41	9:05	9:09	9:20	9:21
8:42	9:07	9:33	9:37	9:48	9:49
9:06	9:33	10:01	10:05	10:16	10:17
9:30	10:00	10:29	10:33	10:44	10:45
10:00	10:30	11:01	11:05	11:16	11:17
10:30	11:00	11:33	11:37	11:48	11:49
11:00	11:30	12:03	12:07	12:18	12:19
11:30	12:00	12:33	12:37	12:48	12:49
12:00	12:30	13:03	13:07	13:18	13:19
12:30	13:00	13:33	13:37	13:48	13:49
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13:30	14:00	14:33	14:37	14:48	14:49
14:00	14:30	15:03	15:07	15:18	15:19
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20:30	21:00	21:33	21:37	21:48	21:49
21:00	21:30	22:03	22:07	22:18	22:19
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98:30	99:00	99:33	99:37	99:48	99:49
99:00	99:30	10:03	10:07	10:18	10:19
9					

**Route 60 Chestnut Hill - Kenmore Station**  
**Route 65 Brighton Center - Kenmore Station**



60•65

**Winter December 26, 2015 - March 18, 2016**

**60 Chestnut Hill-Kenmore Station**  
**65 Brighton Center-Kenmore Station**

**Serving**

- The Mall at Chestnut Hill
- St. Elizabeth's Medical Center
- Brookline Village
- Longwood Medical Area
- Beth Israel Deaconess Medical Center
- Fenway Park
- Green Line

**Massachusetts Bay Transportation Authority**  
 Information 617-222-3700 • 1-800-392-6100  
 (TTY) 617-222-5145 • [www.mbta.com](http://www.mbta.com)

## CRASH DATA

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# CRASH RATE WORKSHEET

CITY/TOWN : Brookline COUNT DATE : 2016  
 DISTRICT : 6 UNSIGNALIZED :  Yes SIGNALIZED :

**MHD USE ONLY**

Source #

~ INTERSECTION DATA ~

MAJOR STREET : Hammond Pond Parkway  
 MINOR STREET(S) : Hammond Street  
Newton Street (West)  
LeGrange Street  
Newton Street (South)

ST #

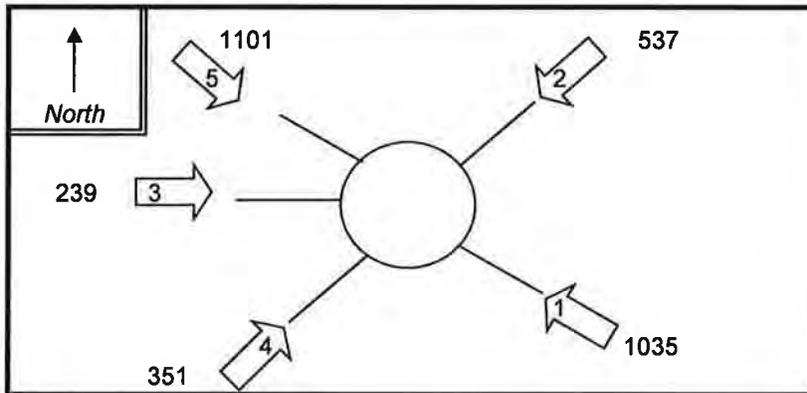
ST #

ST #

ST #

ST #

**INTERSECTION DIAGRAM**  
(Label Approaches)



INTERSECTION

REF #

**Peak Hour Volumes**

APPROACH :	1	2	3	4	5	Total Entering Vehicles
DIRECTION :	NB	SB	EB	NEB	SEB	
VOLUMES (AM/PM) :	1,035	537	239	351	1,101	3,263

"K" FACTOR :  APPROACH ADT :  ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS :  # OF YEARS :  AVERAGE # OF ACCIDENTS ( A ) :

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

Comments : Crash rate is significant if > 0.58 crashes per mev for an unsignalized intersection and > 0.76 crashes per mev for a signalized intersection for MassDOT District 6.



# CRASH RATE WORKSHEET

CITY/TOWN : Brookline COUNT DATE : 2016

DISTRICT : 6 UNSIGNALIZED :  SIGNALIZED :  Yes

**MHD USE ONLY**

Source #

~ INTERSECTION DATA ~

MAJOR STREET : Boylston Street

MINOR STREET(S) : Hammond Street

ST #

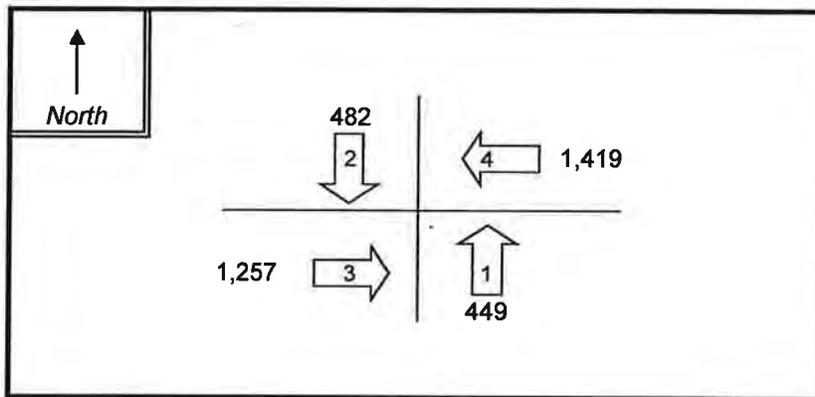
ST #

ST #

ST #

ST #

**INTERSECTION  
DIAGRAM  
(Label Approaches)**



INTERSECTION

REF #

**Peak Hour Volumes**

APPROACH :	1	2	3	4	5	Total Entering Vehicles
DIRECTION :	NB	SB	EB	WB		
VOLUMES (AM/PM) :	449	482	1,257	1,419		3,607

" K " FACTOR :  APPROACH ADT :  ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS :  # OF YEARS :  AVERAGE # OF ACCIDENTS ( A ) :

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

Comments : Crash rate is significant if > 0.58 crashes per mev for an unsignalized intersection and > 0.76 crashes per mev for a signalized intersection for MassDOT District 6.

# MassDOT

## CRASH RATE WORKSHEET

CITY/TOWN : Brookline COUNT DATE : 2016  
 DISTRICT : 6 UNSIGNALIZED :  SIGNALIZED :  Yes

**MHD USE ONLY**

Source #

~ INTERSECTION DATA ~

MAJOR STREET : Hammond Street  
 MINOR STREET(S) : Heath Street

ST #

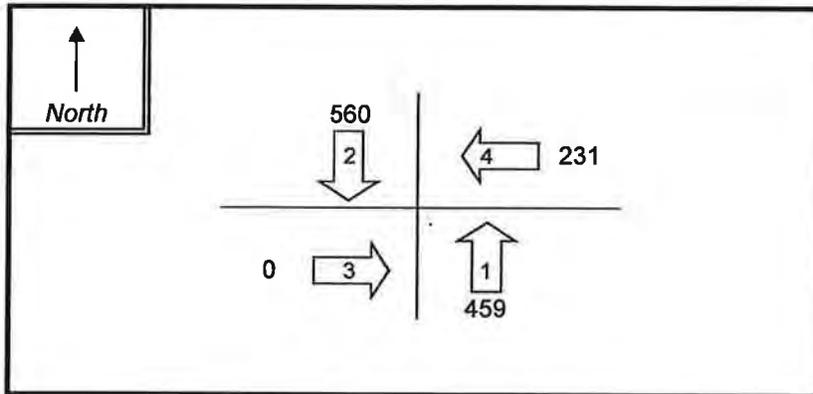
ST #

ST #

ST #

ST #

**INTERSECTION  
 DIAGRAM**  
 (Label Approaches)



INTERSECTION  
 REF #

**Peak Hour Volumes**

APPROACH :	1	2	3	4	5	Total Entering Vehicles
DIRECTION :	NB	SB	EB	WB		
VOLUMES (AM/PM) :	459	560	0	231		1,250

" K " FACTOR :  APPROACH ADT :  ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS :  # OF YEARS :  AVERAGE # OF ACCIDENTS ( A ) :

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

Comments : Crash rate is significant if > 0.58 crashes per mev for an unsignalized intersection and > 0.76 crashes per mev for a signalized intersection for MassDOT District 6.



# CRASH RATE WORKSHEET

CITY/TOWN : Brookline COUNT DATE : 2016  
 DISTRICT : 6 UNSIGNALIZED :  Yes SIGNALIZED :

**MHD USE ONLY**

Source #

~ INTERSECTION DATA ~

MAJOR STREET : Heath Street

ST #

MINOR STREET(S) : Dunster Street

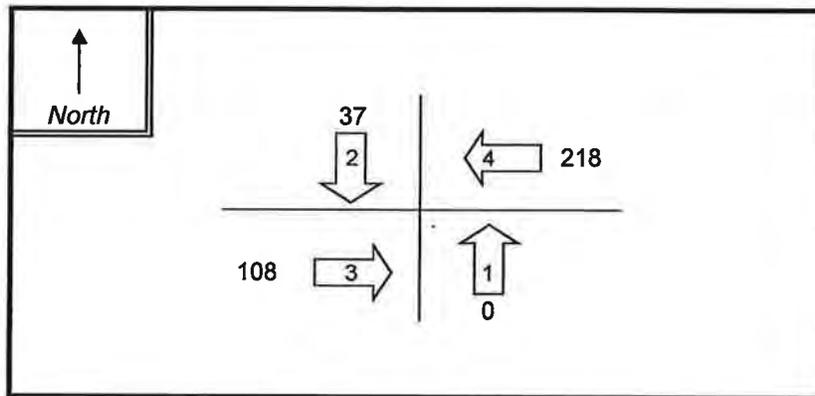
ST #

ST #

ST #

ST #

**INTERSECTION  
DIAGRAM**  
(Label Approaches)



INTERSECTION

REF #

**Peak Hour Volumes**

APPROACH :	1	2	3	4	5	Total Entering Vehicles
DIRECTION :	NB	SB	EB	WB		
VOLUMES (AM/PM) :	0	37	108	218		363

" K " FACTOR :  APPROACH ADT :  ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS :  # OF YEARS :  AVERAGE # OF ACCIDENTS ( A ) :

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

Comments : Crash rate is significant if > 0.58 crashes per mev for an unsignalized intersection and > 0.76 crashes per mev for a signalized intersection for MassDOT District 6.

# MassDOT

## CRASH RATE WORKSHEET

CITY/TOWN : Brookline COUNT DATE : 2016  
 DISTRICT : 6 UNSIGNALIZED :  Yes SIGNALIZED :

**MHD USE ONLY**

Source #

~ INTERSECTION DATA ~

MAJOR STREET : Hammond Street  
 MINOR STREET(S) : Soule Rec Driveway

ST #

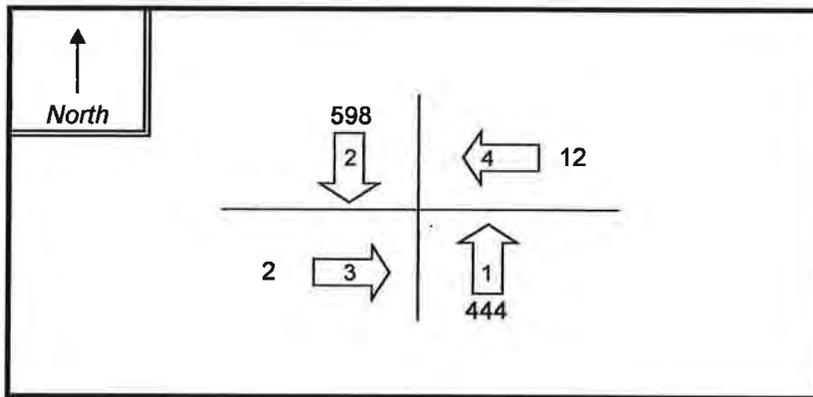
ST #

ST #

ST #

ST #

**INTERSECTION  
 DIAGRAM**  
 (Label Approaches)



INTERSECTION

REF #

**Peak Hour Volumes**

APPROACH :	1	2	3	4	5	Total Entering Vehicles
DIRECTION :	NB	SB	EB	WB		
VOLUMES (AM/PM) :	444	598	2	12		1,056

" K " FACTOR :  APPROACH ADT :  ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS :  # OF YEARS :  AVERAGE # OF ACCIDENTS ( A ) :

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

Comments : Crash rate is significant if > 0.58 crashes per mev for an unsignalized intersection and >0.76 crashes per mev for a signalized intersection for MassDOT District 6.



# CRASH RATE WORKSHEET

CITY/TOWN : Brookline COUNT DATE : 2016  
 DISTRICT : 6 UNSIGNALIZED :  Yes SIGNALIZED :

**MHD USE ONLY**

Source #

~ INTERSECTION DATA ~

MAJOR STREET : Hammond Street  
 MINOR STREET(S) : Woodland Road

ST #

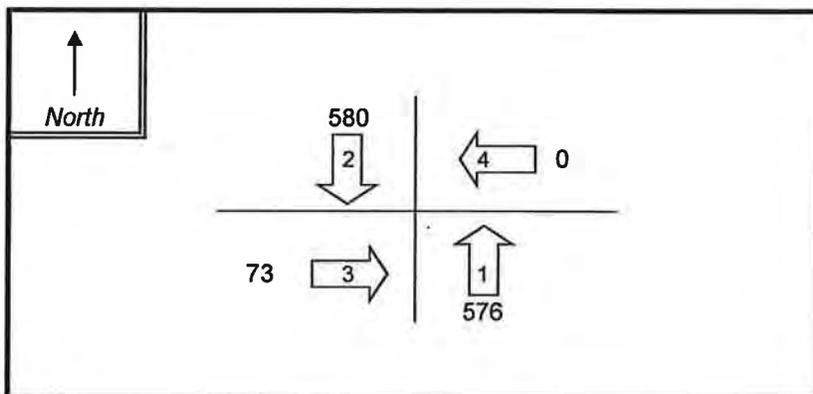
ST #

ST #

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ST #

**INTERSECTION  
 DIAGRAM**  
 (Label Approaches)



INTERSECTION

REF #

**Peak Hour Volumes**

APPROACH :	1	2	3	4	5	Total Entering Vehicles
DIRECTION :	NB	SB	EB	WB		
VOLUMES (AM/PM) :	576	580	73	0		1,229

"K" FACTOR :  APPROACH ADT :  ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS :  # OF YEARS :  AVERAGE # OF ACCIDENTS ( A ) :

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

Comments : Crash rate is significant if > 0.58 crashes per mev for an unsignalized intersection  
 and >0.76 crashes per mev for a signalized intersection for MassDOT District 6.

Crash Number	Crash Date	Crash Time	Crash Hour	City/Town	Crash Severity	Manner of Collision	Locality	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway
3613807	9/16/2013	5:30 PM	05:00PM to 05:59PM	BROOKLINE	Non-fatal injury	Head-on	BROOKLINE	Dry	Daylight	Clear		WOODLAND ROAD / HAMMOND STREET
3805488	1/14/2014	9:30 AM	09:00AM to 09:59AM	BROOKLINE	Non-fatal injury	Angle	BROOKLINE	Wet	Daylight	Cloudy/Rain		HAMMOND STREET / WOODLAND RD
4074981	11/10/2014	12:00 AM	12:00AM to 12:59AM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Daylight	Clear		HAMMOND STREET / WOODLAND ROAD
4075019	12/11/2014	6:28 PM	06:00PM to 06:59PM	BROOKLINE	Non-fatal injury	Angle	BROOKLINE	Wet	Dark - lighted roadway	Clear		HAMMOND ST / WOODLAND RD
3023330	1/13/2012	5:10 PM	05:00PM to 05:59PM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Dark - lighted roadway	Clear		WOODLAND ROAD / HAMMOND STREET
3023432	1/12/2012	4:56 PM	04:00PM to 04:59PM	BROOKLINE	Property damage only (none injured)	Single vehicle crash	BROOKLINE	Dry	Dark - lighted roadway	Clear		HAMMOND STREET / WOODLAND ROAD
3831445	4/10/2014	5:00 PM	05:00PM to 05:59PM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Daylight	Clear	794	HAMMOND ST
3266366	7/21/2012	3:15 AM	03:00AM to 03:59AM	BROOKLINE	Property damage only (none injured)	Single vehicle crash	BROOKLINE	Dry	Dark - lighted roadway	Clear	795	HAMMOND STREET
3948834	12/8/2012	11:23 AM	11:00AM to 11:59AM	BROOKLINE	Property damage only (none injured)	Not reported	BROOKLINE	Wet	Daylight	Rain		HAMMOND STREET / WOODLAND ROAD
4074888	7/23/2014	3:25 PM	03:00PM to 03:59PM	BROOKLINE	Non-fatal injury	Single vehicle crash	BROOKLINE	Dry	Daylight	Clear		HAMMOND ST / WOODLAND RD

SELECT [Crash Number], [Crash Date], [Crash Time], [Crash Hour], [City/Town], [Crash Severity], [Manner of Collision], [Locality], [Road Surface], [Ambient Light], [Weather Condition], [Street Number], [Roadway], [X], [Y] FROM [TBL\_CRASH\_REPORT\_VIEW] WHERE ((([City/Town] = 'BROOKLINE') AND ([Crash Date] >= '2010-01-01' AND [Crash Date] <= '2014-12-31'))

This query was also restricted by a map filter.

Crash Number	Crash Date	Crash Time	Crash Hour	City/Town	Crash Severity	Manner of Collision	Locality	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway
4074823	2/26/2014	8:17 AM	08:00AM to 08:59AM	BROOKLINE	Non-fatal injury	Angle	BROOKLINE	Dry	Daylight	Clear	652	HAMMOND ST
4075014	12/9/2014	1:00 PM	01:00PM to 01:59PM	BROOKLINE	Property damage only (none injured)	Single vehicle crash	BROOKLINE	Wet	Daylight	Rain	650	HAMMOND ST

SELECT [Crash Number], [Crash Date], [Crash Time], [Crash Hour], [City/Town], [Crash Severity], [Manner of Collision], [Locality], [Road Surface], [Ambient Light], [Weather Condition], [Street Number], [Roadway], [X] FROM [TBL\_CRASH\_REPORT\_VIEW] WHERE ((([City/Town] = 'BROOKLINE') AND ([Crash Date] >= '2010-01-01' AND [Crash Date] <= '2014-12-31'))

This query was also restricted by a map filter.

Crash Number	Crash Date	Crash Time	Crash Hour	City/Town	Crash Severity	Manner of Collision	Locality	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway
3403216	3/22/2013	8:13 PM	08:00PM to 08:59PM	BROOKLINE	Non-fatal injury	Angle	BROOKLINE	Dry	Dark - lighted roadway	Clear		BOYLSTON STREET Rte 9 E / HAMMOND STREET
2789198	4/16/2011	11:10 PM	11:00PM to 11:59PM	BROOKLINE	Non-fatal injury	Rear-end	BROOKLINE	Wet	Dark - lighted roadway	Rain		BOYLSTON STREET Rte 9 E / HAMMOND STREET
2789970	1/29/2011	9:40 PM	09:00PM to 09:59PM	BROOKLINE	Property damage only (none injured)	Rear-end	BROOKLINE	Wet	Dark - lighted roadway	Clear	1192	BOYLSTON STREET
3345833	9/26/2012	4:00 PM	04:00PM to 04:59PM	BROOKLINE	Property damage only (none injured)	Rear-end	BROOKLINE	Dry	Daylight	Cloudy		BOYLSTON STREET Rte 9 E / HAMMOND STREET
3348878	11/19/2012	12:37 AM	12:00AM to 12:59AM	BROOKLINE	Non-fatal injury	Rear-end	BROOKLINE	Dry	Daylight	Clear		BOYLSTON STREET Rte 9 E / HAMMOND STREET
3348888	11/13/2012	9:35 PM	09:00PM to 09:59PM	BROOKLINE	Property damage only (none injured)	Rear-end	BROOKLINE	Dry	Dark - lighted roadway	Cloudy		BOYLSTON STREET Rte 9 E / HAMMOND STREET
3620570	8/14/2013	9:53 PM	09:00PM to 09:59PM	BROOKLINE	Non-fatal injury	Angle	BROOKLINE	Dry	Dark - lighted roadway	Clear		BOYLSTON STREET Rte 9 W / HAMMOND STREET
3766330	7/31/2012	9:05 PM	09:00PM to 09:59PM	BROOKLINE	Non-fatal injury	Single vehicle crash	BROOKLINE	Wet	Dark - lighted roadway	Rain		HAMMOND STREET / BOYLSTON STREET
3345772	10/31/2012	12:39 AM	12:00AM to 12:59AM	BROOKLINE	Non-fatal injury	Rear-end	BROOKLINE	Dry	Daylight	Clear		BOYLSTON STREET / HAMMOND STREET Rte 9 W
3831436	4/11/2014	9:05 PM	09:00PM to 09:59PM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Dark - lighted roadway	Cloudy		BOYLSTON ST Rte 9 W / HAMMOND ST Rte 9 W
3887529	6/24/2014	12:00 PM	12:00PM to 12:59PM	BROOKLINE	Property damage only (none injured)	Sideswipe, same direction	BROOKLINE	Dry	Daylight	Clear		HAMMOND STREET / BOYLSTON STREET Rte 9 E
2787067	10/1/2011	10:45 AM	10:00AM to 10:59AM	BROOKLINE	Property damage only (none injured)	Rear-end	BROOKLINE	Dry	Daylight	Cloudy		BOYLSTON STREET / HAMMOND STREET
2789609	5/12/2011	10:55 AM	10:00AM to 10:59AM	BROOKLINE	Non-fatal injury	Rear-end	BROOKLINE	Dry	Daylight	Cloudy		BOYLSTON STREET Rte 9
2578192	1/11/2010	6:14 AM	06:00AM to 06:59AM	BROOKLINE	Not Reported	Angle	BROOKLINE	Dry	Dark - lighted roadway	Clear		BOYLSTON STREET Rte 9 E / HAMMOND STREET
2778995	9/22/2011	7:15 PM	07:00PM to 07:59PM	BROOKLINE	Non-fatal injury	Rear-end	BROOKLINE	Dry	Dark - lighted roadway	Cloudy		BOYLSTON STREET / HAMMOND STREET
2790973	2/4/2011	1:55 PM	01:00PM to 01:59PM	BROOKLINE	Non-fatal injury	Rear-end	BROOKLINE	Dry	Daylight	Clear	616	HAMMOND STREET
2799230	10/25/2011	1:09 PM	01:00PM to 01:59PM	BROOKLINE	Property damage only (none injured)	Sideswipe, same direction	BROOKLINE	Dry	Daylight	Clear		BOYLSTON STREET / HAMMOND STREET
3182735	4/3/2012	4:35 PM	04:00PM to 04:59PM	BROOKLINE	Property damage only (none injured)	Single vehicle crash	BROOKLINE	Dry	Daylight	Clear	1180	BOYLSTON STREET
3613803	9/11/2013	3:00 PM	03:00PM to 03:59PM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Daylight	Clear		BOYLSTON STREET Rte 9 W / HAMMOND STREET
3805483	1/14/2014	5:48 PM	05:00PM to 05:59PM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Wet	Dark - lighted roadway	Reported but invalid		HAMMOND ST / BOYLSTON ST

SELECT [Crash Number], [Crash Date], [Crash Time], [Crash Hour], [City/Town], [Crash Severity], [Manner of collision], [Locality], [Road Surface], [Ambient Light], [Weather Condition], [Street Number], [Roadway], [X], [Y] FROM [tbl\_CRASH\_REPORT\_VIEW] WHERE ((([City/Town] = 'BROOKLINE') AND ([Crash Date] >= '2010-01-01' AND [Crash Date] <= '2014-12-31'))

This query was also restricted by a map filter.

Crash Number	Crash Date	Crash Time	Crash Hour	City/Town	Crash Severity	Manner of Collision	Locality	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway
3550861	7/29/2013	6:00 PM	06:00PM to 06:59PM	BROOKLINE	Property damage only (none injured)	Sideswipe, opposite direction	BROOKLINE	Dry	Daylight	Clear		HEATH STREET
2758031	5/17/2010	1:45 PM	01:00PM to 01:59PM	BROOKLINE	Not Reported	Sideswipe, same direction	BROOKLINE	Not reported	Daylight	Cloudy	625	HAMMOND STREET
2848650	10/29/2011	11:30 AM	11:00AM to 11:59AM	BROOKLINE	Property damage only (none injured)	Single vehicle crash	BROOKLINE	Wet	Daylight	Cloudy/Rain		HAMMOND STREET / HEATH STREET

SELECT (Crash Number), (Crash Date), (Crash Time), (Crash Hour), (City/Town), (Crash Severity), (Manner of Collision), (Locality), (Road Surface), (Ambient Light), (Weather Condition), (Street Number), (Roadway), (X), (Y) FROM [TBL\_CRASH\_REPORT\_VIEW] WHERE (((City/Town) = 'BROOKLINE') AND ((Crash Date) >= '2010-01-01' AND (Crash Date) <= '2014-12-31'))

This query was also restricted by a map filter.

Crash Number	Crash Date	Crash Time	Crash Hour	City/Town	Crash Severity	Number of Collision	Locality	Road Surface	Ambient Light	Weather Conditions	Street Number	Roadway
3391386	4/13/2013	6:15 AM	05:00AM to 05:59AM	BROOKLINE	Property damage only (none injured)	Single vehicle crash	BROOKLINE	Wet	Dawn	Rain		HORACE JAMES CIRCLE / WEST ROXBURY PARKWAY
3265570	7/11/2012	4:05 PM	04:00PM to 04:59PM	BROOKLINE	Property damage only (none injured)	Rear-end	BROOKLINE	Dry	Dawn	Clear		LAGRANGE STREET / HORACE JAMES CIRCLE
3613735	8/12/2013	10:00 AM	10:00AM to 10:59AM	BROOKLINE	Non-Fatal Injury	Rear-end	BROOKLINE	Dry	Dawn	Clear		HORACE JAMES CIRCLE
3657954	11/4/2013	4:47 PM	04:00PM to 04:59PM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Dawn	Clear		HORACE JAMES CIRCLE / NEWTON STREET / HAMMOND POND PARKWAY
3362496	1/10/2010	1:40 PM	01:00PM to 01:59PM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Dawn	Clear		HORACE JAMES CIRCLE / NEWTON STREET / HAMMOND POND PARKWAY
2523318	10/22/2010	4:22 PM	04:00PM to 04:59PM	BROOKLINE	Property damage only (none injured)	Side-swipe, same direction	BROOKLINE	Dry	Dawn	Cloudy		HORACE JAMES CIRCLE
2777813	5/17/2011	4:12 PM	04:00PM to 04:59PM	BROOKLINE	Property damage only (none injured)	Side-swipe, same direction	BROOKLINE	Wet	Dawn	Rain		HORACE JAMES CIRCLE
2889631	1/20/2012	3:45 AM	03:00AM to 03:59AM	BROOKLINE	Property damage only (none injured)	Single vehicle crash	BROOKLINE	Wet	Dark - lighted roadway	Snow		HAMMOND POND PARKWAY / HORACE JAMES CIRCLE / WEST ROXBURY PARKWAY
2732493	6/8/2011	2:42 PM	02:00PM to 02:59PM	BROOKLINE	Property damage only (none injured)	Rear-end	BROOKLINE	Dry	Dawn	Cloudy		WEST ROXBURY PARKWAY
3402977	4/26/2013	12:02 PM	12:00PM to 12:59PM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Dawn	Clear	32	HAMMOND POND PARKWAY
3403856	5/3/2013	4:51 PM	04:00PM to 04:59PM	BROOKLINE	Non-Fatal Injury	Angle	BROOKLINE	Dry	Dawn	Clear		HORACE JAMES CIRCLE / NEWTON STREET / HAMMOND POND PARKWAY / HORACE JAMES CIRCLE
2791967	8/22/2011	8:30 PM	08:00PM to 08:59PM	BROOKLINE	Non-Fatal Injury	Angle	BROOKLINE	Dry	Dark - lighted roadway	Clear		HAMMOND POND PARKWAY / NEWTON STREET / HAMMOND STREET
2791976	4/10/2011	1:45 PM	01:00PM to 01:59PM	BROOKLINE	Property damage only (none injured)	Side-swipe, same direction	BROOKLINE	Dry	Dawn	Clear		HAMMOND POND PARKWAY / HORACE JAMES CIRCLE
2791977	8/27/2011	4:35 PM	04:00PM to 04:59PM	BROOKLINE	Non-Fatal Injury	Rear-end	BROOKLINE	Wet	Dawn	Rain		HAMMOND POND PARKWAY / HORACE JAMES CIRCLE
5696053	9/12/2013	2:00 PM	02:00PM to 02:59PM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Dawn	Cloudy		HORACE JAMES CIRCLE / NEWTON STREET / LAGRANGE STREET
3301792	10/12/2012	3:24 PM	03:00PM to 03:59PM	BROOKLINE	Property damage only (none injured)	Side-swipe, same direction	BROOKLINE	Dry	Dawn	Cloudy		HORACE JAMES CIRCLE
3665550	11/21/2013	7:20 AM	07:00AM to 07:59AM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Dawn	Clear		HAMMOND POND PARKWAY
3748369	1/15/2014	8:27 AM	08:00AM to 08:59AM	BROOKLINE	Property damage only (none injured)	Side-swipe, same direction	BROOKLINE	Dry	Dawn	Clear		HAMMOND POND PARKWAY
3927291	8/7/2014	2:11 PM	02:00PM to 02:59PM	BROOKLINE	Non-Fatal Injury	Side-swipe, same direction	BROOKLINE	Dry	Dawn	Clear		HAMMOND POND PARKWAY
3991772	12/16/2014	7:48 AM	07:00AM to 07:59AM	BROOKLINE	Non-Fatal Injury	Side-swipe, same direction	BROOKLINE	Wet	Dawn	Cloudy/Rain		HAMMOND POND PARKWAY
4074843	9/28/2014	12:50 PM	12:00PM to 12:59PM	BROOKLINE	Non-Fatal Injury	Angle	BROOKLINE	Dry	Dawn	Clear		NEWTON ST / LAGRANGE ST / HORACE JAMES ROTARY
4074853	10/14/2014	8:54 AM	08:00PM to 08:59PM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Dawn	Clear		HORACE JAMES CIRCLE / NEWTON STREET
4074869	11/7/2014	3:33 PM	03:00PM to 03:59PM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Wet	Dark - lighted roadway	Rain		NEWTON ST / HORACE JAMES CIRCLE
4075022	12/13/2014	3:48 PM	03:00PM to 03:59PM	BROOKLINE	Property damage only (none injured)	Side-swipe, same direction	BROOKLINE	Dry	Dawn	Clear		HORACE JAMES CIRCLE
4647281	9/28/2010	5:20 PM	05:00PM to 05:59PM	BROOKLINE	Non-Fatal Injury	Single vehicle crash	BROOKLINE	Wet	Dawn	Rain		HORACE JAMES CIRCLE
2622306	7/10/2010	2:11 PM	02:00PM to 02:59PM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Dawn	Cloudy		LAGRANGE STREET / HORACE JAMES CIRCLE
2655636	10/12/2010	2:25 PM	02:00PM to 02:59PM	BROOKLINE	Property damage only (none injured)	Single vehicle crash	BROOKLINE	Dry	Dark - lighted roadway	Cloudy		HAMMOND POND PARKWAY
2734830	3/8/2011	6:35 PM	06:00PM to 06:59PM	BROOKLINE	Non-Fatal Injury	Angle	BROOKLINE	Dry	Dawn	Clear		HORACE JAMES CIRCLE
2602965	7/11/2010	6:51 AM	06:00AM to 06:59AM	BROOKLINE	Non-Fatal Injury	Angle	BROOKLINE	Dry	Dawn	Clear		HORACE JAMES CIRCLE
2622990	7/19/2010	6:10 AM	06:00AM to 06:59AM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Dawn	Clear		HAMMOND POND PARKWAY
3440932	4/11/2013	2:40 PM	02:00PM to 02:59PM	BROOKLINE	Property damage only (none injured)	Rear-end	BROOKLINE	Dry	Dawn	Clear		HORACE JAMES CIRCLE / HAMMOND STREET / HAMMOND POND PARKWAY
2790955	7/18/2011	6:30 PM	06:00PM to 06:59PM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Dawn	Clear		HORACE JAMES CIRCLE / HAMMOND STREET / NEWTON STREET / HAMMOND POND PARKWAY
3412322	5/13/2013	7:55 PM	07:00PM to 07:59PM	BROOKLINE	Non-Fatal Injury	Side-swipe, same direction	BROOKLINE	Dry	Dawn	Clear		HORACE JAMES CIRCLE
3847259	6/6/2014	5:46 PM	05:00PM to 05:59PM	BROOKLINE	Non-Fatal Injury	Angle	BROOKLINE	Dry	Dawn	Clear		HAMMOND POND PARKWAY
3865130	5/29/2014	3:15 PM	03:00PM to 03:59PM	BROOKLINE	Property damage only (none injured)	Side-swipe, same direction	BROOKLINE	Dry	Dawn	Clear		HAMMOND POND PARKWAY
3972016	10/23/2014	3:24 PM	03:00PM to 03:59PM	BROOKLINE	Property damage only (none injured)	Side-swipe, same direction	BROOKLINE	Dry	Dawn	Cloudy		HAMMOND POND PARKWAY
2847211	9/25/2010	9:49 AM	09:00AM to 09:59AM	BROOKLINE	Property damage only (none injured)	Rear-end	BROOKLINE	Dry	Dawn	Clear		HAMMOND POND PARKWAY
2641997	8/26/2010	6:11 PM	06:00PM to 06:59PM	BROOKLINE	Property damage only (none injured)	Side-swipe, same direction	BROOKLINE	Dry	Dark	Clear		HORACE JAMES CIRCLE
2641999	9/12/2010	10:49 AM	10:00AM to 10:59AM	BROOKLINE	Property damage only (none injured)	Rear-end	BROOKLINE	Dry	Dawn	Clear		HORACE JAMES CIRCLE
2629276	8/14/2010	8:28 AM	08:00AM to 08:59AM	BROOKLINE	Non-Fatal Injury	Side-swipe, same direction	BROOKLINE	Dry	Dawn	Clear		HORACE JAMES CIRCLE
2777602	9/19/2011	3:40 PM	03:00PM to 03:59PM	BROOKLINE	Non-Fatal Injury	Rear-end	BROOKLINE	Dry	Dawn	Clear		HAMMOND POND PARKWAY
3022076	4/7/2012	12:35 PM	12:00PM to 12:59PM	BROOKLINE	Property damage only (none injured)	Single vehicle crash	BROOKLINE	Dry	Dark - lighted roadway	Cloudy		HORACE JAMES CIRCLE
2735842	6/8/2011	5:25 PM	05:00PM to 05:59PM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Dawn	Clear		HORACE JAMES CIRCLE
2795144	4/24/2011	8:58 AM	08:00AM to 08:59AM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Wet	Dawn	Clear		HAMMOND POND PARKWAY / HORACE JAMES CIRCLE
2785146	4/22/2011	6:45 PM	06:00PM to 06:59PM	BROOKLINE	Property damage only (none injured)	Rear-end	BROOKLINE	Dry	Dawn	Clear		JAMES CIRCLE
3798804	12/16/2013	8:29 AM	08:00AM to 08:59AM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Dawn	Clear		HAMMOND POND PARKWAY
3905550	4/25/2013	8:11 AM	08:00AM to 08:59AM	BROOKLINE	Property damage only (none injured)	Side-swipe, same direction	BROOKLINE	Dry	Dawn	Cloudy		HAMMOND POND PARKWAY
3805412	9/19/2013	3:50 PM	03:00PM to 03:59PM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Dawn	Clear		HORACE JAMES CIRCLE
3803958	2/7/2014	3:58 PM	03:00PM to 03:59PM	BROOKLINE	Property damage only (none injured)	Rear-end	BROOKLINE	Dry	Dark - lighted roadway	Clear		HORACE JAMES CIRCLE
3804001	2/17/2014	11:25 AM	11:00AM to 11:59AM	BROOKLINE	Property damage only (none injured)	Angle	BROOKLINE	Dry	Dawn	Clear		NEWTON STREET / LAGRANGE STREET / HORACE JAMES CIRCLE
3784772	2/13/2014	2:00 PM	02:00PM to 02:59PM	BROOKLINE	Non-Fatal Injury	Side-swipe, same direction	BROOKLINE	Snow	Dawn	Snow		HORACE JAMES CIRCLE
3462626	9/18/2014	6:00 PM	06:00PM to 06:59PM	BROOKLINE	Property damage only (none injured)	Side-swipe, same direction	BROOKLINE	Dry	Dawn	Clear		HORACE JAMES CIRCLE

45 LEFT (Crash Number), (Crash Date), (Crash Time), (Crash Severity), (Number of Collision), (Locality), (Road Surface), (Ambient Light), (Weather Conditions), (Speed Number), (Roadway), (M, D) FROM (PL\_Colon\_REPORT\_VIEW) WHERE ((CrashType) = BROOKLINE) AND ((Crash Date) >= '2010-01-01' AND (Crash Date) <= '2014-12-31')

This query was also restricted by a map filter.

Crash Number	Crash Date	Crash Time	Crash Hour	City/Town	Crash Severity	Manner of Collision	Locality	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway
4074815	7/3/2014	1:27 PM	01:00PM to 01:59PM	BROOKLINE	Property damage only (none injured)	Single vehicle crash	BROOKLINE	Ice	Daylight	Snow/Blowing sand, snow		HEATH ST / DUNSTER RD
SELECT [Crash Number], [Crash Date], [Crash Time], [Crash Hour], [City/Town], [Crash Severity], [Manner of Collision], [Locality], [Road Surface], [Ambient Light], [Weather Condition], [Street Number], [Roadway], [X], [Y] FROM [TBL_CRASH_REPORT_VIEW] WHERE ((([City/Town] = 'BROOKLINE') AND ([Crash Date] >= '2010- 01-01' AND [Crash Date] <= '2014-12-31'))												
This query was also restricted by a map filter.												

