

Traffic Advisory Meeting

2019 FEB 25 PM 2:10

November 8, 2018

Members present: Larry Mac Donald, Dana Miller, Donald Mercier, Tomi Olson, Peter Curro, Mary Gavin

BPD - Ass. Chief Jamie McIssac, Sgt. Ben Mailhot

.Meeting called to order at 7:09

Approval of minutes

June 2018, Moved Dana, Seconded, approved

September 2018, Moved Dana , seconded, Approved

October 2018, Moved Dana, Seconded, Approved

Business

Glenn Clancy introduced B.S.C. Group presentation

Glenn noted that the data needs to be evaluated. Goal is to discover measures to improve traffic flow.

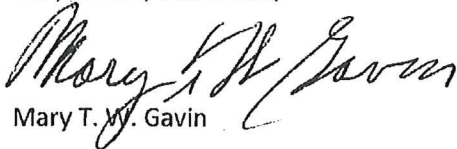
General discussion followed.

New Business:

Glenn and Sgt Mailhot received letters from Payson Park Church requesting two hour parking. TAC will take it up in December.

Dana moved to adjourn at 8:53

Respectfully submitted,


Mary T. W. Gavin

12/13/18 APPROVED

11/8/18. Traffic Advisory Committee

Name

Address

CHIP GAYSUNAS

330 PAYSON RD

Patrice Gann

Town Administration

Aida Savas

25 Oxford Ave.

Ron Sacco

27 LAMOND ST.

Camille Fillion

3 Sandrick Rd

Jean Malin

30 Goden St

Deborah Talami

17 Oak St

Gigi Saltonstall

JF Gorastyn

" " "



Traffic Advisory Committee TOWN OF BELMONT

19 Moore Street
Homer Municipal Building
Belmont, Massachusetts 02478-0900
Telephone: (617) 993-2650 Fax: (617) 993-2651

Laurence Macdonald, Chair
Dana Miller, Vice Chair

Peter Curro
Mary Gavin
Michael Lanza
Donald Mercier
Tommasina Olson
Raymond P. Ausrotas

Date: November 2, 2018

To: Members – Traffic Advisory Committee

From: Glenn R. Clancy, Committee Liaison

Subject: Agenda for Meeting on **Thursday, November 8, 2018 at 7:00 PM in Homer Building, Third Floor Gallery.** If you cannot attend the meeting, please contact me via e-mail.

7:00 – 7:15 Approval of Minutes (May 10, 2018, June 14, 2018, September 13, 2018)

7:15 – 8:45 Town Wide Traffic Study

- Presentation of Findings

8:45 – 8:50 Old Business

- No Known Items

8:50 – 8:55 New Business

- No Known Items

8:55 Adjourn

Note: Times are tentative depending on the flow of the meeting, the time of any particular item may deviate ten to fifteen minutes from the schedule.

Cc: Patrice Garvin, Town Administrator
Sgt Ben Mailhot, Belmont Police Department
Richard McLaughlin, Belmont Police Chief
Jay Marcotte, Director, Department of Public Works

9/13/18 - Approved 11/8/18

Town of Belmont Townwide Traffic Study

Traffic Advisory Committee Meeting

November 08, 2018



TOWN OF BELMONT



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Purpose of Study

- Analyze current travel patterns,
- Determine the extent of cut-through traffic,
- Identify strategies to eliminate, reduce, or mitigate cut-through traffic volumes.



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Study Objectives

- Improve safety for all users
- Eliminate, reduce, or mitigate cut-through traffic
- Reduce congestion/improve or maintain access



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Key Findings

- Regional congestion contributes to cut-through traffic in Belmont
- High percentage of cut-through traffic is from immediate adjacent towns
- Peak traffic flow is generally directional based on time of day
- Neighborhoods near congested main roads experience high cut-through traffic volumes

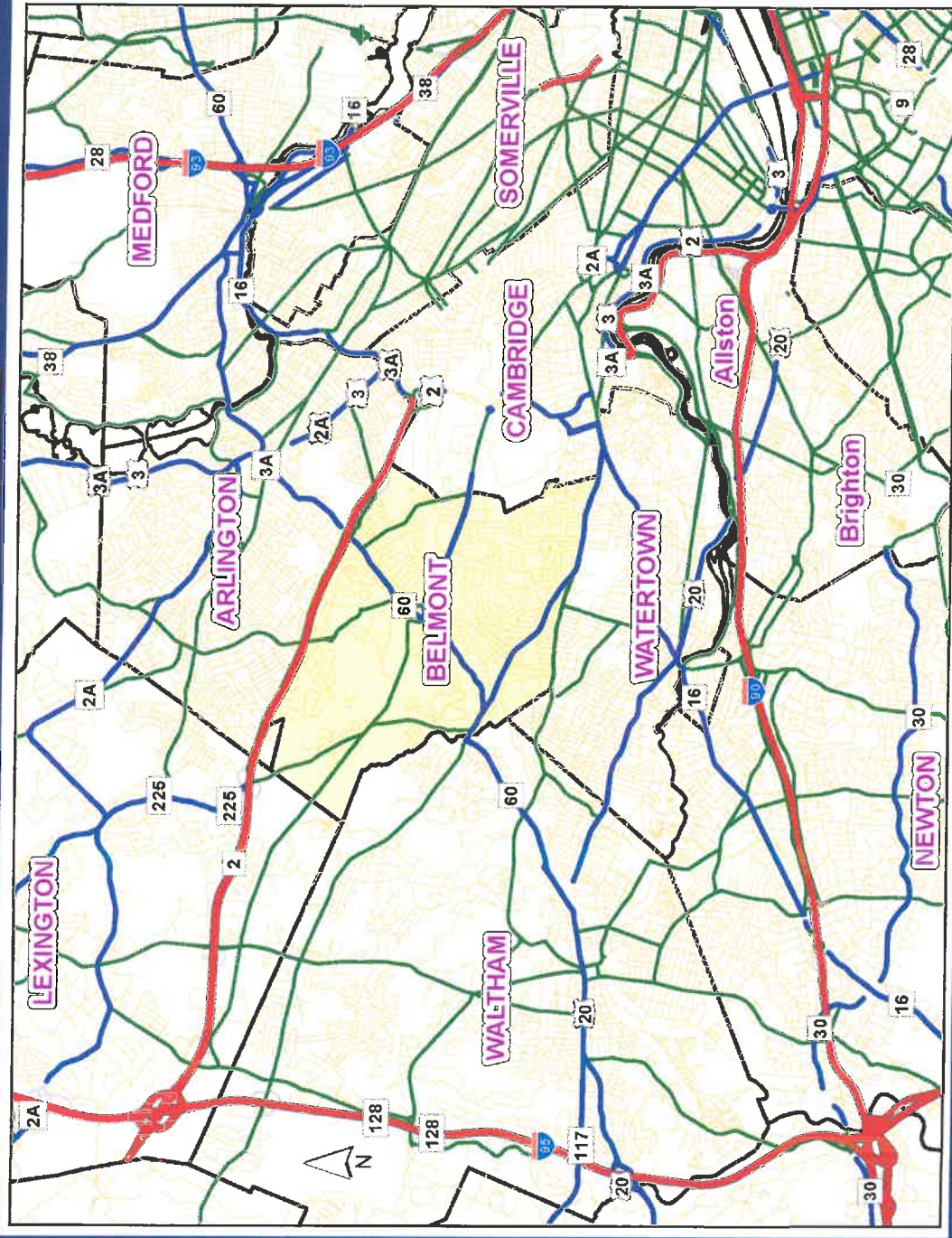