# Vanasse & Associates

35 New England Business Center Dr, Suite 140  
Andover, MA 01810

Vanasse & Associates  
Location: Heath Street  
Location: E of Soule Rear Dwy  
City: Brookline, MA

Site Code: 00738201

Start Time	21-Nov-16 Mon	Westbound		Hour Totals		Eastbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		*	*			*	*				
12:15		*	*			*	*				
12:30		*	*			*	*				
12:45		*	37	0	37	*	12	0	12	0	49
01:00		*	42			*	17				
01:15		*	52			*	16				
01:30		*	51			*	9				
01:45		*	40	0	185	*	9	0	51	0	236
02:00		*	59			*	8				
02:15		*	38			*	15				
02:30		*	59			*	14				
02:45		*	64	0	220	*	14	0	51	0	271
03:00		*	79			*	4				
03:15		*	93			*	16				
03:30		*	109			*	11				
03:45		*	96	0	377	*	11	0	42	0	419
04:00		*	131			*	11				
04:15		*	105			*	16				
04:30		*	88			*	9				
04:45		*	90	0	414	*	10	0	46	0	460
05:00		*	106			*	11				
05:15		*	90			*	10				
05:30		*	85			*	10				
05:45		*	86	0	367	*	15	0	46	0	413
06:00		*	73			*	14				
06:15		*	62			*	10				
06:30		*	57			*	14				
06:45		*	43	0	235	*	7	0	45	0	280
07:00		*	42			*	11				
07:15		*	29			*	5				
07:30		*	26			*	2				
07:45		*	24	0	121	*	6	0	24	0	145
08:00		*	27			*	17				
08:15		*	17			*	5				
08:30		*	14			*	4				
08:45		*	21	0	79	*	5	0	31	0	110
09:00		*	14			*	3				
09:15		*	11			*	3				
09:30		*	14			*	5				
09:45		*	9	0	48	*	0	0	11	0	59
10:00		*	6			*	4				
10:15		*	13			*	0				
10:30		*	7			*	2				
10:45		*	8	0	34	*	0	0	6	0	40
11:00		*	9			*	5				
11:15		*	10			*	2				
11:30		*	5			*	3				
11:45		*	4	0	28	*	0	0	10	0	38
<b>Total</b>		<b>0</b>	<b>2145</b>			<b>0</b>	<b>375</b>			<b>0</b>	<b>2520</b>
<b>Percent</b>		<b>0.0%</b>	<b>100.0%</b>			<b>0.0%</b>	<b>100.0%</b>			<b>0.0%</b>	<b>100.0%</b>

# Vanasse & Associates

Vanasse & Associates  
 Location: Heath Street  
 Location: E of Soule Rear Dwy  
 City: Brookline, MA

35 New England Business Center Dr, Suite 140  
 Andover, MA 01810

Site Code: 00738201

Start Time	22-Nov-16 Tue	Westbound		Hour Totals		Eastbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		1	60			1	20				
12:15		1	48			0	18				
12:30		0	55			0	16				
12:45		2	60	4	223	1	16	2	70	6	293
01:00		3	61			1	19				
01:15		0	46			0	8				
01:30		0	46			0	13				
01:45		3	42	6	195	0	14	1	54	7	249
02:00		0	50			0	13				
02:15		1	65			0	13				
02:30		0	61			0	14				
02:45		0	68	1	244	0	13	0	53	1	297
03:00		2	87			1	19				
03:15		0	96			0	15				
03:30		0	97			0	16				
03:45		1	119	3	399	0	20	1	70	4	469
04:00		1	61			0	9				
04:15		0	100			0	19				
04:30		3	83			2	11				
04:45		0	85	4	329	0	16	2	55	6	384
05:00		0	105			1	11				
05:15		4	115			0	15				
05:30		5	108			2	11				
05:45		9	69	18	397	2	5	5	42	23	439
06:00		12	78			5	12				
06:15		16	81			4	4				
06:30		33	60			11	19				
06:45		59	63	120	282	8	13	28	48	148	330
07:00		72	53			13	9				
07:15		76	42			14	12				
07:30		111	39			10	7				
07:45		109	29	368	163	12	4	49	32	417	195
08:00		111	24			14	11				
08:15		120	22			22	6				
08:30		109	17			13	10				
08:45		101	25	441	88	29	6	78	33	519	121
09:00		75	23			13	4				
09:15		57	18			12	6				
09:30		75	12			13	5				
09:45		58	12	265	65	13	5	51	20	316	85
10:00		49	7			14	6				
10:15		42	8			10	1				
10:30		39	11			14	3				
10:45		51	6	181	32	14	1	52	11	233	43
11:00		41	7			19	1				
11:15		45	2			11	2				
11:30		46	5			9	4				
11:45		42	2	174	16	16	1	55	8	229	24
<b>Total</b>		<b>1585</b>	<b>2433</b>			<b>324</b>	<b>496</b>			<b>1909</b>	<b>2929</b>
<b>Percent</b>		<b>39.4%</b>	<b>60.6%</b>			<b>39.5%</b>	<b>60.5%</b>			<b>39.5%</b>	<b>60.5%</b>

11/22/2016 :

2:15-3:15 pm  
 (school pm peak) = 340 vehicles

AADT = 4838

K-Factor = 7.0%

# Vanasse & Associates

35 New England Business Center Dr, Suite 140  
Andover, MA 01810

Vanasse & Associates  
Location: Heath Street  
Location: E of Soule Rear Dwy  
City: Brookline, MA

Site Code: 00738201

Start Time	23-Nov-16 Wed	Westbound		Hour Totals		Eastbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		2	*			0	*				
12:15		2	*			1	*				
12:30		0	*			1	*				
12:45		4	*	8	0	0	*	2	0	10	0
01:00		0	*			1	*				
01:15		1	*			1	*				
01:30		1	*			1	*				
01:45		1	*	3	0	0	*	3	0	6	0
02:00		1	*			2	*				
02:15		1	*			0	*				
02:30		2	*			0	*				
02:45		1	*	5	0	1	*	3	0	8	0
03:00		0	*			0	*				
03:15		0	*			0	*				
03:30		0	*			0	*				
03:45		0	*	0	0	0	*	0	0	0	0
04:00		0	*			0	*				
04:15		0	*			0	*				
04:30		1	*			0	*				
04:45		1	*	2	0	1	*	1	0	3	0
05:00		2	*			0	*				
05:15		2	*			0	*				
05:30		2	*			1	*				
05:45		8	*	14	0	4	*	5	0	19	0
06:00		12	*			1	*				
06:15		16	*			2	*				
06:30		28	*			6	*				
06:45		32	*	88	0	6	*	15	0	103	0
07:00		41	*			7	*				
07:15		49	*			11	*				
07:30		68	*			7	*				
07:45		58	*	216	0	22	*	47	0	263	0
08:00		80	*			16	*				
08:15		74	*			14	*				
08:30		57	*			15	*				
08:45		54	*	265	0	14	*	59	0	324	0
09:00		41	*			8	*				
09:15		48	*			8	*				
09:30		40	*			5	*				
09:45		28	*	157	0	16	*	37	0	194	0
10:00		9	*			1	*				
10:15		*	*	*	*	*	*	*	*	*	*
10:30		*	*	*	*	*	*	*	*	*	*
10:45		*	*	*	*	*	*	*	*	*	*
11:00		*	*	*	*	*	*	*	*	*	*
11:15		*	*	*	*	*	*	*	*	*	*
11:30		*	*	*	*	*	*	*	*	*	*
11:45		*	*	*	*	*	*	*	*	*	*
<b>Total</b>		<b>767</b>	<b>0</b>			<b>173</b>	<b>0</b>			<b>930</b>	<b>0</b>
<b>Percent</b>		<b>100.0%</b>	<b>0.0%</b>			<b>100.0%</b>	<b>0.0%</b>			<b>100.0%</b>	<b>0.0%</b>
<b>Grand Total</b>		<b>2352</b>	<b>4578</b>			<b>497</b>	<b>871</b>			<b>2839</b>	<b>5449</b>
<b>Percent</b>		<b>33.9%</b>	<b>66.1%</b>			<b>36.3%</b>	<b>63.7%</b>			<b>34.3%</b>	<b>65.7%</b>
<b>ADT</b>		<b>ADT 4,456</b>				<b>AADT 4,456</b>					

## BACKGROUND DEVELOPMENT

---

Record: 1 of 1 | Go to Record: 1 of 1

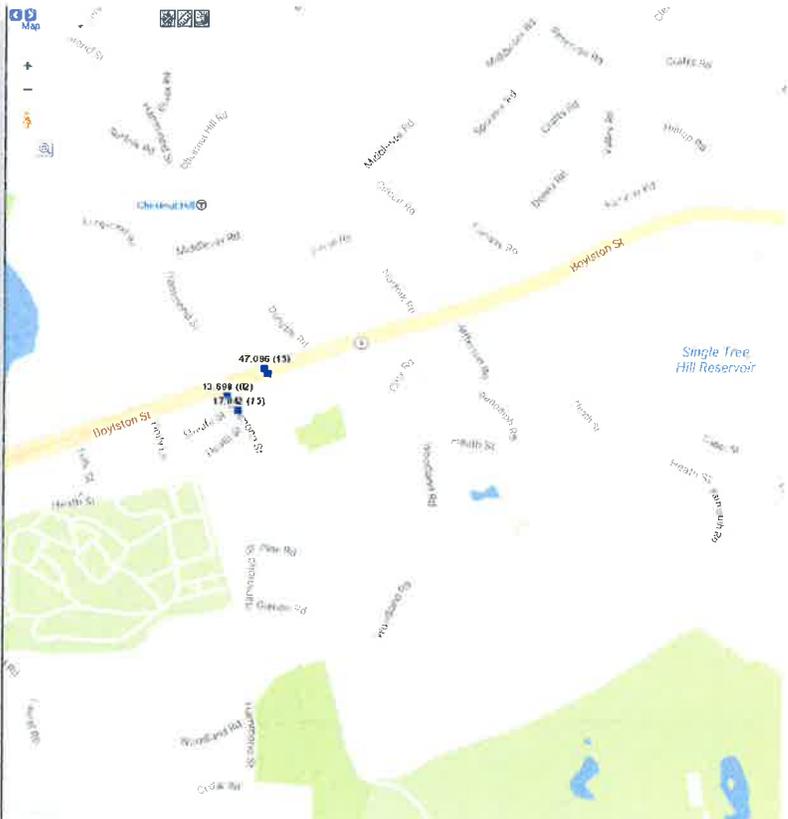
Location ID	1323	MPO ID	
Type	SPOT	NPRM ID	04020100770
On NHS		On NPRM	Yes
LRM ID		LRM Line ID	
SF Group	U3	Route Type	Route
AF Group	U3	Route	
GF Group	U3	Route	
Class Dist Grp			
WB Group			
QC Group	Default		
Fac1 Class	(3) Other Principal Arterial		Milepost
Located On	BOYLSTON STREET		
Loc On Alias			
EAST OF HANBOND ST			
	PM	BP	PT

STATION DATA

Directions: EW, EB, WB, WB

Year	AAOT	DirV-30	K%	D%	PA	BC	Sec
2015	47,096 <sup>1</sup>		7	54	45.587 (97%)	1,489 (3%)	Grown from 2014
2014	46,584 <sup>2</sup>		7	54			Grown from 2013
2013	44,597		10	59			
2012	43,817 <sup>2</sup>		7	54			
2011	43,443	3,199	7	54			

Model Year	Model AAOT	AM PMV	AM PMV	MD PMV	MD PMV	PM PMV	PM PMV	RT PMV	RT PMV
2015	47,096	15	45,027	2015	1%				
2014	46,584	15	44,528	2014	0%				
2013	44,597	10	32,875	2013	1%				
2012	43,817	15	45,871	2012	1%				
2011	43,443	15	45,812	2011	29%				
2010	43,211	10	45,521	2010	0%				



Record: 1 of 1 | Go to Record: 1 of 1

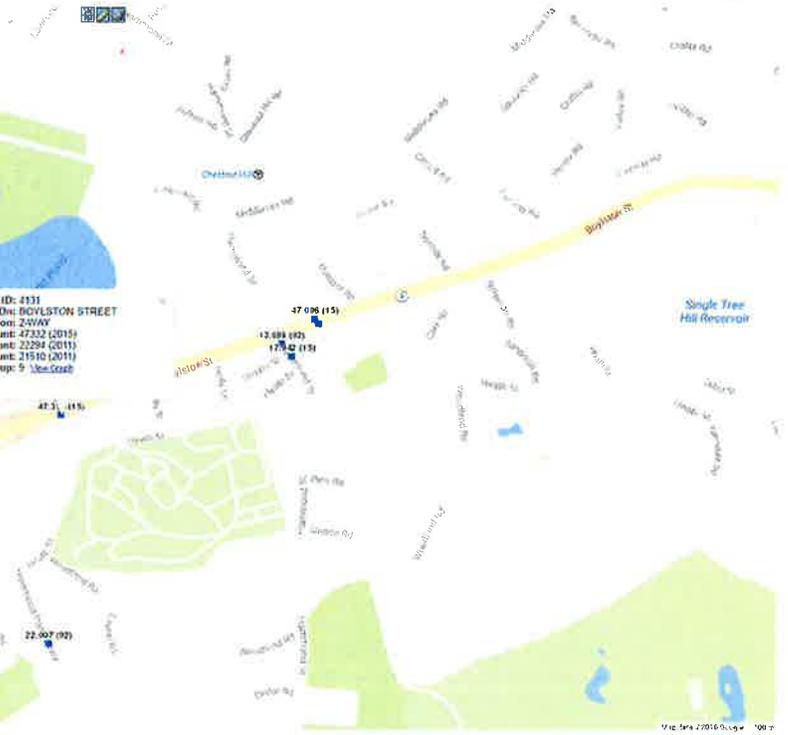
Location ID	4131	MPO ID	0200402110
Type	SPOT	On NHS	Yes
LRM ID		LRM Line ID	
SF Group	U3	Route Type	Route
AF Group	U3	Route	
GF Group	U3	Route	
Class Dist Grp			
WB Group			
QC Group	Default		
Fac1 Class	(3) Other Principal Arterial		Milepost
Located On	BOYLSTON STREET		
Loc On Alias			
AT PRODUCE TOWNLINE			
	PM	BP	PT

STATION DATA

Directions: EW, EB, WB, WB

Year	AAOT	DirV-30	K%	D%	PA	BC	Sec
2015	47,332 <sup>1</sup>		7	51	48.963 (97%)	1,649 (3%)	Grown from 2014
2014	46,917 <sup>2</sup>		7	51			Grown from 2013
2013	44,379 <sup>2</sup>		10	59			
2012	44,032 <sup>2</sup>		7	51			
2011	43,884	3,288	7	51			

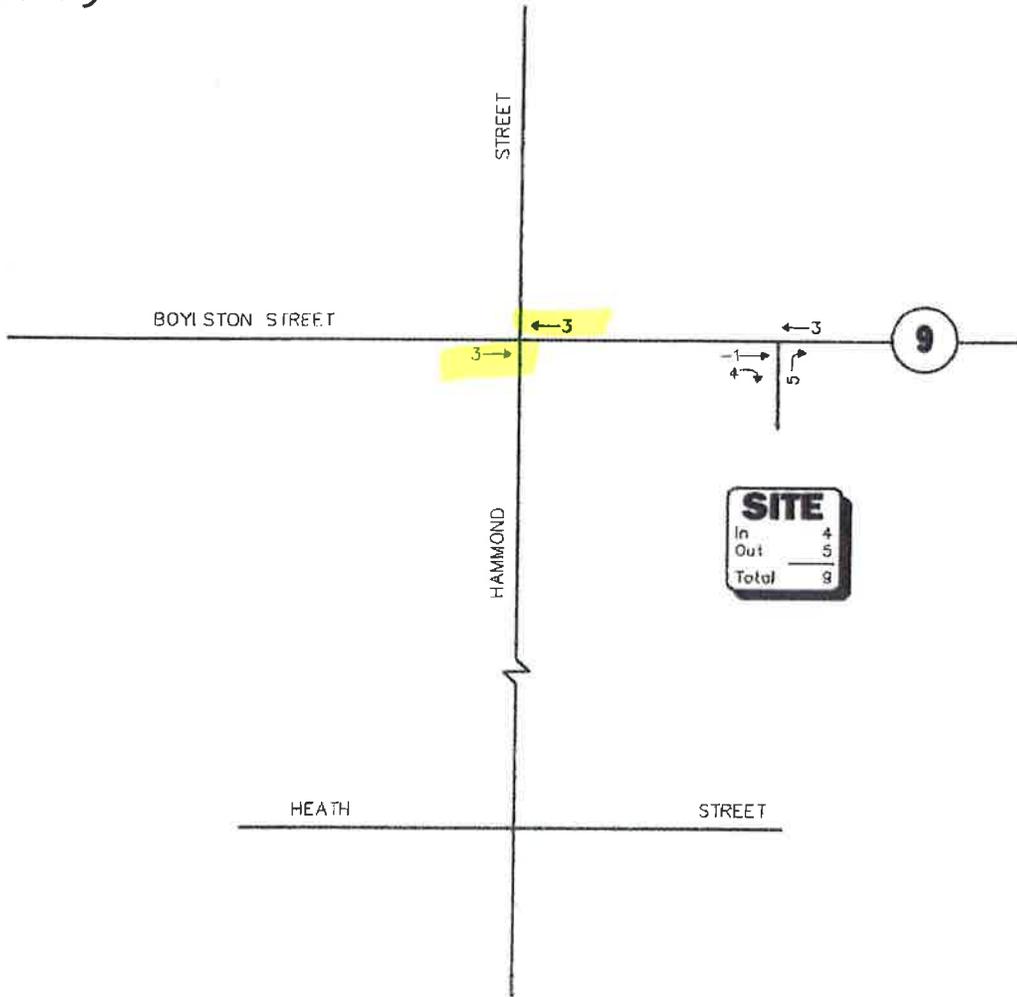
Model Year	Model AAOT	AM PMV	AM PMV	MD PMV	MD PMV	PM PMV	PM PMV	RT PMV	RT PMV
2015	47,332	15	45,289	2015	1%				
2014	46,917	15	45,232	2014	0%				
2013	44,379	10	35,342	2013	1%				
2012	44,032	10	40,236	2012	1%				
2011	43,884	10	49,247	2011	29%				
2010	43,211	10	49,247	2010	0%				



47096 - 46584  
 -----  
 46584 = 1.0% growth

1180 Boylston Street  
Background  
Development  
(#7276)

→ 45 age restricted apartments  
+ 7000 SF retail



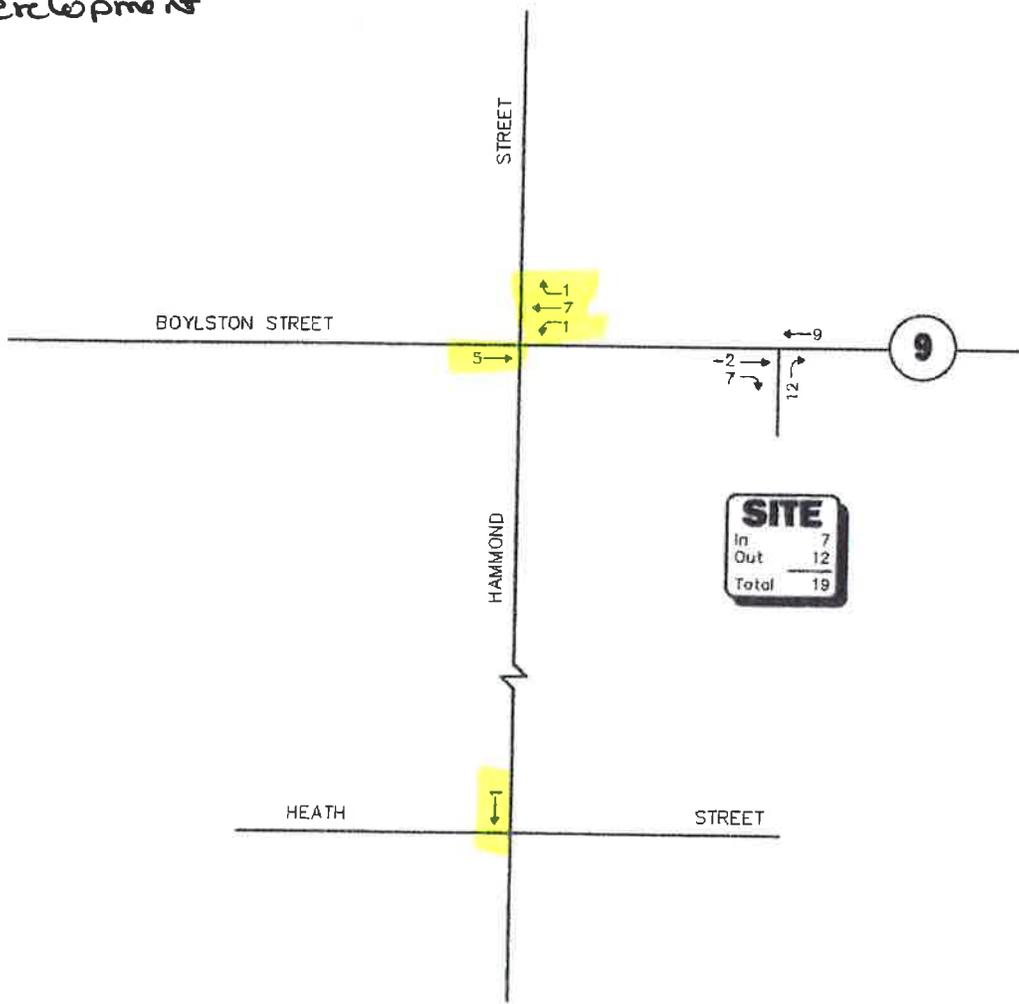
Vanasse & Associates, Inc.

Figure 8

Site Generated  
Weekday Morning  
Peak Hour Traffic Volumes

1180 Boylston  
Street Background  
Development

→ 45 age restricted apartments : 7000 SF retail



Not To Scale



Vanasse & Associates, Inc.

Figure 9

Site Generated  
Weekday Evening  
Peak Hour Traffic Volumes

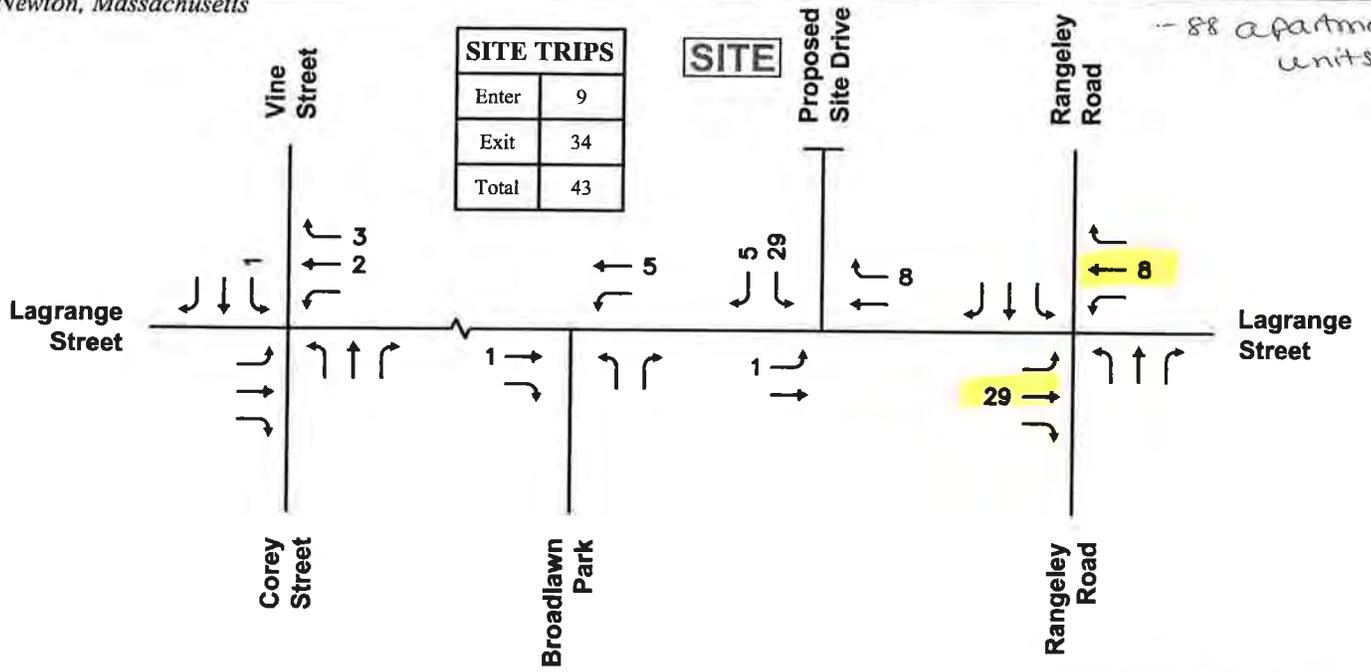




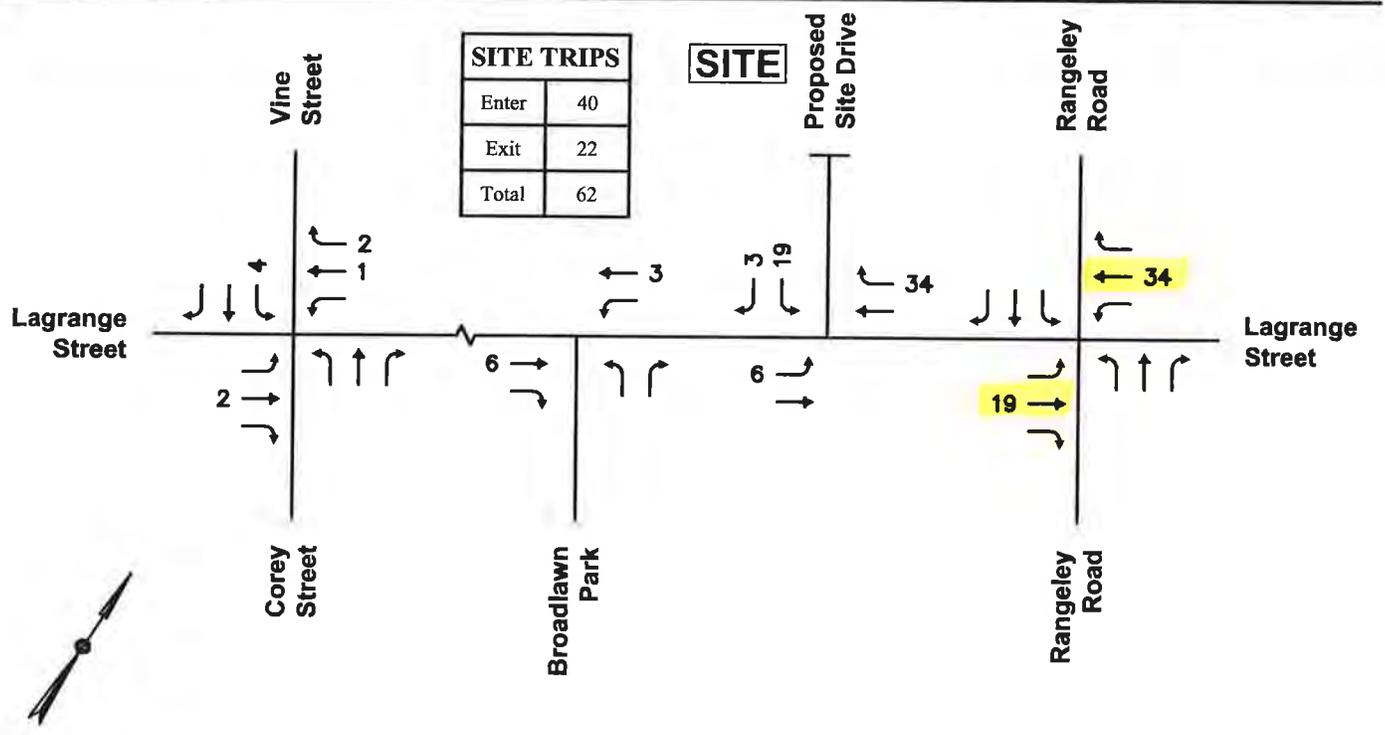
Kessler Woods  
Background Development

Traffic Impact Assessment  
Newton, Massachusetts

- 88 apartment units



Weekday Morning Peak Hour



Weekday Evening Peak Hour



North

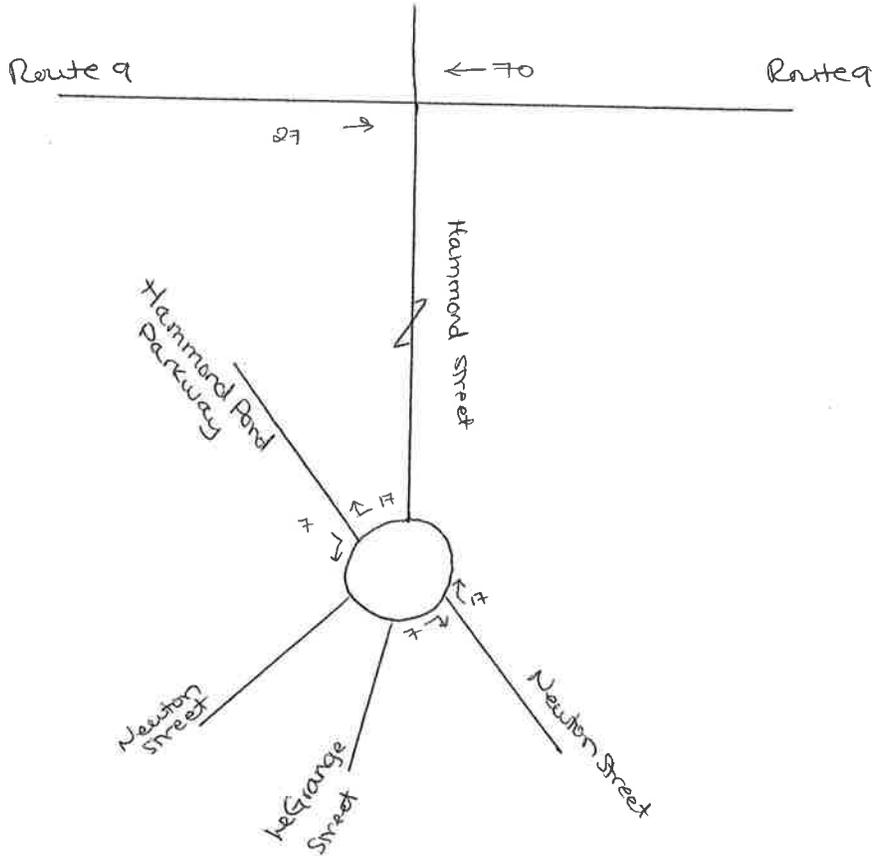
Scale: Not to Scale

Figure 6

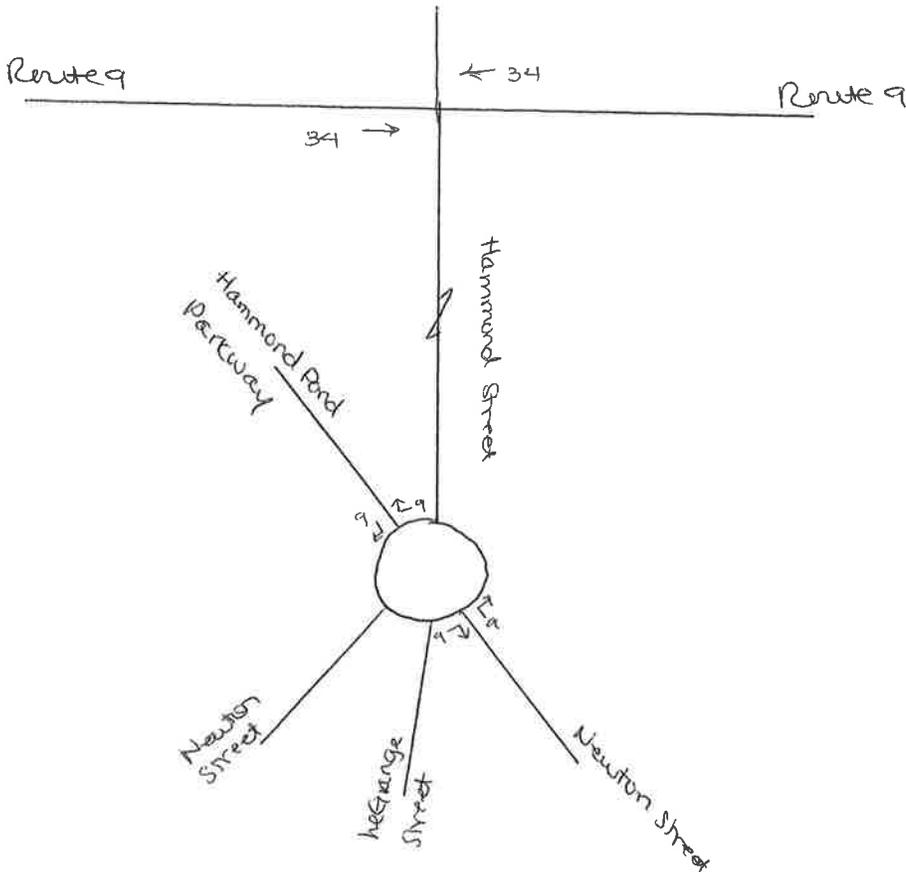
Site-Generated Trips



### Former Atrium Mall Building Background Development



WEEKDAY MORNING



WEEKDAY EVENING

VEHICLE OCCUPANCY RATIO

---

**Calculations**

Job: Brookline  
 Location: Baker School  
 Title: AM DROP OFFS  
 Calculated by: SRF

Job Number: 7382  
 Date: 1/12/17  
 Sheet 1 of 1  
 Checked by: \_\_\_\_\_

<u>7:35</u>			
1		2	
1		1	
3		2	
1		2	
2		1	
1		2	
1		2	
2		1	
1		3	
2		1	} 71 children 49 vehicles
2		2	
1		1	
1		1	
2		2	
1		1	
1		1	
1		3	
1		1	
		<u>8:00</u>	
<u>7:48</u>		2	
2		2	
1		1	
1		1	
1		1	
1		2	
1		1	
2		2	
2		1	
1		1	
1		1	
1		1	
2		1	

# of Kids per car

$$\frac{71}{49} = 1.45 \text{ VOR}$$

Job: BROOKLINE  
 Location: Baker School  
 Title: PM Pick-up Count  
 Calculated by: SRF

Job Number: 7382  
 Date: 1/12/17  
 Sheet 1 of 1  
 Checked by: \_\_\_\_\_

Time	Count	Notes
2:15	1	
2:30	1	} 40 children 27 vehicles
	1	
	2	
	1	
	1	
	1	
	2	
	1	
	2	
	1	
	2	
	1	
	1	
	4	
	2	
	2	
	1	
2:45	1	
	1	
	2	
	2	
	1	
	2	
	1	
	2	

# of kids per car

$$\frac{40}{27} = \boxed{1.48 \text{ VOR}}$$

## TRIP GENERATION

---

**PROJECT-GENERATED TRAFFIC**

Design year (2024 Build) traffic volumes for the study area roadways were determined by estimating Project-generated traffic volumes and assigning these volumes on the study roadways. The following describes the methodology used to establish the traffic characteristics of the Project. As proposed, the Project will entail the construction of an 800-student elementary school. Teacher and staff levels are estimated at 125.

In order to develop the traffic characteristics of the Project, trip-generation statistics published by the ITE<sup>3</sup> for similar land uses as those proposed were used. ITE Land Use Code (LUC) 520, *Elementary School*, with the independent variable of “Number of Students” equal to 800. It should be noted that the trip-generation statistics published by the ITE for the aforementioned land uses reflect the common modes of transportation for schools and include buses, vans/carpools, as well as students that may walk or bicycle to school. Table 5 summarizes the anticipated characteristics of the Project based upon Industry Standards.

**Table 5  
BALDWIN ELEMENTARY SCHOOL  
TRIP GENERATION SUMMARY<sup>a</sup>**

Time Period/Direction	Vehicle Trips <sup>a</sup> Elementary School (800 Students) <sup>a</sup>
<i>Average Weekday Daily:</i>	
Entering	516
<u>Exiting</u>	<u>516</u>
Total	1,032
<i>Weekday Morning Peak Hour:</i>	
Entering	198
<u>Exiting</u>	<u>162</u>
Total	360
<i>Weekday Afternoon Peak Hour:</i>	
Entering	101
<u>Exiting</u>	<u>123</u>
Total	224

<sup>a</sup>Based on ITE LUC 520, *Elementary School*.

<sup>3</sup>Ibid 2.

# Land Use: 520

## Elementary School

### Description

Elementary schools typically serve students attending kindergarten through the fifth or sixth grade. Elementary schools are usually centrally located in residential communities in order to facilitate student access and have no student drivers. This land use consists of schools where bus service is usually provided to students living beyond a specified distance from the school. Both public and private elementary schools are included in this land use. Middle school/junior high school (Land Use 522), high school (Land Use 530), private school (K-8) (Land Use 534) and private school (K-12) (Land Use 536) are related uses.

### Additional Data

#### Average weekday transit trip ends—

Elementary school students generally used school buses more than regular transit and were dropped off and picked up more than high school students, who were apt to walk longer distances, ride bicycles, or, in some cases, drive to school. The percentage of students at the sites who were transported to school via bus varied considerably. Some sites experienced higher than average trip rates because many students did not utilize the available school bus service. Due to the varied transit and school bus usage at these sites, it is desirable that future studies report additional detail on the percentage of students who were bused to school and the percentage that were dropped off and picked up.

The elementary schools surveyed exhibited significant variations in terms of facilities provided. Because the ratio of floor space to student population varied widely among the schools surveyed, the number of students may be a more reliable independent variable on which to establish trip generation rates.

#### Peak hours of the generator—

The weekday A.M. peak hour of the generator typically coincided with the peak hour of the adjacent street traffic; therefore, only one A.M. peak hour, which represents both the peak hour of the generator and the peak hour of the adjacent street traffic, is displayed. The weekday P.M. peak hour varied between 2:00 p.m. and 4:00 p.m.

The sites were surveyed between the mid-1970s and the 2000s throughout the United States and Canada.

***Many of the studies included in this land use did not indicate if the sites surveyed were public, private, or charter schools. To assist in the future analysis of this land use, it is important that this information be collected and included in trip generation data submissions.***

### Source Numbers

7, 32, 86, 186, 383, 390, 395, 444, 533, 536, 572, 579, 583, 609, 611, 612, 613, 632, 707

\* didn't use  
because  
trip generation  
estimates are too low

**Institute of Transportation Engineers (ITE)  
Trip Generation, 9th Edition  
Land Use Code (LUC) 520 - Elementary School**

Average Vehicle Trips Ends vs: Students  
Independent Variable (X): 800

**AVERAGE WEEKDAY DAILY**

$$T = 1.29 * (X)$$

$$T = 1.29 * 800$$

$$T = 1032.00$$

$$T = 1,032 \text{ vehicle trips}$$

with 50% ( 516 vph) entering and 50% ( 516 vph) exiting.

**WEEKDAY MORNING PEAK HOUR**

$$T = 0.45 * (X)$$

$$T = 0.45 * 800$$

$$T = 360.00$$

$$T = 360 \text{ vehicle trips}$$

with 55% ( 198 vph) entering and 45% ( 162 vph) exiting.

**WEEKDAY EVENING PEAK HOUR OF GENERATOR**

$$T = 0.28 * (X)$$

$$T = 0.28 * 800$$

$$T = 224.00$$

$$T = 224 \text{ vehicle trips}$$

with 45% ( 101 vph) entering and 55% ( 123 vph) exiting.

62% PM/AM

{ 45% enter  
55% exit

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

$$T = 0.15 * (X)$$

$$T = 0.15 * 800$$

$$T = 120.00$$

$$T = 120 \text{ vehicle trips}$$

with 49% ( 59 vph) entering and 51% ( 61 vph) exiting.

## Baldwin Traffic Study Assumptions

**800 students**

Pierce has 855 students and 134 staff, including itinerants, 107 FTE

**Baldwin projected staff =  $800/855 \times 134 = 125$  staff, including itinerants (100 FTE)**

**50 students walk**

**Attendance Rate: 96%, 4% absent**

**METCO: 25 students - 1 bus**

**Materials Fee: 15 kids – Car**

**New Hancock Village: 130**

**Expected hours**

- **Mon-Thurs: 8:00 AM- 2:30 PM**
- **Fri: 8:00 AM - 1:40 PM**

# Accurate Counts

978-664-2565

N/S Street : Beverly Road  
 E/W Street: Parking Lot  
 City/State : Brookline, MA  
 Weather : Clear

File Name : 73820003  
 Site Code : 73820003  
 Start Date : 6/9/2016  
 Page No : 1

STAFF ASSUMPTIONS : Counts from Baker  
 WEEKDAY MORNING School teacher lot

Groups Printed- Cars - Trucks

Start Time	Beverly Rd From North		Beverly Rd From South		Parking Lot From West		Int. Total
	Thru	Right	Left	Thru	Left	Right	
07:00 AM	11	8	5	6	0	0	30
07:15 AM	12	7	7	10	0	0	36
07:30 AM	35	11	11	15	0	2	74
07:45 AM	78	7	4	69	1	0	159
<b>Total</b>	<b>136</b>	<b>33</b>	<b>27</b>	<b>100</b>	<b>1</b>	<b>2</b>	<b>299</b>
08:00 AM	28	2	4	15	2	4	55
08:15 AM	16	2	1	9	0	1	29
08:30 AM	18	1	0	17	1	1	38
08:45 AM	33	1	0	18	0	0	52
<b>Total</b>	<b>95</b>	<b>6</b>	<b>5</b>	<b>59</b>	<b>3</b>	<b>6</b>	<b>174</b>
<b>Grand Total</b>	<b>231</b>	<b>39</b>	<b>32</b>	<b>159</b>	<b>4</b>	<b>8</b>	<b>473</b>
Apprch %	85.6	14.4	16.8	83.2	33.3	66.7	
Total %	48.8	8.2	6.8	33.6	0.8	1.7	
Cars	228	39	32	158	4	8	469
% Cars	98.7	100	100	99.4	100	100	99.2
Trucks	3	0	0	1	0	0	4
% Trucks	1.3	0	0	0.6	0	0	0.8

7:00 - 8:00 AM = 60 entering trips

13 trips occur before 7:15 AM = 22%

125 staff \* 0.78 = 97.5. Say 98 staff trips after 7:15 AM

AM	IN	98
	OUT	0
	total	98
PM	IN	0
	OUT	0
	total	0

Overall, the above ITE estimates appear low and may not be reflective of actual Brookline conditions. As such, an alternative approach was developed based upon the following assumption provided to VAI.

- 800 Students
- 4% Daily absenteeism
- 15 Students carpool with staff
- 25 students bus with METCO
- 50 students walk
- 200 students bus
- Student car occupancy of 1.45 student/car

800 Students. Assume 4% Absent (32 students)  
 $800 - 32 = 768$  students  
 $768 - 15$  (Materials Fee) -  $25$  (METCO) -  $50$  (Walk) =  $678$  Students  
 678 students  
 - 200 students bus w/ 25 students per bus  
 $678 - 200 = 478$   
 $478 \div 1.45 = 330$  students and 9 buses

Afternoon traffic volumes were estimated based upon the reduced traffic percentage from the ITE data.

A summary of expected vehicle trip generation is summarized in Table 6 based upon the above assumptions.

**Table 6  
TRIP GENERATION SUMMARY**

Time Period	Staff	Buses	Drop-off/ Pick-up	Total Trips
<i>Weekday Morning</i>				
<i>Peak Hour:</i>				
Entering	98	9	330	437
Exiting	0	9	330	339
Total	98	18	660	776
<i>Weekday Afternoon</i>				
<i>Peak Hour:</i>				
Entering	0	9	207	216
Exiting	0	9	256	265
Total	0	18	463	481

$\frac{200}{25} = 8$   
 8 buses  
 + 1 METCO  
 = 9 buses

50/50

45/55

PM assume 62% of morning volume leaves.  
 $776 * 0.62 = 481$   
 45/55 enter/exit ratio

As can be seen in Table 6, the Project is expected to generate approximately 776 vehicle trips (437 vehicles entering and 339 exiting) expected during the weekday morning peak-hour. During the weekday afternoon peak hour the Project is expected to generate approximately 481 vehicle trips (216 vehicles entering and 265 exiting). The above estimates were utilized for analysis purposes in assessing the overall impacts.

From ITE weekday PM

Alternative Trip Generation scenarios were developed but were not included as part of the detailed analysis. Trip generation estimates were provided for the following three alternate scenarios.

1. 800-student school – only METCO – 25 students bused
2. 600-student school – only METCO – 25 students bused
3. 600-student school – METCO – 25 students bused plus 150 additional bused students

These trip estimates are provided in Tables 7-9.

800 students. Assume 4% absent (32 students)

$800 - 32 \text{ Absent} = 768$

$768 - 15(\text{Material Fee}) - 25(\text{METCO}) - 50(\text{walk}) = 678 \text{ students}$

$678 \div 1.45 = 468$   
 Students & 1 bus  
 ↑  
 VoR

**Table 7**  
**TRIP GENERATION SUMMARY: ALTERNATE SCENARIO #1**  
**800 STUDENTS/25 BUSED : only METCO - No additional bus**

Time Period	Staff	Buses	Drop-off/ Pick-up	Total Trips
<i>Weekday Morning</i>			50/50	
<i>Peak Hour:</i>				
Entering	98	1	468	567
Exiting	0	1	468	469
Total	98	2	936	1,036
<i>Weekday Afternoon</i>			45/55	
<i>Peak Hour:</i>				
Entering	0	1	288	289
Exiting	0	1	352	353
Total	0	2	640	642

$\frac{\text{PM peak} = 224}{\text{AM peak} = 360} = 0.62$

From ITE

↓  
 PM Assume 62% of morning volume leaves.

$1036 * 0.62 = 642$   
 ratio enter/exit = 45%/55%

From ITE weekday PM

**Table 8**  
**TRIP GENERATION SUMMARY: ALTERNATE SCENARIO #2**  
**600 STUDENTS/25 BUSED : only METCO - No additional bus**

Time Period	Staff	Buses	Drop-off/ Pick-up	Total Trips
<i>Weekday Morning</i>			50/50	
<i>Peak Hour:</i>				
Entering	74	1	335	410
Exiting	0	1	335	336
Total	74	2	670	746
<i>Weekday Afternoon</i>			45/55	
<i>Peak Hour:</i>				
Entering	0	1	214	208
Exiting	0	1	261	254
Total	0	2	475	462

$746 * 0.62 = 462$

⊙ 45/55 ratio

600 students. Assume 4% absent (24 students)

$600 - 24 = 576 \text{ students}$

$576 - 15(\text{Material fee}) - 25(\text{METCO}) - 50(\text{walk}) = 486 \text{ students}$

$486 \div 1.45 = 335 \text{ students} \& 1 \text{ bus}$   
 ↑  
 VoR

600 students. Assume 4% absent (24 students)  
 600 - 24 = 576 students  
 576 - 15 (Materials Fee) - 25 (METCO) - 50 (work) = 486 students

\* Assume 150 bus @ 25 students per bus.

**Table 9**  
**TRIP GENERATION SUMMARY: ALTERNATE SCENARIO #2**  
**600 STUDENTS/150 BUSED**

486 - 150 = 336  
 336 ÷ 1.45 = 232 students  
 ↑  
 7 buses  
 VOR

Time Period	Staff	Buses	Drop-off/ Pick-up	Total Trips
<i>Weekday Morning</i>			50/50	
<i>Peak Hour:</i>				
Entering	74	7	232	313
Exiting	0	7	232	239
Total	74	14	464	552
<i>Weekday Afternoon</i>			45/55	
<i>Peak Hour:</i>				
Entering	0	7	147	154
Exiting	0	7	181	188
Total	0	14	328	342

552 \* 0.62 = 342  
 @ 45/55 ratio

As shown, at 800 students and no busing in the morning peak hour traffic generation increases to 1,036 vehicle trips (567 entering/469 exiting). Overall, this emphasizes that busing is an important element to reducing the overall impacts. In addition, the 600-student alternatives show the small school reduced traffic generation.

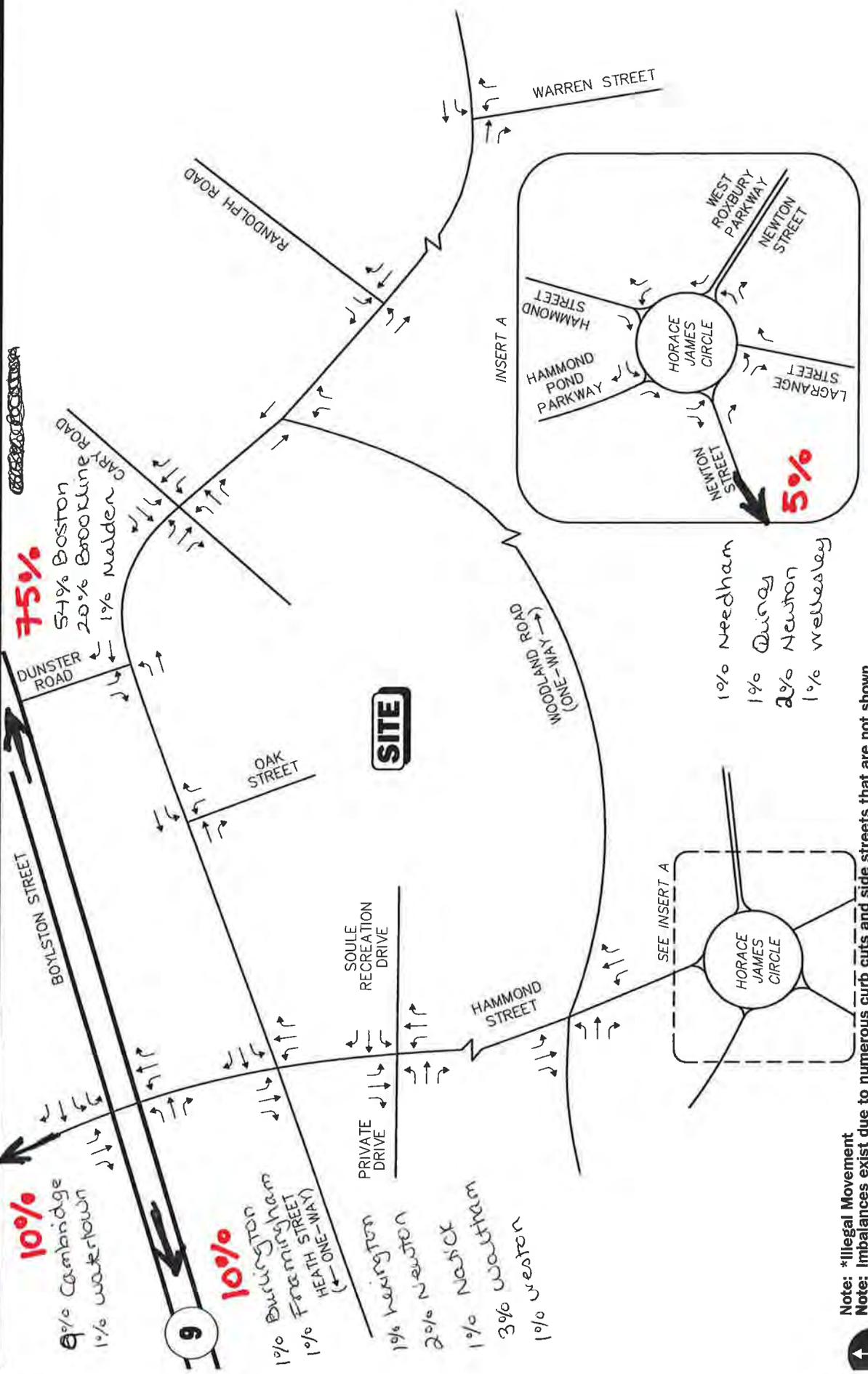
**TRIP DISTRIBUTION AND ASSIGNMENT**

Separate trip distributions were developed for staff and students. The directional distribution of the site-generated trips to the proposed development by the staff was determined based on a review of origin to workplace data for Brookline. The directional distribution for the drop-offs and pick-ups was based on existing travel patterns at the study area intersections, directional data provided by the architect and it was further assumed that 30 percent of parents dropping-off students would be traveling on to work. The weekday morning trip distribution for staff is depicted on Figure 16 and the drop-off (morning) and pick-up (afternoon) patterns are depicted in Figures 17 and 18. The weekday morning and weekday afternoon peak-hour traffic volumes expected to be generated by the school are shown on Figures 19 and 20.

**FUTURE TRAFFIC VOLUMES – BUILD CONDITION**

The 2024 Build condition networks consist of the 2024 No-Build traffic volumes with the anticipated site-generated traffic added to them. The 2024 Build weekday morning and weekday afternoon traffic-volume networks are graphically depicted on Figures 21 and 22.

A summary of peak-hour projected traffic-volume increases external to the study area that is the subject of this assessment is shown in Table 10. These volumes are based on the expected increases from the project.



Note: \*Illegal Movement  
Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

Figure -

- \* Based on Journey to work
- Trip Distribution
- Parents drop-off students
- go to work (30%)

\* JOURNEY TO WORK DATA \* Applied to parents dropping off students and going to work (30%)

Number	Residence			Workplace			
	State	County	MCD	State	County	MCD	
18	Massachusetts	Norfolk County	Brookline town	Florida	Alachua County		0%
9	Massachusetts	Norfolk County	Brookline town	Florida	Orange County		0%
14	Massachusetts	Norfolk County	Brookline town	Illinois	Cook County		0%
14	Massachusetts	Norfolk County	Brookline town	Maine	Somerset County	Cambridge town	0%
14	Massachusetts	Norfolk County	Brookline town	Massachusetts	Barnstable County	Sandwich town	0%
17	Massachusetts	Norfolk County	Brookline town	Massachusetts	Barnstable County	Yarmouth town	0%
11	Massachusetts	Norfolk County	Brookline town	Massachusetts	Berkshire County	Pittsfield city	0%
11	Massachusetts	Norfolk County	Brookline town	Massachusetts	Bristol County	Mansfield town	0%
35	Massachusetts	Norfolk County	Brookline town	Massachusetts	Essex County	Andover town	0%
43	Massachusetts	Norfolk County	Brookline town	Massachusetts	Essex County	Beverly city	0%
56	Massachusetts	Norfolk County	Brookline town	Massachusetts	Essex County	Danvers town	0%
17	Massachusetts	Norfolk County	Brookline town	Massachusetts	Essex County	Gloucester city	0%
9	Massachusetts	Norfolk County	Brookline town	Massachusetts	Essex County	Haverhill city	0%
18	Massachusetts	Norfolk County	Brookline town	Massachusetts	Essex County	Lawrence city	0%
15	Massachusetts	Norfolk County	Brookline town	Massachusetts	Essex County	Lynn city	0%
10	Massachusetts	Norfolk County	Brookline town	Massachusetts	Essex County	Lynnfield town	0%
15	Massachusetts	Norfolk County	Brookline town	Massachusetts	Essex County	Methuen Town city	0%
12	Massachusetts	Norfolk County	Brookline town	Massachusetts	Essex County	North Andover town	0%
47	Massachusetts	Norfolk County	Brookline town	Massachusetts	Essex County	Salem city	0%
44	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Acton town	0%
55	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Arlington town	0%
20	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Bedford town	0%
33	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Belmont town	0%
53	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Billerica town	0%
273	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Burlington town	1%
2,252	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Cambridge city	7% → 8%
52	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Chelmsford town	0%
82	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Concord town	0%
37	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Everett city	0%
250	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Framingham town	1%
22	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Hopkinton town	0%
12	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Hudson town	0%
185	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Lexington town	1%
39	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Lowell city	0%
290	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Malden city	1%
125	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Marlborough city	0%
14	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Maynard town	0%
115	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Medford city	0%
23	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Melrose city	0%
239	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Natick town	1%
1,091	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Newton city	3% → 4%
23	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Reading town	0%
113	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Somerville city	0%
20	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Stoneham town	0%
45	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Sudbury town	0%
12	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Tewksbury town	0%
38	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Wakefield town	0%
609	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Waltham city	2% → 3%
325	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Watertown Town city	1%
24	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Wayland town	0%
15	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Westford town	0%

167	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Weston town	1%
102	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Wilmington town	0%
14	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Winchester town	0%
108	Massachusetts	Norfolk County	Brookline town	Massachusetts	Middlesex County	Woburn city	0%
11	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Bellingham town	0%
129	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Braintree Town city	0%
5,844	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Brookline town	18% → 20%
195	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Canton town	1%
14	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Cohasset town	0%
47	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Dedham town	0%
52	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Foxborough town	0%
53	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Franklin Town city	0%
110	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Millton town	0%
266	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Needham town	1%
23	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Norfolk town	0%
92	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Norwood town	0%
181	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Quincy city	1%
12	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Randolph town	0%
11	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Stoughton town	0%
69	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Walpole town	0%
342	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Wellesley town	1%
91	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Westwood town	0%
112	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Weymouth Town city	0%
23	Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Wrentham town	0%
12	Massachusetts	Norfolk County	Brookline town	Massachusetts	Plymouth County	Abington town	0%
10	Massachusetts	Norfolk County	Brookline town	Massachusetts	Plymouth County	Bridgewater town	0%
96	Massachusetts	Norfolk County	Brookline town	Massachusetts	Plymouth County	Brockton city	0%
11	Massachusetts	Norfolk County	Brookline town	Massachusetts	Plymouth County	Hanover town	0%
78	Massachusetts	Norfolk County	Brookline town	Massachusetts	Plymouth County	Hingham town	0%
17	Massachusetts	Norfolk County	Brookline town	Massachusetts	Plymouth County	Kingston town	0%
16	Massachusetts	Norfolk County	Brookline town	Massachusetts	Plymouth County	Marshfield town	0%
9	Massachusetts	Norfolk County	Brookline town	Massachusetts	Plymouth County	Middleborough town	0%
12	Massachusetts	Norfolk County	Brookline town	Massachusetts	Plymouth County	Pembroke town	0%
18	Massachusetts	Norfolk County	Brookline town	Massachusetts	Plymouth County	Plymouth town	0%
10	Massachusetts	Norfolk County	Brookline town	Massachusetts	Plymouth County	Rockland town	0%
15,596	Massachusetts	Norfolk County	Brookline town	Massachusetts	Suffolk County	Boston city	49% → 51%
48	Massachusetts	Norfolk County	Brookline town	Massachusetts	Suffolk County	Chelsea city	0%
18	Massachusetts	Norfolk County	Brookline town	Massachusetts	Suffolk County	Revere city	0%
69	Massachusetts	Norfolk County	Brookline town	Massachusetts	Suffolk County	Winthrop Town city	0%
13	Massachusetts	Norfolk County	Brookline town	Massachusetts	Worcester County	Bolton town	0%
51	Massachusetts	Norfolk County	Brookline town	Massachusetts	Worcester County	Boylston town	0%
13	Massachusetts	Norfolk County	Brookline town	Massachusetts	Worcester County	Holden town	0%
15	Massachusetts	Norfolk County	Brookline town	Massachusetts	Worcester County	Leominster city	0%
12	Massachusetts	Norfolk County	Brookline town	Massachusetts	Worcester County	Lunenburg town	0%
11	Massachusetts	Norfolk County	Brookline town	Massachusetts	Worcester County	Milford town	0%
66	Massachusetts	Norfolk County	Brookline town	Massachusetts	Worcester County	Southborough town	0%
68	Massachusetts	Norfolk County	Brookline town	Massachusetts	Worcester County	Westborough town	0%
35	Massachusetts	Norfolk County	Brookline town	Massachusetts	Worcester County	Worcester city	0%
14	Massachusetts	Norfolk County	Brookline town	Michigan	Oakland County		0%
33	Massachusetts	Norfolk County	Brookline town	New Hampshire	Hillsborough County	Bedford town	0%
9	Massachusetts	Norfolk County	Brookline town	New Hampshire	Hillsborough County	Hudson town	0%
13	Massachusetts	Norfolk County	Brookline town	New Hampshire	Hillsborough County	Manchester city	0%
14	Massachusetts	Norfolk County	Brookline town	New Hampshire	Hillsborough County	Merrimack town	0%
8	Massachusetts	Norfolk County	Brookline town	New Hampshire	Merrimack County	Concord city	0%

29	Massachusetts	Norfolk County	Brookline town	New Hampshire	Rockingham County	Exeter town	0%
12	Massachusetts	Norfolk County	Brookline town	New Hampshire	Rockingham County	Portsmouth city	0%
53	Massachusetts	Norfolk County	Brookline town	New Hampshire	Rockingham County	Salem town	0%
14	Massachusetts	Norfolk County	Brookline town	New Jersey	Camden County		0%
7	Massachusetts	Norfolk County	Brookline town	New Jersey	Essex County		0%
15	Massachusetts	Norfolk County	Brookline town	New Jersey	Mercer County		0%
12	Massachusetts	Norfolk County	Brookline town	New York	Erie County		0%
114	Massachusetts	Norfolk County	Brookline town	New York	New York County		0%
12	Massachusetts	Norfolk County	Brookline town	New York	Westchester County		0%
11	Massachusetts	Norfolk County	Brookline town	North Carolina	Gulford County		0%
14	Massachusetts	Norfolk County	Brookline town	Pennsylvania	Philadelphia County		0%
40	Massachusetts	Norfolk County	Brookline town	Rhode Island	Newport County	Middletown town	0%
10	Massachusetts	Norfolk County	Brookline town	Rhode Island	Newport County	Portsmouth town	0%
43	Massachusetts	Norfolk County	Brookline town	Rhode Island	Providence County	North Smithfield town	0%
10	Massachusetts	Norfolk County	Brookline town	Rhode Island	Providence County	Pawtucket city	0%
60	Massachusetts	Norfolk County	Brookline town	Rhode Island	Providence County	Providence city	0%
14	Massachusetts	Norfolk County	Brookline town	Utah	Salt Lake County		0%
13	Massachusetts	Norfolk County	Brookline town	Vermont	Chittenden County	South Burlington city	0%
17	Massachusetts	Norfolk County	Brookline town	Virginia	Prince William County		0%

90% → 100%

31,878



Residence			Work Place			Workers in Commuting Flow	Percent
State Name	County Name	Minor Civil Division Name	State Name	County Name	Minor Civil Division Name		
Massachusetts	Bristol County	Attleboro city	Massachusetts	Norfolk County	Brookline town	71	0%
Massachusetts	Bristol County	Easton town	Massachusetts	Norfolk County	Brookline town	31	0%
Massachusetts	Bristol County	Easton town	Massachusetts	Norfolk County	Brookline town	18	0%
Massachusetts	Bristol County	Mansfield town	Massachusetts	Norfolk County	Brookline town	46	0%
Massachusetts	Bristol County	Mansfield town	Massachusetts	Norfolk County	Brookline town	16	0%
Massachusetts	Bristol County	New Bedford city	Massachusetts	Norfolk County	Brookline town	39	0%
Massachusetts	Bristol County	New Bedford city	Massachusetts	Norfolk County	Brookline town	7	0%
Massachusetts	Bristol County	New Bedford city	Massachusetts	Norfolk County	Brookline town	12	0%
Massachusetts	Essex County	Andover town	Massachusetts	Norfolk County	Brookline town	32	0%
Massachusetts	Essex County	Haverhill city	Massachusetts	Norfolk County	Brookline town	25	0%
Massachusetts	Essex County	Lynn city	Massachusetts	Norfolk County	Brookline town	68	0%
Massachusetts	Essex County	Lynn city	Massachusetts	Norfolk County	Brookline town	31	0%
Massachusetts	Essex County	Marblehead town	Massachusetts	Norfolk County	Brookline town	33	0%
Massachusetts	Essex County	Newburyport city	Massachusetts	Norfolk County	Brookline town	20	0%
Massachusetts	Essex County	Newburyport city	Massachusetts	Norfolk County	Brookline town	5	0%
Massachusetts	Essex County	Peabody city	Massachusetts	Norfolk County	Brookline town	51	0%
Massachusetts	Essex County	Peabody city	Massachusetts	Norfolk County	Brookline town	10	0%
Massachusetts	Essex County	Swampscott town	Massachusetts	Norfolk County	Brookline town	53	0%
Massachusetts	Essex County	Swampscott town	Massachusetts	Norfolk County	Brookline town	39	0%
Massachusetts	Middlesex County	Arlington town	Massachusetts	Norfolk County	Brookline town	200	1%
Massachusetts	Middlesex County	Arlington town	Massachusetts	Norfolk County	Brookline town	16	0%
Massachusetts	Middlesex County	Arlington town	Massachusetts	Norfolk County	Brookline town	15	0%
Massachusetts	Middlesex County	Ashland town	Massachusetts	Norfolk County	Brookline town	95	0%
Massachusetts	Middlesex County	Ashland town	Massachusetts	Norfolk County	Brookline town	17	0%
Massachusetts	Middlesex County	Ashland town	Massachusetts	Norfolk County	Brookline town	11	0%
Massachusetts	Middlesex County	Belmont town	Massachusetts	Norfolk County	Brookline town	114	1%
Massachusetts	Middlesex County	Belmont town	Massachusetts	Norfolk County	Brookline town	19	0%
Massachusetts	Middlesex County	Belmont town	Massachusetts	Norfolk County	Brookline town	16	0%
Massachusetts	Middlesex County	Belmont town	Massachusetts	Norfolk County	Brookline town	12	0%
Massachusetts	Middlesex County	Billerica town	Massachusetts	Norfolk County	Brookline town	21	0%
Massachusetts	Middlesex County	Billerica town	Massachusetts	Norfolk County	Brookline town	17	0%
Massachusetts	Middlesex County	Burlington town	Massachusetts	Norfolk County	Brookline town	78	0%
Massachusetts	Middlesex County	Cambridge city	Massachusetts	Norfolk County	Brookline town	406	2%
Massachusetts	Middlesex County	Cambridge city	Massachusetts	Norfolk County	Brookline town	26	0%
Massachusetts	Middlesex County	Cambridge city	Massachusetts	Norfolk County	Brookline town	156	1%
Massachusetts	Middlesex County	Cambridge city	Massachusetts	Norfolk County	Brookline town	147	1%
Massachusetts	Middlesex County	Chelmsford town	Massachusetts	Norfolk County	Brookline town	32	0%
Massachusetts	Middlesex County	Chelmsford town	Massachusetts	Norfolk County	Brookline town	9	0%
Massachusetts	Middlesex County	Everett city	Massachusetts	Norfolk County	Brookline town	121	1%
Massachusetts	Middlesex County	Everett city	Massachusetts	Norfolk County	Brookline town	98	0%
Massachusetts	Middlesex County	Framingham town	Massachusetts	Norfolk County	Brookline town	251	1%
Massachusetts	Middlesex County	Framingham town	Massachusetts	Norfolk County	Brookline town	30	0%
Massachusetts	Middlesex County	Holliston town	Massachusetts	Norfolk County	Brookline town	23	0%
Massachusetts	Middlesex County	Holliston town	Massachusetts	Norfolk County	Brookline town	7	0%
Massachusetts	Middlesex County	Lexington town	Massachusetts	Norfolk County	Brookline town	103	1%
Massachusetts	Middlesex County	Lowell city	Massachusetts	Norfolk County	Brookline town	112	1%
Massachusetts	Middlesex County	Malden city	Massachusetts	Norfolk County	Brookline town	85	0%
Massachusetts	Middlesex County	Malden city	Massachusetts	Norfolk County	Brookline town	197	1%
Massachusetts	Middlesex County	Malden city	Massachusetts	Norfolk County	Brookline town	28	0%
Massachusetts	Middlesex County	Medford city	Massachusetts	Norfolk County	Brookline town	301	1%
Massachusetts	Middlesex County	Medford city	Massachusetts	Norfolk County	Brookline town	63	0%
Massachusetts	Middlesex County	Medford city	Massachusetts	Norfolk County	Brookline town	22	0%
Massachusetts	Middlesex County	Melrose city	Massachusetts	Norfolk County	Brookline town	44	0%
Massachusetts	Middlesex County	Melrose city	Massachusetts	Norfolk County	Brookline town	8	0%
Massachusetts	Middlesex County	Melrose city	Massachusetts	Norfolk County	Brookline town	15	0%
Massachusetts	Middlesex County	Natick town	Massachusetts	Norfolk County	Brookline town	81	0%
Massachusetts	Middlesex County	Natick town	Massachusetts	Norfolk County	Brookline town	11	0%
Massachusetts	Middlesex County	Newton city	Massachusetts	Norfolk County	Brookline town	755	4% → 5%

} 4% → 5%

→ 5%

★ RESIDENCE TO WORK DATA ★

Brookline destination = for staff distribution.

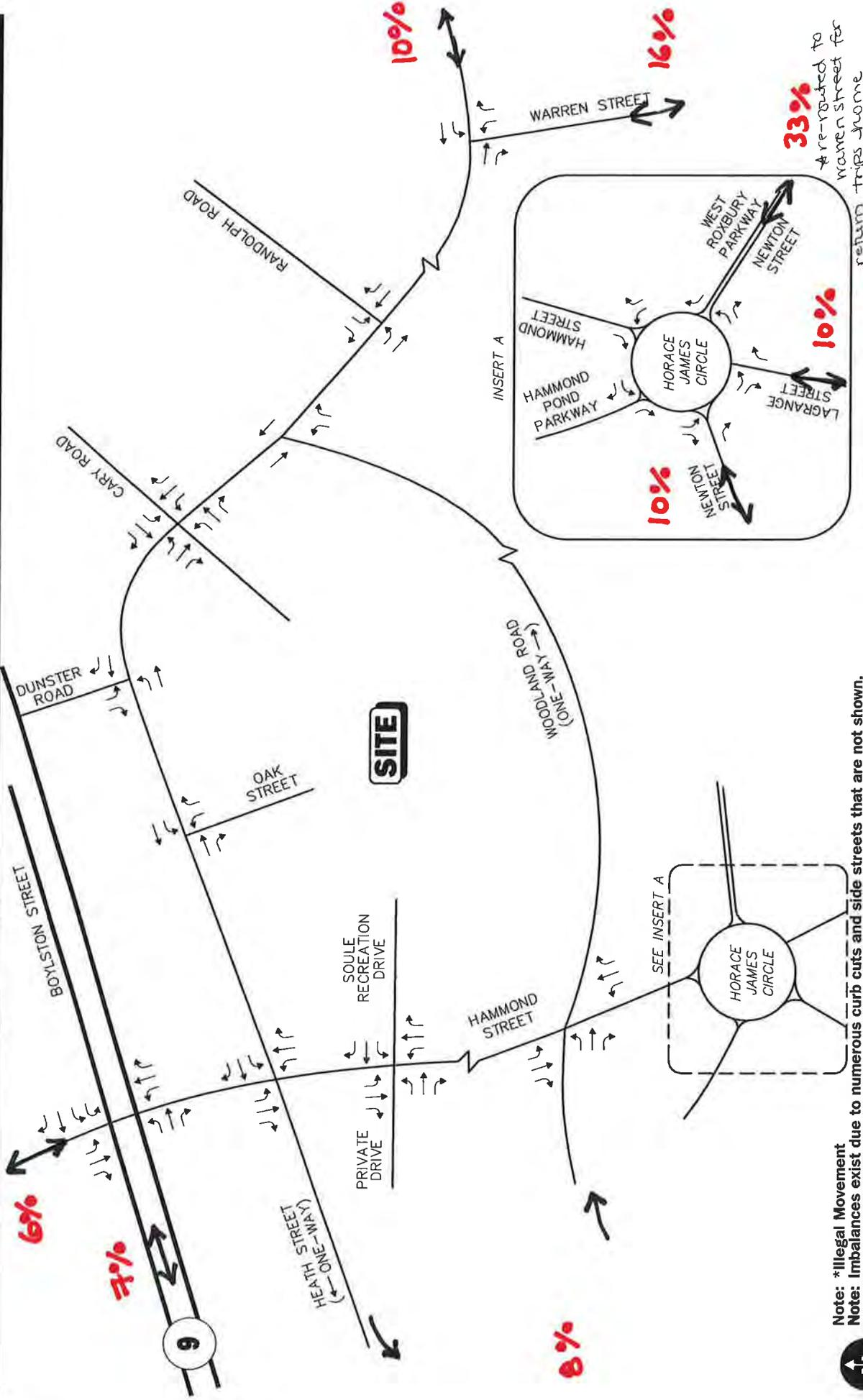
Massachusetts	Middlesex County	Newton city	Massachusetts	Norfolk County	Brookline town	100	0%
Massachusetts	Middlesex County	Newton city	Massachusetts	Norfolk County	Brookline town	93	0%
Massachusetts	Middlesex County	Newton city	Massachusetts	Norfolk County	Brookline town	45	0%
Massachusetts	Middlesex County	Somerville city	Massachusetts	Norfolk County	Brookline town	166	1%
Massachusetts	Middlesex County	Somerville city	Massachusetts	Norfolk County	Brookline town	90	0%
Massachusetts	Middlesex County	Somerville city	Massachusetts	Norfolk County	Brookline town	176	1%
Massachusetts	Middlesex County	Somerville city	Massachusetts	Norfolk County	Brookline town	14	0%
Massachusetts	Middlesex County	Stoneham town	Massachusetts	Norfolk County	Brookline town	50	0%
Massachusetts	Middlesex County	Stoneham town	Massachusetts	Norfolk County	Brookline town	7	0%
Massachusetts	Middlesex County	Townsend town	New Hampshire	Hillsborough County	Brookline town	56	0%
Massachusetts	Middlesex County	Wakefield town	Massachusetts	Norfolk County	Brookline town	28	0%
Massachusetts	Middlesex County	Wakefield town	Massachusetts	Norfolk County	Brookline town	9	0%
Massachusetts	Middlesex County	Waltham city	Massachusetts	Norfolk County	Brookline town	148	1%
Massachusetts	Middlesex County	Waltham city	Massachusetts	Norfolk County	Brookline town	61	0%
Massachusetts	Middlesex County	Waltham city	Massachusetts	Norfolk County	Brookline town	10	0%
Massachusetts	Middlesex County	Waltham city	Massachusetts	Norfolk County	Brookline town	24	0%
Massachusetts	Middlesex County	Watertown Town city	Massachusetts	Norfolk County	Brookline town	167	1%
Massachusetts	Middlesex County	Watertown Town city	Massachusetts	Norfolk County	Brookline town	71	0%
Massachusetts	Middlesex County	Wayland town	Massachusetts	Norfolk County	Brookline town	49	0%
Massachusetts	Middlesex County	Wayland town	Massachusetts	Norfolk County	Brookline town	9	0%
Massachusetts	Middlesex County	Wilmington town	Massachusetts	Norfolk County	Brookline town	56	0%
Massachusetts	Middlesex County	Winchester town	Massachusetts	Norfolk County	Brookline town	35	0%
Massachusetts	Middlesex County	Winchester town	Massachusetts	Norfolk County	Brookline town	16	0%
Massachusetts	Middlesex County	Winchester town	Massachusetts	Norfolk County	Brookline town	12	0%
Massachusetts	Middlesex County	Woburn city	Massachusetts	Norfolk County	Brookline town	28	0%
Massachusetts	Middlesex County	Woburn city	Massachusetts	Norfolk County	Brookline town	11	0%
Massachusetts	Norfolk County	Braintree Town city	Massachusetts	Norfolk County	Brookline town	46	0%
Massachusetts	Norfolk County	Braintree Town city	Massachusetts	Norfolk County	Brookline town	12	0%
Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Brookline town	1,165	6%
Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Brookline town	119	1%
Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Brookline town	116	1%
Massachusetts	Norfolk County	Brookline town	Massachusetts	Norfolk County	Brookline town	3,856	19%
Massachusetts	Norfolk County	Canton town	Massachusetts	Norfolk County	Brookline town	118	1%
Massachusetts	Norfolk County	Canton town	Massachusetts	Norfolk County	Brookline town	20	0%
Massachusetts	Norfolk County	Canton town	Massachusetts	Norfolk County	Brookline town	18	0%
Massachusetts	Norfolk County	Dedham town	Massachusetts	Norfolk County	Brookline town	260	1%
Massachusetts	Norfolk County	Dedham town	Massachusetts	Norfolk County	Brookline town	20	0%
Massachusetts	Norfolk County	Dedham town	Massachusetts	Norfolk County	Brookline town	17	0%
Massachusetts	Norfolk County	Dover town	Massachusetts	Norfolk County	Brookline town	57	0%
Massachusetts	Norfolk County	Foxborough town	Massachusetts	Norfolk County	Brookline town	58	0%
Massachusetts	Norfolk County	Franklin Town city	Massachusetts	Norfolk County	Brookline town	108	1%
Massachusetts	Norfolk County	Franklin Town city	Massachusetts	Norfolk County	Brookline town	16	0%
Massachusetts	Norfolk County	Medfield town	Massachusetts	Norfolk County	Brookline town	93	0%
Massachusetts	Norfolk County	Medway town	Massachusetts	Norfolk County	Brookline town	40	0%
Massachusetts	Norfolk County	Medway town	Massachusetts	Norfolk County	Brookline town	9	0%
Massachusetts	Norfolk County	Milton town	Massachusetts	Norfolk County	Brookline town	60	0%
Massachusetts	Norfolk County	Milton town	Massachusetts	Norfolk County	Brookline town	8	0%
Massachusetts	Norfolk County	Needham town	Massachusetts	Norfolk County	Brookline town	168	1%
Massachusetts	Norfolk County	Needham town	Massachusetts	Norfolk County	Brookline town	11	0%
Massachusetts	Norfolk County	Needham town	Massachusetts	Norfolk County	Brookline town	15	0%
Massachusetts	Norfolk County	Norwood town	Massachusetts	Norfolk County	Brookline town	206	1%
Massachusetts	Norfolk County	Norwood town	Massachusetts	Norfolk County	Brookline town	57	0%
Massachusetts	Norfolk County	Quincy city	Massachusetts	Norfolk County	Brookline town	190	1%
Massachusetts	Norfolk County	Quincy city	Massachusetts	Norfolk County	Brookline town	45	0%
Massachusetts	Norfolk County	Quincy city	Massachusetts	Norfolk County	Brookline town	50	0%
Massachusetts	Norfolk County	Randolph town	Massachusetts	Norfolk County	Brookline town	112	1%
Massachusetts	Norfolk County	Randolph town	Massachusetts	Norfolk County	Brookline town	40	0%
Massachusetts	Norfolk County	Sharon town	Massachusetts	Norfolk County	Brookline town	158	1%
Massachusetts	Norfolk County	Stoughton town	Massachusetts	Norfolk County	Brookline town	115	1%
Massachusetts	Norfolk County	Stoughton town	Massachusetts	Norfolk County	Brookline town	12	0%
Massachusetts	Norfolk County	Stoughton town	Massachusetts	Norfolk County	Brookline town	10	0%
Massachusetts	Norfolk County	Walpole town	Massachusetts	Norfolk County	Brookline town	115	1%
Massachusetts	Norfolk County	Wellesley town	Massachusetts	Norfolk County	Brookline town	114	1%

2% → 3

27%  
20% → 3

Massachusetts	Norfolk County	Wellesley town	Massachusetts	Norfolk County	Brookline town	22	0%
Massachusetts	Norfolk County	Wellesley town	Massachusetts	Norfolk County	Brookline town	6	0%
Massachusetts	Norfolk County	Wellesley town	Massachusetts	Norfolk County	Brookline town	37	0%
Massachusetts	Norfolk County	Westwood town	Massachusetts	Norfolk County	Brookline town	110	1%
Massachusetts	Norfolk County	Weymouth Town city	Massachusetts	Norfolk County	Brookline town	167	1%
Massachusetts	Norfolk County	Weymouth Town city	Massachusetts	Norfolk County	Brookline town	21	0%
Massachusetts	Norfolk County	Wrentham town	Massachusetts	Norfolk County	Brookline town	69	0%
Massachusetts	Plymouth County	Brockton city	Massachusetts	Norfolk County	Brookline town	125	1%
Massachusetts	Plymouth County	Brockton city	Massachusetts	Norfolk County	Brookline town	17	0%
Massachusetts	Plymouth County	Marshfield town	Massachusetts	Norfolk County	Brookline town	39	0%
Massachusetts	Plymouth County	Rockland town	Massachusetts	Norfolk County	Brookline town	26	0%
Massachusetts	Plymouth County	Rockland town	Massachusetts	Norfolk County	Brookline town	18	0%
Massachusetts	Plymouth County	Rockland town	Massachusetts	Norfolk County	Brookline town	11	0%
Massachusetts	Plymouth County	Scituate town	Massachusetts	Norfolk County	Brookline town	37	0%
Massachusetts	Suffolk County	Boston city	Massachusetts	Norfolk County	Brookline town	2,940	14%
Massachusetts	Suffolk County	Boston city	Massachusetts	Norfolk County	Brookline town	474	2%
Massachusetts	Suffolk County	Boston city	Massachusetts	Norfolk County	Brookline town	1,579	8%
Massachusetts	Suffolk County	Boston city	Massachusetts	Norfolk County	Brookline town	1,046	5%
Massachusetts	Suffolk County	Revere city	Massachusetts	Norfolk County	Brookline town	30	0%
Massachusetts	Suffolk County	Revere city	Massachusetts	Norfolk County	Brookline town	23	0%
Massachusetts	Suffolk County	Revere city	Massachusetts	Norfolk County	Brookline town	23	0%
Massachusetts	Suffolk County	Winthrop Town city	Massachusetts	Norfolk County	Brookline town	19	0%
Massachusetts	Suffolk County	Winthrop Town city	Massachusetts	Norfolk County	Brookline town	5	0%
Massachusetts	Worcester County	Grafton town	Massachusetts	Norfolk County	Brookline town	53	0%
Massachusetts	Worcester County	Harvard town	Massachusetts	Norfolk County	Brookline town	32	0%
Massachusetts	Worcester County	Westborough town	Massachusetts	Norfolk County	Brookline town	29	0%

} 29% → 3



Note: \*Illegal Movement  
 Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

Figure -

**VAI** Vanasse & Associates, Inc.  
 Transportation Engineers & Planners

- % Student
- assumption
- trip distribution

## CAPACITY ANALYSIS

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Boylston Street (Route 9) at Hammond Street  
Hammond Street at Heath Street  
Hammond Street at Soule Recreation Drive and Private Drive  
Hammond Street at Woodland Road  
Heath Street at Oak Street  
Heath Street at Dunster Road  
Boylston Street (Route 9) at Dunster Road  
Heath Street at Cary Road  
Heath Street at Soule Recreation Drive/Site Drive  
Heath Street at Woodland Road  
Heath Street at Randolph Road  
Heath Street at Warren Street  
James Horace Circle

Boylston Street (Route 9) at Hammond Street

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HCM 2010 Signalized Intersection Summary  
 3: Hammond Street & Boylston Street

2016 AM Baseline  
 1/31/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	122	1087	34	220	1291	43	113	355	73	124	238	124
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	184.5	184.0	190.0	182.7	186.3	190.0	190.0	190.8	190.0	190.0	187.5	182.7
Adj Flow Rate, veh/h	136	1208	38	232	1359	45	118	370	76	139	267	139
Adj No. of Lanes	1	2	0	1	2	1	0	2	0	0	2	1
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	4	2	0	1	1	1	2	2	4
Cap, veh/h	190	1287	40	221	1383	883	149	489	105	193	399	423
Arrive On Green	0.11	0.37	0.35	0.13	0.39	0.38	0.18	0.20	0.18	0.15	0.16	0.16
Sat Flow, veh/h	1757	3460	109	1740	3539	1615	739	2427	520	1174	2425	1553
Grp Volume(v), veh/h	136	610	636	232	1359	45	299	0	265	215	191	139
Grp Sat Flow(s),veh/h/ln	1757	1748	1821	1740	1770	1615	1871	0	1816	1817	1782	1553
Q Serve(g_s), s	8.9	39.8	39.9	15.0	44.9	1.5	18.0	0.0	16.2	13.3	11.9	8.5
Cycle Q Clear(g_c), s	8.9	39.8	39.9	15.0	44.9	1.5	18.0	0.0	16.2	13.3	11.9	8.5
Prop In Lane	1.00		0.06	1.00		1.00	0.39		0.29	0.65		1.00
Lane Grp Cap(c), veh/h	190	650	677	221	1383	883	377	0	366	299	293	423
V/C Ratio(X)	0.72	0.94	0.94	1.05	0.98	0.05	0.79	0.00	0.73	0.72	0.65	0.33
Avail Cap(c_a), veh/h	223	650	677	221	1383	883	443	0	430	415	407	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.49	0.00	0.49	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	35.8	35.9	51.6	35.6	12.5	45.3	0.0	44.4	47.5	46.2	34.4
Incr Delay (d2), s/veh	8.7	23.0	22.5	74.8	20.4	0.1	4.2	0.0	2.5	3.7	2.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	23.3	24.2	11.8	25.8	1.0	9.8	0.0	8.4	7.0	6.0	3.7
LnGrp Delay(d),s/veh	59.7	58.8	58.4	126.4	56.1	12.6	49.5	0.0	46.9	51.2	48.7	34.8
LnGrp LOS	E	E	E	F	E	B	D		D	D	D	C
Approach Vol, veh/h		1382			1636			564				545
Approach Delay, s/veh		58.7			64.9			48.3				46.1
Approach LOS		E			E			D				D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.8	61.9		27.8	19.0	59.7		23.5				
Change Period (Y+Rc), s	6.0	7.0		6.0	6.0	7.0		6.0				
Max Green Setting (Gmax), s	13.0	41.0		26.0	13.0	41.0		25.0				
Max Q Clear Time (g_c+I1), s	10.9	46.9		20.0	17.0	41.9		15.3				
Green Ext Time (p_c), s	0.1	0.0		1.8	0.0	0.0		2.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			58.1									
HCM 2010 LOS			E									

Lanes, Volumes, Timings  
3: Hammond Street & Boylston Street

2016 AM Baseline  
1/31/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	122	1087	34	220	1291	43	113	355	73	124	238	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12	12	13	12	12	10	11
Storage Length (ft)	220		0	330		150	0		0	0		100
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1694	3478	0	1678	3539	1615	0	3494	0	0	3269	1501
Fit Permitted	0.950			0.950				0.990			0.983	
Satd. Flow (perm)	1694	3478	0	1678	3539	1615	0	3494	0	0	3269	1501
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				76		12				139
Link Speed (mph)		40			45			25			25	
Link Distance (ft)		710			770			351			593	
Travel Time (s)		12.1			11.7			9.6			16.2	
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.89	0.89	0.89
Heavy Vehicles (%)	3%	3%	12%	4%	2%	0%	5%	1%	14%	0%	2%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	1246	0	232	1359	45	0	564	0	0	406	139
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2	8	4	4		8	8	1
Permitted Phases						2						8
Detector Phase	1	6		5	2	8	4	4		8	8	1
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	10.0	60.0		10.0	60.0	30.0	30.0	30.0		30.0	30.0	10.0
Total Split (s)	19.0	48.0		19.0	48.0	31.0	32.0	32.0		31.0	31.0	19.0
Total Split (%)	14.6%	36.9%		14.6%	36.9%	23.8%	24.6%	24.6%		23.8%	23.8%	14.6%
Maximum Green (s)	13.0	41.0		13.0	41.0	25.0	26.0	26.0		25.0	25.0	13.0
Yellow Time (s)	4.0	4.0		4.0	4.0	3.0	3.0	3.0		3.0	3.0	4.0
All-Red Time (s)	2.0	3.0		2.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0
Lost Time Adjust (s)	-2.0	-3.0		-2.0	-3.0	-2.0	-2.0	-2.0		-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max		None	C-Max	Ped	Ped	Ped		Ped	Ped	None
Walk Time (s)		20.0			20.0	5.0	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		20.0			20.0	18.0	19.0	19.0		18.0	18.0	
Pedestrian Calls (#/hr)		10			10	3	8	8		3	3	
Act Effct Green (s)	15.1	44.0		17.1	46.0	71.7		27.2			25.7	44.7
Actuated g/C Ratio	0.12	0.34		0.13	0.35	0.55		0.21			0.20	0.34
v/c Ratio	0.69	1.06		1.05	1.08	0.05		0.76			0.63	0.23
Control Delay	73.9	84.0		128.7	91.7	0.5		16.7			52.6	5.5
Queue Delay	0.0	0.0		0.0	0.0	0.0		1.1			0.0	0.0
Total Delay	73.9	84.0		128.7	91.7	0.5		17.8			52.6	5.5
LOS	E	F		F	F	A		B			D	A
Approach Delay		83.0			94.5			17.8			40.6	
Approach LOS		F			F			B			D	

Lanes, Volumes, Timings  
 3: Hammond Street & Boylston Street

2016 AM Baseline  
 1/31/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	110	~604		~214	~700	0		52			167	0
Queue Length 95th (ft)	#202	#746		#405	#839	4		102			217	43
Internal Link Dist (ft)		630			690			271			513	
Turn Bay Length (ft)	220			330		150						100
Base Capacity (vph)	204	1179		220	1253	940		761			678	613
Starvation Cap Reductn	0	0		0	0	0		62			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.67	1.06		1.05	1.08	0.05		0.81			0.60	0.23

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow, Master Intersection  
 Natural Cycle: 140  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.08  
 Intersection Signal Delay: 73.1  
 Intersection Capacity Utilization 82.3%  
 Analysis Period (min) 15  
 Intersection LOS: E  
 ICU Level of Service E

~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Hammond Street & Boylston Street

ø1 19 s	ø2 (R) 48 s	ø4 32 s	ø8 31 s
ø5 19 s	ø6 (R) 48 s		

HCM 2010 Signalized Intersection Summary  
3: Hammond Street & Boylston Street

2016 PM Baseline  
1/31/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	118	1070	69	234	1126	59	160	199	90	122	260	100
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	190.0	186.4	190.0	184.5	186.3	190.0	190.0	191.6	190.0	190.0	187.5	190.0
Adj Flow Rate, veh/h	128	1163	75	275	1325	69	176	219	99	137	292	112
Adj No. of Lanes	1	2	0	1	2	1	0	2	0	0	2	1
Peak Hour Factor	0.92	0.92	0.92	0.85	0.85	0.85	0.91	0.91	0.91	0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	3	2	0	1	1	1	1	1	0
Cap, veh/h	172	1077	69	327	1449	924	232	304	142	188	429	416
Arrive On Green	0.10	0.32	0.29	0.19	0.41	0.40	0.17	0.19	0.17	0.15	0.17	0.16
Sat Flow, veh/h	1810	3378	218	1757	3539	1615	1244	1631	762	1096	2506	1615
Grp Volume(v), veh/h	128	609	629	275	1325	69	262	0	232	228	201	112
Grp Sat Flow(s),veh/h/ln	1810	1771	1825	1757	1770	1615	1854	0	1782	1820	1781	1615
Q Serve(g_s), s	8.0	37.0	37.0	17.5	41.0	2.2	15.6	0.0	14.2	13.8	12.3	6.4
Cycle Q Clear(g_c), s	8.0	37.0	37.0	17.5	41.0	2.2	15.6	0.0	14.2	13.8	12.3	6.4
Prop In Lane	1.00		0.12	1.00		1.00	0.67		0.43	0.60		1.00
Lane Grp Cap(c), veh/h	172	564	582	327	1449	924	346	0	332	312	305	416
V/C Ratio(X)	0.74	1.08	1.08	0.84	0.91	0.07	0.76	0.00	0.70	0.73	0.66	0.27
Avail Cap(c_a), veh/h	343	564	582	333	1449	924	447	0	430	423	414	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.55	0.00	0.55	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	39.6	39.7	45.6	32.4	11.1	45.4	0.0	44.6	46.2	45.0	34.4
Incr Delay (d2), s/veh	6.2	61.1	61.2	17.2	10.4	0.2	3.1	0.0	1.9	4.1	2.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	27.6	28.5	10.0	22.2	1.4	8.3	0.0	7.1	7.3	6.3	2.9
LnGrp Delay(d),s/veh	57.4	100.7	100.9	62.8	42.8	11.3	48.5	0.0	46.5	50.3	47.4	34.7
LnGrp LOS	E	F	F	E	D	B	D		D	D	D	C
Approach Vol, veh/h		1366			1669			494			541	
Approach Delay, s/veh		96.7			44.8			47.6			46.0	
Approach LOS		F			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	65.4		25.6	25.6	54.9		23.9				
Change Period (Y+Rc), s	5.0	7.0		6.0	6.0	7.0		6.0				
Max Green Setting (Gmax), s	21.0	34.0		26.0	20.0	34.0		25.0				
Max Q Clear Time (g_c+I1), s	10.0	43.0		17.6	19.5	39.0		15.8				
Green Ext Time (p_c), s	0.2	0.0		2.0	0.0	0.0		2.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			62.7									
HCM 2010 LOS			E									

Lanes, Volumes, Timings  
3: Hammond Street & Boylston Street

2016 PM Baseline  
1/31/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	118	1070	69	234	1126	59	160	199	90	122	260	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12	12	13	12	12	10	11
Storage Length (ft)	220		0	330		150	0		0	0		100
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1745	3509	0	1694	3539	1615	0	3446	0	0	3272	1561
Flt Permitted	0.950			0.950				0.982			0.984	
Satd. Flow (perm)	1745	3509	0	1694	3539	1615	0	3446	0	0	3272	1561
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				76		22				112
Link Speed (mph)		40			45			25			25	
Link Distance (ft)		710			770			351			593	
Travel Time (s)		12.1			11.7			9.6			16.2	
Peak Hour Factor	0.92	0.92	0.92	0.85	0.85	0.85	0.91	0.91	0.91	0.89	0.89	0.89
Heavy Vehicles (%)	0%	2%	1%	3%	2%	0%	3%	1%	8%	2%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	128	1238	0	275	1325	69	0	494	0	0	429	112
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2	8	4	4		8	8	1
Permitted Phases						2						8
Detector Phase	1	6		5	2	8	4	4		8	8	1
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	10.0	60.0		10.0	60.0	29.0	30.0	30.0		29.0	29.0	10.0
Total Split (s)	26.0	41.0		26.0	41.0	31.0	32.0	32.0		31.0	31.0	26.0
Total Split (%)	20.0%	31.5%		20.0%	31.5%	23.8%	24.6%	24.6%		23.8%	23.8%	20.0%
Yellow Time (s)	3.0	4.0		4.0	4.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	3.0		2.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0
Lost Time Adjust (s)	-1.0	-3.0		-2.0	-3.0	-2.0		-2.0		-2.0	-2.0	-1.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead

Lanes, Volumes, Timings  
3: Hammond Street & Boylston Street

2016 PM Baseline  
1/31/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Max		None	C-Max	None	None	None		None	None	None
Act Effct Green (s)	15.8	40.4		24.8	49.4	73.4		24.8			23.9	43.7
Actuated g/C Ratio	0.12	0.31		0.19	0.38	0.56		0.19			0.18	0.34
v/c Ratio	0.61	1.13		0.85	0.99	0.07		0.73			0.71	0.19
Control Delay	65.6	112.4		74.9	61.7	1.7		18.0			56.5	5.1
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.4			0.0	0.0
Total Delay	65.6	112.4		74.9	61.7	1.7		18.5			56.5	5.1
LOS	E	F		E	E	A		B			E	A
Approach Delay		108.0			61.4			18.5			45.9	
Approach LOS		F			E			B			D	
Queue Length 50th (ft)	104	~680		223	~627	0		48			178	0
Queue Length 95th (ft)	164	#822		#372	#811	9		114			230	37
Internal Link Dist (ft)		630			690			271			513	
Turn Bay Length (ft)	220			330		150						100
Base Capacity (vph)	295	1093		323	1345	980		759			679	668
Starvation Cap Reductn	0	0		0	0	0		53			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.43	1.13		0.85	0.99	0.07		0.70			0.63	0.17

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow, Master Intersection  
 Natural Cycle: 140  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.13  
 Intersection Signal Delay: 69.8  
 Intersection LOS: E  
 Intersection Capacity Utilization 81.8%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Hammond Street & Boylston Street

ø1	ø2 (R)	ø4	ø8
26 s	41 s	32 s	31 s
ø5	ø6 (R)		
26 s	41 s		

HCM 2010 Signalized Intersection Summary  
 3: Hammond Street & Boylston Street

2024 No-Build Weekday Morning  
 2/1/2017

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (veh/h)	132	1221	37	241	1473	46	122	388	83	134	260	134	
Number	1	6	16	5	2	12	7	4	14	3	8	18	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln	184.5	184.0	190.0	182.7	186.3	190.0	190.0	190.7	190.0	190.0	187.5	182.7	
Adj Flow Rate, veh/h	147	1357	41	254	1551	48	127	404	86	151	292	151	
Adj No. of Lanes	1	2	0	1	2	1	0	2	0	0	2	1	
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.89	0.89	0.89	
Percent Heavy Veh, %	3	3	3	4	2	0	1	1	1	2	2	4	
Cap, veh/h	199	1251	38	214	1312	865	153	511	114	202	420	445	
Arrive On Green	0.11	0.36	0.34	0.12	0.37	0.36	0.19	0.21	0.19	0.16	0.17	0.17	
Sat Flow, veh/h	1757	3465	105	1740	3539	1615	726	2419	538	1169	2429	1553	
Grp Volume(v), veh/h	147	684	714	254	1551	48	327	0	290	235	208	151	
Grp Sat Flow(s),veh/h/ln	1757	1748	1821	1740	1770	1615	1870	0	1812	1817	1782	1553	
Q Serve(g_s), s	9.9	44.0	44.0	15.0	45.2	1.7	20.4	0.0	18.3	15.0	13.3	9.4	
Cycle Q Clear(g_c), s	9.9	44.0	44.0	15.0	45.2	1.7	20.4	0.0	18.3	15.0	13.3	9.4	
Prop In Lane	1.00		0.06	1.00		1.00	0.39		0.30	0.64		1.00	
Lane Grp Cap(c), veh/h	199	631	658	214	1312	865	395	0	383	314	308	445	
V/C Ratio(X)	0.74	1.08	1.09	1.19	1.18	0.06	0.83	0.00	0.76	0.75	0.68	0.34	
Avail Cap(c_a), veh/h	216	631	658	214	1312	865	430	0	416	403	395	520	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.39	0.00	0.39	1.00	1.00	1.00	
Uniform Delay (d), s/veh	52.3	38.9	39.0	53.4	38.3	13.5	46.3	0.0	45.4	48.5	47.2	34.4	
Incr Delay (d2), s/veh	11.5	60.5	60.5	120.7	89.9	0.1	5.1	0.0	2.9	5.6	3.1	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	5.4	31.7	33.0	14.3	38.3	1.1	11.1	0.0	9.5	8.0	6.9	4.1	
LnGrp Delay(d),s/veh	63.8	99.4	99.6	174.1	128.2	13.7	51.4	0.0	48.3	54.0	50.3	34.8	
LnGrp LOS	E	F	F	F	F	B	D		D	D	D	C	
Approach Vol, veh/h		1545			1853			617			594		
Approach Delay, s/veh		96.1			131.5			49.9			47.8		
Approach LOS		F			F			D			D		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2		4	5	6		8					
Phs Duration (G+Y+Rc), s	17.8	57.3		29.8	19.0	56.2		25.1					
Change Period (Y+Rc), s	6.0	7.0		6.0	6.0	7.0		6.0					
Max Green Setting (Gmax), s	13.0	41.0		26.0	13.0	41.0		25.0					
Max Q Clear Time (g_c+11), s	11.9	47.2		22.4	17.0	46.0		17.0					
Green Ext Time (p_c), s	0.0	0.0		1.3	0.0	0.0		2.1					
<b>Intersection Summary</b>													
HCM 2010 Ctrl Delay			97.9										
HCM 2010 LOS			F										

Lanes, Volumes, Timings  
3: Hammond Street & Boylston Street

2024 No-Build Weekday Morning  
2/1/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	132	1221	37	241	1473	46	122	388	83	134	260	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12	12	13	12	12	10	11
Storage Length (ft)	220		0	330		150	0		0	0		100
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1694	3482	0	1678	3539	1615	0	3489	0	0	3269	1501
Flt Permitted	0.950			0.950				0.990			0.983	
Satd. Flow (perm)	1694	3482	0	1678	3539	1615	0	3489	0	0	3269	1501
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				76		13				139
Link Speed (mph)		40			45			25			25	
Link Distance (ft)		710			770			351			593	
Travel Time (s)		12.1			11.7			9.6			16.2	
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.89	0.89	0.89
Heavy Vehicles (%)	3%	3%	12%	4%	2%	0%	5%	1%	14%	0%	2%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	147	1398	0	254	1551	48	0	617	0	0	443	151
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2	8	4	4		8	8	1
Permitted Phases						2						8
Detector Phase	1	6		5	2	8	4	4		8	8	1
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	10.0	60.0		10.0	60.0	30.0	30.0	30.0		30.0	30.0	10.0
Total Split (s)	19.0	48.0		19.0	48.0	31.0	32.0	32.0		31.0	31.0	19.0
Total Split (%)	14.6%	36.9%		14.6%	36.9%	23.8%	24.6%	24.6%		23.8%	23.8%	14.6%
Maximum Green (s)	13.0	41.0		13.0	41.0	25.0	26.0	26.0		25.0	25.0	13.0
Yellow Time (s)	4.0	4.0		4.0	4.0	3.0	3.0	3.0		3.0	3.0	4.0
All-Red Time (s)	2.0	3.0		2.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0
Lost Time Adjust (s)	-2.0	-3.0		-2.0	-3.0	-2.0	-2.0	-2.0		-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max		None	C-Max	Ped	Ped	Ped		Ped	Ped	None
Walk Time (s)		20.0			20.0	5.0	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		20.0			20.0	18.0	19.0	19.0		18.0	18.0	
Pedestrian Calls (#/hr)		10			10	3	8	8		3	3	
Act Effct Green (s)	15.2	44.0		16.5	45.3	71.2		27.6			25.9	45.1
Actuated g/C Ratio	0.12	0.34		0.13	0.35	0.55		0.21			0.20	0.35
v/c Ratio	0.74	1.19		1.20	1.26	0.05		0.82			0.68	0.25
Control Delay	78.1	130.8		172.9	159.7	0.7		20.6			54.1	6.8
Queue Delay	0.0	0.0		0.0	0.0	0.0		2.3			0.0	0.0
Total Delay	78.1	130.8		172.9	159.7	0.7		22.9			54.1	6.8
LOS	E	F		F	F	A		C			D	A
Approach Delay		125.8			157.4			22.9			42.0	
Approach LOS		F			F			C			D	

Lanes, Volumes, Timings  
3: Hammond Street & Boylston Street

2024 No-Build Weekday Morning  
2/1/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	120	~747		~259	~877	0		56			184	7
Queue Length 95th (ft)	#226	#889		#449	#1017	4		m106			237	52
Internal Link Dist (ft)		630			690			271			513	
Turn Bay Length (ft)	220			330		150						100
Base Capacity (vph)	203	1179		212	1232	931		761			678	615
Starvation Cap Reductn	0	0		0	0	0		62			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.72	1.19		1.20	1.26	0.05		0.88			0.65	0.25

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow, Master Intersection  
 Natural Cycle: 140  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.26  
 Intersection Signal Delay: 113.9  
 Intersection LOS: F  
 Intersection Capacity Utilization 89.6%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Hammond Street & Boylston Street

ø1	ø2 (R)	ø4	ø8
19 s	48 s	32 s	31 s
ø5	ø6 (R)		
19 s	48 s		

HCM 2010 Signalized Intersection Summary  
3: Hammond Street & Boylston Street

2024 No-Build Weekday Evening  
2/1/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	128	1205	75	263	1275	65	65	218	100	132	289	108
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	190.0	186.4	190.0	184.5	186.3	190.0	190.0	191.5	190.0	190.0	187.5	190.0
Adj Flow Rate, veh/h	139	1310	82	309	1500	76	71	240	110	148	325	121
Adj No. of Lanes	1	2	0	1	2	1	0	2	0	0	2	1
Peak Hour Factor	0.92	0.92	0.92	0.85	0.85	0.85	0.91	0.91	0.91	0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	3	2	0	1	1	1	1	1	0
Cap, veh/h	184	1087	68	335	1451	945	98	340	163	198	465	447
Arrive On Green	0.10	0.32	0.29	0.19	0.41	0.40	0.15	0.17	0.15	0.17	0.18	0.18
Sat Flow, veh/h	1810	3386	212	1757	3539	1615	592	2052	983	1075	2528	1615
Grp Volume(v), veh/h	139	684	708	309	1500	76	226	0	195	251	222	121
Grp Sat Flow(s),veh/h/ln	1810	1771	1826	1757	1770	1615	1886	0	1742	1822	1782	1615
Q Serve(g_s), s	8.6	37.0	37.0	19.9	47.3	2.4	13.1	0.0	12.2	15.1	13.4	6.8
Cycle Q Clear(g_c), s	8.6	37.0	37.0	19.9	47.3	2.4	13.1	0.0	12.2	15.1	13.4	6.8
Prop In Lane	1.00		0.12	1.00		1.00	0.31		0.56	0.59		1.00
Lane Grp Cap(c), veh/h	184	568	586	335	1451	945	312	0	289	335	327	447
V/C Ratio(X)	0.76	1.20	1.21	0.92	1.03	0.08	0.72	0.00	0.68	0.75	0.68	0.27
Avail Cap(c_a), veh/h	345	568	586	335	1451	945	458	0	423	427	417	528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.48	0.00	0.48	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	39.1	39.3	45.8	34.0	10.4	45.9	0.0	45.7	45.1	43.9	32.6
Incr Delay (d2), s/veh	6.2	107.5	108.9	30.0	32.7	0.2	1.6	0.0	1.3	5.4	3.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	35.0	36.3	12.4	29.6	1.6	7.0	0.0	6.0	8.1	6.9	3.0
LnGrp Delay(d),s/veh	56.6	146.7	148.3	75.8	66.7	10.6	47.5	0.0	47.1	50.5	46.9	32.9
LnGrp LOS	E	F	F	E	F	B	D		D	D	D	C
Approach Vol, veh/h		1531			1885			421			594	
Approach Delay, s/veh		139.2			65.9			47.3			45.6	
Approach LOS		F			E			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.7	66.0		23.1	26.0	55.7		25.2				
Change Period (Y+Rc), s	5.0	7.0		6.0	6.0	7.0		6.0				
Max Green Setting (Gmax), s	21.0	34.0		26.0	20.0	34.0		25.0				
Max Q Clear Time (g_c+11), s	10.6	49.3		15.1	21.9	39.0		17.1				
Green Ext Time (p_c), s	0.2	0.0		2.0	0.0	0.0		2.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			86.8									
HCM 2010 LOS			F									

Lanes, Volumes, Timings  
3: Hammond Street & Boylston Street

2024 No-Build Weekday Evening  
2/1/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	128	1205	75	263	1275	65	65	218	100	132	289	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12	12	13	12	12	10	11
Storage Length (ft)	220		0	330		150	0		0	0		100
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1745	3509	0	1694	3539	1615	0	3447	0	0	3276	1561
Flt Permitted	0.950			0.950				0.992			0.985	
Satd. Flow (perm)	1745	3509	0	1694	3539	1615	0	3447	0	0	3276	1561
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				76		35				114
Link Speed (mph)		40			45			25			25	
Link Distance (ft)		710			770			351			593	
Travel Time (s)		12.1			11.7			9.6			16.2	
Peak Hour Factor	0.92	0.92	0.92	0.85	0.85	0.85	0.91	0.91	0.91	0.89	0.89	0.89
Heavy Vehicles (%)	0%	2%	1%	3%	2%	0%	3%	1%	8%	2%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	1392	0	309	1500	76	0	421	0	0	473	121
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2	8	4	4		8	8	1
Permitted Phases						2						8
Detector Phase	1	6		5	2	8	4	4		8	8	1
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	10.0	60.0		10.0	60.0	29.0	30.0	30.0		29.0	29.0	10.0
Total Split (s)	26.0	41.0		26.0	41.0	31.0	32.0	32.0		31.0	31.0	26.0
Total Split (%)	20.0%	31.5%		20.0%	31.5%	23.8%	24.6%	24.6%		23.8%	23.8%	20.0%
Yellow Time (s)	3.0	4.0		4.0	4.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	3.0		2.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0
Lost Time Adjust (s)	-1.0	-3.0		-2.0	-3.0	-2.0	-2.0	-2.0		-2.0	-2.0	-1.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead

Lanes, Volumes, Timings  
3: Hammond Street & Boylston Street

2024 No-Build Weekday Evening  
2/1/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Max		None	C-Max	None	None	None		None	None	None
Act Effct Green (s)	16.5	37.5		28.6	49.6	75.2		22.2			25.6	46.2
Actuated g/C Ratio	0.13	0.29		0.22	0.38	0.58		0.17			0.20	0.36
v/c Ratio	0.63	1.37		0.83	1.11	0.08		0.68			0.73	0.19
Control Delay	65.9	209.9		68.6	98.8	2.0		24.3			56.0	5.6
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.2			0.0	0.0
Total Delay	65.9	209.9		68.6	98.8	2.0		24.5			56.0	5.6
LOS	E	F		E	F	A		C			E	A
Approach Delay		196.8			89.9			24.5			45.7	
Approach LOS		F			F			C			D	
Queue Length 50th (ft)	113	~824		251	~770	0		64			196	4
Queue Length 95th (ft)	176	#966		#435	#973	11		m101			253	40
Internal Link Dist (ft)		630			690			271			513	
Turn Bay Length (ft)	220			330		150						100
Base Capacity (vph)	295	1015		373	1350	989		769			695	688
Starvation Cap Reductn	0	0		0	0	0		46			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.47	1.37		0.83	1.11	0.08		0.58			0.68	0.18

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow, Master Intersection  
 Natural Cycle: 150  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.37  
 Intersection Signal Delay: 114.7  
 Intersection Capacity Utilization 86.5%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service E

~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Hammond Street & Boylston Street

ø1	ø2 (R)	ø4	ø8
26 s	41 s	32 s	31 s
ø5	ø6 (R)		
26 s	41 s		

HCM 2010 Signalized Intersection Summary  
 3: Hammond Street & Boylston Street

2024 Build Weekday Morning  
 2/2/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	132	1221	73	259	1473	46	148	411	83	134	292	134
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	184.5	183.6	190.0	182.7	186.3	190.0	190.0	190.7	190.0	190.0	187.4	182.7
Adj Flow Rate, veh/h	147	1357	81	273	1551	48	159	442	89	158	344	158
Adj No. of Lanes	1	2	0	1	2	1	0	2	0	0	2	1
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.93	0.93	0.93	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	4	2	0	1	1	1	2	2	4
Cap, veh/h	165	1259	75	269	1546	975	153	447	94	188	437	416
Arrive On Green	0.09	0.38	0.36	0.15	0.44	0.43	0.17	0.19	0.17	0.16	0.17	0.17
Sat Flow, veh/h	1757	3345	199	1740	3539	1615	812	2375	499	1081	2519	1553
Grp Volume(v), veh/h	147	706	732	273	1551	48	365	0	325	266	236	158
Grp Sat Flow(s),veh/h/ln	1757	1744	1800	1740	1770	1615	1867	0	1819	1820	1781	1553
Q Serve(g_s), s	12.3	56.0	56.0	23.0	65.0	1.8	28.0	0.0	26.3	21.1	18.8	12.3
Cycle Q Clear(g_c), s	12.3	56.0	56.0	23.0	65.0	1.8	28.0	0.0	26.3	21.1	18.8	12.3
Prop In Lane	1.00		0.11	1.00		1.00	0.44		0.27	0.59		1.00
Lane Grp Cap(c), veh/h	165	656	677	269	1546	975	351	0	342	316	309	416
V/C Ratio(X)	0.89	1.08	1.08	1.02	1.00	0.05	1.04	0.00	0.95	0.84	0.76	0.38
Avail Cap(c_a), veh/h	165	656	677	269	1546	975	351	0	342	330	323	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.65	0.00	0.65	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.7	46.4	46.6	62.9	41.9	12.1	60.9	0.0	60.0	60.1	58.6	44.4
Incr Delay (d2), s/veh	40.1	57.3	58.4	58.9	23.7	0.1	49.6	0.0	26.9	17.0	9.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	37.2	38.7	15.4	36.6	1.2	19.2	0.0	15.7	12.1	10.1	5.4
LnGrp Delay(d),s/veh	106.8	103.7	105.0	121.9	65.6	12.1	110.4	0.0	86.8	77.1	68.5	45.0
LnGrp LOS	F	F	F	F	F	B	F		F	E	E	D
Approach Vol, veh/h		1585			1872			690			660	
Approach Delay, s/veh		104.6			72.5			99.3			66.4	
Approach LOS		F			E			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.0	70.2		32.0	27.0	61.2		29.8				
Change Period (Y+Rc), s	6.0	7.0		6.0	6.0	7.0		6.0				
Max Green Setting (Gmax), s	12.0	62.0		26.0	21.0	53.0		25.0				
Max Q Clear Time (g_c+I1), s	14.3	67.0		30.0	25.0	58.0		23.1				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			86.1									
HCM 2010 LOS			F									

Lanes, Volumes, Timings  
3: Hammond Street & Boylston Street

2024 Build Weekday Morning  
2/2/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	132	1221	73	259	1473	46	148	411	83	134	292	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12	12	13	12	12	10	11
Storage Length (ft)	220		0	330		150	0		0	0		100
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1694	3460	0	1678	3539	1615	0	3493	0	0	3274	1501
Fit Permitted	0.950			0.950				0.989			0.985	
Satd. Flow (perm)	1694	3460	0	1678	3539	1615	0	3493	0	0	3274	1501
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				65		10				116
Link Speed (mph)		40			45			25			25	
Link Distance (ft)		710			770			351			593	
Travel Time (s)		12.1			11.7			9.6			16.2	
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.93	0.93	0.93	0.85	0.85	0.85
Heavy Vehicles (%)	3%	3%	12%	4%	2%	0%	5%	1%	14%	0%	2%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	147	1438	0	273	1551	48	0	690	0	0	502	158
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2	8	4	4		8	8	1
Permitted Phases						2						8
Detector Phase	1	6		5	2	8	4	4		8	8	1
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	10.0	60.0		10.0	60.0	30.0	30.0	30.0		30.0	30.0	10.0
Total Split (s)	18.0	60.0		27.0	69.0	31.0	32.0	32.0		31.0	31.0	18.0
Total Split (%)	12.0%	40.0%		18.0%	46.0%	20.7%	21.3%	21.3%		20.7%	20.7%	12.0%
Maximum Green (s)	12.0	53.0		21.0	62.0	25.0	26.0	26.0		25.0	25.0	12.0
Yellow Time (s)	4.0	4.0		4.0	4.0	3.0	3.0	3.0		3.0	3.0	4.0
All-Red Time (s)	2.0	3.0		2.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0
Lost Time Adjust (s)	-2.0	-3.0		-2.0	-3.0	-2.0	-2.0	-2.0		-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max		None	C-Max	Ped	Ped	Ped		Ped	Ped	None
Walk Time (s)		20.0			20.0	5.0	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		20.0			20.0	18.0	19.0	19.0		18.0	18.0	
Pedestrian Calls (#/hr)		10			10	3	8	8		3	3	
Act Effct Green (s)	14.4	56.0		23.4	65.0	91.6		28.0			26.6	45.0
Actuated g/C Ratio	0.10	0.37		0.16	0.43	0.61		0.19			0.18	0.30
v/c Ratio	0.91	1.11		1.05	1.01	0.05		1.05			0.87	0.30
Control Delay	115.3	104.6		127.2	67.8	0.8		89.6			75.7	13.7
Queue Delay	0.0	0.0		19.6	0.0	0.0		21.0			0.0	0.0
Total Delay	115.3	104.6		146.8	67.8	0.8		110.6			75.7	13.7
LOS	F	F		F	E	A		F			E	B
Approach Delay		105.6			77.6			110.6			60.9	
Approach LOS		F			E			F			E	

Lanes, Volumes, Timings  
 3: Hammond Street & Boylston Street

2024 Build Weekday Morning  
 2/2/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	145	~844		~293	~813	0		~382			253	30
Queue Length 95th (ft)	#288	#987		#479	#975	6		#498			302	78
Internal Link Dist (ft)		630			690			271			513	
Turn Bay Length (ft)	220			330		150						100
Base Capacity (vph)	162	1294		261	1533	1015		660			589	531
Starvation Cap Reductn	0	0		0	0	0		61			0	0
Spillback Cap Reductn	0	0		23	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.91	1.11		1.15	1.01	0.05		1.15			0.85	0.30

Intersection Summary

Area Type: Other  
 Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow, Master Intersection  
 Natural Cycle: 150  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.11  
 Intersection Signal Delay: 89.2  
 Intersection LOS: F  
 Intersection Capacity Utilization 94.0%  
 ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Hammond Street & Boylston Street

p1 18 s	p2 (R) 69 s	p4 32 s	p8 31 s
p5 27 s	p6 (R) 60 s		

HCM 2010 Signalized Intersection Summary  
 3: Hammond Street & Boylston Street

2024 Build Weekday Evening  
 2/1/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	128	1205	92	287	1275	65	83	233	101	132	303	108
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	190.0	186.4	190.0	184.5	186.3	190.0	190.0	191.7	190.0	190.0	187.6	190.0
Adj Flow Rate, veh/h	139	1310	100	342	1518	77	89	251	109	147	337	120
Adj No. of Lanes	1	2	0	1	2	1	0	2	0	0	2	1
Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.93	0.93	0.93	0.90	0.90	0.90
Percent Heavy Veh, %	0	2	2	3	2	0	1	1	1	1	1	0
Cap, veh/h	152	1216	93	333	1662	1026	113	327	148	180	441	403
Arrive On Green	0.08	0.36	0.34	0.19	0.47	0.46	0.15	0.16	0.15	0.16	0.17	0.17
Sat Flow, veh/h	1810	3336	254	1757	3539	1615	696	2022	918	1044	2561	1615
Grp Volume(v), veh/h	139	694	716	342	1518	77	241	0	208	257	227	120
Grp Sat Flow(s),veh/h/ln	1810	1771	1819	1757	1770	1615	1882	0	1755	1823	1782	1615
Q Serve(g_s), s	10.9	52.0	52.0	27.0	56.8	2.6	17.6	0.0	16.1	19.4	17.3	8.6
Cycle Q Clear(g_c), s	10.9	52.0	52.0	27.0	56.8	2.6	17.6	0.0	16.1	19.4	17.3	8.6
Prop In Lane	1.00		0.14	1.00		1.00	0.37		0.52	0.57		1.00
Lane Grp Cap(c), veh/h	152	646	663	333	1662	1026	304	0	284	314	307	403
V/C Ratio(X)	0.91	1.07	1.08	1.03	0.91	0.08	0.79	0.00	0.73	0.82	0.74	0.30
Avail Cap(c_a), veh/h	152	646	663	333	1662	1026	369	0	344	345	337	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.87	0.00	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.8	45.3	45.5	57.8	35.1	10.0	57.8	0.0	57.4	57.4	56.0	43.4
Incr Delay (d2), s/veh	48.1	57.2	58.5	56.9	9.2	0.1	8.1	0.0	5.5	13.2	7.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	35.5	36.8	18.3	29.7	1.8	9.9	0.0	8.3	10.9	9.2	3.9
LnGrp Delay(d),s/veh	112.9	102.5	104.1	114.7	44.3	10.1	66.0	0.0	62.9	70.6	63.7	43.8
LnGrp LOS	F	F	F	F	D	B	E		E	E	E	D
Approach Vol, veh/h		1549			1937			449			604	
Approach Delay, s/veh		104.2			55.4			64.6			62.7	
Approach LOS		F			E			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	78.3		27.1	31.0	63.3		28.6				
Change Period (Y+Rc), s	5.0	7.0		6.0	6.0	7.0		6.0				
Max Green Setting (Gmax), s	11.0	64.0		26.0	25.0	49.0		25.0				
Max Q Clear Time (g_c+I1), s	12.9	58.8		19.6	29.0	54.0		21.4				
Green Ext Time (p_c), s	0.0	4.9		1.5	0.0	0.0		1.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			73.9									
HCM 2010 LOS			E									

Lanes, Volumes, Timings  
3: Hammond Street & Boylston Street

2024 Build Weekday Evening  
2/1/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	128	1205	92	287	1275	65	83	233	101	132	303	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12	12	13	12	12	10	11
Storage Length (ft)	220		0	330		150	0		0	0		100
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1745	3503	0	1694	3539	1615	0	3453	0	0	3276	1561
Flt Permitted	0.950			0.950				0.990			0.985	
Satd. Flow (perm)	1745	3503	0	1694	3539	1615	0	3453	0	0	3276	1561
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6				58		25				116
Link Speed (mph)		40			45			25			25	
Link Distance (ft)		710			770			351			593	
Travel Time (s)		12.1			11.7			9.6			16.2	
Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.93	0.93	0.93	0.90	0.90	0.90
Heavy Vehicles (%)	0%	2%	1%	3%	2%	0%	3%	1%	8%	2%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	1410	0	342	1518	77	0	449	0	0	484	120
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	20
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA		Split	NA	pm+ov
Protected Phases	1	6		5	2	8	4	4		8	8	1
Permitted Phases						2						8
Detector Phase	1	6		5	2	8	4	4		8	8	1
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	10.0	60.0		10.0	60.0	29.0	30.0	30.0		29.0	29.0	10.0
Total Split (s)	16.0	56.0		31.0	71.0	31.0	32.0	32.0		31.0	31.0	16.0
Total Split (%)	10.7%	37.3%		20.7%	47.3%	20.7%	21.3%	21.3%		20.7%	20.7%	10.7%
Yellow Time (s)	3.0	4.0		4.0	4.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	3.0		2.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0
Lost Time Adjust (s)	-1.0	-3.0		-2.0	-3.0	-2.0	-2.0	-2.0		-2.0	-2.0	-1.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead

Lanes, Volumes, Timings  
3: Hammond Street & Boylston Street

2024 Build Weekday Evening  
2/1/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Max		None	C-Max	None	None	None		None	None	None
Act Effct Green (s)	14.0	52.0		30.1	68.1	94.8		25.2			26.7	44.8
Actuated g/C Ratio	0.09	0.35		0.20	0.45	0.63		0.17			0.18	0.30
v/c Ratio	0.86	1.16		1.01	0.95	0.07		0.75			0.83	0.22
Control Delay	106.5	123.8		109.4	52.3	2.2		54.0			72.3	8.1
Queue Delay	0.0	0.0		0.0	0.0	0.0		1.0			0.0	0.0
Total Delay	106.5	123.8		109.4	52.3	2.2		55.1			72.3	8.1
LOS	F	F		F	D	A		E			E	A
Approach Delay		122.3			60.4			55.1			59.5	
Approach LOS		F			E			E			E	
Queue Length 50th (ft)	139	~855		~385	748	4		174			240	3
Queue Length 95th (ft)	#286	#998		#526	766	14		239			#314	52
Internal Link Dist (ft)		630			690			271			513	
Turn Bay Length (ft)	220			330		150						100
Base Capacity (vph)	162	1218		339	1605	1049		664			599	547
Starvation Cap Reductn	0	0		0	0	0		69			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.86	1.16		1.01	0.95	0.07		0.75			0.81	0.22

Intersection Summary

Area Type: Other  
 Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow, Master Intersection  
 Natural Cycle: 150  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.16  
 Intersection Signal Delay: 80.9  
 Intersection Capacity Utilization 89.8%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service E

~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Hammond Street & Boylston Street

ø1	ø2 (R)	ø4	ø8
16 s	71 s	32 s	31 s
ø5	ø6 (R)		
31 s	56 s		

Hammond Street at Heath Street

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HCM 2010 Signalized Intersection Summary  
6: Hammond Street & Heath Street

2016 AM Baseline  
1/31/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Volume (veh/h)	0	0	0	84	23	87	13	454	91	46	416	26
Number				7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				190.0	189.2	190.0	190.0	185.2	190.0	190.0	183.1	190.0
Adj Flow Rate, veh/h				99	27	102	15	516	103	54	489	31
Adj No. of Lanes				0	1	0	0	2	0	0	2	0
Peak Hour Factor				0.85	0.85	0.85	0.88	0.88	0.88	0.85	0.85	0.85
Percent Heavy Veh, %				0	0	0	3	3	3	3	3	3
Cap, veh/h				120	33	124	40	653	128	60	1200	76
Arrive On Green				0.14	0.16	0.14	0.21	0.23	0.21	0.75	0.77	0.77
Sat Flow, veh/h				746	204	769	39	2805	551	2	1551	98
Grp Volume(v), veh/h				228	0	0	337	0	297	54	0	520
Grp Sat Flow(s),veh/h/ln				1719	0	0	1808	0	1588	2	0	1649
Q Serve(g_s), s				15.8	0.0	0.0	9.3	0.0	21.7	9.3	0.0	12.8
Cycle Q Clear(g_c), s				15.8	0.0	0.0	22.1	0.0	21.7	9.3	0.0	12.8
Prop In Lane				0.43		0.45	0.04		0.35	1.00		0.06
Lane Grp Cap(c), veh/h				277	0	0	407	0	370	0	0	1276
V/C Ratio(X)				0.82	0.00	0.00	0.83	0.00	0.80	0.00	0.00	0.41
Avail Cap(c_a), veh/h				378	0	0	442	0	401	0	0	1276
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	0.00	1.00	0.53	0.00	0.53
Uniform Delay (d), s/veh				50.7	0.0	0.0	44.6	0.0	44.9	0.0	0.0	4.6
Incr Delay (d2), s/veh				10.1	0.0	0.0	11.6	0.0	10.4	0.0	0.0	0.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.3	0.0	0.0	12.7	0.0	10.6	0.0	0.0	6.0
LnGrp Delay(d),s/veh				60.8	0.0	0.0	56.2	0.0	55.4	0.0	0.0	5.1
LnGrp LOS				E			E		E			A
Approach Vol, veh/h					228			634			574	
Approach Delay, s/veh					60.8			55.8			4.6	
Approach LOS					E			E			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		106.2		23.8		106.2						
Change Period (Y+Rc), s		7.0		6.0		*7						
Max Green Setting (Gmax), s		92.0		25.0		*28						
Max Q Clear Time (g_c+I1), s		14.8		17.8		24.1						
Green Ext Time (p_c), s		5.0		0.0		1.5						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				36.1								
HCM 2010 LOS				D								
<b>Notes</b>												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

Lanes, Volumes, Timings  
6: Hammond Street & Heath Street

2016 AM Baseline  
1/31/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	84	23	87	13	454	91	46	416	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Satd. Flow (prot)	0	0	0	0	1741	0	0	3431	0	0	3320	0
Flt Permitted					0.979			0.931			0.896	
Satd. Flow (perm)	0	0	0	0	1741	0	0	3197	0	0	2990	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					28			16			12	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		250			324			214			351	
Travel Time (s)		6.8			8.8			5.8			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.85	0.85	0.85	0.88	0.88	0.88	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	3%	1%	4%	3%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	228	0	0	634	0	0	574	0
Turn Type				Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases					4			6		5	2	
Permitted Phases				4			6			2		
Detector Phase				4	4		6	6		5	2	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)				26.0	26.0		23.0	23.0		11.0	23.0	
Total Split (s)				31.0	31.0		35.0	35.0		64.0	99.0	
Total Split (%)				23.8%	23.8%		26.9%	26.9%		49.2%	76.2%	
Maximum Green (s)				25.0	25.0		28.0	28.0		57.0	92.0	
Yellow Time (s)				3.0	3.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)					-2.0			-3.0			-3.0	
Total Lost Time (s)					4.0			4.0			4.0	
Lead/Lag							Lead	Lead		Lag		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode				None	None		None	None		C-Max	C-Max	
Walk Time (s)				7.0	7.0		5.0	5.0			5.0	
Flash Dont Walk (s)				13.0	13.0		5.0	5.0			11.0	
Pedestrian Calls (#/hr)				10	10		2	2			6	
Act Effct Green (s)					21.8			31.5			100.2	
Actuated g/C Ratio					0.17			0.24			0.77	
v/c Ratio					0.73			0.81			0.23	
Control Delay					57.9			54.1			0.9	
Queue Delay					0.0			0.1			0.3	
Total Delay					57.9			54.2			1.2	
LOS					E			D			A	
Approach Delay					57.9			54.2			1.2	
Approach LOS					E			D			A	
Queue Length 50th (ft)					161			251			11	
Queue Length 95th (ft)					225			325			m14	
Internal Link Dist (ft)		170			244			134			271	

Lanes, Volumes, Timings  
 6: Hammond Street & Heath Street

2016 AM Baseline  
 1/31/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)					383			802			2472	
Starvation Cap Reductn					0			0			1209	
Spillback Cap Reductn					0			7			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.60			0.80			0.45	

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 92 (71%), Referenced to phase 2:SBTL and 5:SBL, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 33.6  
 Intersection LOS: C  
 Intersection Capacity Utilization 50.7%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Hammond Street & Heath Street

$\phi 2$ (R) 99 s	$\phi 4$ 31 s
$\phi 6$ 35 s	$\phi 5$ (R) 64 s

HCM 2010 Signalized Intersection Summary  
6: Hammond Street & Heath Street

2016 PM Baseline  
1/31/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Volume (veh/h)	0	0	0	118	26	87	11	366	82	32	496	32
Number				7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				190.0	185.7	190.0	190.0	183.8	190.0	190.0	185.1	190.0
Adj Flow Rate, veh/h				146	32	107	14	452	101	34	522	34
Adj No. of Lanes				0	1	0	0	2	0	0	2	0
Peak Hour Factor				0.81	0.81	0.81	0.81	0.81	0.81	0.95	0.95	0.95
Percent Heavy Veh, %				0	4	0	4	4	4	3	3	3
Cap, veh/h				170	37	125	38	592	130	61	1155	75
Arrive On Green				0.18	0.20	0.18	0.21	0.23	0.21	0.71	0.74	0.74
Sat Flow, veh/h				871	191	638	31	2564	562	2	1565	102
Grp Volume(v), veh/h				285	0	0	284	0	283	34	0	556
Grp Sat Flow(s),veh/h/ln				1701	0	0	1583	0	1574	2	0	1666
Q Serve(g_s), s				19.6	0.0	0.0	5.5	0.0	20.4	9.7	0.0	15.8
Cycle Q Clear(g_c), s				19.6	0.0	0.0	21.3	0.0	20.4	9.7	0.0	15.8
Prop In Lane				0.51		0.38	0.05		0.36	1.00		0.06
Lane Grp Cap(c), veh/h				333	0	0	357	0	363	0	0	1230
V/C Ratio(X)				0.86	0.00	0.00	0.80	0.00	0.78	0.00	0.00	0.45
Avail Cap(c_a), veh/h				465	0	0	403	0	405	0	0	1230
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	0.00	1.00	0.55	0.00	0.55
Uniform Delay (d), s/veh				47.8	0.0	0.0	43.2	0.0	44.0	0.0	0.0	6.2
Incr Delay (d2), s/veh				10.9	0.0	0.0	9.5	0.0	8.5	0.0	0.0	0.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.2	0.0	0.0	10.4	0.0	9.7	0.0	0.0	7.3
LnGrp Delay(d),s/veh				58.6	0.0	0.0	52.8	0.0	52.5	0.0	0.0	6.9
LnGrp LOS				E			D		D			A
Approach Vol, veh/h					285			567			590	
Approach Delay, s/veh					58.6			52.7			6.5	
Approach LOS					E			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		102.4		27.6		102.4		
Change Period (Y+Rc), s		7.0		6.0		* 7		
Max Green Setting (Gmax), s		86.0		31.0		* 28		
Max Q Clear Time (g_c+I1), s		17.8		21.6		23.3		
Green Ext Time (p_c), s		5.1		0.0		1.5		

Intersection Summary	
HCM 2010 Ctrl Delay	34.9
HCM 2010 LOS	C

Notes

\* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lanes, Volumes, Timings  
6: Hammond Street & Heath Street

2016 PM Baseline  
1/31/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					↕			↕			↕		
Volume (vph)	0	0	0	118	26	87	11	366	82	32	496	32	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12	
Satd. Flow (prot)	0	0	0	0	1718	0	0	3395	0	0	3359	0	
Flt Permitted					0.975			0.930			0.945		
Satd. Flow (perm)	0	0	0	0	1718	0	0	3160	0	0	3184	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					22			19			11		
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		250			324			214			351		
Travel Time (s)		6.8			8.8			5.8			9.6		
Peak Hour Factor	0.92	0.92	0.92	0.81	0.81	0.81	0.81	0.81	0.81	0.95	0.95	0.95	
Heavy Vehicles (%)	0%	0%	0%	0%	4%	5%	0%	4%	1%	0%	3%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	285	0	0	567	0	0	590	0	
Number of Detectors				1	2		1	2		1	2		
Detector Template				Left	Thru		Left	Thru		Left	Thru		
Leading Detector (ft)				20	100		20	100		20	100		
Trailing Detector (ft)				0	0		0	0		0	0		
Detector 1 Position(ft)				0	0		0	0		0	0		
Detector 1 Size(ft)				20	6		20	6		20	6		
Detector 1 Type				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)				0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Queue (s)				0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Delay (s)				0.0	0.0		0.0	0.0		0.0	0.0		
Detector 2 Position(ft)					94			94			94		
Detector 2 Size(ft)					6			6			6		
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex		
Detector 2 Channel													
Detector 2 Extend (s)					0.0			0.0			0.0		
Turn Type				Perm	NA		Perm	NA		pm+pt	NA		
Protected Phases					4			6		5	2		
Permitted Phases				4			6			2			
Detector Phase				4	4		6	6		5	2		
Switch Phase													
Minimum Initial (s)				4.0	4.0		4.0	4.0		4.0	4.0		
Minimum Split (s)				26.0	26.0		23.0	23.0		11.0	23.0		
Total Split (s)				37.0	37.0		35.0	35.0		58.0	93.0		
Total Split (%)				28.5%	28.5%		26.9%	26.9%		44.6%	71.5%		
Yellow Time (s)				3.0	3.0		4.0	4.0		4.0	4.0		
All-Red Time (s)				3.0	3.0		3.0	3.0		3.0	3.0		
Lost Time Adjust (s)					-2.0			-3.0			-3.0		
Total Lost Time (s)					4.0			4.0			4.0		
Lead/Lag							Lead	Lead		Lag			
Lead-Lag Optimize?							Yes	Yes		Yes			
Recall Mode				None	None		None	None		C-Max	C-Max		
Act Effct Green (s)					26.7			29.7			95.3		

Lanes, Volumes, Timings  
6: Hammond Street & Heath Street

2016 PM Baseline  
1/31/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio					0.21			0.23			0.73	
v/c Ratio					0.77			0.77			0.24	
Control Delay					58.5			52.8			5.0	
Queue Delay					0.0			0.0			0.4	
Total Delay					58.5			52.8			5.4	
LOS					E			D			A	
Approach Delay					58.5			52.8			5.4	
Approach LOS					E			D			A	
Queue Length 50th (ft)					211			225			33	
Queue Length 95th (ft)					258			256			m83	
Internal Link Dist (ft)		170			244			134			271	
Turn Bay Length (ft)												
Base Capacity (vph)					452			780			2419	
Starvation Cap Reductn					0			0			1210	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.63			0.73			0.49	

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 90 (69%), Referenced to phase 2:SBTL and 5:SBL, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 34.5  
 Intersection LOS: C  
 Intersection Capacity Utilization 51.9%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Hammond Street & Heath Street

ϕ2 (R)						ϕ4
93 s						37 s
ϕ6			ϕ5 (R)			
35 s			58 s			

HCM 2010 Signalized Intersection Summary  
6: Hammond Street & Heath Street

2024 No-Build Weekday Morning  
2/1/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Volume (veh/h)	0	0	0	91	25	94	14	500	99	49	454	29
Number				7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				190.0	189.1	190.0	190.0	185.2	190.0	190.0	183.1	190.0
Adj Flow Rate, veh/h				107	29	111	16	568	112	58	534	34
Adj No. of Lanes				0	1	0	0	2	0	0	2	0
Peak Hour Factor				0.85	0.85	0.85	0.88	0.88	0.88	0.85	0.85	0.85
Percent Heavy Veh, %				0	0	0	3	3	3	3	3	3
Cap, veh/h				128	35	133	39	678	132	59	1185	75
Arrive On Green				0.16	0.17	0.16	0.22	0.25	0.22	0.74	0.76	0.76
Sat Flow, veh/h				744	202	772	35	2723	529	2	1551	99
Grp Volume(v), veh/h				247	0	0	359	0	337	58	0	568
Grp Sat Flow(s),veh/h/ln				1718	0	0	1696	0	1592	2	0	1649
Q Serve(g_s), s				17.4	0.0	0.0	10.5	0.0	25.1	10.5	0.0	15.4
Cycle Q Clear(g_c), s				17.4	0.0	0.0	25.9	0.0	25.1	10.5	0.0	15.4
Prop In Lane				0.43		0.45	0.04		0.33	1.00		0.06
Lane Grp Cap(c), veh/h				295	0	0	412	0	396	0	0	1260
V/C Ratio(X)				0.84	0.00	0.00	0.87	0.00	0.85	0.00	0.00	0.45
Avail Cap(c_a), veh/h				373	0	0	412	0	397	0	0	1260
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	0.00	1.00	0.38	0.00	0.38
Uniform Delay (d), s/veh				50.7	0.0	0.0	44.6	0.0	45.0	0.0	0.0	5.3
Incr Delay (d2), s/veh				12.6	0.0	0.0	18.1	0.0	15.9	0.0	0.0	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.3	0.0	0.0	14.5	0.0	12.8	0.0	0.0	7.1
LnGrp Delay(d),s/veh				63.3	0.0	0.0	62.7	0.0	60.8	0.0	0.0	5.7
LnGrp LOS				E			E		E			A
Approach Vol, veh/h					247			696			626	
Approach Delay, s/veh					63.3			61.8			5.2	
Approach LOS					E			E			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		104.7		25.3		104.7						
Change Period (Y+Rc), s		7.0		6.0		* 7						
Max Green Setting (Gmax), s		92.0		25.0		* 28						
Max Q Clear Time (g_c+l1), s		17.4		19.4		27.9						
Green Ext Time (p_c), s		5.6		0.0		0.0						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				39.5								
HCM 2010 LOS				D								
<b>Notes</b>												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

Lanes, Volumes, Timings  
6: Hammond Street & Heath Street

2024 No-Build Weekday Morning  
2/1/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Volume (vph)	0	0	0	91	25	94	14	500	99	49	454	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Satd. Flow (prot)	0	0	0	0	1739	0	0	3430	0	0	3320	0
Flt Permitted					0.979			0.929			0.846	
Satd. Flow (perm)	0	0	0	0	1739	0	0	3190	0	0	2823	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					29			16			12	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		250			324			214			351	
Travel Time (s)		6.8			8.8			5.8			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.85	0.85	0.85	0.88	0.88	0.88	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	3%	1%	4%	3%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	247	0	0	696	0	0	626	0
Turn Type				Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases					4			6		5	2	
Permitted Phases				4			6			2		
Detector Phase				4	4		6	6		5	2	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)				26.0	26.0		23.0	23.0		11.0	23.0	
Total Split (s)				31.0	31.0		35.0	35.0		64.0	99.0	
Total Split (%)				23.8%	23.8%		26.9%	26.9%		49.2%	76.2%	
Maximum Green (s)				25.0	25.0		28.0	28.0		57.0	92.0	
Yellow Time (s)				3.0	3.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)					-2.0			-3.0			-3.0	
Total Lost Time (s)					4.0			4.0			4.0	
Lead/Lag							Lead	Lead		Lag		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode				None	None		None	None		C-Max	C-Max	
Walk Time (s)				7.0	7.0		5.0	5.0			5.0	
Flash Dont Walk (s)				13.0	13.0		5.0	5.0			11.0	
Pedestrian Calls (#/hr)				10	10		2	2			6	
Act Effct Green (s)					22.8			32.5			99.2	
Actuated g/C Ratio					0.18			0.25			0.76	
v/c Ratio					0.75			0.86			0.26	
Control Delay					59.1			57.3			0.9	
Queue Delay					0.0			1.1			0.3	
Total Delay					59.1			58.4			1.3	
LOS					E			E			A	
Approach Delay					59.1			58.4			1.3	
Approach LOS					E			E			A	
Queue Length 50th (ft)					176			284			12	
Queue Length 95th (ft)					245			#387			m14	
Internal Link Dist (ft)		170			244			134			271	

Lanes, Volumes, Timings  
6: Hammond Street & Heath Street

2024 No-Build Weekday Morning  
2/1/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)					384			811			2397	
Starvation Cap Reductn					0			0			1138	
Spillback Cap Reductn					0			26			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.64			0.89			0.50	

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 92 (71%), Referenced to phase 2:SBTL and 5:SBL, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 35.7  
 Intersection LOS: D  
 Intersection Capacity Utilization 54.4%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Hammond Street & Heath Street

ϕ2 (R)								ϕ4
99 s								31 s
ϕ6			ϕ5 (R)					
35 s			64 s					

HCM 2010 Signalized Intersection Summary  
6: Hammond Street & Heath Street

2024 No-Build Weekday Evening  
2/1/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	128	28	94	12	402	89	35	556	35
Number				7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				190.0	185.7	190.0	190.0	183.8	190.0	190.0	185.1	190.0
Adj Flow Rate, veh/h				158	35	116	15	496	110	37	585	37
Adj No. of Lanes				0	1	0	0	2	0	0	2	0
Peak Hour Factor				0.81	0.81	0.81	0.81	0.81	0.81	0.95	0.95	0.95
Percent Heavy Veh, %				0	4	0	4	4	4	3	3	3
Cap, veh/h				182	40	133	37	610	133	60	1138	72
Arrive On Green				0.19	0.21	0.19	0.23	0.25	0.23	0.70	0.73	0.73
Sat Flow, veh/h				870	193	638	24	2436	530	2	1568	99
Grp Volume(v), veh/h				309	0	0	293	0	328	37	0	622
Grp Sat Flow(s),veh/h/ln				1701	0	0	1411	0	1579	2	0	1667
Q Serve(g_s), s				21.6	0.0	0.0	5.4	0.0	24.1	11.3	0.0	20.0
Cycle Q Clear(g_c), s				21.6	0.0	0.0	25.4	0.0	24.1	11.3	0.0	20.0
Prop In Lane				0.51		0.38	0.05		0.34	1.00		0.06
Lane Grp Cap(c), veh/h				355	0	0	349	0	395	0	0	1210
V/C Ratio(X)				0.87	0.00	0.00	0.84	0.00	0.83	0.00	0.00	0.51
Avail Cap(c_a), veh/h				458	0	0	354	0	399	0	0	1210
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	0.00	1.00	0.55	0.00	0.55
Uniform Delay (d), s/veh				47.8	0.0	0.0	42.6	0.0	44.0	0.0	0.0	7.3
Incr Delay (d2), s/veh				13.5	0.0	0.0	16.0	0.0	13.6	0.0	0.0	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.5	0.0	0.0	11.5	0.0	12.0	0.0	0.0	9.4
LnGrp Delay(d),s/veh				61.3	0.0	0.0	58.6	0.0	57.5	0.0	0.0	8.2
LnGrp LOS				E			E		E			A
Approach Vol, veh/h					309			621			659	
Approach Delay, s/veh					61.3			58.0			7.7	
Approach LOS					E			E			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		100.4		29.6		100.4						
Change Period (Y+Rc), s		7.0		6.0		* 7						
Max Green Setting (Gmax), s		86.0		31.0		* 28						
Max Q Clear Time (g_c+I1), s		22.0		23.6		27.4						
Green Ext Time (p_c), s		6.0		0.0		0.2						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				37.8								
HCM 2010 LOS				D								
<b>Notes</b>												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

Lanes, Volumes, Timings  
6: Hammond Street & Heath Street

2024 No-Build Weekday Evening  
2/1/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Volume (vph)	0	0	0	128	28	94	12	402	89	35	556	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Satd. Flow (prot)	0	0	0	0	1718	0	0	3395	0	0	3362	0
Fit Permitted					0.975			0.927			0.936	
Satd. Flow (perm)	0	0	0	0	1718	0	0	3150	0	0	3156	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					22			18			10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		250			324			214			351	
Travel Time (s)		6.8			8.8			5.8			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.81	0.81	0.81	0.81	0.81	0.81	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	4%	5%	0%	4%	1%	0%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	309	0	0	621	0	0	659	0
Number of Detectors				1	2		1	2		1	2	
Detector Template				Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)				20	100		20	100		20	100	
Trailing Detector (ft)				0	0		0	0		0	0	
Detector 1 Position(ft)				0	0		0	0		0	0	
Detector 1 Size(ft)				20	6		20	6		20	6	
Detector 1 Type				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)				0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)				0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases					4			6		5	2	
Permitted Phases				4			6			2		
Detector Phase				4	4		6	6		5	2	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)				26.0	26.0		23.0	23.0		11.0	23.0	
Total Split (s)				37.0	37.0		35.0	35.0		58.0	93.0	
Total Split (%)				28.5%	28.5%		26.9%	26.9%		44.6%	71.5%	
Yellow Time (s)				3.0	3.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)					-2.0			-3.0			-3.0	
Total Lost Time (s)					4.0			4.0			4.0	
Lead/Lag							Lead	Lead		Lag		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode				None	None		None	None		C-Max	C-Max	
Act Effct Green (s)					28.1			31.1			93.9	

Lanes, Volumes, Timings  
6: Hammond Street & Heath Street

2024 No-Build Weekday Evening  
2/1/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio					0.22			0.24			0.72	
v/c Ratio					0.80			0.81			0.28	
Control Delay					59.8			54.6			5.3	
Queue Delay					0.0			0.0			0.4	
Total Delay					59.8			54.6			5.7	
LOS					E			D			A	
Approach Delay					59.8			54.6			5.7	
Approach LOS					E			D			A	
Queue Length 50th (ft)					230			244			39	
Queue Length 95th (ft)					282			285			m92	
Internal Link Dist (ft)		170			244			134			271	
Turn Bay Length (ft)												
Base Capacity (vph)					452			784			2375	
Starvation Cap Reductn					0			0			1126	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.68			0.79			0.53	

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 90 (69%), Referenced to phase 2:SBTL and 5:SBL, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 35.3  
 Intersection LOS: D  
 Intersection Capacity Utilization 56.1%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Hammond Street & Heath Street

 ϕ2 (R)							 ϕ4
93 s							37 s
 ϕ6			 ϕ5 (R)				
35 s			58 s				

HCM 2010 Signalized Intersection Summary  
6: Hammond Street & Heath Street

2024 Build Weekday Morning  
2/1/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Volume (veh/h)	0	0	0	155	45	142	14	501	99	135	455	29
Number				7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				190.0	189.2	190.0	190.0	185.2	190.0	190.0	183.1	190.0
Adj Flow Rate, veh/h				254	74	233	16	569	112	159	535	34
Adj No. of Lanes				0	1	0	0	2	0	0	2	0
Peak Hour Factor				0.61	0.61	0.61	0.88	0.88	0.88	0.85	0.85	0.85
Percent Heavy Veh, %				0	0	0	3	3	3	3	3	3
Cap, veh/h				286	83	263	70	1460	282	109	800	51
Arrive On Green				0.34	0.37	0.34	0.47	0.52	0.47	0.47	0.52	0.52
Sat Flow, veh/h				782	228	717	28	2830	547	5	1551	99
Grp Volume(v), veh/h				561	0	0	372	0	325	159	0	569
Grp Sat Flow(s),veh/h/ln				1727	0	0	1817	0	1588	5	0	1649
Q Serve(g_s), s				20.8	0.0	0.0	0.0	0.0	8.7	20.8	0.0	17.3
Cycle Q Clear(g_c), s				20.8	0.0	0.0	8.5	0.0	8.7	20.8	0.0	17.3
Prop In Lane				0.45		0.42	0.04		0.34	1.00		0.06
Lane Grp Cap(c), veh/h				632	0	0	913	0	820	0	0	851
V/C Ratio(X)				0.89	0.00	0.00	0.41	0.00	0.40	0.00	0.00	0.67
Avail Cap(c_a), veh/h				814	0	0	913	0	820	0	0	851
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	0.00	1.00	0.25	0.00	0.25
Uniform Delay (d), s/veh				21.0	0.0	0.0	10.0	0.0	10.4	0.0	0.0	12.1
Incr Delay (d2), s/veh				9.7	0.0	0.0	0.3	0.0	0.3	0.0	0.0	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.6	0.0	0.0	4.7	0.0	3.8	0.0	0.0	8.0
LnGrp Delay(d),s/veh				30.7	0.0	0.0	10.3	0.0	10.7	0.0	0.0	13.2
LnGrp LOS				C			B		B			B
Approach Vol, veh/h					561			697			728	
Approach Delay, s/veh					30.7			10.5			10.3	
Approach LOS					C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		46.2		28.8		46.2						
Change Period (Y+Rc), s		7.0		6.0		7.0						
Max Green Setting (Gmax), s		32.0		30.0		20.0						
Max Q Clear Time (g_c+I1), s		22.8		22.8		10.7						
Green Ext Time (p_c), s		6.2		0.0		6.2						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				16.1								
HCM 2010 LOS				B								

Lanes, Volumes, Timings  
6: Hammond Street & Heath Street

2024 Build Weekday Morning  
2/1/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Volume (vph)	0	0	0	155	45	142	14	501	99	135	455	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Satd. Flow (prot)	0	0	0	0	1747	0	0	3430	0	0	3302	0
Flt Permitted					0.978			0.927			0.561	
Satd. Flow (perm)	0	0	0	0	1747	0	0	3183	0	0	1873	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					59			30			9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		250			324			214			351	
Travel Time (s)		6.8			8.8			5.8			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.61	0.61	0.61	0.88	0.88	0.88	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	3%	1%	4%	3%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	561	0	0	697	0	0	728	0
Turn Type				Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases					4			6		5	2	
Permitted Phases				4			6			2		
Detector Phase				4	4		6	6		5	2	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)				26.0	26.0		23.0	23.0		11.0	23.0	
Total Split (s)				36.0	36.0		27.0	27.0		12.0	39.0	
Total Split (%)				48.0%	48.0%		36.0%	36.0%		16.0%	52.0%	
Maximum Green (s)				30.0	30.0		20.0	20.0		5.0	32.0	
Yellow Time (s)				3.0	3.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)					-2.0			-3.0			-3.0	
Total Lost Time (s)					4.0			4.0			4.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode				None	None		None	None		C-Max	C-Max	
Walk Time (s)				7.0	7.0		5.0	5.0			5.0	
Flash Dont Walk (s)				13.0	13.0		5.0	5.0			11.0	
Pedestrian Calls (#/hr)				10	10		2	2			6	
Act Effct Green (s)					28.2			23.0			38.8	
Actuated g/C Ratio					0.38			0.31			0.52	
v/c Ratio					0.81			0.70			0.61	
Control Delay					28.2			26.4			17.8	
Queue Delay					1.2			9.3			0.7	
Total Delay					29.5			35.7			18.5	
LOS					C			D			B	
Approach Delay					29.5			35.7			18.5	
Approach LOS					C			D			B	
Queue Length 50th (ft)					197			142			192	
Queue Length 95th (ft)					159			195			m198	
Internal Link Dist (ft)		170			244			134			271	

Lanes, Volumes, Timings  
6: Hammond Street & Heath Street

2024 Build Weekday Morning  
2/1/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)					779			996			1198	
Starvation Cap Reductn					0			0			199	
Spillback Cap Reductn					78			267			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.80			0.96			0.73	

Intersection Summary

Area Type: Other  
 Cycle Length: 75  
 Actuated Cycle Length: 75  
 Offset: 72 (96%), Referenced to phase 2:SBTL and 5:SBL, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 27.6  
 Intersection Capacity Utilization 64.5%  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Hammond Street & Heath Street

↓ ϕ2 (R) 39 s	← ϕ4 36 s
↙ ϕ5 (R) 12 s	↑ ϕ6 27 s

HCM 2010 Signalized Intersection Summary  
6: Hammond Street & Heath Street

2024 Build Weekday Evening  
2/1/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Volume (veh/h)	0	0	0	186	48	125	12	405	89	90	556	35
Number				7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				190.0	185.8	190.0	190.0	183.8	190.0	190.0	185.5	190.0
Adj Flow Rate, veh/h				221	57	149	15	500	110	95	585	37
Adj No. of Lanes				0	1	0	0	2	0	0	2	0
Peak Hour Factor				0.84	0.84	0.84	0.81	0.81	0.81	0.95	0.95	0.95
Percent Heavy Veh, %				0	4	0	4	4	4	3	3	3
Cap, veh/h				259	67	175	70	1631	351	104	932	59
Arrive On Green				0.27	0.29	0.27	0.55	0.59	0.55	0.55	0.59	0.59
Sat Flow, veh/h				884	228	596	28	2749	592	4	1571	99
Grp Volume(v), veh/h				427	0	0	334	0	291	95	0	622
Grp Sat Flow(s),veh/h/ln				1708	0	0	1801	0	1568	4	0	1671
Q Serve(g_s), s				16.8	0.0	0.0	0.0	0.0	6.8	12.7	0.0	17.1
Cycle Q Clear(g_c), s				16.8	0.0	0.0	6.5	0.0	6.8	12.7	0.0	17.1
Prop In Lane				0.52		0.35	0.04		0.38	1.00		0.06
Lane Grp Cap(c), veh/h				501	0	0	1045	0	931	0	0	991
V/C Ratio(X)				0.85	0.00	0.00	0.32	0.00	0.31	0.00	0.00	0.63
Avail Cap(c_a), veh/h				603	0	0	1045	0	931	0	0	991
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	0.00	1.00	0.31	0.00	0.31
Uniform Delay (d), s/veh				24.4	0.0	0.0	7.2	0.0	7.5	0.0	0.0	9.3
Incr Delay (d2), s/veh				9.7	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.2	0.0	0.0	3.6	0.0	3.0	0.0	0.0	8.0
LnGrp Delay(d),s/veh				34.1	0.0	0.0	7.4	0.0	7.7	0.0	0.0	10.3
LnGrp LOS				C			A		A			B
Approach Vol, veh/h					427			625			717	
Approach Delay, s/veh					34.1			7.5			8.9	
Approach LOS					C			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		50.2		24.8		50.2						
Change Period (Y+Rc), s		7.0		6.0		7.0						
Max Green Setting (Gmax), s		39.0		23.0		27.0						
Max Q Clear Time (g_c+I1), s		19.1		18.8		8.8						
Green Ext Time (p_c), s		9.8		0.0		9.3						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				14.5								
HCM 2010 LOS				B								

Lanes, Volumes, Timings  
6: Hammond Street & Heath Street

2024 Build Weekday Evening  
2/1/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					↕			↕			↕		
Volume (vph)	0	0	0	186	48	125	12	405	89	90	556	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12	
Satd. Flow (prot)	0	0	0	0	0	1726	0	0	3398	0	0	3355	0
Flt Permitted					0.975			0.930			0.759		
Satd. Flow (perm)	0	0	0	0	1726	0	0	3163	0	0	2565	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					39			40			12		
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		250			324			214			351		
Travel Time (s)		6.8			8.8			5.8			9.6		
Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.81	0.81	0.81	0.95	0.95	0.95	
Heavy Vehicles (%)	0%	0%	0%	0%	4%	5%	0%	4%	1%	0%	3%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	427	0	0	625	0	0	717	0	
Number of Detectors				1	2		1	2		1	2		
Detector Template				Left	Thru		Left	Thru		Left	Thru		
Leading Detector (ft)				20	100		20	100		20	100		
Trailing Detector (ft)				0	0		0	0		0	0		
Detector 1 Position(ft)				0	0		0	0		0	0		
Detector 1 Size(ft)				20	6		20	6		20	6		
Detector 1 Type				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)				0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Queue (s)				0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Delay (s)				0.0	0.0		0.0	0.0		0.0	0.0		
Detector 2 Position(ft)					94			94			94		
Detector 2 Size(ft)					6			6			6		
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex		
Detector 2 Channel													
Detector 2 Extend (s)					0.0			0.0			0.0		
Turn Type				Perm	NA		Perm	NA		pm+pt	NA		
Protected Phases					4			6		5	2		
Permitted Phases				4			6			2			
Detector Phase				4	4		6	6		5	2		
Switch Phase													
Minimum Initial (s)				4.0	4.0		4.0	4.0		4.0	4.0		
Minimum Split (s)				26.0	26.0		23.0	23.0		11.0	23.0		
Total Split (s)				29.0	29.0		34.0	34.0		12.0	46.0		
Total Split (%)				38.7%	38.7%		45.3%	45.3%		16.0%	61.3%		
Yellow Time (s)				3.0	3.0		4.0	4.0		4.0	4.0		
All-Red Time (s)				3.0	3.0		3.0	3.0		3.0	3.0		
Lost Time Adjust (s)					-2.0			-3.0			-3.0		
Total Lost Time (s)					4.0			4.0			4.0		
Lead/Lag							Lag	Lag		Lead			
Lead-Lag Optimize?													
Recall Mode				None	None		None	None		C-Max	C-Max		
Act Effct Green (s)					22.3			30.0			44.7		

Lanes, Volumes, Timings  
6: Hammond Street & Heath Street

2024 Build Weekday Evening  
2/1/2017

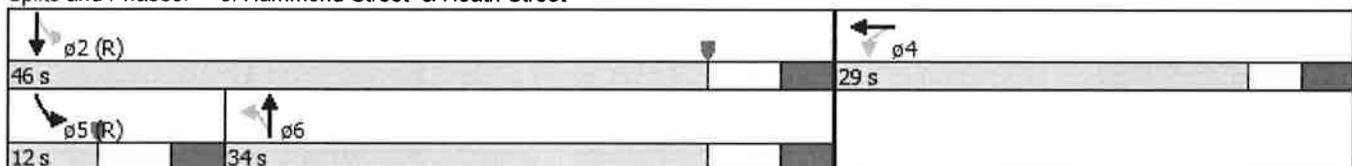


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio					0.30			0.40			0.60	
v/c Ratio					0.79			0.48			0.44	
Control Delay					33.0			17.1			7.2	
Queue Delay					0.0			0.0			0.6	
Total Delay					33.0			17.2			7.8	
LOS					C			B			A	
Approach Delay					33.0			17.2			7.8	
Approach LOS					C			B			A	
Queue Length 50th (ft)					158			103			165	
Queue Length 95th (ft)					232			128			m149	
Internal Link Dist (ft)		170			244			134			271	
Turn Bay Length (ft)												
Base Capacity (vph)					601			1289			1644	
Starvation Cap Reductn					0			0			509	
Spillback Cap Reductn					0			40			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.71			0.50			0.63	

Intersection Summary

Area Type: Other  
 Cycle Length: 75  
 Actuated Cycle Length: 75  
 Offset: 70 (93%), Referenced to phase 2:SBTL and 5:SBL, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 17.2  
 Intersection LOS: B  
 Intersection Capacity Utilization 63.9%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Hammond Street & Heath Street



Hammond Street at Soule Recreation Drive and Private Drive

HCM 2010 TWSC  
 9: Hammond Street & Private Drive/Soule Rec Drive

1/9/2017

Intersection									
Int Delay, s/veh	0.5								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	1	0	0	7	0	6	2	531	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	46	46	46	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0
Mvmt Flow	4	0	0	15	0	13	2	603	17

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	941	1260	303	948	1252	310	606	0	0
Stage 1	635	635	-	616	616	-	-	-	-
Stage 2	306	625	-	332	636	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-
Pot Cap-1 Maneuver	221	172	699	218	174	692	982	-	-
Stage 1	438	476	-	450	485	-	-	-	-
Stage 2	684	480	-	661	475	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	213	168	699	214	169	692	982	-	-
Mov Cap-2 Maneuver	213	168	-	214	169	-	-	-	-
Stage 1	437	465	-	449	484	-	-	-	-
Stage 2	669	479	-	646	464	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	22.2	17.6	
HCM LOS	C	C	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	982	-	-	213	314	970	-	-
HCM Lane V/C Ratio	0.002	-	-	0.019	0.09	0.015	-	-
HCM Control Delay (s)	8.7	0	-	22.2	17.6	8.8	0.1	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	12	483	2
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	80	80	80
Heavy Vehicles, %	0	2	0
Mvmt Flow	15	604	2

Major/Minor	Major2		
Conflicting Flow All	620	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	970	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	970	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach** SB

HCM Control Delay, s  
 HCM LOS

**Minor Lane/Major Mvmt**

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	1	0	1	3	0	9	0	440	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	75	75	75	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	4	0
Mvmt Flow	2	0	2	4	0	12	0	518	5

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	927	1190	323	865	1188	261	646	0	0
Stage 1	668	668	-	520	520	-	-	-	-
Stage 2	259	522	-	345	668	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-
Pot Cap-1 Maneuver	226	189	679	251	190	744	949	-	-
Stage 1	419	459	-	512	535	-	-	-	-
Stage 2	729	534	-	649	459	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	220	186	679	247	187	744	949	-	-
Mov Cap-2 Maneuver	220	186	-	247	187	-	-	-	-
Stage 1	419	452	-	512	535	-	-	-	-
Stage 2	717	534	-	637	452	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	16	12.5	
HCM LOS	C	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	949	-	-	332	495	1055	-	-
HCM Lane V/C Ratio	-	-	-	0.012	0.032	0.01	-	-
HCM Control Delay (s)	0	-	-	16	12.5	8.4	0.1	-
HCM Lane LOS	A	-	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	10	587	1
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	91	91	91
Heavy Vehicles, %	0	1	0
Mvmt Flow	11	645	1

**Major/Minor Major2**

Conflicting Flow All	522	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	1055	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1055	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach SB**

HCM Control Delay, s

HCM LOS

**Minor Lane/Major Mvmt**

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	1	0	0	7	0	6	2	583	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	46	46	46	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0
Mvmt Flow	4	0	0	15	0	13	2	662	17

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1026	1374	331	1035	1367	340	661	0	0
Stage 1	690	690	-	676	676	-	-	-	-
Stage 2	336	684	-	359	691	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-
Pot Cap-1 Maneuver	192	147	671	189	148	662	937	-	-
Stage 1	406	449	-	414	456	-	-	-	-
Stage 2	657	452	-	637	449	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	184	143	671	185	144	662	937	-	-
Mov Cap-2 Maneuver	184	143	-	185	144	-	-	-	-
Stage 1	405	437	-	413	455	-	-	-	-
Stage 2	642	451	-	620	437	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	25	19.5	
HCM LOS	D	C	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	937	-	-	184	277	922	-	-
HCM Lane V/C Ratio	0.002	-	-	0.022	0.102	0.016	-	-
HCM Control Delay (s)	8.9	0	-	25	19.5	9	0.1	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	12	527	2
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	80	80	80
Heavy Vehicles, %	0	2	0
Mvmt Flow	15	659	2

Major/Minor	Major2		
Conflicting Flow All	680	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	922	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	922	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach** SB

HCM Control Delay, s

HCM LOS

**Minor Lane/Major Mvmt**

**Intersection**

Int Delay, s/veh 0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	1	0	1	3	0	9	0	482	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	75	75	75	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	4	0
Mvmt Flow	2	0	2	4	0	12	0	567	5

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1025	1313	360	950	1311	286	720	0	0
Stage 1	741	741	-	569	569	-	-	-	-
Stage 2	284	572	-	381	742	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-
Pot Cap-1 Maneuver	192	160	642	218	160	717	891	-	-
Stage 1	379	426	-	479	509	-	-	-	-
Stage 2	705	508	-	619	425	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	186	157	642	214	157	717	891	-	-
Mov Cap-2 Maneuver	186	157	-	214	157	-	-	-	-
Stage 1	379	418	-	479	509	-	-	-	-
Stage 2	693	508	-	606	417	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	17.7	13.3	
HCM LOS	C	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SEL	SBT	SBR
Capacity (veh/h)	891	-	-	288	452	1011	-	-
HCM Lane V/C Ratio	-	-	-	0.014	0.035	0.011	-	-
HCM Control Delay (s)	0	-	-	17.7	13.3	8.6	0.1	-
HCM Lane LOS	A	-	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	10	654	1
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	91	91	91
Heavy Vehicles, %	0	1	0
Mvmt Flow	11	719	1

Major/Minor	Major2		
Conflicting Flow All	572	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	1011	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1011	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach** SB

HCM Control Delay, s

HCM LOS

**Minor Lane/Major Mvmt**

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	1	0	0	8	0	7	2	583	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	46	46	46	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0
Mvmt Flow	4	0	0	17	0	15	2	662	17

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1191	1539	402	1129	1532	340	804	0	0
Stage 1	855	855	-	676	676	-	-	-	-
Stage 2	336	684	-	453	856	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-
Pot Cap-1 Maneuver	145	117	604	161	118	662	829	-	-
Stage 1	323	378	-	414	456	-	-	-	-
Stage 2	657	452	-	561	377	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	136	111	604	154	112	662	829	-	-
Mov Cap-2 Maneuver	136	111	-	154	112	-	-	-	-
Stage 1	322	359	-	412	454	-	-	-	-
Stage 2	639	450	-	532	358	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	32.3	22.3	
HCM LOS	D	C	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	829	-	-	136	240	922	-	-
HCM Lane V/C Ratio	0.003	-	-	0.029	0.136	0.028	-	-
HCM Control Delay (s)	9.4	0	-	32.3	22.3	9	0.2	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	19	585	2
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	73	73	73
Heavy Vehicles, %	0	2	0
Mvmt Flow	26	801	3

Major/Minor	Major2		
Conflicting Flow All	680	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	922	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	922	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach** SB

HCM Control Delay, s

HCM LOS

**Minor Lane/Major Mvmt**

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	1	0	1	4	0	12	0	482	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	75	75	75	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	4	0
Mvmt Flow	2	0	2	5	0	16	0	567	5

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1048	1336	371	962	1334	286	742	0	0
Stage 1	764	764	-	569	569	-	-	-	-
Stage 2	284	572	-	393	765	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-
Pot Cap-1 Maneuver	185	155	632	213	155	717	874	-	-
Stage 1	367	416	-	479	509	-	-	-	-
Stage 2	705	508	-	609	415	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	178	152	632	209	152	717	874	-	-
Mov Cap-2 Maneuver	178	152	-	209	152	-	-	-	-
Stage 1	367	408	-	479	509	-	-	-	-
Stage 2	689	508	-	596	407	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	18.1	13.5	
HCM LOS	C	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	874	-	-	278	446	1011	-	-
HCM Lane V/C Ratio	-	-	-	0.014	0.048	0.011	-	-
HCM Control Delay (s)	0	-	-	18.1	13.5	8.6	0.1	-
HCM Lane LOS	A	-	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	11	711	1
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	96	96	96
Heavy Vehicles, %	0	1	0
Mvmt Flow	11	741	1

Major/Minor	Major2		
Conflicting Flow All	572	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	1011	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1011	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach** SB

HCM Control Delay, s

HCM LOS

**Minor Lane/Major Mvmt**

Hammond Street at Woodland Road

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Intersection									
Int Delay, s/veh	28.2								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	18	106	43	0	0	0	93	549	482
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	58	58	58	92	92	92	91	91	91
Heavy Vehicles, %	0	1	5	0	0	0	0	2	2
Mvmt Flow	31	183	74	0	0	0	102	603	530

Major/Minor	Minor2			Major1		
Conflicting Flow All	1039	1870	281	563	0	0
Stage 1	533	533	-	-	-	-
Stage 2	506	1337	-	-	-	-
Critical Hdwy	6.8	6.52	7	4.1	-	-
Critical Hdwy Stg 1	5.8	5.52	-	-	-	-
Critical Hdwy Stg 2	5.8	5.52	-	-	-	-
Follow-up Hdwy	3.5	4.01	3.35	2.2	-	-
Pot Cap-1 Maneuver	230	~72	707	1019	-	-
Stage 1	558	526	-	-	-	-
Stage 2	576	222	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	152	0	707	1019	-	-
Mov Cap-2 Maneuver	152	0	-	-	-	-
Stage 1	545	0	-	-	-	-
Stage 2	391	0	-	-	-	-

Approach	EB	NB
HCM Control Delay, s	205.5	
HCM LOS	F	

Minor Lane/Major Mvmt.	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1019	-	-	152	707	624	-	-
HCM Lane V/C Ratio	0.1	-	-	1.407	0.105	0.015	-	-
HCM Control Delay (s)	8.9	1.1	-	273	10.7	10.9	0.1	-
HCM Lane LOS	A	A	-	F	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	14	0	0	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	8	386	81
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	83	83	83
Heavy Vehicles, %	0	3	4
Mvmt Flow	10	465	98

**Major/Minor** Major2

Conflicting Flow All	1133	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	624	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	624	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach** SB

HCM Control Delay, s

HCM LOS

**Minor Lane/Major Mvmt**

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	12	31	30	0	0	0	37	427	112
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	92	92	92	85	85	85
Heavy Vehicles, %	17	0	3	0	0	0	0	5	1
Mvmt Flow	16	40	39	0	0	0	44	502	132

Major/Minor	Minor2			Major1		
Conflicting Flow All	958	1341	315	629	0	0
Stage 1	620	620	-	-	-	-
Stage 2	338	721	-	-	-	-
Critical Hdwy	7.14	6.5	6.96	4.1	-	-
Critical Hdwy Stg 1	6.14	5.5	-	-	-	-
Critical Hdwy Stg 2	6.14	5.5	-	-	-	-
Follow-up Hdwy	3.67	4	3.33	2.2	-	-
Pot Cap-1 Maneuver	230	154	678	963	-	-
Stage 1	460	483	-	-	-	-
Stage 2	652	435	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	213	0	678	963	-	-
Mov Cap-2 Maneuver	213	0	-	-	-	-
Stage 1	459	0	-	-	-	-
Stage 2	605	0	-	-	-	-

Approach	EB	NB
HCM Control Delay, s	20.7	
HCM LOS	C	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	963	-	-	213	678	959	-	-
HCM Lane V/C Ratio	0.045	-	-	0.262	0.057	0.001	-	-
HCM Control Delay (s)	8.9	0.3	-	27.8	10.6	8.8	0	-
HCM Lane LOS	A	A	-	D	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1	0	0	-	-

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	1	557	22
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	0	2	0
Mvmt Flow	1	605	24

Major/Minor	Major2		
Conflicting Flow All	634	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	959	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	959	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach SB

HCM Control Delay, s

HCM LOS

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	66.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	19	115	46	0	0	0	101	603	528
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	58	58	58	92	92	92	91	91	91
Heavy Vehicles, %	0	1	5	0	0	0	0	2	2
Mvmt Flow	33	198	79	0	0	0	111	663	580

Major/Minor	Minor2			Major1		
Conflicting Flow All	1136	2048	307	614	0	0
Stage 1	583	583	-	-	-	-
Stage 2	553	1465	-	-	-	-
Critical Hdwy	6.8	6.52	7	4.1	-	-
Critical Hdwy Stg 1	5.8	5.52	-	-	-	-
Critical Hdwy Stg 2	5.8	5.52	-	-	-	-
Follow-up Hdwy	3.5	4.01	3.35	2.2	-	-
Pot Cap-1 Maneuver	199	~ 56	680	975	-	-
Stage 1	527	499	-	-	-	-
Stage 2	546	~ 193	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	103	0	680	975	-	-
Mov Cap-2 Maneuver	103	0	-	-	-	-
Stage 1	511	0	-	-	-	-
Stage 2	292	0	-	-	-	-

Approach	EB	NB
HCM Control Delay, s	\$ 491.5	
HCM LOS	F	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	975	-	-	103	680	567	-	-
HCM Lane V/C Ratio	0.114	-	-	2.243	0.117	0.019	-	-
HCM Control Delay (s)	9.2	1.6	-	\$ 656.5	11	11.5	0.2	-
HCM Lane LOS	A	A	-	F	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	20	0	0	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	9	422	88
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	83	83	83
Heavy Vehicles, %	0	3	4
Mvmt Flow	11	508	106

Major/Minor	Major2		
Conflicting Flow All	1243	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	567	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	567	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach** SB

HCM Control Delay, s

HCM LOS

**Minor Lane/Major Mvmt**

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	13	34	32	0	0	0	40	468	125
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	92	92	92	85	85	85
Heavy Vehicles, %	17	0	3	0	0	0	0	5	1
Mvmt Flow	17	44	42	0	0	0	47	551	147

Major/Minor	Minor2			Major1		
Conflicting Flow All	1060	1483	351	702	0	0
Stage 1	691	691	-	-	-	-
Stage 2	369	792	-	-	-	-
Critical Hdwy	7.14	6.5	6.96	4.1	-	-
Critical Hdwy Stg 1	6.14	5.5	-	-	-	-
Critical Hdwy Stg 2	6.14	5.5	-	-	-	-
Follow-up Hdwy	3.67	4	3.33	2.2	-	-
Pot Cap-1 Maneuver	196	126	642	905	-	-
Stage 1	421	449	-	-	-	-
Stage 2	627	404	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	179	0	642	905	-	-
Mov Cap-2 Maneuver	179	0	-	-	-	-
Stage 1	420	0	-	-	-	-
Stage 2	572	0	-	-	-	-

Approach	EB	NB
HCM Control Delay, s	25.4	
HCM LOS	D	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	905	-	-	179	642	908	-	-
HCM Lane V/C Ratio	0.052	-	-	0.341	0.065	0.001	-	-
HCM Control Delay (s)	9.2	0.3	-	35.2	11	9	0	-
HCM Lane LOS	A	A	-	E	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1	0	0	-	-

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	1	622	24
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	0	2	0
Mvmt Flow	1	676	26

Major/Minor	Major2		
Conflicting Flow All	698	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	908	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	908	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach** SB

HCM Control Delay, s

HCM LOS

**Minor Lane/Major Mvmt**

Intersection	
Int Delay, s/veh	52.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	19	141	46	0	0	0	101	603	725
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	56	56	56	92	92	92	85	85	85
Heavy Vehicles, %	0	1	5	0	0	0	0	2	2
Mvmt Flow	34	252	82	0	0	0	119	709	853

Major/Minor	Minor2			Major1		
Conflicting Flow All	1317	2525	379	757	0	0
Stage 1	725	725	-	-	-	-
Stage 2	592	1800	-	-	-	-
Critical Hdwy	6.8	6.52	7	4.1	-	-
Critical Hdwy Stg 1	5.8	5.52	-	-	-	-
Critical Hdwy Stg 2	5.8	5.52	-	-	-	-
Follow-up Hdwy	3.5	4.01	3.35	2.2	-	-
Pot Cap-1 Maneuver	152	~ 28	610	863	-	-
Stage 1	446	431	-	-	-	-
Stage 2	521	~ 132	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	144	0	610	863	-	-
Mov Cap-2 Maneuver	144	0	-	-	-	-
Stage 1	422	0	-	-	-	-
Stage 2	521	0	-	-	-	-

Approach	EB	NB
HCM Control Delay, s	\$ 405.4	
HCM LOS	F	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	863	-	-	144	610	429	-	-
HCM Lane V/C Ratio	0.138	-	-	1.984	0.135	0.031	-	-
HCM Control Delay (s)	9.8	3.7	-	\$ 518.5	11.8	13.7	0.4	-
HCM Lane LOS	A	A	-	F	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	22	0	0	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	10	480	88
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	75	75	75
Heavy Vehicles, %	0	3	4
Mvmt Flow	13	640	117

Major/Minor	Major2		
Conflicting Flow All	1562	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	429	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	429	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach SB

HCM Control Delay, s

HCM LOS

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	13	46	32	0	0	0	40	468	206
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	92	92	92	87	87	87
Heavy Vehicles, %	17	0	3	0	0	0	0	5	1
Mvmt Flow	16	58	40	0	0	0	46	538	237

Major/Minor	Minor2			Major1		
Conflicting Flow All	1093	1599	370	740	0	0
Stage 1	732	732	-	-	-	-
Stage 2	361	867	-	-	-	-
Critical Hdwy	7.14	6.5	6.96	4.1	-	-
Critical Hdwy Stg 1	6.14	5.5	-	-	-	-
Critical Hdwy Stg 2	6.14	5.5	-	-	-	-
Follow-up Hdwy	3.67	4	3.33	2.2	-	-
Pot Cap-1 Maneuver	186	107	624	876	-	-
Stage 1	399	430	-	-	-	-
Stage 2	633	373	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	167	0	624	876	-	-
Mov Cap-2 Maneuver	167	0	-	-	-	-
Stage 1	397	0	-	-	-	-
Stage 2	572	0	-	-	-	-

Approach	EB	NB
HCM Control Delay, s	31.6	
HCM LOS	D	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	876	-	-	167	624	850	-	-
HCM Lane V/C Ratio	0.052	-	-	0.442	0.064	0.002	-	-
HCM Control Delay (s)	9.3	0.4	-	42.6	11.2	9.2	0	-
HCM Lane LOS	A	A	-	E	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	2	0	0	-	-

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	2	679	24
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	0	2	0
Mvmt Flow	2	715	25

**Major/Minor**

	Major2		
Conflicting Flow All	775	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	850	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	850	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach**

SB  
 HCM Control Delay, s  
 HCM LOS

**Minor Lane/Major Mvmt**

Hammond Street at Woodland Road (Signalized)

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HCM 2010 Signalized Intersection Summary  
 12: Hammond Street & Woodland Road

1/31/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	19	115	46	0	0	0	101	603	528	0	431	88
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	190.0	186.4	190.0				190.0	186.3	186.3	0.0	184.2	190.0
Adj Flow Rate, veh/h	33	198	79				111	663	580	0	519	106
Adj No. of Lanes	0	1	0				1	1	1	0	1	0
Peak Hour Factor	0.58	0.58	0.58				0.91	0.91	0.91	0.83	0.83	0.83
Percent Heavy Veh, %	0	1	0				0	2	2	0	3	3
Cap, veh/h	38	230	92				508	1212	1030	0	966	197
Arrive On Green	0.20	0.20	0.20				0.65	0.65	0.65	0.00	0.65	0.65
Sat Flow, veh/h	189	1134	452				813	1863	1583	0	1485	303
Grp Volume(v), veh/h	310	0	0				111	663	580	0	0	625
Grp Sat Flow(s),veh/h/ln	1775	0	0				813	1863	1583	0	0	1788
Q Serve(g_s), s	9.2	0.0	0.0				4.6	10.6	11.1	0.0	0.0	10.3
Cycle Q Clear(g_c), s	9.2	0.0	0.0				14.9	10.6	11.1	0.0	0.0	10.3
Prop In Lane	0.11		0.25				1.00		1.00	0.00		0.17
Lane Grp Cap(c), veh/h	361	0	0				508	1212	1030	0	0	1163
V/C Ratio(X)	0.86	0.00	0.00				0.22	0.55	0.56	0.00	0.00	0.54
Avail Cap(c_a), veh/h	1006	0	0				885	2078	1766	0	0	1994
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	21.0	0.0	0.0				9.1	5.2	5.3	0.0	0.0	5.1
Incr Delay (d2), s/veh	6.0	0.0	0.0				0.2	0.4	0.5	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.0	0.0				1.0	5.5	4.8	0.0	0.0	5.0
LnGrp Delay(d),s/veh	27.0	0.0	0.0				9.4	5.6	5.8	0.0	0.0	5.5
LnGrp LOS	C						A	A	A			A
Approach Vol, veh/h		310						1354			625	
Approach Delay, s/veh		27.0						6.0			5.5	
Approach LOS		C						A			A	
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		39.6		15.1		39.6						
Change Period (Y+Rc), s		4.0		4.0		4.0						
Max Green Setting (Gmax), s		61.0		31.0		61.0						
Max Q Clear Time (g_c+I1), s		16.9		11.2		12.3						
Green Ext Time (p_c), s		18.7		0.0		19.3						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			8.7									
HCM 2010 LOS			A									

Lanes, Volumes, Timings  
 12: Hammond Street & Woodland Road

1/31/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	19	115	46	0	0	0	101	603	528	0	431	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	100		150	0		0
Storage Lanes	0		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1792	0	0	0	0	1805	1863	1583	0	1799	0
Flt Permitted		0.995					0.316					
Satd. Flow (perm)	0	1792	0	0	0	0	600	1863	1583	0	1799	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18							480		19	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		563			697			512			764	
Travel Time (s)		12.8			15.8			11.6			17.4	
Peak Hour Factor	0.58	0.58	0.58	0.92	0.92	0.92	0.91	0.91	0.91	0.83	0.83	0.83
Heavy Vehicles (%)	0%	1%	5%	0%	0%	0%	0%	2%	2%	0%	3%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	310	0	0	0	0	111	663	580	0	625	0
Turn Type	Perm	NA					Perm	NA	Perm		NA	
Protected Phases		4						2			6	
Permitted Phases	4						2		2			
Detector Phase	4	4					2	2	2		6	
Switch Phase												
Minimum Initial (s)	4.0	4.0					4.0	4.0	4.0		4.0	
Minimum Split (s)	20.0	20.0					20.0	20.0	20.0		20.0	
Total Split (s)	35.0	35.0					65.0	65.0	65.0		65.0	
Total Split (%)	35.0%	35.0%					65.0%	65.0%	65.0%		65.0%	
Maximum Green (s)	31.0	31.0					61.0	61.0	61.0		61.0	
Yellow Time (s)	3.5	3.5					3.5	3.5	3.5		3.5	
All-Red Time (s)	0.5	0.5					0.5	0.5	0.5		0.5	
Lost Time Adjust (s)		0.0					0.0	0.0	0.0		0.0	
Total Lost Time (s)		4.0					4.0	4.0	4.0		4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0					3.0	3.0	3.0		3.0	
Recall Mode	None	None					Min	Min	Min		Min	
Walk Time (s)	5.0	5.0					5.0	5.0	5.0		5.0	
Flash Dont Walk (s)	11.0	11.0					11.0	11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0					0	0	0		0	
Act Effct Green (s)		16.3					34.3	34.3	34.3		34.3	
Actuated g/C Ratio		0.27					0.58	0.58	0.58		0.58	
v/c Ratio		0.62					0.32	0.62	0.52		0.60	
Control Delay		26.1					10.2	11.5	3.3		10.9	
Queue Delay		0.0					0.0	0.0	0.0		0.0	
Total Delay		26.1					10.2	11.5	3.3		10.9	
LOS		C					B	B	A		B	
Approach Delay		26.1						7.9			10.9	
Approach LOS		C						A			B	
Queue Length 50th (ft)		80					16	121	13		108	

Lanes, Volumes, Timings  
 12: Hammond Street & Woodland Road

1/31/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		134					60	314	65		248	
Internal Link Dist (ft)		483			617			432			684	
Turn Bay Length (ft)							100		150			
Base Capacity (vph)		1050					544	1690	1481		1634	
Starvation Cap Reductn		0					0	0	0		0	
Spillback Cap Reductn		0					0	0	0		0	
Storage Cap Reductn		0					0	0	0		0	
Reduced v/c Ratio		0.30					0.20	0.39	0.39		0.38	

Intersection Summary

Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 59.5  
 Natural Cycle: 50  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.62  
 Intersection Signal Delay: 11.2  
 Intersection Capacity Utilization 53.5%  
 Analysis Period (min) 15

Intersection LOS: B  
 ICU Level of Service A

Splits and Phases: 12: Hammond Street & Woodland Road

p2 65 s	p4 35 s
p6 65 s	

HCM 2010 Signalized Intersection Summary  
 12: Hammond Street & Woodland Road

1/31/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	34	32	0	0	0	40	468	125	0	623	24
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	190.0	185.4	190.0				190.0	186.3	186.3	0.0	184.4	190.0
Adj Flow Rate, veh/h	17	44	42				47	551	147	0	677	26
Adj No. of Lanes	0	1	0				1	1	1	0	1	0
Peak Hour Factor	0.77	0.77	0.77				0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	0	1	0				0	2	2	0	3	3
Cap, veh/h	21	54	51				589	1286	1093	0	1218	47
Arrive On Green	0.07	0.07	0.07				0.69	0.69	0.69	0.00	0.69	0.69
Sat Flow, veh/h	283	733	700				756	1863	1583	0	1764	68
Grp Volume(v), veh/h	103	0	0				47	551	147	0	0	703
Grp Sat Flow(s),veh/h/ln	1717	0	0				756	1863	1583	0	0	1832
Q Serve(g_s), s	2.0	0.0	0.0				1.1	4.4	1.1	0.0	0.0	6.5
Cycle Q Clear(g_c), s	2.0	0.0	0.0				7.7	4.4	1.1	0.0	0.0	6.5
Prop In Lane	0.17		0.41				1.00		1.00	0.00		0.04
Lane Grp Cap(c), veh/h	126	0	0				589	1286	1093	0	0	1265
V/C Ratio(X)	0.82	0.00	0.00				0.08	0.43	0.13	0.00	0.00	0.56
Avail Cap(c_a), veh/h	1571	0	0				1428	3354	2851	0	0	3299
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	15.5	0.0	0.0				4.6	2.3	1.8	0.0	0.0	2.6
Incr Delay (d2), s/veh	12.1	0.0	0.0				0.1	0.2	0.1	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0				0.2	2.2	0.5	0.0	0.0	3.3
LnGrp Delay(d),s/veh	27.6	0.0	0.0				4.6	2.5	1.8	0.0	0.0	3.0
LnGrp LOS	C						A	A	A			A
Approach Vol, veh/h		103						745			703	
Approach Delay, s/veh		27.6						2.5			3.0	
Approach LOS		C						A			A	
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		27.4		6.5		27.4						
Change Period (Y+Rc), s		4.0		4.0		4.0						
Max Green Setting (Gmax), s		61.0		31.0		61.0						
Max Q Clear Time (g_c+1), s		9.7		4.0		8.5						
Green Ext Time (p_c), s		13.7		0.0		13.8						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			4.4									
HCM 2010 LOS			A									

Lanes, Volumes, Timings  
 12: Hammond Street & Woodland Road

1/31/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔					↗	↑	↖		↖	
Volume (vph)	13	34	32	0	0	0	40	468	125	0	623	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	100		150	0		0
Storage Lanes	0		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1738	0	0	0	0	1805	1863	1583	0	1835	0
Fit Permitted		0.992					0.333					
Satd. Flow (perm)	0	1738	0	0	0	0	633	1863	1583	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36							147			4
Link Speed (mph)		30			30			30				30
Link Distance (ft)		563			697			512				764
Travel Time (s)		12.8			15.8			11.6				17.4
Peak Hour Factor	0.77	0.77	0.77	0.92	0.92	0.92	0.85	0.85	0.85	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	5%	0%	0%	0%	0%	2%	2%	0%	3%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	103	0	0	0	0	47	551	147	0	703	0
Turn Type	Perm	NA					Perm	NA	Perm		NA	
Protected Phases		4						2			6	
Permitted Phases	4						2		2			
Detector Phase	4	4					2	2	2		6	
Switch Phase												
Minimum Initial (s)	4.0	4.0					4.0	4.0	4.0		4.0	
Minimum Split (s)	20.0	20.0					20.0	20.0	20.0		20.0	
Total Split (s)	35.0	35.0					65.0	65.0	65.0		65.0	
Total Split (%)	35.0%	35.0%					65.0%	65.0%	65.0%		65.0%	
Maximum Green (s)	31.0	31.0					61.0	61.0	61.0		61.0	
Yellow Time (s)	3.5	3.5					3.5	3.5	3.5		3.5	
All-Red Time (s)	0.5	0.5					0.5	0.5	0.5		0.5	
Lost Time Adjust (s)		0.0					0.0	0.0	0.0		0.0	
Total Lost Time (s)		4.0					4.0	4.0	4.0		4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0					3.0	3.0	3.0		3.0	
Recall Mode	None	None					Min	Min	Min		Min	
Walk Time (s)	5.0	5.0					5.0	5.0	5.0		5.0	
Flash Dont Walk (s)	11.0	11.0					11.0	11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0					0	0	0		0	
Act Effct Green (s)		8.1					32.8	32.8	32.8		32.8	
Actuated g/C Ratio		0.18					0.73	0.73	0.73		0.73	
v/c Ratio		0.30					0.10	0.41	0.12		0.53	
Control Delay		15.3					4.0	5.0	1.1		6.2	
Queue Delay		0.0					0.0	0.0	0.0		0.0	
Total Delay		15.3					4.0	5.0	1.1		6.2	
LOS		B					A	A	A		A	
Approach Delay		15.3						4.2			6.2	
Approach LOS		B						A			A	
Queue Length 50th (ft)		17					3	53	0		77	

Lanes, Volumes, Timings  
 12: Hammond Street & Woodland Road

1/31/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SEL	SBT	SBR
Queue Length 95th (ft)		41					14	113	12		184	
Internal Link Dist (ft)		483			617			432			684	
Turn Bay Length (ft)							100		150			
Base Capacity (vph)		1239					633	1863	1583		1835	
Starvation Cap Reductn		0					0	0	0		0	
Spillback Cap Reductn		0					0	0	0		0	
Storage Cap Reductn		0					0	0	0		0	
Reduced v/c Ratio		0.08					0.07	0.30	0.09		0.38	

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	45
Natural Cycle:	50
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.53
Intersection Signal Delay:	5.9
Intersection Capacity Utilization:	45.4%
Analysis Period (min):	15
Intersection LOS:	A
ICU Level of Service:	A

Splits and Phases: 12: Hammond Street & Woodland Road

p2	p4
65 s	35 s
p6	
65 s	

HCM 2010 Signalized Intersection Summary  
 12: Hammond Street & Woodland Road

1/31/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕					↙	↑	↘		↘	
Volume (veh/h)	19	141	46	0	0	0	101	603	725	0	490	88
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	190.0	186.6	190.0				190.0	186.3	186.3	0.0	184.2	190.0
Adj Flow Rate, veh/h	34	252	82				119	709	853	0	653	117
Adj No. of Lanes	0	1	0				1	1	1	0	1	0
Peak Hour Factor	0.56	0.56	0.56				0.85	0.85	0.85	0.75	0.75	0.75
Percent Heavy Veh, %	0	1	0				0	2	2	0	3	3
Cap, veh/h	37	277	90				393	1249	1062	0	1020	183
Arrive On Green	0.23	0.23	0.23				0.67	0.67	0.67	0.00	0.67	0.67
Sat Flow, veh/h	165	1224	398				710	1863	1583	0	1521	273
Grp Volume(v), veh/h	368	0	0				119	709	853	0	0	770
Grp Sat Flow(s),veh/h/ln	1788	0	0				710	1863	1583	0	0	1794
Q Serve(g_s), s	15.5	0.0	0.0				9.0	15.7	29.8	0.0	0.0	19.2
Cycle Q Clear(g_c), s	15.5	0.0	0.0				28.2	15.7	29.8	0.0	0.0	19.2
Prop In Lane	0.09		0.22				1.00		1.00	0.00		0.15
Lane Grp Cap(c), veh/h	405	0	0				393	1249	1062	0	0	1203
V/C Ratio(X)	0.91	0.00	0.00				0.30	0.57	0.80	0.00	0.00	0.64
Avail Cap(c_a), veh/h	716	0	0				476	1467	1247	0	0	1413
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	29.2	0.0	0.0				15.5	6.8	9.1	0.0	0.0	7.4
Incr Delay (d2), s/veh	8.8	0.0	0.0				0.4	0.4	3.4	0.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	0.0	0.0				1.8	8.0	13.8	0.0	0.0	9.7
LnGrp Delay(d),s/veh	38.0	0.0	0.0				15.9	7.2	12.5	0.0	0.0	8.1
LnGrp LOS	D						B	A	B			A
Approach Vol, veh/h		368						1681			770	
Approach Delay, s/veh		38.0						10.5			8.1	
Approach LOS		D						B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		55.9		21.5		55.9						
Change Period (Y+Rc), s		4.0		4.0		4.0						
Max Green Setting (Gmax), s		61.0		31.0		61.0						
Max Q Clear Time (g_c+1), s		31.8		17.5		21.2						
Green Ext Time (p_c), s		20.1		0.0		24.6						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			13.4									
HCM 2010 LOS			B									

Lanes, Volumes, Timings  
 12: Hammond Street & Woodland Road

1/31/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	19	141	46	0	0	0	101	603	725	0	490	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	100		150	0		0
Storage Lanes	0		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1801	0	0	0	0	1805	1863	1583	0	1803	0
Flt Permitted		0.995					0.225					
Satd. Flow (perm)	0	1801	0	0	0	0	428	1863	1583	0	1803	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15							382			17
Link Speed (mph)		30			30			30				30
Link Distance (ft)		563			697			512				764
Travel Time (s)		12.8			15.8			11.6				17.4
Peak Hour Factor	0.56	0.56	0.56	0.92	0.92	0.92	0.85	0.85	0.85	0.75	0.75	0.75
Heavy Vehicles (%)	0%	1%	5%	0%	0%	0%	0%	2%	2%	0%	3%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	368	0	0	0	0	119	709	853	0	770	0
Turn Type	Perm	NA					Perm	NA	Perm		NA	
Protected Phases		4						2				6
Permitted Phases	4						2		2			
Detector Phase	4	4					2	2	2			6
Switch Phase												
Minimum Initial (s)	4.0	4.0					4.0	4.0	4.0			4.0
Minimum Split (s)	20.0	20.0					20.0	20.0	20.0			20.0
Total Split (s)	35.0	35.0					65.0	65.0	65.0			65.0
Total Split (%)	35.0%	35.0%					65.0%	65.0%	65.0%			65.0%
Maximum Green (s)	31.0	31.0					61.0	61.0	61.0			61.0
Yellow Time (s)	3.5	3.5					3.5	3.5	3.5			3.5
All-Red Time (s)	0.5	0.5					0.5	0.5	0.5			0.5
Lost Time Adjust (s)		0.0					0.0	0.0	0.0			0.0
Total Lost Time (s)		4.0					4.0	4.0	4.0			4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0					3.0	3.0	3.0			3.0
Recall Mode	None	None					Min	Min	Min			Min
Walk Time (s)	5.0	5.0					5.0	5.0	5.0			5.0
Flash Dont Walk (s)	11.0	11.0					11.0	11.0	11.0			11.0
Pedestrian Calls (#/hr)	0	0					0	0	0			0
Act Effct Green (s)		20.3					43.0	43.0	43.0			43.0
Actuated g/C Ratio		0.28					0.59	0.59	0.59			0.59
v/c Ratio		0.71					0.47	0.64	0.78			0.71
Control Delay		33.5					16.6	13.1	11.9			14.9
Queue Delay		0.0					0.0	0.0	0.0			0.0
Total Delay		33.5					16.6	13.1	11.9			14.9
LOS		C					B	B	B			B
Approach Delay		33.5						12.8				14.9
Approach LOS		C						B				B
Queue Length 50th (ft)		138					25	175	122			199

Lanes, Volumes, Timings  
 12: Hammond Street & Woodland Road

1/31/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NET	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		157					81	340	308		309	
Internal Link Dist (ft)		483			617			432			684	
Turn Bay Length (ft)							100		150			
Base Capacity (vph)		876					351	1529	1368		1483	
Starvation Cap Reductn		0					0	0	0		0	
Spillback Cap Reductn		0					0	0	0		0	
Storage Cap Reductn		0					0	0	0		0	
Reduced v/c Ratio		0.42					0.34	0.46	0.62		0.52	

Intersection Summary

Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 72.3  
 Natural Cycle: 60  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 16.1  
 Intersection LOS: B  
 Intersection Capacity Utilization 62.8%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 12: Hammond Street & Woodland Road

 ø2 65 s	 ø4 35 s
 ø6 65 s	

HCM 2010 Signalized Intersection Summary  
 12: Hammond Street & Woodland Road

2/2/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔					↖	↑	↗		↘	
Volume (veh/h)	13	46	32	0	0	0	40	468	206	0	681	24
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	190.0	185.8	190.0				190.0	186.3	186.3	0.0	184.4	190.0
Adj Flow Rate, veh/h	16	58	40				46	538	237	0	717	25
Adj No. of Lanes	0	1	0				1	1	1	0	1	0
Peak Hour Factor	0.80	0.80	0.80				0.87	0.87	0.87	0.95	0.95	0.95
Percent Heavy Veh, %	0	1	0				0	2	2	0	3	3
Cap, veh/h	20	72	50				558	1304	1109	0	1240	43
Arrive On Green	0.08	0.08	0.08				0.70	0.70	0.70	0.00	0.70	0.70
Sat Flow, veh/h	244	884	610				729	1863	1583	0	1771	62
Grp Volume(v), veh/h	114	0	0				46	538	237	0	0	742
Grp Sat Flow(s),veh/h/ln	1738	0	0				729	1863	1583	0	0	1833
Q Serve(g_s), s	2.4	0.0	0.0				1.2	4.5	1.9	0.0	0.0	7.5
Cycle Q Clear(g_c), s	2.4	0.0	0.0				8.7	4.5	1.9	0.0	0.0	7.5
Prop In Lane	0.14		0.35				1.00		1.00	0.00		0.03
Lane Grp Cap(c), veh/h	142	0	0				558	1304	1109	0	0	1284
V/C Ratio(X)	0.80	0.00	0.00				0.08	0.41	0.21	0.00	0.00	0.58
Avail Cap(c_a), veh/h	1469	0	0				1260	3098	2633	0	0	3048
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	16.6	0.0	0.0				5.0	2.3	1.9	0.0	0.0	2.8
Incr Delay (d2), s/veh	10.0	0.0	0.0				0.1	0.2	0.1	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.0				0.3	2.3	0.8	0.0	0.0	3.7
LnGrp Delay(d),s/veh	26.5	0.0	0.0				5.0	2.5	2.0	0.0	0.0	3.2
LnGrp LOS	C						A	A	A			A
Approach Vol, veh/h		114						821			742	
Approach Delay, s/veh		26.5						2.5			3.2	
Approach LOS		C						A			A	
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		29.7		7.0		29.7						
Change Period (Y+Rc), s		4.0		4.0		4.0						
Max Green Setting (Gmax), s		61.0		31.0		61.0						
Max Q Clear Time (g_c+I1), s		10.7		4.4		9.5						
Green Ext Time (p_c), s		15.0		0.0		15.0						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			4.4									
HCM 2010 LOS			A									

Lanes, Volumes, Timings  
12: Hammond Street & Woodland Road

2/2/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	46	32	0	0	0	40	468	206	0	681	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	100		150	0		0
Storage Lanes	0		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1758	0	0	0	0	1805	1863	1583	0	1835	0
Flt Permitted		0.993					0.307					
Satd. Flow (perm)	0	1758	0	0	0	0	583	1863	1583	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28							237			3
Link Speed (mph)		30			30			30				30
Link Distance (ft)		563			697			512				764
Travel Time (s)		12.8			15.8			11.6				17.4
Peak Hour Factor	0.80	0.80	0.80	0.92	0.92	0.92	0.87	0.87	0.87	0.95	0.95	0.95
Heavy Vehicles (%)	0%	1%	5%	0%	0%	0%	0%	2%	2%	0%	3%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	114	0	0	0	0	46	538	237	0	742	0
Turn Type	Perm	NA					Perm	NA	Perm		NA	
Protected Phases		4						2			6	
Permitted Phases	4						2		2			
Detector Phase	4	4					2	2	2		6	
Switch Phase												
Minimum Initial (s)	4.0	4.0					4.0	4.0	4.0		4.0	
Minimum Split (s)	20.0	20.0					20.0	20.0	20.0		20.0	
Total Split (s)	35.0	35.0					65.0	65.0	65.0		65.0	
Total Split (%)	35.0%	35.0%					65.0%	65.0%	65.0%		65.0%	
Maximum Green (s)	31.0	31.0					61.0	61.0	61.0		61.0	
Yellow Time (s)	3.5	3.5					3.5	3.5	3.5		3.5	
All-Red Time (s)	0.5	0.5					0.5	0.5	0.5		0.5	
Lost Time Adjust (s)		0.0					0.0	0.0	0.0		0.0	
Total Lost Time (s)		4.0					4.0	4.0	4.0		4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0					3.0	3.0	3.0		3.0	
Recall Mode	None	None					Min	Min	Min		Min	
Walk Time (s)	5.0	5.0					5.0	5.0	5.0		5.0	
Flash Dont Walk (s)	11.0	11.0					11.0	11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0					0	0	0		0	
Act Effct Green (s)		8.7					33.8	33.8	33.8		33.8	
Actuated g/C Ratio		0.19					0.73	0.73	0.73		0.73	
v/c Ratio		0.32					0.11	0.40	0.20		0.56	
Control Delay		17.3					4.4	5.2	1.1		6.9	
Queue Delay		0.0					0.0	0.0	0.0		0.0	
Total Delay		17.3					4.4	5.2	1.1		6.9	
LOS		B					A	A	A		A	
Approach Delay		17.3						4.0			6.9	
Approach LOS		B						A			A	
Queue Length 50th (ft)		22					4	55	0		91	

Lanes, Volumes, Timings  
 12: Hammond Street & Woodland Road

2/2/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		53					15	122	16		216	
Internal Link Dist (ft)		483			617			432			684	
Turn Bay Length (ft)							100		150			
Base Capacity (vph)		1218					583	1863	1583		1835	
Starvation Cap Reductn		0					0	0	0		0	
Spillback Cap Reductn		0					0	0	0		0	
Storage Cap Reductn		0					0	0	0		0	
Reduced v/c Ratio		0.09					0.08	0.29	0.15		0.40	

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	46.6
Natural Cycle:	55
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.56
Intersection Signal Delay:	6.2
Intersection Capacity Utilization:	49.1%
Analysis Period (min):	15
Intersection LOS:	A
ICU Level of Service:	A

Splits and Phases: 12: Hammond Street & Woodland Road

ø2	ø4
65 s	35 s
ø6	
65 s	

Heath Street at Oak Street

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Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	130	7	8	206	4	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	86	86	88	88	60	60
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	151	8	9	234	7	13

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	159
Stage 1	-	-	155
Stage 2	-	-	252
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1433
Stage 1	-	-	878
Stage 2	-	-	795
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1433
Mov Cap-2 Maneuver	-	-	600
Stage 1	-	-	878
Stage 2	-	-	789

Approach	EB	WB	NB
HCM Control Delay, s		0.3	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	769	-	-	1433	-
HCM Lane V/C Ratio	0.026	-	-	0.006	-
HCM Control Delay (s)	9.8	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	108	0	5	226	3	1
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	90	90	78	78	50	50
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	120	0	6	290	6	2

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	423
Stage 1	-	-	120
Stage 2	-	-	303
Critical Hdwy	-	4.1	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	-	2.2	3.5
Pot Cap-1 Maneuver	-	1480	591
Stage 1	-	-	910
Stage 2	-	-	754
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1480	588
Mov Cap-2 Maneuver	-	-	588
Stage 1	-	-	910
Stage 2	-	-	750

Approach	EB	WB	NB
HCM Control Delay, s		0.2	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	648	-	-	1480	-
HCM Lane V/C Ratio	0.012	-	-	0.004	-
HCM Control Delay (s)	10.6	-	-	7.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	141	7	8	223	4	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	86	86	88	88	60	60
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	164	8	9	253	7	13

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	172	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	1417	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1417	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s		0.3	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	748	-	-	1417	-
HCM Lane V/C Ratio	0.027	-	-	0.006	-
HCM Control Delay (s)	9.9	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	117	0	5	245	3	1
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	90	90	78	78	50	50
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	130	0	6	314	6	2

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	130	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	1468	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1468	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s		0.1	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	623	-	-	1468	-
HCM Lane V/C Ratio	0.013	-	-	0.004	-
HCM Control Delay (s)	10.9	-	-	7.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	227	7	8	355	4	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	68	68	63	63	60	60
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	334	10	13	563	7	13

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	344	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	1226	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1226	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s		0.2	12.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	484	-	-	1226	-
HCM Lane V/C Ratio	0.041	-	-	0.01	-
HCM Control Delay (s)	12.8	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	172	0	5	354	3	1
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	87	87	94	94	50	50
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	198	0	5	377	6	2

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	198	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	1387	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1387	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s		0.1	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	534	-	-	1387	-
HCM Lane V/C Ratio	0.015	-	-	0.004	-
HCM Control Delay (s)	11.8	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

**Heath Street at Dunster Road**

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**Intersection**

Int Delay, s/veh 2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	90	45	210	7	15	7
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	84	84	89	89	61	61
Heavy Vehicles, %	0	4	1	0	0	0
Mvmt Flow	107	54	236	8	25	11

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	244	0	508
Stage 1	-	-	240
Stage 2	-	-	268
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1334	-	528
Stage 1	-	-	805
Stage 2	-	-	782
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1334	-	484
Mov Cap-2 Maneuver	-	-	484
Stage 1	-	-	805
Stage 2	-	-	717

Approach	EB	WB	SB
HCM Control Delay, s	5.3		12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1334	-	-	-	554
HCM Lane V/C Ratio	0.08	-	-	-	0.065
HCM Control Delay (s)	7.9	0	-	-	12
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	74	34	214	4	21	16
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	90	90	79	79	79	79
Heavy Vehicles, %	0	3	2	0	0	6
Mvmt Flow	82	38	271	5	27	20

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	276	0	475
Stage 1	-	-	273
Stage 2	-	-	202
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1299	-	552
Stage 1	-	-	778
Stage 2	-	-	837
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1299	-	517
Mov Cap-2 Maneuver	-	-	517
Stage 1	-	-	778
Stage 2	-	-	783

Approach	EB	WB	SB
HCM Control Delay, s	5.5		11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1299	-	-	-	599
HCM Lane V/C Ratio	0.063	-	-	-	0.078
HCM Control Delay (s)	8	0	-	-	11.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	97	49	227	8	16	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	84	84	89	89	61	61
Heavy Vehicles, %	0	4	1	0	0	0
Mvmt Flow	115	58	255	9	26	13

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	264	0	549
Stage 1	-	-	260
Stage 2	-	-	289
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1312	-	500
Stage 1	-	-	788
Stage 2	-	-	765
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1312	-	455
Mov Cap-2 Maneuver	-	-	455
Stage 1	-	-	788
Stage 2	-	-	695

Approach	EB	WB	SB
HCM Control Delay, s	5.3		12.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1312	-	-	-	529
HCM Lane V/C Ratio	0.088	-	-	-	0.074
HCM Control Delay (s)	8	0	-	-	12.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	80	37	232	4	23	17
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	90	90	79	79	79	79
Heavy Vehicles, %	0	3	2	0	0	6
Mvmt Flow	89	41	294	5	29	22

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	299	0	515
Stage 1	-	-	296
Stage 2	-	-	219
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1274	-	523
Stage 1	-	-	759
Stage 2	-	-	822
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1274	-	486
Mov Cap-2 Maneuver	-	-	486
Stage 1	-	-	759
Stage 2	-	-	764

Approach	EB	WB	SB
HCM Control Delay, s	5.5		12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1274	-	-	-	567
HCM Lane V/C Ratio	0.07	-	-	-	0.089
HCM Control Delay (s)	8	0	-	-	12
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	97	135	368	86	15	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	65	65	58	58	61	61
Heavy Vehicles, %	0	4	1	0	0	0
Mvmt Flow	149	208	634	148	25	13

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	783	0	1215
Stage 1	-	-	709
Stage 2	-	-	506
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	844	-	202
Stage 1	-	-	491
Stage 2	-	-	610
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	844	-	162
Mov Cap-2 Maneuver	-	-	162
Stage 1	-	-	491
Stage 2	-	-	488

Approach	EB	WB	SB
HCM Control Delay, s	4.3		26.2
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	844	-	-	-	207
HCM Lane V/C Ratio	0.177	-	-	-	0.182
HCM Control Delay (s)	10.2	0	-	-	26.2
HCM Lane LOS	B	A	-	-	D
HCM 95th %tile Q(veh)	1	-	-	-	1

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	80	83	341	4	23	17
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	93	93	88	88	79	79
Heavy Vehicles, %	0	3	2	0	0	6
Mvmt Flow	86	89	388	5	29	22

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	392	0	651
Stage 1	-	-	390
Stage 2	-	-	261
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1178	-	436
Stage 1	-	-	689
Stage 2	-	-	787
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1178	-	402
Mov Cap-2 Maneuver	-	-	402
Stage 1	-	-	689
Stage 2	-	-	726

Approach	EB	WB	SB
HCM Control Delay, s	4.1		13.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1178	-	-	-	480
HCM Lane V/C Ratio	0.073	-	-	-	0.105
HCM Control Delay (s)	8.3	0	-	-	13.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Boylston Street (Route 9) at Dunster Road

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Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1267	22	0	0	0	97
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	90	90	92	92	84	84
Heavy Vehicles, %	3	0	0	0	0	0
Mvmt Flow	1408	24	0	0	0	115

Major/Minor	Major1	Minor1
Conflicting Flow All	0	0
Stage 1	-	-
Stage 2	-	-
Critical Hdwy	-	-
Critical Hdwy Stg 1	-	-
Critical Hdwy Stg 2	-	-
Follow-up Hdwy	-	-
Pot Cap-1 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	-	-
Mov Cap-2 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-

Approach	EB	NB
HCM Control Delay, s		18.7
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	378	-	-
HCM Lane V/C Ratio	0.305	-	-
HCM Control Delay (s)	18.7	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	1	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1246	37	0	0	0	78
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	90	90
Heavy Vehicles, %	2	0	0	0	0	0
Mvmt Flow	1354	40	0	0	0	87

Major/Minor	Major1	Minor1
Conflicting Flow All	0	0
Stage 1	-	-
Stage 2	-	-
Critical Hdwy	-	-
Critical Hdwy Stg 1	-	-
Critical Hdwy Stg 2	-	-
Follow-up Hdwy	-	-
Pot Cap-1 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	-	-
Mov Cap-2 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-

Approach	EB	NB
HCM Control Delay, s		16.9
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	389	-	-
HCM Lane V/C Ratio	0.223	-	-
HCM Control Delay (s)	16.9	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	1	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1419	24	0	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	90	90	92	92	84	84
Heavy Vehicles, %	3	0	0	0	0	0
Mvmt Flow	1577	27	0	0	0	125

Major/Minor	Major1	Minor1
Conflicting Flow All	0	0
Stage 1	-	-
Stage 2	-	-
Critical Hdwy	-	-
Critical Hdwy Stg 1	-	-
Critical Hdwy Stg 2	-	-
Follow-up Hdwy	-	-
Pot Cap-1 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	-	-
Mov Cap-2 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-

Approach	EB	NB
HCM Control Delay, s		22.2
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	332	-	-
HCM Lane V/C Ratio	0.377	-	-
HCM Control Delay (s)	22.2	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	2	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1398	40	0	0	0	84
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	90	90
Heavy Vehicles, %	2	0	0	0	0	0
Mvmt Flow	1520	43	0	0	0	93

Major/Minor	Major1		Minor1	
Conflicting Flow All	0	0	1541	781
Stage 1	-	-	1541	-
Stage 2	-	-	0	-
Critical Hdwy	-	-	7.5	6.9
Critical Hdwy Stg 1	-	-	6.5	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	80	342
Stage 1	-	-	123	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	80	342
Mov Cap-2 Maneuver	-	-	80	-
Stage 1	-	-	123	-
Stage 2	-	-	-	-

Approach	EB	NB
HCM Control Delay, s		19.4
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	342	-	-
HCM Lane V/C Ratio	0.273	-	-
HCM Control Delay (s)	19.4	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	1	-	-

Intersection	
Int Delay, s/veh	12.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1420	23	0	0	0	183
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	90	90	92	92	58	58
Heavy Vehicles, %	3	0	0	0	0	0
Mvmt Flow	1578	26	0	0	0	316

Major/Minor	Major1	Minor1
Conflicting Flow All	0	0
Stage 1	-	-
Stage 2	-	-
Critical Hdwy	-	-
Critical Hdwy Stg 1	-	-
Critical Hdwy Stg 2	-	-
Follow-up Hdwy	-	-
Pot Cap-1 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	-	-
Mov Cap-2 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-

Approach	EB	NB
HCM Control Delay, s		73.7
HCM LOS		F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	332	-	-
HCM Lane V/C Ratio	0.95	-	-
HCM Control Delay (s)	73.7	-	-
HCM Lane LOS	F	-	-
HCM 95th %tile Q(veh)	10	-	-

**Intersection**

Int Delay, s/veh 1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1399	40	0	0	0	84
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	90	90
Heavy Vehicles, %	2	0	0	0	0	0
Mvmt Flow	1521	43	0	0	0	93

Major/Minor	Major1	Minor1
Conflicting Flow All	0	0
Stage 1	-	-
Stage 2	-	-
Critical Hdwy	-	-
Critical Hdwy Stg 1	-	-
Critical Hdwy Stg 2	-	-
Follow-up Hdwy	-	-
Pot Cap-1 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	-	-
Mov Cap-2 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-

Approach	EB	NB
HCM Control Delay, s		19.4
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	342	-	-
HCM Lane V/C Ratio	0.273	-	-
HCM Control Delay (s)	19.4	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	1	-	-

Heath Street at Cary Road

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HCM 2010 TWSC  
 19: Heath Street & Cary Road

2/2/2017

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	5	64	200	217	3	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	73	73	89	89	45	45
Heavy Vehicles, %	0	3	1	0	0	0
Mvmt Flow	7	88	225	244	7	13

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	469	0	448
Stage 1	-	-	347
Stage 2	-	-	101
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1103	-	572
Stage 1	-	-	720
Stage 2	-	-	928
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1103	-	568
Mov Cap-2 Maneuver	-	-	568
Stage 1	-	-	720
Stage 2	-	-	922

Approach	EB	WB	SB
HCM Control Delay, s	0.6		10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1103	-	-	-	650
HCM Lane V/C Ratio	0.006	-	-	-	0.031
HCM Control Delay (s)	8.3	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 2010 TWSC  
 19: Heath Street & Cary Road

2/2/2017

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	4	55	205	53	2	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	79	79	82	82	69	69
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	5	70	250	65	3	13

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	315	0	362
Stage 1	-	-	282
Stage 2	-	-	80
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1257	-	641
Stage 1	-	-	770
Stage 2	-	-	948
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1257	-	638
Mov Cap-2 Maneuver	-	-	638
Stage 1	-	-	770
Stage 2	-	-	944

Approach	EB	WB	SB
HCM Control Delay, s	0.5		10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1257	-	-	-	736
HCM Lane V/C Ratio	0.004	-	-	-	0.022
HCM Control Delay (s)	7.9	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	5	69	216	240	3	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	73	73	89	89	45	45
Heavy Vehicles, %	0	3	1	0	0	0
Mvmt Flow	7	95	243	270	7	13

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	512	0	486
Stage 1	-	-	378
Stage 2	-	-	108
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1064	-	544
Stage 1	-	-	697
Stage 2	-	-	921
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1064	-	540
Mov Cap-2 Maneuver	-	-	540
Stage 1	-	-	697
Stage 2	-	-	915

Approach	EB	WB	SB
HCM Control Delay, s	0.6		11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1064	-	-	-	622
HCM Lane V/C Ratio	0.006	-	-	-	0.032
HCM Control Delay (s)	8.4	0	-	-	11
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	4	60	222	59	2	10
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	79	79	82	82	69	69
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	5	76	271	72	3	14

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	343	0	393
Stage 1	-	-	307
Stage 2	-	-	86
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1227	-	615
Stage 1	-	-	751
Stage 2	-	-	942
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1227	-	613
Mov Cap-2 Maneuver	-	-	613
Stage 1	-	-	751
Stage 2	-	-	938

Approach	EB	WB	SB
HCM Control Delay, s	0.5		10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1227	-	-	-	714
HCM Lane V/C Ratio	0.004	-	-	-	0.024
HCM Control Delay (s)	7.9	0	-	-	10.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	5	154	435	240	3	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	62	62	65	65	45	45
Heavy Vehicles, %	0	3	1	0	0	0
Mvmt Flow	8	248	669	369	7	13

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1038	0	854
Stage 1	-	-	854
Stage 2	-	-	265
Critical Hdwy	4.1	-	6.2
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.3
Pot Cap-1 Maneuver	678	-	361
Stage 1	-	-	421
Stage 2	-	-	784
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	678	-	361
Mov Cap-2 Maneuver	-	-	228
Stage 1	-	-	421
Stage 2	-	-	773

Approach	EB	WB	SB
HCM Control Delay, s	0.3		17.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	678	-	-	-	302
HCM Lane V/C Ratio	0.012	-	-	-	0.066
HCM Control Delay (s)	10.4	0	-	-	17.8
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	4	106	331	58	2	10
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	69	69	82	82	69	69
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	6	154	404	71	3	14

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	474	0	604
Stage 1	-	-	439
Stage 2	-	-	165
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1099	-	465
Stage 1	-	-	654
Stage 2	-	-	869
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1099	-	462
Mov Cap-2 Maneuver	-	-	462
Stage 1	-	-	654
Stage 2	-	-	864

Approach	EB	WB	SB
HCM Control Delay, s	0.3		11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1099	-	-	-	588
HCM Lane V/C Ratio	0.005	-	-	-	0.03
HCM Control Delay (s)	8.3	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Heath Street at Soule Recreation Drive/Site Drive

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Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	66	1	6	416	1	1
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	73	73	89	89	50	50
Heavy Vehicles, %	3	0	0	1	0	0
Mvmt Flow	90	1	7	467	2	2

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	92
Stage 1	-	-	91
Stage 2	-	-	481
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1515
Stage 1	-	-	938
Stage 2	-	-	626
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1515
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	938
Stage 2	-	-	622

Approach	EB	WB	NB
HCM Control Delay, s		0.1	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	644	-	-	1515	-
HCM Lane V/C Ratio	0.006	-	-	0.004	-
HCM Control Delay (s)	10.6	-	-	7.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	57	0	1	255	3	1
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	79	79	82	82	50	50
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	72	0	1	311	6	2

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	72	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	1541	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1541	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s		0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	686	-	-	1541	-
HCM Lane V/C Ratio	0.012	-	-	0.001	-
HCM Control Delay (s)	10.3	-	-	7.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	71	1	6	455	1	1
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	73	73	89	89	50	50
Heavy Vehicles, %	3	0	0	1	0	0
Mvmt Flow	97	1	7	511	2	2

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	99	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	1507	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1507	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s		0.1	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	613	-	-	1507	-
HCM Lane V/C Ratio	0.007	-	-	0.004	-
HCM Control Delay (s)	10.9	-	-	7.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	62	0	1	278	3	1
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	79	79	82	82	50	50
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	78	0	1	339	6	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	78	0	419	78
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	341	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1533	-	595	988
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	725	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1533	-	594	988
Mov Cap-2 Maneuver	-	-	-	-	594	-
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	724	-

Approach	EB	WB	NB
HCM Control Delay, s		0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	660	-	-	1533	-
HCM Lane V/C Ratio	0.012	-	-	0.001	-
HCM Control Delay (s)	10.5	-	-	7.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	231.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	71	86	128	470	205	134
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	62	62	74	74	42	42
Heavy Vehicles, %	3	0	0	1	0	0
Mvmt Flow	115	139	173	635	488	319

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1165
Stage 1	-	-	184
Stage 2	-	-	981
Critical Hdwy	-	4.1	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	-	2.2	3.5
Pot Cap-1 Maneuver	-	1324	~ 217
Stage 1	-	-	852
Stage 2	-	-	~ 366
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1324	~ 173
Mov Cap-2 Maneuver	-	-	~ 173
Stage 1	-	-	852
Stage 2	-	-	~ 292

Approach	EB	WB	NB
HCM Control Delay, s		1.7	\$ 534.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	173	864	-	-	1324	-
HCM Lane V/C Ratio	2.821	0.369	-	-	0.131	-
HCM Control Delay (s)	\$ 876.5	11.6	-	-	8.1	0
HCM Lane LOS	F	B	-	-	A	A
HCM 95th %tile Q(veh)	44	2	-	-	0	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Int Delay, s/veh	7.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	62	46	68	279	110	155
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	69	69	92	92	53	53
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	90	67	74	303	208	292

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	157
Stage 1	-	-	123
Stage 2	-	-	451
Critical Hdwy	-	4.1	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	-	2.2	3.5
Pot Cap-1 Maneuver	-	1435	484
Stage 1	-	-	907
Stage 2	-	-	646
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1435	454
Mov Cap-2 Maneuver	-	-	454
Stage 1	-	-	907
Stage 2	-	-	606

Approach	EB	WB	NB
HCM Control Delay, s		1.5	14.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	454	933	-	-	1435	-
HCM Lane V/C Ratio	0.457	0.313	-	-	0.052	-
HCM Control Delay (s)	19.4	10.6	-	-	7.6	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	2	1	-	-	0	-

Heath Street at Woodland Road

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Intersection	
Int Delay, s/veh	9.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	67	0	0	166	256	384
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	40	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	89	89	80	80
Heavy Vehicles, %	3	0	0	1	0	2
Mvmt Flow	94	0	0	187	320	480

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	94	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	1513	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1513	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s			13.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	713	963	-	-	1513	-
HCM Lane V/C Ratio	0.449	0.498	-	-	-	-
HCM Control Delay (s)	14.1	12.4	-	-	0	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	2	3	-	-	0	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	58	0	0	187	69	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	40	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	78	78	83	83
Heavy Vehicles, %	1	0	0	2	0	3
Mvmt Flow	39	0	0	240	83	108

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	39	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	1584	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1584	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s			9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	715	1030	-	-	1584	-
HCM Lane V/C Ratio	0.116	0.105	-	-	-	-
HCM Control Delay (s)	10.7	8.9	-	-	0	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0	0	-	-	0	-

Intersection	
Int Delay, s/veh	10.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	72	0	0	180	281	419
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	40	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	89	89	80	80
Heavy Vehicles, %	3	0	0	1	0	2
Mvmt Flow	101	0	0	202	351	524

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	101	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	1504	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1504	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s			14.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	693	954	-	-	1504	-
HCM Lane V/C Ratio	0.507	0.549	-	-	-	-
HCM Control Delay (s)	15.4	13.3	-	-	0	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	3	3	-	-	0	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	63	0	0	202	77	99
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	40	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	78	78	83	83
Heavy Vehicles, %	1	0	0	2	0	3
Mvmt Flow	43	0	0	259	93	119

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	43	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	1579	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1579	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	694	1025	-	-	1579	-
HCM Lane V/C Ratio	0.134	0.116	-	-	-	-
HCM Control Delay (s)	11	9	-	-	0	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0	0	-	-	0	-

Intersection	
Int Delay, s/veh	34.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	205	0	0	308	290	420
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	40	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	53	53	67	67	78	78
Heavy Vehicles, %	3	0	0	1	0	2
Mvmt Flow	387	0	0	460	372	538

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	387
Stage 1	-	-	387
Stage 2	-	-	460
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1183
Stage 1	-	-	691
Stage 2	-	-	640
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1183
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	691
Stage 2	-	-	640

Approach	EB	WB	NB
HCM Control Delay, s			65.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	335	661	-	-	1183	-
HCM Lane V/C Ratio	1.11	0.815	-	-	-	-
HCM Control Delay (s)	117.8	29.9	-	-	0	-
HCM Lane LOS	F	D	-	-	A	-
HCM 95th %tile Q(veh)	14	8	-	-	0	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection	
Int Delay, s/veh	3.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	217	0	0	270	77	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	40	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	91	91	83	83
Heavy Vehicles, %	1	0	0	2	0	3
Mvmt Flow	181	0	0	297	93	120

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	181
Stage 1	-	-	181
Stage 2	-	-	297
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1407
Stage 1	-	-	855
Stage 2	-	-	758
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1407
Mov Cap-2 Maneuver	-	-	550
Stage 1	-	-	855
Stage 2	-	-	758

Approach	EB	WB	NB
HCM Control Delay, s			11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	550	859	-	-	1407	-
HCM Lane V/C Ratio	0.169	0.14	-	-	-	-
HCM Control Delay (s)	12.9	9.9	-	-	0	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	1	0	-	-	0	-

Heath Street at Randolph Road

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Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	101	350	164	13	7	2
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	80	80	92	92	56	56
Heavy Vehicles, %	2	2	0	0	0	50
Mvmt Flow	126	438	178	14	12	4

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	192	0	875
Stage 1	-	-	185
Stage 2	-	-	690
Critical Hdwy	4.12	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.218	-	3.5
Pot Cap-1 Maneuver	1381	-	322
Stage 1	-	-	852
Stage 2	-	-	502
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1381	-	283
Mov Cap-2 Maneuver	-	-	283
Stage 1	-	-	852
Stage 2	-	-	441

Approach	EB	WB	SB
HCM Control Delay, s	1.8		16.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1381	-	-	-	328
HCM Lane V/C Ratio	0.091	-	-	-	0.049
HCM Control Delay (s)	7.9	0	-	-	16.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 2010 TWSC  
 24: Heath Street & Randolph Road

1/9/2017

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	26	122	186	12	7	1
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	80	80	76	76	67	67
Heavy Vehicles, %	8	2	1	0	0	0
Mvmt Flow	32	152	245	16	10	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	261	0	471
Stage 1	-	-	253
Stage 2	-	-	218
Critical Hdwy	4.18	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.272	-	3.5
Pot Cap-1 Maneuver	1269	-	555
Stage 1	-	-	794
Stage 2	-	-	823
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1269	-	539
Mov Cap-2 Maneuver	-	-	539
Stage 1	-	-	794
Stage 2	-	-	800

Approach	EB	WB	SB
HCM Control Delay, s	1.4		11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1269	-	-	-	561
HCM Lane V/C Ratio	0.026	-	-	-	0.021
HCM Control Delay (s)	7.9	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	109	382	178	114	8	2
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	80	80	92	92	56	56
Heavy Vehicles, %	2	2	0	0	0	50
Mvmt Flow	136	478	193	124	14	4

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	317	0	1005
Stage 1	-	-	255
Stage 2	-	-	750
Critical Hdwy	4.12	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.218	-	3.5
Pot Cap-1 Maneuver	1243	-	270
Stage 1	-	-	792
Stage 2	-	-	470
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1243	-	230
Mov Cap-2 Maneuver	-	-	230
Stage 1	-	-	792
Stage 2	-	-	400

Approach	EB	WB	SB
HCM Control Delay, s	1.8		19.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1243	-	-	-	265
HCM Lane V/C Ratio	0.11	-	-	-	0.067
HCM Control Delay (s)	8.3	0	-	-	19.6
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	28	134	201	13	8	1
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	80	80	76	76	67	67
Heavy Vehicles, %	8	2	1	0	0	0
Mvmt Flow	35	168	264	17	12	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	282	0	511
Stage 1	-	-	273
Stage 2	-	-	238
Critical Hdwy	4.18	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.272	-	3.5
Pot Cap-1 Maneuver	1247	-	526
Stage 1	-	-	778
Stage 2	-	-	806
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1247	-	510
Mov Cap-2 Maneuver	-	-	510
Stage 1	-	-	778
Stage 2	-	-	781

Approach	EB	WB	SB
HCM Control Delay, s	1.4		12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1247	-	-	-	530
HCM Lane V/C Ratio	0.028	-	-	-	0.025
HCM Control Delay (s)	8	0	-	-	12
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	109	516	306	114	8	2
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	66	66	68	68	56	56
Heavy Vehicles, %	2	2	0	0	0	50
Mvmt Flow	165	782	450	168	14	4

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	618	0	1646
Stage 1	-	-	534
Stage 2	-	-	1112
Critical Hdwy	4.12	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.218	-	3.5
Pot Cap-1 Maneuver	962	-	111
Stage 1	-	-	592
Stage 2	-	-	317
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	962	-	77
Mov Cap-2 Maneuver	-	-	77
Stage 1	-	-	592
Stage 2	-	-	221

Approach	EB	WB	SB
HCM Control Delay, s	1.7		53.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	962	-	-	-	92
HCM Lane V/C Ratio	0.172	-	-	-	0.194
HCM Control Delay (s)	9.5	0	-	-	53.3
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	1	-	-	-	1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	28	289	269	13	8	1
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	68	68	88	88	67	67
Heavy Vehicles, %	8	2	1	0	0	0
Mvmt Flow	41	425	306	15	12	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	320	0	820
Stage 1	-	-	313
Stage 2	-	-	507
Critical Hdwy	4.18	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.272	-	3.5
Pot Cap-1 Maneuver	1207	-	347
Stage 1	-	-	746
Stage 2	-	-	609
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1207	-	332
Mov Cap-2 Maneuver	-	-	332
Stage 1	-	-	746
Stage 2	-	-	582

Approach	EB	WB	SB
HCM Control Delay, s	0.7		15.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1207	-	-	-	353
HCM Lane V/C Ratio	0.034	-	-	-	0.038
HCM Control Delay (s)	8.1	0	-	-	15.6
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0

Heath Street at Warren Street

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Intersection	
Int Delay, s/veh	4.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	222	99	31	133	81	64
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	85	85	81	81	73	73
Heavy Vehicles, %	2	1	0	2	0	2
Mvmt Flow	261	116	38	164	111	88

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	378	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	1192	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1192	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s		1.5	14.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	560	-	-	1192	-
HCM Lane V/C Ratio	0.355	-	-	0.032	-
HCM Control Delay (s)	14.9	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	2	-	-	0	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	58	48	25	135	28	12
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	91	91	89	89	71	71
Heavy Vehicles, %	2	0	8	0	4	8
Mvmt Flow	64	53	28	152	39	17

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	116	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	4.18	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	2.272	-
Pot Cap-1 Maneuver	-	-	1436	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1436	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s		1.2	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	739	-	-	1436	-
HCM Lane V/C Ratio	0.076	-	-	0.02	-
HCM Control Delay (s)	10.3	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	243	107	35	144	88	69
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	85	85	81	81	73	73
Heavy Vehicles, %	2	1	0	2	0	2
Mvmt Flow	286	126	43	178	121	95

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	412	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	1158	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1158	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s		1.6	16.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	524	-	-	1158	-
HCM Lane V/C Ratio	0.41	-	-	0.037	-
HCM Control Delay (s)	16.6	-	-	8.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	2	-	-	0	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	65	52	27	146	30	13
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	91	91	89	89	71	71
Heavy Vehicles, %	2	0	8	0	4	8
Mvmt Flow	71	57	30	164	42	18

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	129
Stage 1	-	-	100
Stage 2	-	-	225
Critical Hdwy	-	-	4.18
Critical Hdwy Stg 1	-	-	5.44
Critical Hdwy Stg 2	-	-	5.44
Follow-up Hdwy	-	-	2.272
Pot Cap-1 Maneuver	-	-	1420
Stage 1	-	-	919
Stage 2	-	-	808
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1420
Mov Cap-2 Maneuver	-	-	650
Stage 1	-	-	919
Stage 2	-	-	789

Approach	EB	WB	NB
HCM Control Delay, s		1.2	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	717	-	-	1420	-
HCM Lane V/C Ratio	0.084	-	-	0.021	-
HCM Control Delay (s)	10.5	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	25.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	270	214	35	217	143	69
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	65	65	75	75	63	63
Heavy Vehicles, %	2	1	0	2	0	2
Mvmt Flow	415	329	47	289	227	110

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	745	0	963	580
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	383	-
Critical Hdwy	-	-	4.1	-	6.4	6.22
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.318
Pot Cap-1 Maneuver	-	-	872	-	286	514
Stage 1	-	-	-	-	564	-
Stage 2	-	-	-	-	694	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	872	-	268	514
Mov Cap-2 Maneuver	-	-	-	-	268	-
Stage 1	-	-	-	-	564	-
Stage 2	-	-	-	-	650	-

Approach	EB	WB	NB
HCM Control Delay, s		1.3	105.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	317	-	-	872	-
HCM Lane V/C Ratio	1.062	-	-	0.054	-
HCM Control Delay (s)	105.1	-	-	9.4	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	13	-	-	0	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	91	181	27	191	53	13
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	67	67	96	96	88	88
Heavy Vehicles, %	2	0	8	0	4	8
Mvmt Flow	136	270	28	199	60	15

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	406	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	4.18	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	2.272	-
Pot Cap-1 Maneuver	-	-	1121	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1121	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s		1	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	531	-	-	1121	-
HCM Lane V/C Ratio	0.141	-	-	0.025	-
HCM Control Delay (s)	12.9	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

James Horace Circle

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# MOVEMENT SUMMARY

**Site: Existing AM**

New Site  
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
<b>South: Lagrange Street</b>											
3b	L3	1	2.0	1.384	214.5	LOS F	57.2	1453.2	1.00	3.88	8.5
3a	L1	73	2.0	1.384	214.5	LOS F	57.2	1453.2	1.00	3.88	8.4
18a	R1	482	2.0	1.384	214.5	LOS F	57.2	1453.2	1.00	3.88	8.4
18b	R3	2	2.0	1.384	214.5	LOS F	57.2	1453.2	1.00	3.88	8.2
Approach		558	2.0	1.384	214.5	LOS F	57.2	1453.2	1.00	3.88	8.4
<b>SouthEast: Newton Street (South)</b>											
3bx	L3	1	1.0	1.305	171.8	LOS F	63.0	1587.8	1.00	4.19	10.1
3x	L2	11	1.0	1.305	171.8	LOS F	63.0	1587.8	1.00	4.19	10.1
8x	T1	1501	1.0	1.305	171.2	LOS F	65.4	1647.2	1.00	4.26	9.7
18x	R2	399	1.0	0.250	0.0	LOS A	0.0	0.0	0.00	0.00	34.8
Approach		1912	1.0	1.305	135.5	LOS F	65.4	1647.2	0.79	3.37	11.3
<b>NorthEast: Hammond Street</b>											
1x	L2	148	3.0	0.366	15.7	LOS C	1.1	28.7	0.73	0.78	25.0
1ax	L1	84	3.0	0.828	41.5	LOS E	4.4	113.4	0.89	1.20	19.9
6x	T1	162	3.0	0.828	41.5	LOS E	4.4	113.4	0.89	1.20	19.8
16x	R2	112	3.0	0.828	41.5	LOS E	4.4	113.4	0.89	1.20	19.2
Approach		507	3.0	0.828	33.9	LOS D	4.4	113.4	0.84	1.07	21.0
<b>NorthWest: Hammond Pond Parkway</b>											
7x	L2	102	1.0	0.554	12.5	LOS B	2.7	68.6	0.56	0.61	26.8
4x	T1	352	1.0	0.554	12.5	LOS B	2.7	68.6	0.56	0.61	26.0
14ax	R1	352	1.0	0.724	18.4	LOS C	4.9	122.7	0.68	0.78	24.4
14x	R2	254	1.0	0.724	18.4	LOS C	4.9	122.7	0.68	0.78	23.8
Approach		1059	1.0	0.724	15.9	LOS C	4.9	122.7	0.63	0.71	25.0
<b>SouthWest: Newton Street (West)</b>											
5x	L2	99	3.0	0.729	26.8	LOS D	3.5	90.8	0.79	0.93	26.2
2x	T1	284	3.0	0.729	26.8	LOS D	3.5	90.8	0.79	0.93	25.6
12x	R2	5	3.0	0.014	7.4	LOS A	0.0	0.9	0.55	0.52	31.1
12bx	R3	2	3.0	0.014	7.4	LOS A	0.0	0.9	0.55	0.52	30.6
Approach		390	3.0	0.729	26.4	LOS D	3.5	90.8	0.78	0.92	25.9
All Vehicles		4426	1.5	1.384	95.6	LOS F	65.4	1647.2	0.78	2.32	14.0

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

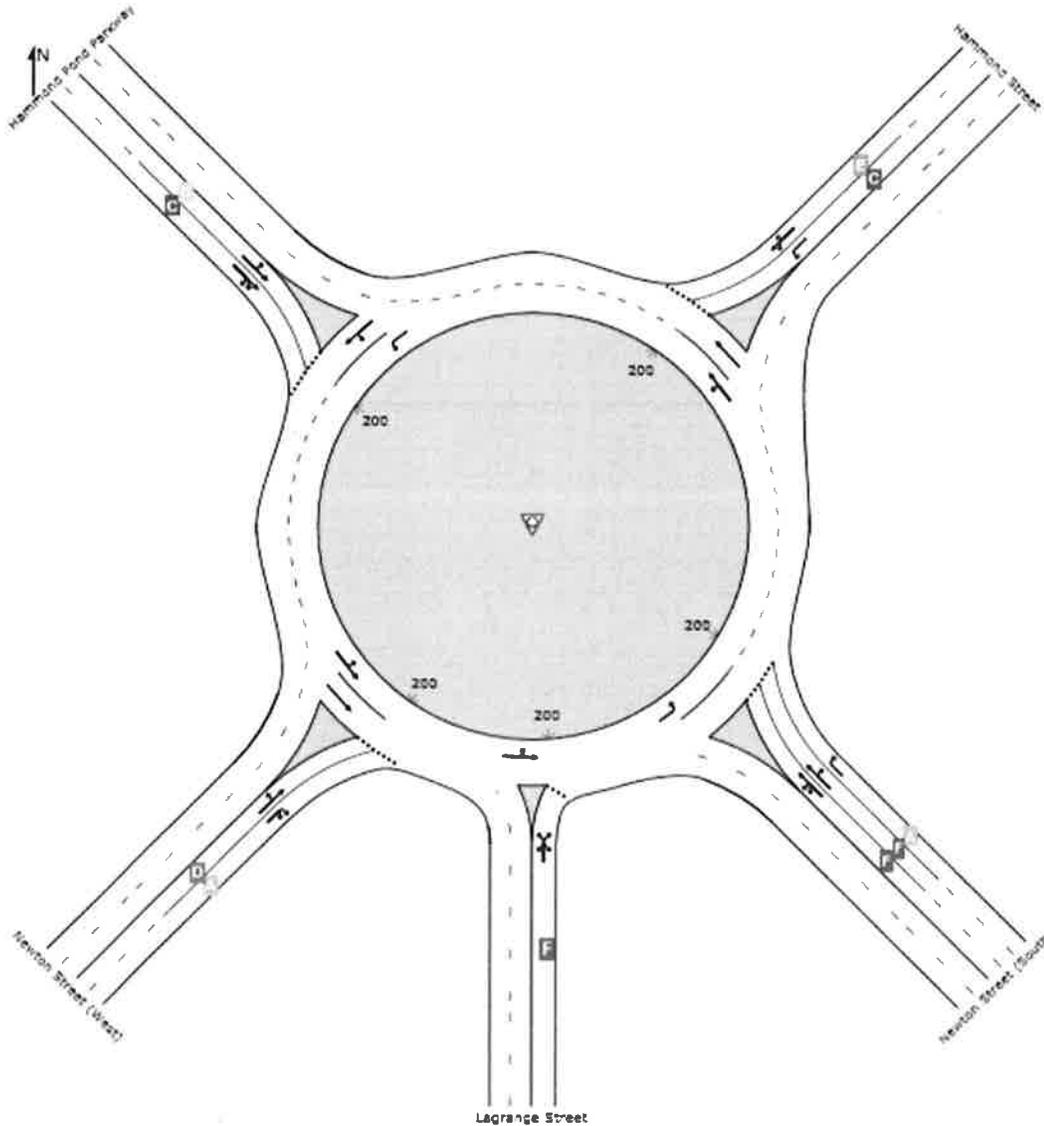
# LEVEL OF SERVICE

Site: Existing AM

New Site  
Roundabout

## All Movement Classes

	South	Southeast	Northeast	Northwest	Southwest	Intersection
LOS	F	F	D	C	D	F



Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

LOS F will result if  $v/c >$  irrespective of lane delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

# MOVEMENT SUMMARY

 Site: Existing PM

New Site  
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
<b>South: Lagrange Street</b>											
3b	L3	14	1.0	1.144	122.4	LOS F	27.1	681.9	1.00	2.55	12.8
3a	L1	178	1.0	1.144	122.4	LOS F	27.1	681.9	1.00	2.55	12.6
18a	R1	254	1.0	1.144	122.4	LOS F	27.1	681.9	1.00	2.55	12.4
18b	R3	4	1.0	1.144	122.4	LOS F	27.1	681.9	1.00	2.55	12.2
Approach		450	1.0	1.144	122.4	LOS F	27.1	681.9	1.00	2.55	12.5
<b>SouthEast: Newton Street (South)</b>											
3bx	L3	4	2.0	0.672	18.1	LOS C	3.8	96.0	0.69	0.77	28.1
3x	L2	244	2.0	0.672	18.1	LOS C	3.8	96.0	0.69	0.77	27.5
8x	T1	726	2.0	0.672	17.8	LOS C	3.8	96.0	0.67	0.75	25.4
18x	R2	163	2.0	0.103	0.0	LOS A	0.0	0.0	0.00	0.00	34.9
Approach		1137	2.0	0.672	15.3	LOS C	3.8	96.0	0.58	0.65	26.9
<b>NorthEast: Hammond Street</b>											
1x	L2	108	1.0	0.236	11.5	LOS B	0.7	16.7	0.65	0.66	26.2
1ax	L1	297	1.0	1.461	241.5	LOS F	77.3	1949.2	1.00	6.26	7.5
6x	T1	409	1.0	1.461	241.5	LOS F	77.3	1949.2	1.00	6.26	7.5
16x	R2	2	1.0	1.461	241.5	LOS F	77.3	1949.2	1.00	6.26	7.4
Approach		815	1.0	1.461	211.1	LOS F	77.3	1949.2	0.95	5.52	8.3
<b>NorthWest: Hammond Pond Parkway</b>											
7x	L2	17	1.0	1.069	83.3	LOS F	24.3	611.2	1.00	2.68	15.0
4x	T1	686	1.0	1.069	83.1	LOS F	24.6	620.2	1.00	2.68	14.7
14ax	R1	415	1.0	1.069	81.9	LOS F	24.6	620.2	1.00	2.71	14.6
14x	R2	162	1.0	1.069	81.9	LOS F	24.6	620.2	1.00	2.71	14.4
Approach		1280	1.0	1.069	82.6	LOS F	24.6	620.2	1.00	2.69	14.6
<b>SouthWest: Newton Street (West)</b>											
5x	L2	31	1.0	0.398	15.9	LOS C	1.2	31.1	0.73	0.77	30.0
2x	T1	138	1.0	0.398	15.9	LOS C	1.2	31.1	0.73	0.77	29.2
12x	R2	97	1.0	0.249	13.3	LOS B	0.7	17.6	0.71	0.72	28.8
12bx	R3	2	1.0	0.249	13.3	LOS B	0.7	17.6	0.71	0.72	28.4
Approach		269	1.0	0.398	15.0	LOS B	1.2	31.1	0.72	0.75	29.1
All Vehicles		3951	1.3	1.461	89.7	LOS F	77.3	1949.2	0.85	2.54	14.4

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

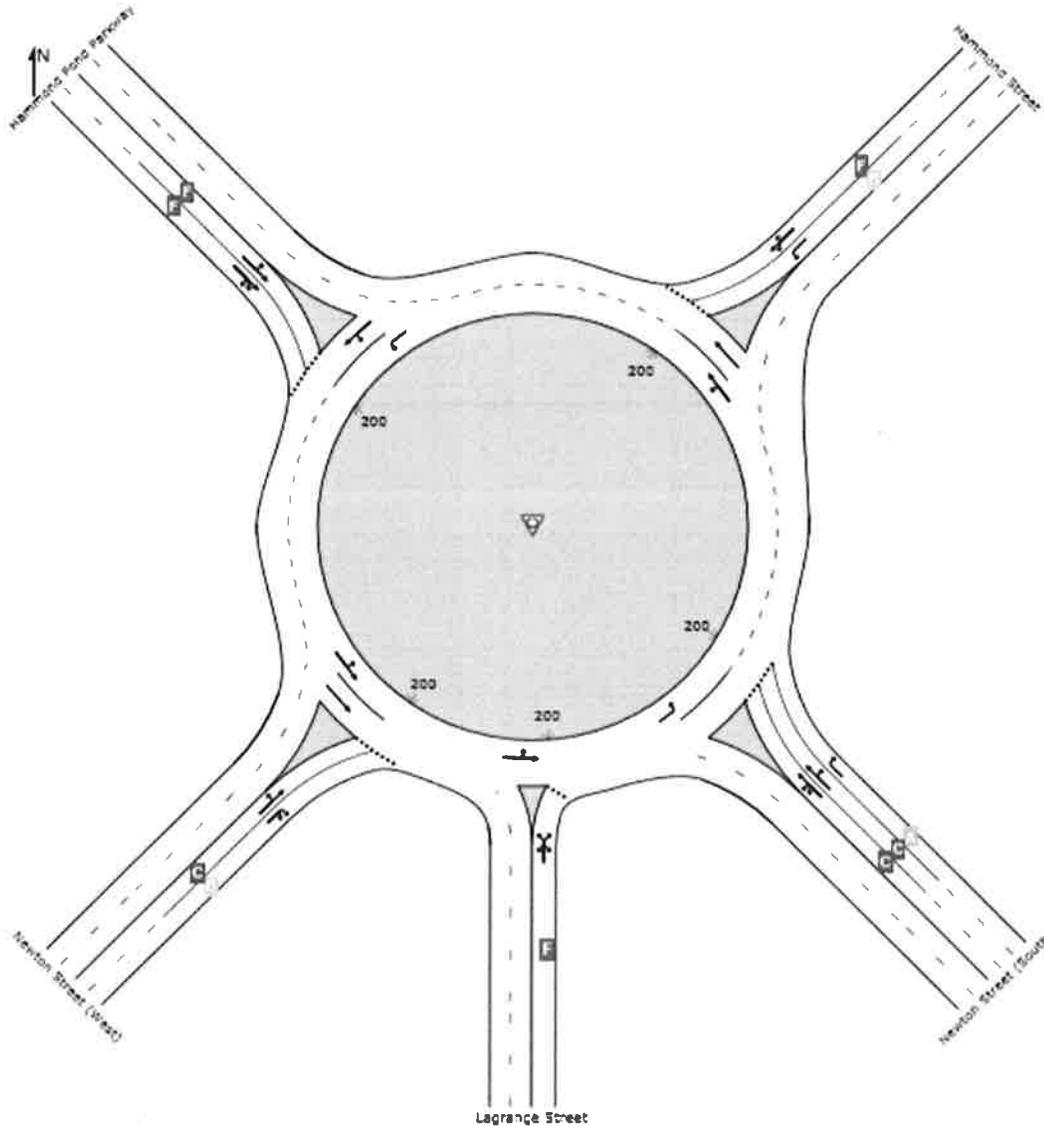
# LEVEL OF SERVICE

Site: Existing PM

New Site  
Roundabout

## All Movement Classes

	South	Southeast	Northeast	Northwest	Southwest	Intersection
LOS	F	C	F	F	B	F



Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

LOS F will result if  $v/c >$  irrespective of lane delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

# MOVEMENT SUMMARY

 Site: No-Build AM

New Site  
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
<b>South: Lagrange Street</b>											
3b	L3	1	2.0	1.707	354.9	LOS F	91.0	2311.4	1.00	4.94	5.6
3a	L1	104	2.0	1.707	354.9	LOS F	91.0	2311.4	1.00	4.94	5.6
18a	R1	521	2.0	1.707	354.9	LOS F	91.0	2311.4	1.00	4.94	5.6
18b	R3	7	2.0	1.707	354.9	LOS F	91.0	2311.4	1.00	4.94	5.5
Approach		633	2.0	1.707	354.9	LOS F	91.0	2311.4	1.00	4.94	5.6
<b>SouthEast: Newton Street (South)</b>											
3bx	L3	1	1.0	1.418	219.0	LOS F	82.7	2083.8	1.00	4.94	8.4
3x	L2	11	1.0	1.418	219.0	LOS F	82.7	2083.8	1.00	4.94	8.4
8x	T1	1625	1.0	1.418	218.4	LOS F	86.0	2167.1	1.00	5.03	8.1
18x	R2	431	1.0	0.271	0.0	LOS A	0.0	0.0	0.00	0.00	34.8
Approach		2069	1.0	1.418	172.9	LOS F	86.0	2167.1	0.79	3.98	9.6
<b>NorthEast: Hammond Street</b>											
1x	L2	161	3.0	0.399	16.7	LOS C	1.3	32.2	0.74	0.80	24.8
1ax	L1	93	3.0	0.898	52.3	LOS F	5.9	151.6	0.92	1.39	18.2
6x	T1	175	3.0	0.898	52.3	LOS F	5.9	151.6	0.92	1.39	18.1
16x	R2	118	3.0	0.898	52.3	LOS F	5.9	151.6	0.92	1.39	17.6
Approach		547	3.0	0.898	41.9	LOS E	5.9	151.6	0.87	1.22	19.6
<b>NorthWest: Hammond Pond Parkway</b>											
7x	L2	114	1.0	0.620	14.7	LOS B	3.4	86.1	0.62	0.69	26.2
4x	T1	381	1.0	0.620	14.7	LOS B	3.4	86.1	0.62	0.69	25.4
14ax	R1	383	1.0	0.802	23.7	LOS C	6.5	163.6	0.78	0.94	23.1
14x	R2	271	1.0	0.802	23.7	LOS C	6.5	163.6	0.78	0.94	22.6
Approach		1148	1.0	0.802	19.8	LOS C	6.5	163.6	0.71	0.83	24.0
<b>SouthWest: Newton Street (West)</b>											
5x	L2	104	3.0	0.838	39.0	LOS E	5.0	126.8	0.87	1.11	23.1
2x	T1	307	3.0	0.838	39.0	LOS E	5.0	126.8	0.87	1.11	22.7
12x	R2	5	3.0	0.016	8.0	LOS A	0.0	1.0	0.58	0.56	30.9
12bx	R3	2	3.0	0.016	8.0	LOS A	0.0	1.0	0.58	0.56	30.4
Approach		419	3.0	0.838	38.5	LOS E	5.0	126.8	0.86	1.10	22.9
All Vehicles		4816	1.5	1.707	133.8	LOS F	91.0	2311.4	0.81	2.79	11.4

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

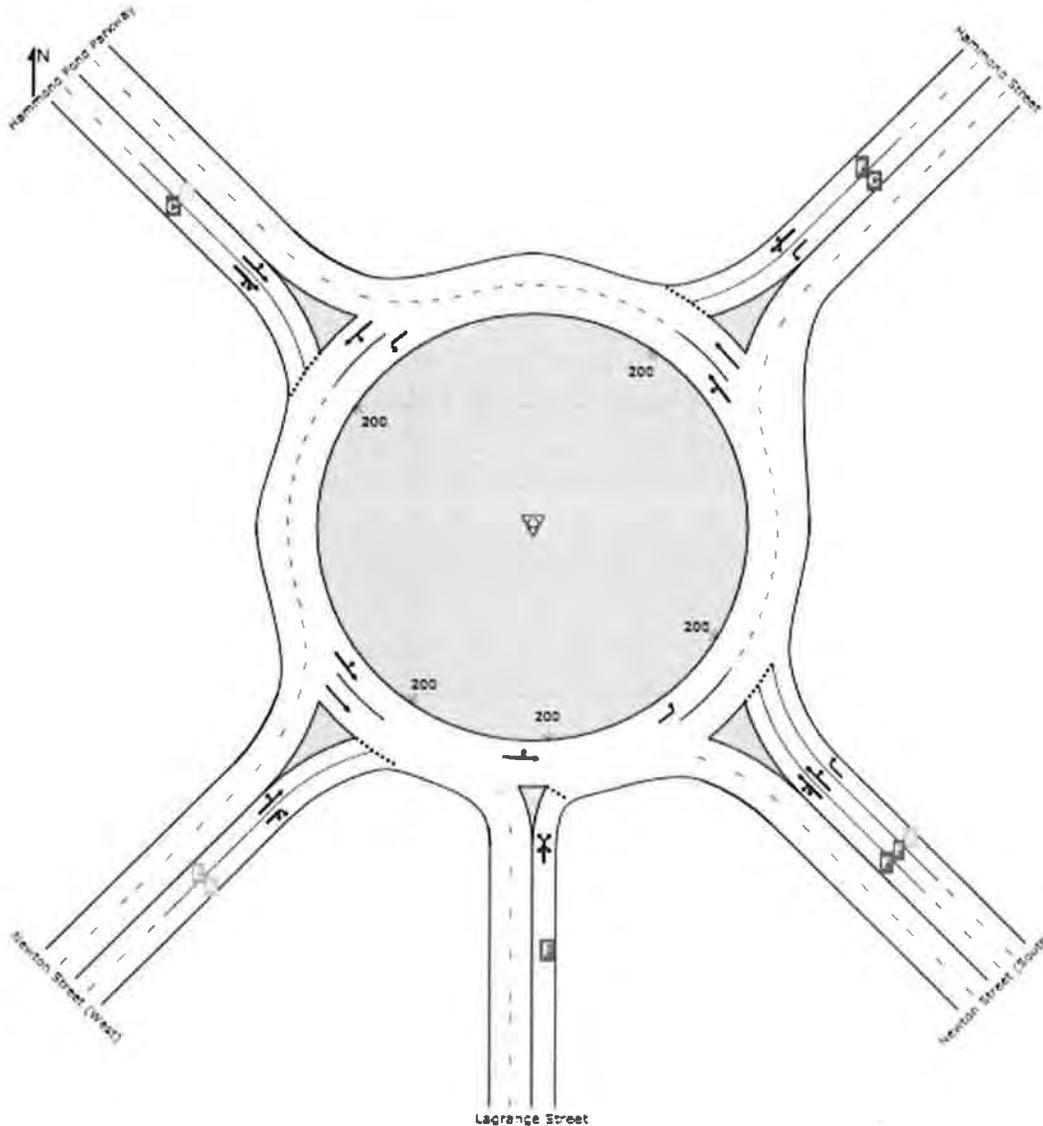
# LEVEL OF SERVICE

Site: No-Build AM

New Site  
Roundabout

## All Movement Classes

	South	Southeast	Northeast	Northwest	Southwest	Intersection
LOS	F	F	E	C	E	F



Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

LOS F will result if  $v/c >$  irrespective of lane delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

# MOVEMENT SUMMARY

 Site: No-Build PM

New Site  
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
<b>South: Lagrange Street</b>											
3b	L3	14	1.0	1.316	188.3	LOS F	46.5	1172.0	1.00	3.45	9.4
3a	L1	208	1.0	1.316	188.3	LOS F	46.5	1172.0	1.00	3.45	9.3
18a	R1	281	1.0	1.316	188.3	LOS F	46.5	1172.0	1.00	3.45	9.2
18b	R3	4	1.0	1.316	188.3	LOS F	46.5	1172.0	1.00	3.45	9.1
Approach		506	1.0	1.316	188.3	LOS F	46.5	1172.0	1.00	3.45	9.3
<b>SouthEast: Newton Street (South)</b>											
3bx	L3	5	2.0	0.727	20.9	LOS C	4.6	116.5	0.73	0.84	27.2
3x	L2	263	2.0	0.727	20.9	LOS C	4.6	116.5	0.73	0.84	26.6
8x	T1	786	2.0	0.727	20.6	LOS C	4.6	116.5	0.72	0.82	24.7
18x	R2	177	2.0	0.112	0.0	LOS A	0.0	0.0	0.00	0.00	34.9
Approach		1231	2.0	0.727	17.7	LOS C	4.6	116.5	0.62	0.71	26.2
<b>NorthEast: Hammond Street</b>											
1x	L2	117	1.0	0.272	12.9	LOS B	0.8	19.9	0.69	0.71	25.8
1ax	L1	347	1.0	1.717	353.3	LOS F	110.2	2776.6	1.00	7.64	5.5
6x	T1	436	1.0	1.717	353.3	LOS F	110.2	2776.6	1.00	7.64	5.5
16x	R2	2	1.0	1.717	353.3	LOS F	110.2	2776.6	1.00	7.64	5.5
Approach		902	1.0	1.717	309.2	LOS F	110.2	2776.6	0.96	6.74	6.2
<b>NorthWest: Hammond Pond Parkway</b>											
7x	L2	19	1.0	1.172	118.7	LOS F	41.2	1039.4	1.00	3.85	12.2
4x	T1	749	1.0	1.172	118.5	LOS F	42.4	1069.7	1.00	3.86	12.1
14ax	R1	462	1.0	1.172	117.4	LOS F	42.4	1069.7	1.00	3.94	11.9
14x	R2	174	1.0	1.172	117.4	LOS F	42.4	1069.7	1.00	3.94	11.8
Approach		1403	1.0	1.172	118.0	LOS F	42.4	1069.7	1.00	3.89	12.0
<b>SouthWest: Newton Street (West)</b>											
5x	L2	34	1.0	0.432	16.9	LOS C	1.4	34.9	0.74	0.80	29.6
2x	T1	149	1.0	0.432	16.9	LOS C	1.4	34.9	0.74	0.80	28.8
12x	R2	102	1.0	0.264	13.7	LOS B	0.8	19.0	0.71	0.73	28.7
12bx	R3	2	1.0	0.264	13.7	LOS B	0.8	19.0	0.71	0.73	28.3
Approach		288	1.0	0.432	15.8	LOS C	1.4	34.9	0.73	0.77	28.9
All Vehicles		4330	1.3	1.717	130.7	LOS F	110.2	2776.6	0.87	3.32	11.5

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

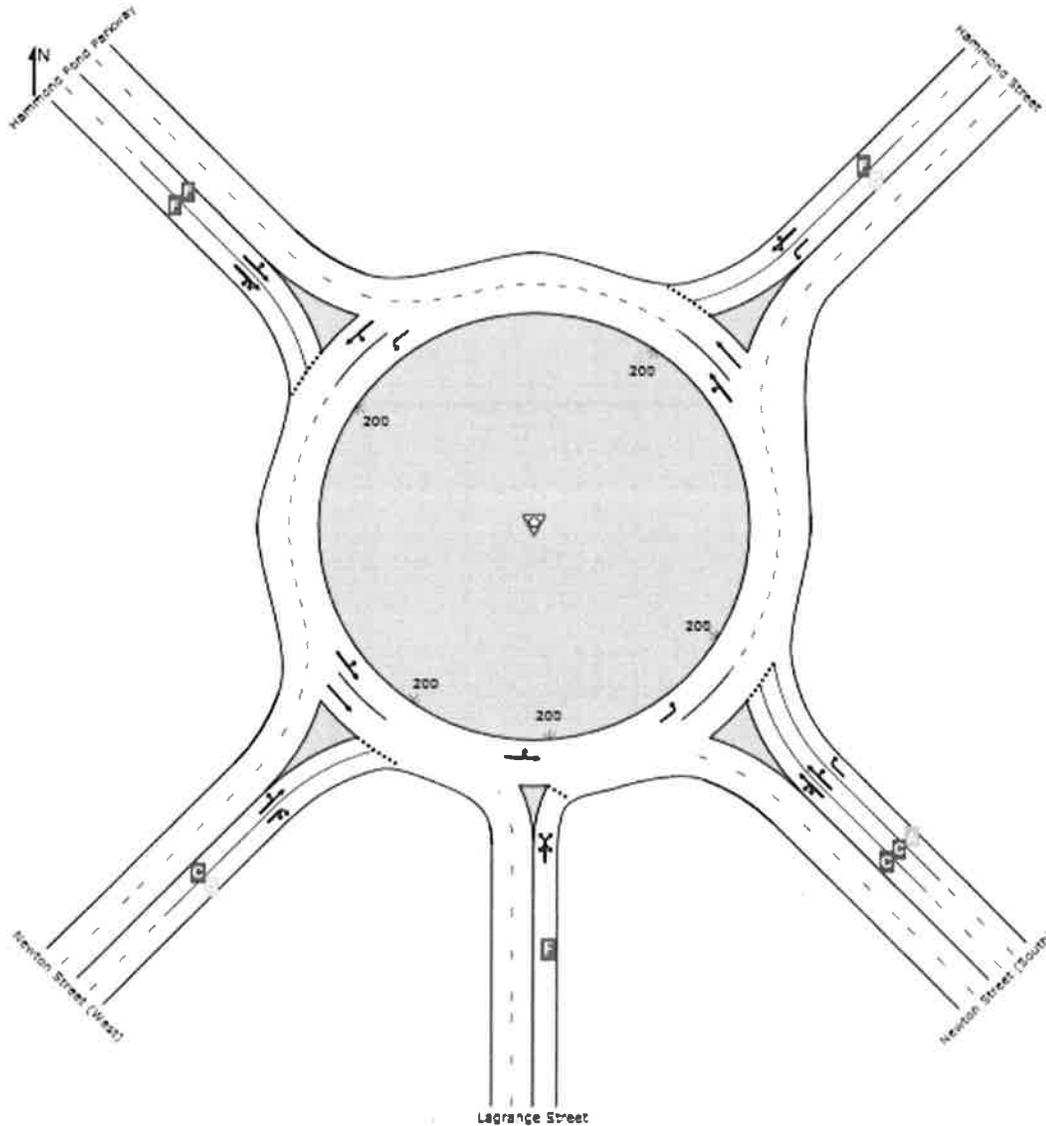
# LEVEL OF SERVICE

Site: No-Build PM

New Site  
Roundabout

## All Movement Classes

	South	Southeast	Northeast	Northwest	Southwest	Intersection
LOS	F	C	F	F	C	F



Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

LOS F will result if  $v/c >$  irrespective of lane delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

# MOVEMENT SUMMARY

 Site: Build AM

New Site  
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
<b>South: Lagrange Street</b>											
3b	L3	1	2.0	1.852	420.2	LOS F	101.3	2573.4	1.00	5.16	4.9
3a	L1	98	2.0	1.852	420.2	LOS F	101.3	2573.4	1.00	5.16	4.8
18a	R1	536	2.0	1.852	420.2	LOS F	101.3	2573.4	1.00	5.16	4.8
18b	R3	7	2.0	1.852	420.2	LOS F	101.3	2573.4	1.00	5.16	4.8
Approach		642	2.0	1.852	420.2	LOS F	101.3	2573.4	1.00	5.16	4.8
<b>SouthEast: Newton Street (South)</b>											
3bx	L3	1	1.0	1.528	266.6	LOS F	100.6	2534.1	1.00	5.54	7.2
3x	L2	12	1.0	1.528	266.6	LOS F	100.6	2534.1	1.00	5.54	7.2
8x	T1	1721	1.0	1.528	266.0	LOS F	104.8	2641.4	1.00	5.65	7.0
18x	R2	602	1.0	0.378	0.1	LOS A	0.0	0.0	0.00	0.00	34.8
Approach		2337	1.0	1.528	197.5	LOS F	104.8	2641.4	0.74	4.19	8.7
<b>NorthEast: Hammond Street</b>											
1x	L2	180	3.0	0.440	17.7	LOS C	1.4	36.9	0.74	0.82	24.6
1ax	L1	129	3.0	1.104	104.8	LOS F	22.2	568.0	1.00	2.94	13.0
6x	T1	227	3.0	1.104	104.8	LOS F	22.2	568.0	1.00	2.94	12.9
16x	R2	128	3.0	1.104	104.8	LOS F	22.2	568.0	1.00	2.94	12.7
Approach		665	3.0	1.104	81.1	LOS F	22.2	568.0	0.93	2.36	14.9
<b>NorthWest: Hammond Pond Parkway</b>											
7x	L2	114	1.0	0.657	16.7	LOS C	3.8	94.6	0.67	0.77	25.6
4x	T1	381	1.0	0.657	16.7	LOS C	3.8	94.6	0.67	0.77	24.9
14ax	R1	383	1.0	0.845	28.7	LOS D	7.4	187.6	0.84	1.07	22.0
14x	R2	271	1.0	0.845	28.7	LOS D	7.4	187.6	0.84	1.07	21.5
Approach		1148	1.0	0.845	23.5	LOS C	7.4	187.6	0.77	0.94	23.1
<b>SouthWest: Newton Street (West)</b>											
5x	L2	106	3.0	0.962	61.8	LOS F	9.2	235.5	0.95	1.51	19.0
2x	T1	352	3.0	0.962	61.8	LOS F	9.2	235.5	0.95	1.51	18.7
12x	R2	5	3.0	0.016	8.2	LOS A	0.0	1.0	0.60	0.59	30.7
12bx	R3	2	3.0	0.016	8.2	LOS A	0.0	1.0	0.60	0.59	30.3
Approach		465	3.0	0.962	60.9	LOS F	9.2	235.5	0.95	1.50	18.9
All Vehicles		5257	1.6	1.852	159.9	LOS F	104.8	2641.4	0.82	3.13	10.1

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

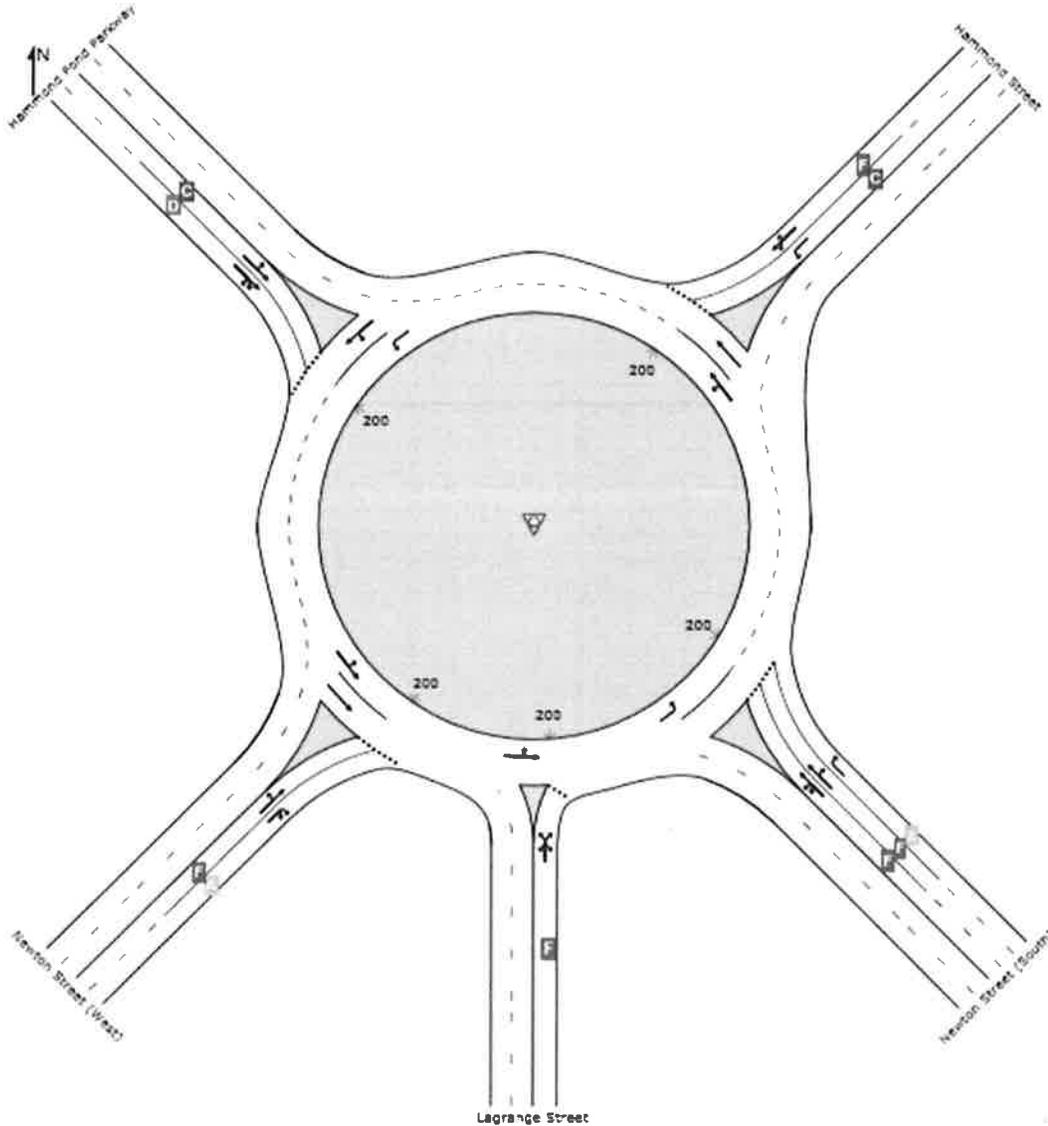
# LEVEL OF SERVICE

 Site: Build AM

New Site  
Roundabout

## All Movement Classes

	South	Southeast	Northeast	Northwest	Southwest	Intersection
LOS	F	F	F	C	F	F



Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

LOS F will result if v/c > 1.0 irrespective of lane delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

# MOVEMENT SUMMARY

 Site: Build PM

New Site  
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
<b>South: Lagrange Street</b>											
3b	L3	14	1.0	1.422	232.3	LOS F	58.4	1471.5	1.00	3.92	8.0
3a	L1	213	1.0	1.422	232.3	LOS F	58.4	1471.5	1.00	3.92	7.9
18a	R1	307	1.0	1.422	232.3	LOS F	58.4	1471.5	1.00	3.92	7.9
18b	R3	4	1.0	1.422	232.3	LOS F	58.4	1471.5	1.00	3.92	7.8
Approach		538	1.0	1.422	232.3	LOS F	58.4	1471.5	1.00	3.92	7.9
<b>SouthEast: Newton Street (South)</b>											
3bx	L3	5	2.0	0.726	21.0	LOS C	4.5	115.2	0.73	0.84	27.2
3x	L2	260	2.0	0.726	21.0	LOS C	4.5	115.2	0.73	0.84	26.6
8x	T1	777	2.0	0.726	20.6	LOS C	4.5	115.2	0.72	0.82	24.7
18x	R2	227	2.0	0.144	0.0	LOS A	0.0	0.0	0.00	0.00	34.8
Approach		1270	2.0	0.726	17.0	LOS C	4.5	115.2	0.59	0.68	26.4
<b>NorthEast: Hammond Street</b>											
1x	L2	117	1.0	0.269	12.6	LOS B	0.8	19.6	0.68	0.70	25.9
1ax	L1	364	1.0	1.756	369.9	LOS F	117.5	2960.7	1.00	7.90	5.3
6x	T1	449	1.0	1.756	369.9	LOS F	117.5	2960.7	1.00	7.90	5.3
16x	R2	1	1.0	1.756	369.9	LOS F	117.5	2960.7	1.00	7.90	5.3
Approach		931	1.0	1.756	325.0	LOS F	117.5	2960.7	0.96	6.99	5.9
<b>NorthWest: Hammond Pond Parkway</b>											
7x	L2	19	1.0	1.175	119.9	LOS F	41.7	1050.5	1.00	3.88	12.2
4x	T1	749	1.0	1.175	119.8	LOS F	42.9	1081.6	1.00	3.89	12.0
14ax	R1	462	1.0	1.175	118.7	LOS F	42.9	1081.6	1.00	3.97	11.9
14x	R2	174	1.0	1.175	118.7	LOS F	42.9	1081.6	1.00	3.97	11.7
Approach		1403	1.0	1.175	119.3	LOS F	42.9	1081.6	1.00	3.93	11.9
<b>SouthWest: Newton Street (West)</b>											
5x	L2	33	1.0	0.478	18.4	LOS C	1.6	40.2	0.76	0.82	29.1
2x	T1	169	1.0	0.478	18.4	LOS C	1.6	40.2	0.76	0.82	28.4
12x	R2	101	1.0	0.262	13.6	LOS B	0.7	18.8	0.71	0.73	28.7
12bx	R3	2	1.0	0.262	13.6	LOS B	0.7	18.8	0.71	0.73	28.3
Approach		306	1.0	0.478	16.8	LOS C	1.6	40.2	0.74	0.79	28.5
All Vehicles		4448	1.3	1.756	139.8	LOS F	117.5	2960.7	0.86	3.43	11.1

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

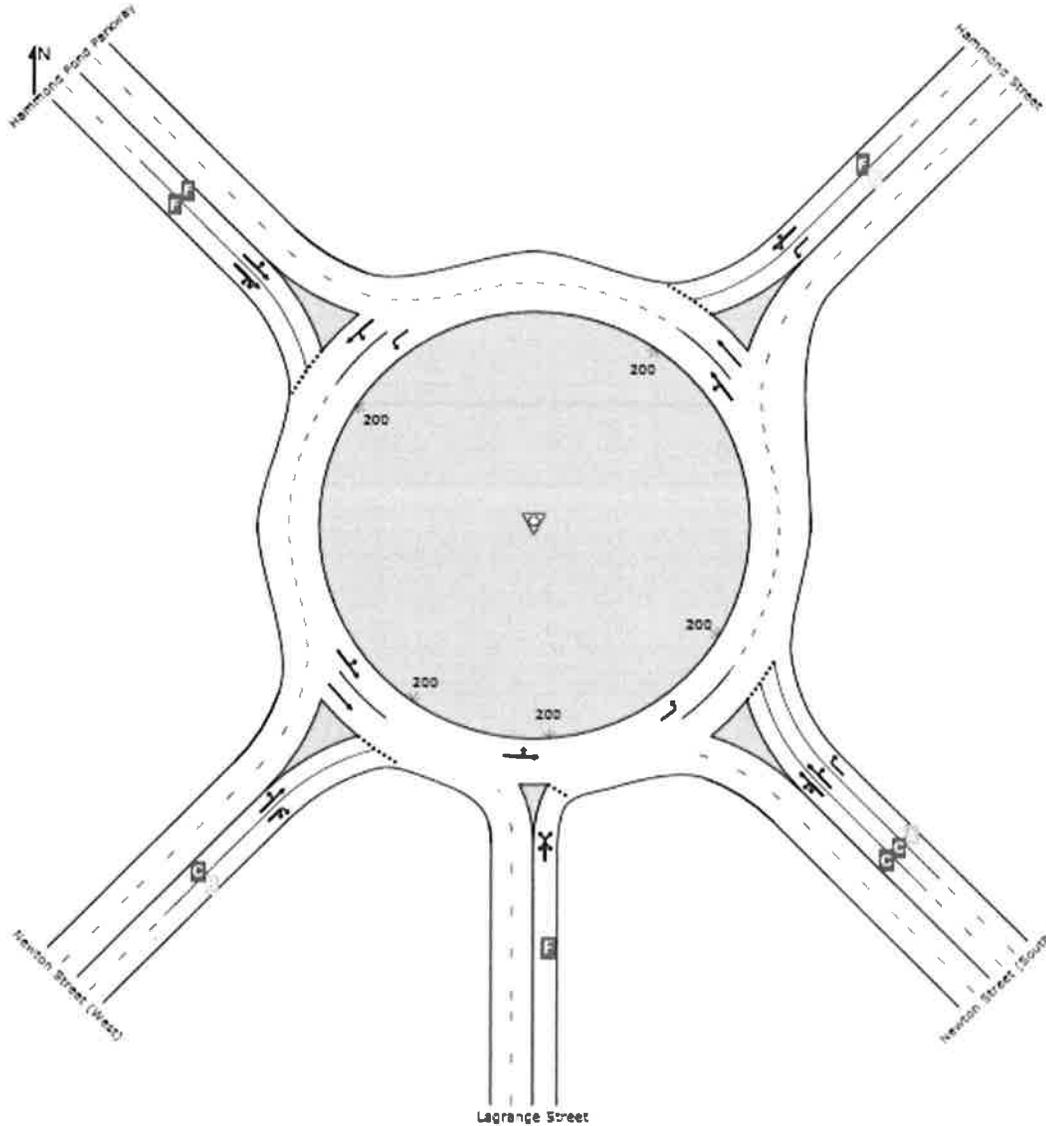
# LEVEL OF SERVICE

 Site: Build PM

New Site  
Roundabout

## All Movement Classes

	South	Southeast	Northeast	Northwest	Southwest	Intersection
LOS	F	C	F	F	C	F



Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

LOS F will result if  $v/c >$  irrespective of lane delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.





#### 4.8 Baldwin School Tree Assessment



**TOWN OF BROOKLINE**  
*Massachusetts*  
**DEPARTMENT OF PUBLIC WORKS**  
PARKS AND OPEN SPACE DIVISION

*Andrew M. Pappastergion*  
Commissioner

*Erin Chute Gallentine*  
Director

**TO:** Erin Gallentine, Director of Parks and Open Space Division  
**FROM:** Thomas Brady MCA, Tree Warden  
**DATE:** March 8, 2017  
**RE:** Tree Assessment for the Baldwin School Site  
**CC:** File

---

Per your request, an assessment of nine significant oak trees located on the Baldwin School site has been completed. The assessment included a ground level inspection by me and Peter Jutras MCA, and an aerial inspection of the crowns of these trees completed by Richard Bailey MCA. The inspections were performed on Monday March 6, 2017. Weather conditions were cold and sunny, and the entire inspection process took approximately six hours to complete. This memo includes a set of general observations regarding the entire site, a site map with the trees numbered for reference, and an assessment for each of the nine trees we reviewed.

**General observations regarding the nine trees:**

The nine oak trees reviewed are all of similar size and age. These oaks have been on site for decades and are well into their life cycle. The assessment which we completed was conducted by viewing the site as it is today, and there were no assumptions made for future site alterations.

The nine trees which we reviewed are located in passive lawn and playground settings. Some have driplines which do extend over the adjacent roadways and parking areas. This type of landscape allows for an extensive root system to support the large mature oak trees and is a significant reason why the oaks are, for the most part, in good condition. The root zone of a tree typically extends three times the height of the tree, and the root zone which exists under the dripline of the tree is considered the critical root zone for the tree. If the root zone were impacted by construction activities this would have clear adverse impact on the trees. Any decline would likely be accelerated due to the advanced age of the Oaks. The age of the trees makes them less able to adapt to the reduction of water and nutrients associated with loss of the feeder roots that would be impacted by excavation or compaction in the root zone.

Information gathered for each tree includes:

*Tree Number* - Indicates the specific tree on the attached map

*Species* - Genus, species and common name for each tree

*Diameter Breast Height (DBH)* – The diameter of the trunk measured 4.5' off the ground

*Notes* - Observations regarding the root zone, the stem, and the crown of each tree as well as any general observations regarding tree health.

*Condition rating* - Overall tree health assigned a rating of Poor, Fair, Good, or Excellent based on the health of the tree at the time of the assessment.

## **Specific Tree Assessments:**

### **Tree number one**

Species: *Quercus rubra*, Northern red oak

DBH: 33.75"

Notes:

- Trunk is sound
- No excessive deadwood
- Good callus growth around old pruning cuts
- Major branch unions in good shape

Condition Rating: Good

### **Tree number two**

Species: *Quercus rubra*, Northern red oak

DBH: 52"

Notes:

- Trunk is sound
- No excessive deadwood
- Good callus growth around old pruning cuts
- Major branch unions in good shape
- Some weight reduction would be beneficial

Condition rating: Good

### **Tree number three**

Species: *Quercus rubra*, Northern red oak

DBH: 47.50"

Notes:

- One small abnormality on the trunk but no rot is visible
- No excessive deadwood
- Good callus growth around old pruning cuts
- Major branch unions in good shape
- Some weight reduction on the longest, lowest limbs is needed

Condition rating: Good

### **Tree number four**

Species: *Quercus rubra*, Northern red oak

DBH: 36"

Notes:

- Trunk is sound
- Good root flare
- Light deadwood in the crown
- Some light decay in one 6" limb
- Light crown pruning would be appropriate

Condition rating: Good

**Tree number five**

Species: Quercus rubra, Northern red oak

DBH: 38.50"

Notes:

- Trunk is sound
- No excessive deadwood
- Good callus growth around old pruning cuts
- Major branch unions are a little tight but still in good shape
- Some pruning to stimulate new growth would be beneficial

Condition rating: Good

**Tree number six**

Species: Quercus rubra, Northern red oak

DBH: 51.50"

Notes:

- Grade around the tree was altered in the past and buried a portion of the root flare
- Trunk has old frost cracks
- Some 6"+ deadwood
- Early signs of decay in some of the major branch unions
- Weight reduction would be beneficial

Condition rating: Fair

**Tree number seven**

Species: Quercus rubra, Northern red oak

DBH: 42.50"

Notes:

- Trunk is sound
- Girdling roots are present
- Some light decay in one branch union
- Light crown pruning would be appropriate

Condition rating: Good

**Tree number eight**

Species : Quercus alba, White oak

DBH: 45"

Notes:

- Trunk is sound
- No excessive deadwood
- Good callus growth around old pruning cuts
- Major branch unions in good shape
- Some weight reduction would be beneficial

Condition rating: Good

**Tree number nine**

Species : Quercus rubra, Northern red oak

DBH: 43"

Notes:

- The tree appears to be perched on ledge and is suffering as a result due to the lack of good soil for proper root development
- Trunk has several old frost cracks and small pockets of decay
- Fruiting bodies are evident which is an indication of decay
- Excessive sucker growth in the canopy
- Crown shows signs of epicormic branching
- Weight reduction would be beneficial

Condition rating: Poor

I feel that by utilizing a team approach, with three Massachusetts Certified Arborists, we have completed a comprehensive assessment of the trees in question. I am hopeful the information contained herein is beneficial.

I would be happy to engage in further discussions as feasibility plans are developed and a more detailed set of site plans is issued. A detailed set of plans which include grading, utility, and building footprint information would allow for a much more thorough analysis of construction impacts. Please do not hesitate to reach out with any questions or concerns you may have.



333 Washington Street ♦ Brookline, Massachusetts 02445-6863  
Telephone: (617) 730-2088 Facsimile: (617) 713-3727  
[www.brookline.ma.gov](http://www.brookline.ma.gov)





#### 4.9 Soule Playground Recreation Building Historic Record

# Massachusetts Cultural Resource Information System

## Scanned Record Cover Page

<b>Inventory No:</b>	BKL.1599
<b>Historic Name:</b>	Wright, John G. Stable and Carriage House
<b>Common Name:</b>	Soule Playground Recreation Building
<b>Address:</b>	652 Hammond St
<b>City/Town:</b>	Brookline
<b>Village/Neighborhood:</b>	Chestnut Hill
<b>Local No:</b>	1
<b>Year Constructed:</b>	1897
<b>Architect(s):</b>	Chapman, Frazer and Bliss
<b>Architectural Style(s):</b>	English Revival
<b>Use(s):</b>	Other Recreational; Other Road Related; Private School
<b>Significance:</b>	Architecture; Recreation; Transportation
<b>Area(s):</b>	BKL.O: Chestnut Hill Historic District BKL.W: Brookline Multiple Resource Area
<b>Designation(s):</b>	Nat'l Register District (10/17/1985); Nat'l Register MRA (10/17/1985)
<b>Building Materials(s):</b>	Roof: Asphalt Shingle Wall: Half Timbering; Stucco; Wood



The Massachusetts Historical Commission (MHC) has converted this paper record to digital format as part of ongoing projects to scan records of the Inventory of Historic Assets of the Commonwealth and National Register of Historic Places nominations for Massachusetts. Efforts are ongoing and not all inventory or National Register records related to this resource may be available in digital format at this time.

The MACRIS database and scanned files are highly dynamic; new information is added daily and both database records and related scanned files may be updated as new information is incorporated into MHC files. Users should note that there may be a considerable lag time between the receipt of new or updated records by MHC and the appearance of related information in MACRIS. Users should also note that not all source materials for the MACRIS database are made available as scanned images. Users may consult the records, files and maps available in MHC's public research area at its offices at the State Archives Building, 220 Morrissey Boulevard, Boston, open M-F, 9-5.

Users of this digital material acknowledge that they have read and understood the MACRIS Information and Disclaimer (<http://mhc-macris.net/macrisdisclaimer.htm>)

Data available via the MACRIS web interface, and associated scanned files are for information purposes only. THE ACT OF CHECKING THIS DATABASE AND ASSOCIATED SCANNED FILES DOES NOT SUBSTITUTE FOR COMPLIANCE WITH APPLICABLE LOCAL, STATE OR FEDERAL LAWS AND REGULATIONS. IF YOU ARE REPRESENTING A DEVELOPER AND/OR A PROPOSED PROJECT THAT WILL REQUIRE A PERMIT, LICENSE OR FUNDING FROM ANY STATE OR FEDERAL AGENCY YOU MUST SUBMIT A PROJECT NOTIFICATION FORM TO MHC FOR MHC'S REVIEW AND COMMENT. You can obtain a copy of a PNF through the MHC web site ([www.sec.state.ma.us/mhc](http://www.sec.state.ma.us/mhc)) under the subject heading "MHC Forms."

Commonwealth of Massachusetts  
Massachusetts Historical Commission  
220 Morrissey Boulevard, Boston, Massachusetts 02125  
[www.sec.state.ma.us/mhc](http://www.sec.state.ma.us/mhc)

This file was accessed on: Wednesday, February 22, 2017 at 11:53 AM

FORM B - BUILDING

MASSACHUSETTS HISTORICAL COMMISSION  
Office of the Secretary, State House, Boston

In Area no. O, W	Form no. 1599
---------------------	------------------

BKL 1599



Town Brookline  
 Address Entrance off Hammond Street  
 Name Soule Recreation Building  
 Present use Soule Playground  
 Present owner Town of Brookline  
 Description:  
 Date 1897  
 Source Brookline Building Permit  
 Style Medieval Revival

4. Map. Draw sketch of building location in relation to nearest cross streets and other buildings. Indicate north.

Architect Chapman, Frazer & Bliss  
 Exterior wall fabric Stucco  
 Outbuildings (describe) Small shed  
 Other features Wide bargeboards w/dormer half-timbering; scalloped bargeboards on dormer; polygonal, 2-story turret w/extended and exposed rafters; diamond paned glass in upper sashes; pitch roof; assym. massing  
 Altered  \* Date sm. cupola  
 Moved No Date —

\* 1942 - convert stable into classrooms for Rivers School.

5. Lot size: 418,625 sq. ft.  
 One acre or less  Over one acre   
 Approximate frontage 640'  
 Approximate distance of building from street 600'

6. Recorded by Benka and Larkin  
 Organization BHC  
 Date Oct. 1979

(over)

125/432-27-30

7. Original owner (if known) John G. Wright

Original use Stable and carriage house

Subsequent uses (if any) and dates 1942- converted into classrooms for Rivers Country School  
1961- recreation center- Town of Brookline

8. Themes (check as many as applicable)

Aboriginal	<input type="checkbox"/>	Conservation	<input type="checkbox"/>	Recreation	<input checked="" type="checkbox"/>
Agricultural	<input type="checkbox"/>	Education	<input checked="" type="checkbox"/>	Religion	<input type="checkbox"/>
Architectural	<input checked="" type="checkbox"/>	Exploration/ settlement	<input type="checkbox"/>	Science/ invention	<input type="checkbox"/>
The Arts	<input type="checkbox"/>	Industry	<input type="checkbox"/>	Social/ humanitarian	<input type="checkbox"/>
Commerce	<input type="checkbox"/>	Military	<input type="checkbox"/>	Transportation	<input type="checkbox"/>
Communication	<input type="checkbox"/>	Political	<input type="checkbox"/>		
Community development	<input type="checkbox"/>				

9. Historical significance (include explanation of themes checked above)

Hammond Street in Brookline extends south and southwest from Route 9 to the Horace James Circle. It was named for Jonathan Hammond who owned a house on Heath Street and undeveloped land in Brookline and Newton during the 1700's.

The Soule Recreation Center, named for Augustus Soule, a Brookline Park Commissioner, was originally the stable and carriage house on the John G. Wright estate. Wright, a Boston wool merchant who, in 1861, lived on Walnut Street in Brookline, purchased land from Thomas Quimby, a farmer, and hired Chapman Frazer, and Bliss to design the main house (now demolished, see attached photo) and this building.

The influence of the Medieval Revival style is clearly seen in the half timbered gable, wide bargeboards with drops, scalloped bargeboards of the dormers and diamond pane windows.

In 1942, the carriage house and main building were purchased by the Rivers School (now located in Weston) and converted into classrooms and administrative offices. In 1961, the Town purchased the property for recreational purposes. In 1963, the house burned down, but the carriage house still serves as a reminder of the large estate which was once located here.

This building meets NR criteria A and C, representing what remains of a typical Brookline country estate, designed by the well-known firm of

10. Bibliography and/or references (such as local histories, deeds, assessor's records, Chapman, Frazer and Bliss early maps, etc.)

- Permit-1897, 1942, 1944, 1946, 1952
- Atlas-1888, 1893, 1897, 1900
- Directory-1897-1899
- Boston Directory-1890-95
- Tax list-1861

FORM B - BUILDING

MASSACHUSETTS HISTORICAL COMMISSION  
Office of the Secretary, State House, Boston

PP - CHESTNUT  
H 11

NRDKS  
MRTA

In Area no. <u>D, W</u>	Form no. 1257432 -27-30
----------------------------	-------------------------------

June #300

BKL. 1599



own Brookline

Address Entrance off Hammond Street

Name \_\_\_\_\_

Present use Soule Playground

Present owner Town of Brookline

Description:

Date 1897

Source Brookline Building Permit

Style Medieval Revival

4. Map. Draw sketch of building location in relation to nearest cross streets and other buildings. Indicate north.

Architect Chapman, Frazer & Bliss

Exterior wall fabric Stucco

Outbuildings (describe) Small shed

Other features Wide bargeboards w/drops; half-timbering; scalloped bargeboards on dormer; polygonal, 2-story turret w/extended and exposed rafter ends; diamond paned glass in upper sashes; pitch roof; assym. massing; Altered \* Date sm. cupola.

Moved No Date \_\_\_\_\_

\* 1942 - convert stable into classrooms for Rivers School.

5. Lot size: 418,625 sq. ft.

One acre or less \_\_\_\_\_ Over one acre X

Approximate frontage 640'

Approximate distance of building from street 600'

6. Recorded by Benka and Larkin

Organization BHC

Date Oct. 1979

(over)

7. Original owner (if known) John G. Wright

Original use Stable and carriage house

Subsequent uses (if any) and dates 1942- converted into classrooms for Rivers Country School  
1961- recreation center- Town of Brookline

8. Themes (check as many as applicable)

Aboriginal	<input type="checkbox"/>	Conservation	<input type="checkbox"/>	Recreation	<input checked="" type="checkbox"/>
Agricultural	<input type="checkbox"/>	Education	<input checked="" type="checkbox"/>	Religion	<input type="checkbox"/>
Architectural	<input checked="" type="checkbox"/>	Exploration/ settlement	<input type="checkbox"/>	Science/ invention	<input type="checkbox"/>
The Arts	<input type="checkbox"/>	Industry	<input type="checkbox"/>	Social/ humanitarian	<input type="checkbox"/>
Commerce	<input type="checkbox"/>	Military	<input type="checkbox"/>	Transportation	<input type="checkbox"/>
Communication	<input type="checkbox"/>	Political	<input type="checkbox"/>		
Community development	<input type="checkbox"/>				

9. Historical significance (include explanation of themes checked above)

Hammond Street in Brookline extends south and southwest from Route 9 to the Horace James Circle. It was named for Jonathan Hammond who owned a house on Heath Street and undeveloped land in Brookline and Newton during the 1700's.

The Soule Recreation Center, named for Augustus Soule, a Brookline Park Commissioner, was originally the stable and carriage house on the John G. Wright estate. Wright, a Boston wool merchant who, in 1861, lived on Walnut Street in Brookline, purchased land from Thomas Quimby, a farmer, and hired Chapman Frazer, and Bliss to design the main house (now demolished, see attached photo) and this building.

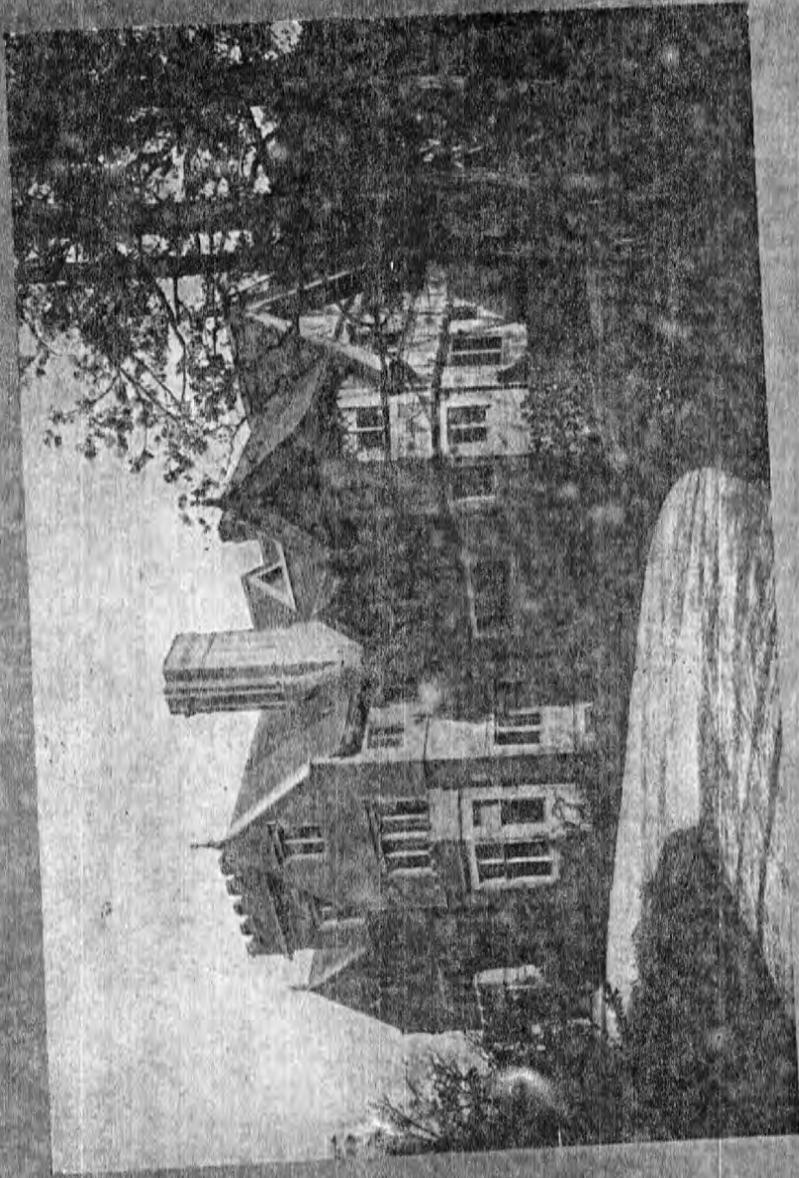
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10. Bibliography and/or references (such as local histories, deeds, assessor's records, early maps, etc.)

- Permit-1897, 1942, 1944, 1946, 1952
- Atlas-1888, 1893, 1897, 1900
- Directory-1897-1899
- Boston Directory-1890-95
- Tax list-1861

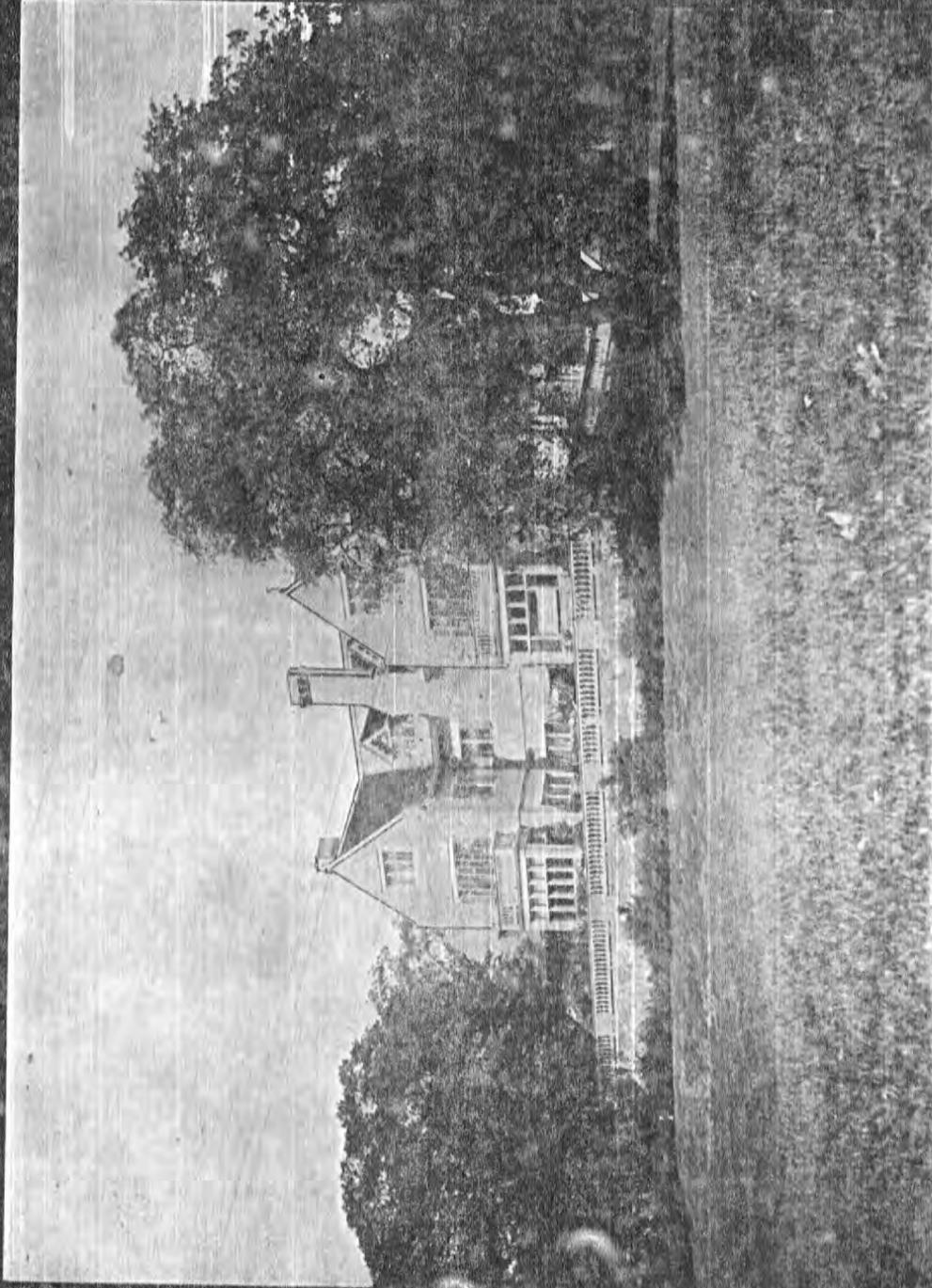
BKL.1599



House of Mr. Andrew Adie

*Mr. Demblished*

BK1 1899



John G. Wright House.

Woodland Road, Chestnut Hill.

*Demolished*

# Massachusetts Cultural Resource Information System

## Scanned Record Cover Page

<b>Inventory No:</b>	BKL.1598
<b>Historic Name:</b>	Wright, John Gatehouse
<b>Common Name:</b>	
<b>Address:</b>	648 Hammond St
<b>City/Town:</b>	Brookline
<b>Village/Neighborhood:</b>	Chestnut Hill
<b>Local No:</b>	2
<b>Year Constructed:</b>	1908
<b>Architect(s):</b>	Chapman and Frazer
<b>Architectural Style(s):</b>	English Revival
<b>Use(s):</b>	Single Family Dwelling House
<b>Significance:</b>	Architecture
<b>Area(s):</b>	BKL.O: Chestnut Hill Historic District BKL.W: Brookline Multiple Resource Area
<b>Designation(s):</b>	Nat'l Register District (10/17/1985); Nat'l Register MRA (10/17/1985)
<b>Building Materials(s):</b>	Roof: Asphalt Shingle Wall: Half Timbering; Stucco; Wood Foundation: Stone, Uncut



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The MACRIS database and scanned files are highly dynamic; new information is added daily and both database records and related scanned files may be updated as new information is incorporated into MHC files. Users should note that there may be a considerable lag time between the receipt of new or updated records by MHC and the appearance of related information in MACRIS. Users should also note that not all source materials for the MACRIS database are made available as scanned images. Users may consult the records, files and maps available in MHC's public research area at its offices at the State Archives Building, 220 Morrissey Boulevard, Boston, open M-F, 9-5.

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Commonwealth of Massachusetts  
Massachusetts Historical Commission  
220 Morrissey Boulevard, Boston, Massachusetts 02125  
[www.sec.state.ma.us/mhc](http://www.sec.state.ma.us/mhc)

This file was accessed on: Wednesday, February 22, 2017 at 11:45 AM

P. CHENUT Hill

NRD15/MRIA

FORM B - BUILDING

MASSACHUSETTS HISTORICAL COMMISSION

In Area no.	Form no.
0 W	2 1598



n Brookline BKL 1598  
 ress 648 Hammond Street  
 ie NA  
 sent use Residential  
 sent owner M. R. Hunter  
 cription:  
 e 1908  
 Source Brookline Building Permit  
 e Medieval Revival

4. Map. Draw sketch of building location in relation to nearest cross streets and other buildings. Indicate north.

Architect Chapman and Frazer  
 Exterior wall fabric Half-timbering  
Stucco



Outbuildings (describe) None  
 Other features 2 1/2 stories; gable roof; cross gable; eyelid dormer; banded windows; half timbering on 2nd floor; extended cornice w/ heavy modillion; side gabled portico w/stick-style pediment ornament.  
 Altered 15x15 addition Date 1949  
 install cement block wall on 2 sides of Moved No Date porch  
 Lot size: 8428 sq. ft.  
 One acre or less  Over one acre   
 Approximate frontage 55'  
 Approximate distance of building from street 10'

6. Recorded by Greenan and Benka  
 Organization B/C  
 Date Oct, 1979

(over)

125/432-10

7. Original owner (if known) John Wright  
 Original use Estate gatehouse  
 Subsequent uses (if any) and dates residential

8. Themes (check as many as applicable)

Aboriginal	<input type="checkbox"/>	Conservation	<input type="checkbox"/>	Recreation	<input type="checkbox"/>
Agricultural	<input type="checkbox"/>	Education	<input type="checkbox"/>	Religion	<input type="checkbox"/>
Architectural	<input checked="" type="checkbox"/>	Exploration/ settlement	<input type="checkbox"/>	Science/ invention	<input type="checkbox"/>
The Arts	<input type="checkbox"/>	Industry	<input type="checkbox"/>	Social/ humanitarian	<input type="checkbox"/>
Commerce	<input type="checkbox"/>	Military	<input type="checkbox"/>	Transportation	<input type="checkbox"/>
Communication	<input type="checkbox"/>	Political	<input type="checkbox"/>		
Community development	<input type="checkbox"/>				

9. Historical significance (include explanation of themes checked above)

Number 648 Hammond Street is the second of two extant buildings which were originally part of the John Wright estate. Wright, a Boston wool merchant who lived on Walnut Street in Brookline in 1861, purchased land from Thomas Quimby, a farmer, at the end of the 19th century and hired Chapman and Frazer to build a large house and carriage house (see form for Soule Recreation Center on Hammond St.). Chapman and Frazer also designed this gatehouse in 1908. Its style, while not identical to that of the other two buildings, is still in the romantic, medieval revival vein, and if the half timbering were painted a dark color, this gatehouse would more clearly resemble the carriage house. The handsome stone wall outside #648 is part of the wall which once surrounded the entire estate.

10. Bibliography and/or references (such as local histories, deeds, assessor's records, early maps, etc.)

Permit-1908, 1949  
 Tax list-1907-1909, 1861  
 Atlas-1888, 1893, 1897, 1900, 1907, 1913  
 Directory-1908

FORM B - BUILDING

MASSACHUSETTS HISTORICAL COMMISSION  
Office of the Secretary, State House, Boston

*19 - CHESTNUT Hill*

*NRD'S  
MRM  
dup*

*1598 1376*

In Area no. <i>O, W</i>	Form no. 1257432- 10
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Town Brookline *BKL. 1598*

Address 648 Hammond Street

Name \_\_\_\_\_

Present use Residential

Present owner M. R. Hunter

Description:

Date 1908

Source Brookline Building Permit

Style Medieval Revival

4. Map. Draw sketch of building location in relation to nearest cross streets and other buildings. Indicate north.

Architect Chapman and Frazer

Half-timbering

Exterior wall fabric Stucco

Outbuildings (describe) None

Other features 2 1/2 stories; gable roof; cross gable; eyelid dormer; banded windows; half timbering on 2nd floor; extended cornice w/ heavy modillions; side gabled portico w/stick-style pediment ornament.

Altered 15x15 addition Date 1949

install cement block wall on 2 sides of

Moved No Date porch -1948

5. Lot size: 8428 sq. ft.

One acre or less X Over one acre \_\_\_\_\_

Approximate frontage 55'

Approximate distance of building from street 10'

6. Recorded by Greenan and Benka

Organization BHC

Date Oct. 1979

(over)

7. Original owner (if known) John Wright  
 Original use Estate gatehouse  
 Subsequent uses (if any) and dates \_\_\_\_\_

8. Themes (check as many as applicable)

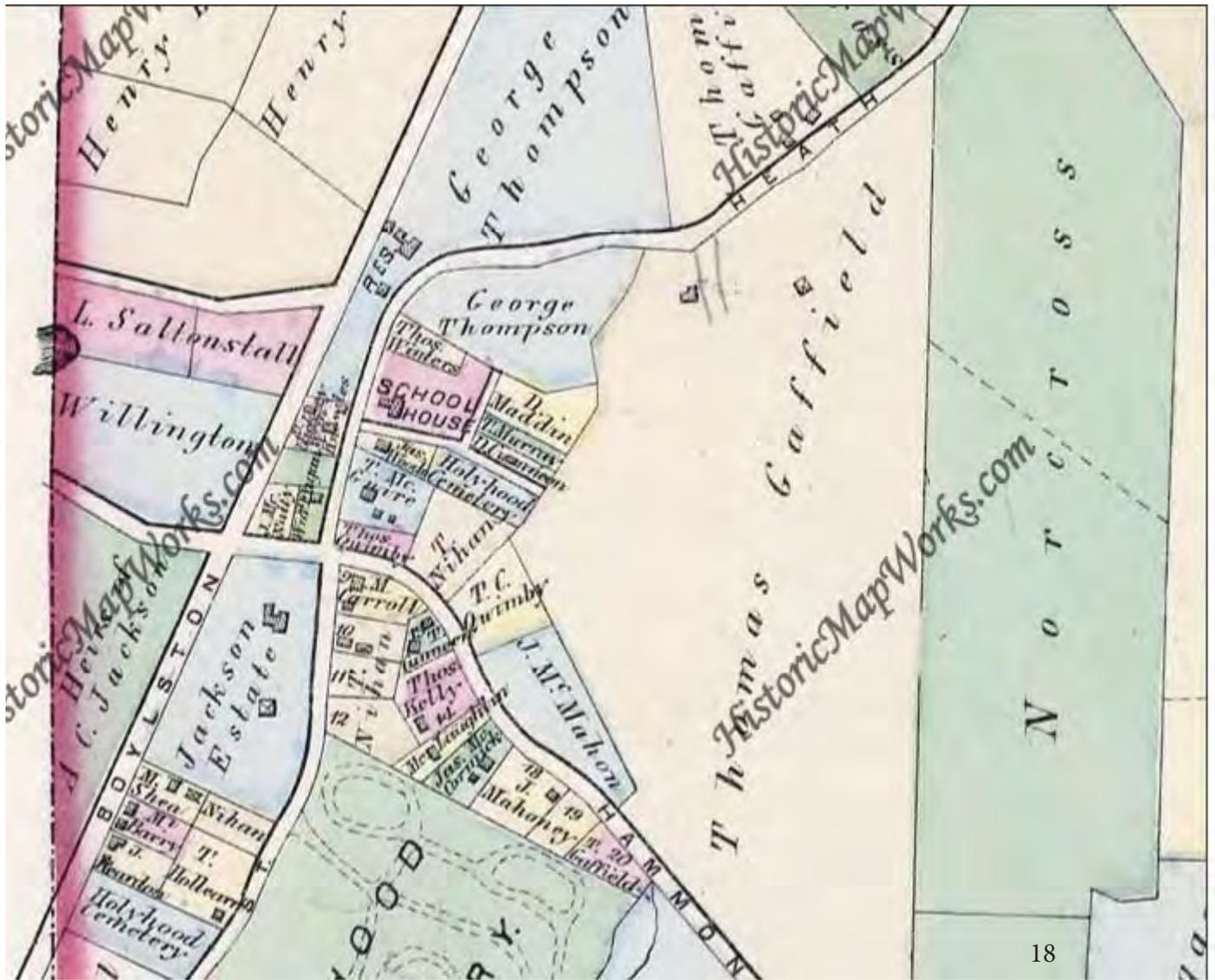
Aboriginal	_____	Conservation	_____	Recreation	_____
Agricultural	_____	Education	_____	Religion	_____
Architectural	<u>x</u>	Exploration/ settlement	_____	Science/ invention	_____
The Arts	_____	Industry	_____	Social/ humanitarian	_____
Commerce	_____	Military	_____	Transportation	_____
Communication	_____	Political	_____		
Community development	_____				

9. Historical significance (include explanation of themes checked above)

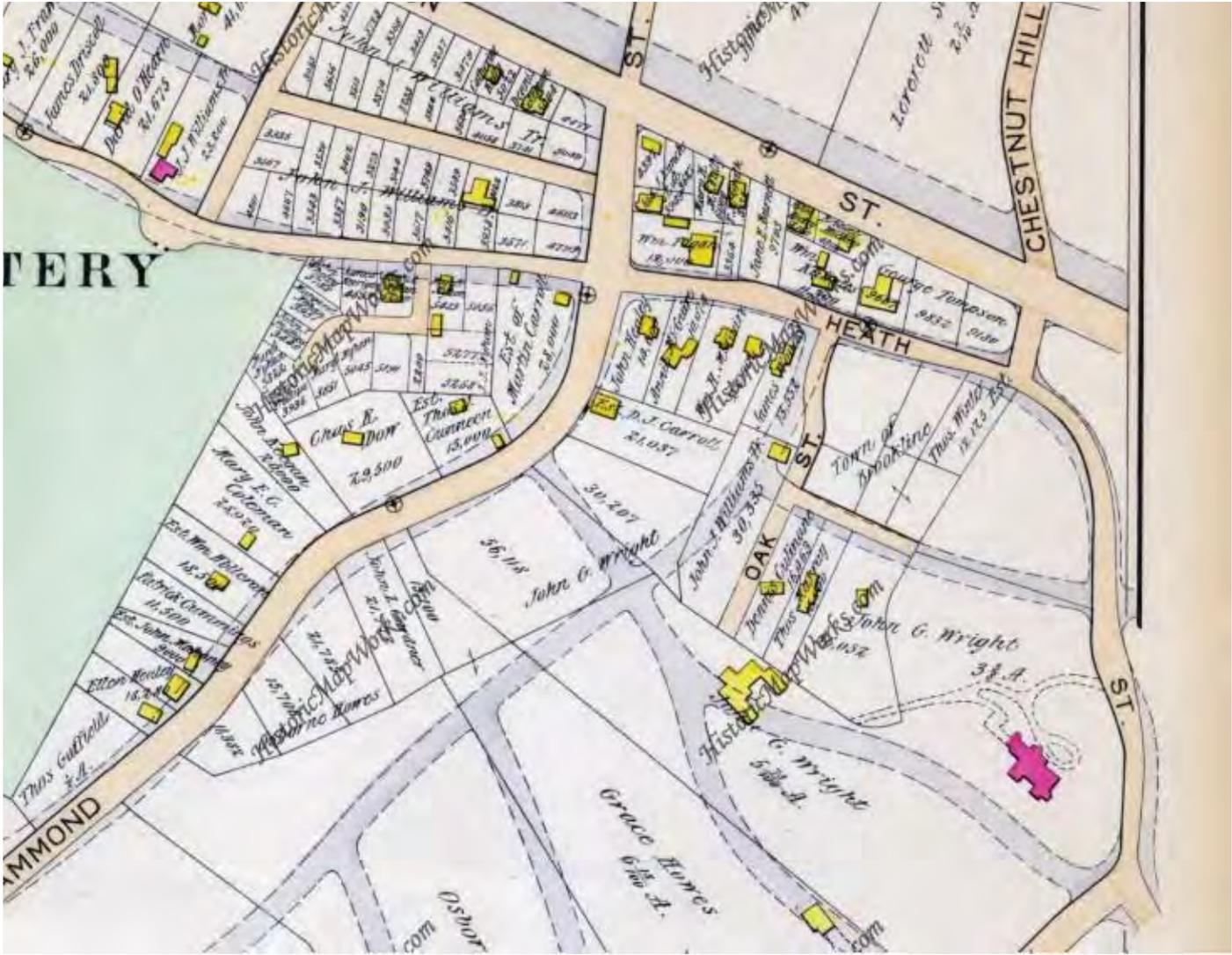
Number 648 Hammond Street is the second of two extant buildings which were originally part of the John Wright estate. Wright, a Boston wool merchant who lived on Walnut Street in Brookline in 1861, purchased land from Thomas Quimby, a farmer, at the end of the 19th century and hired Chapman and Frazer to build a large house and carriage house (see form for Soule Recreation Center on Hammond St.). Chapman and Frazer also designed this gatehouse in 1908. Its style, while not identical to that of the other two buildings, is still in the romantic, medieval revival vein, and if the half timbering were painted a dark color, this gatehouse would more clearly resemble the carriage house. The handsome stone wall outside #648 is part of the wall which once surrounded the entire estate.

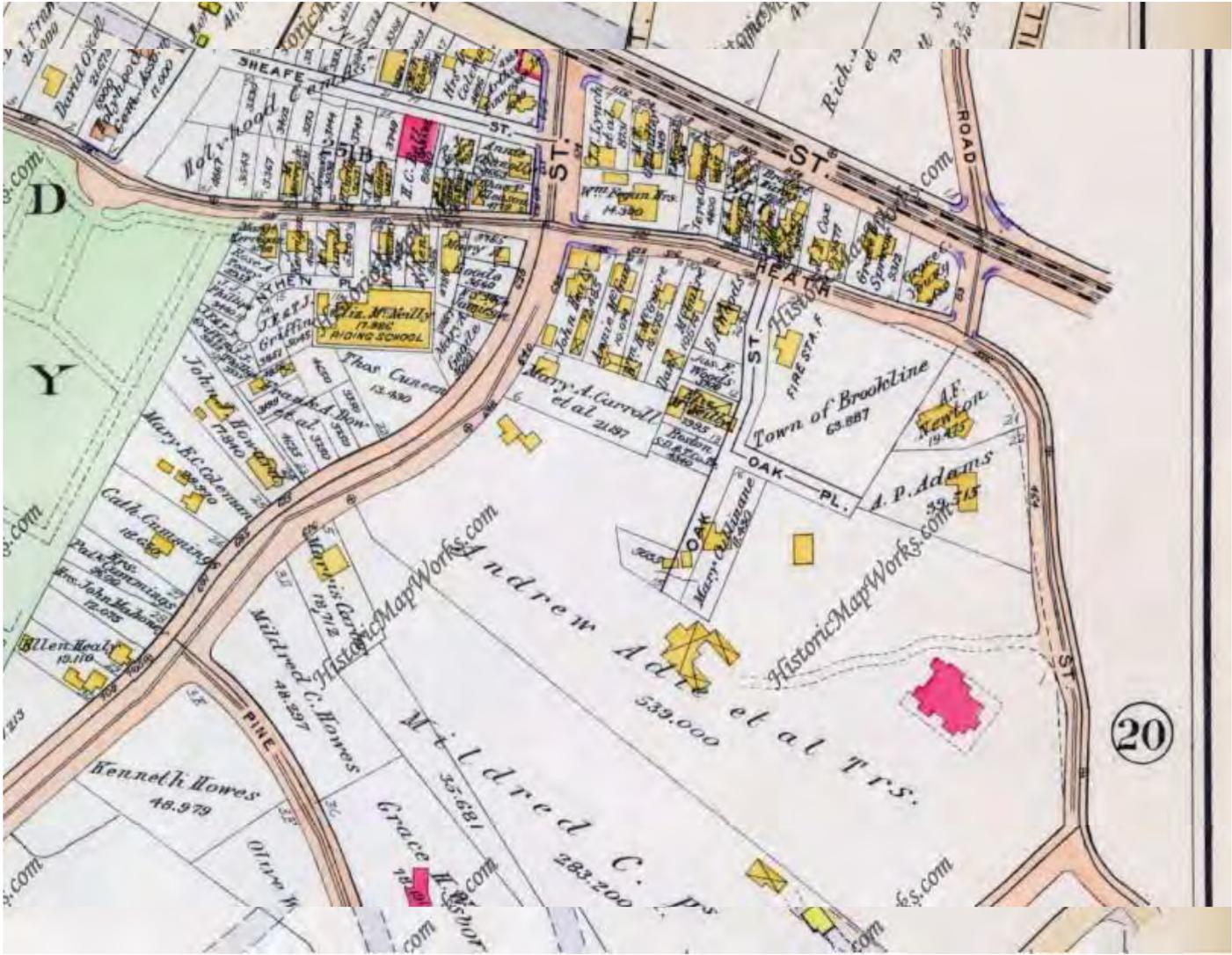
10. Bibliography and/or references (such as local histories, deeds, assessor's records, early maps, etc.)

Permit-1908, 1949  
 Tax list-1907-1909, 1861  
 Atlas-1888, 1893, 1897, 1900, 1907, 1913  
 Directory-1908













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