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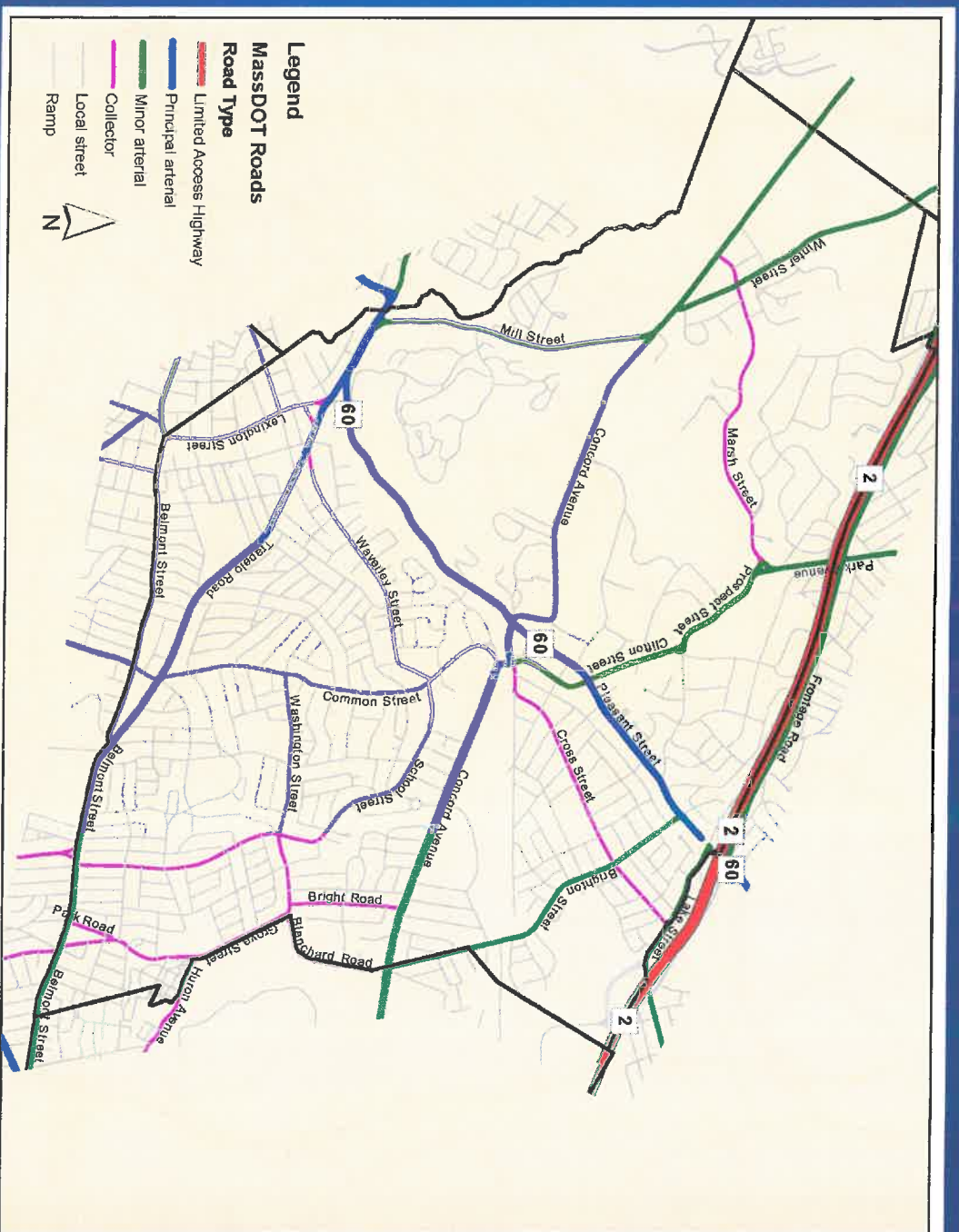
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Regional Context



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Roadway Functional Classification



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Summary of TAC and Community

Concerns

- Heavy congestion on Belmont streets
- Cut-through traffic worsened by navigational apps
- Speeding through neighborhood streets
- Pedestrian and bicycle safety
- School traffic contributing to AM congestion
- Lack of enforcement of existing traffic regulations

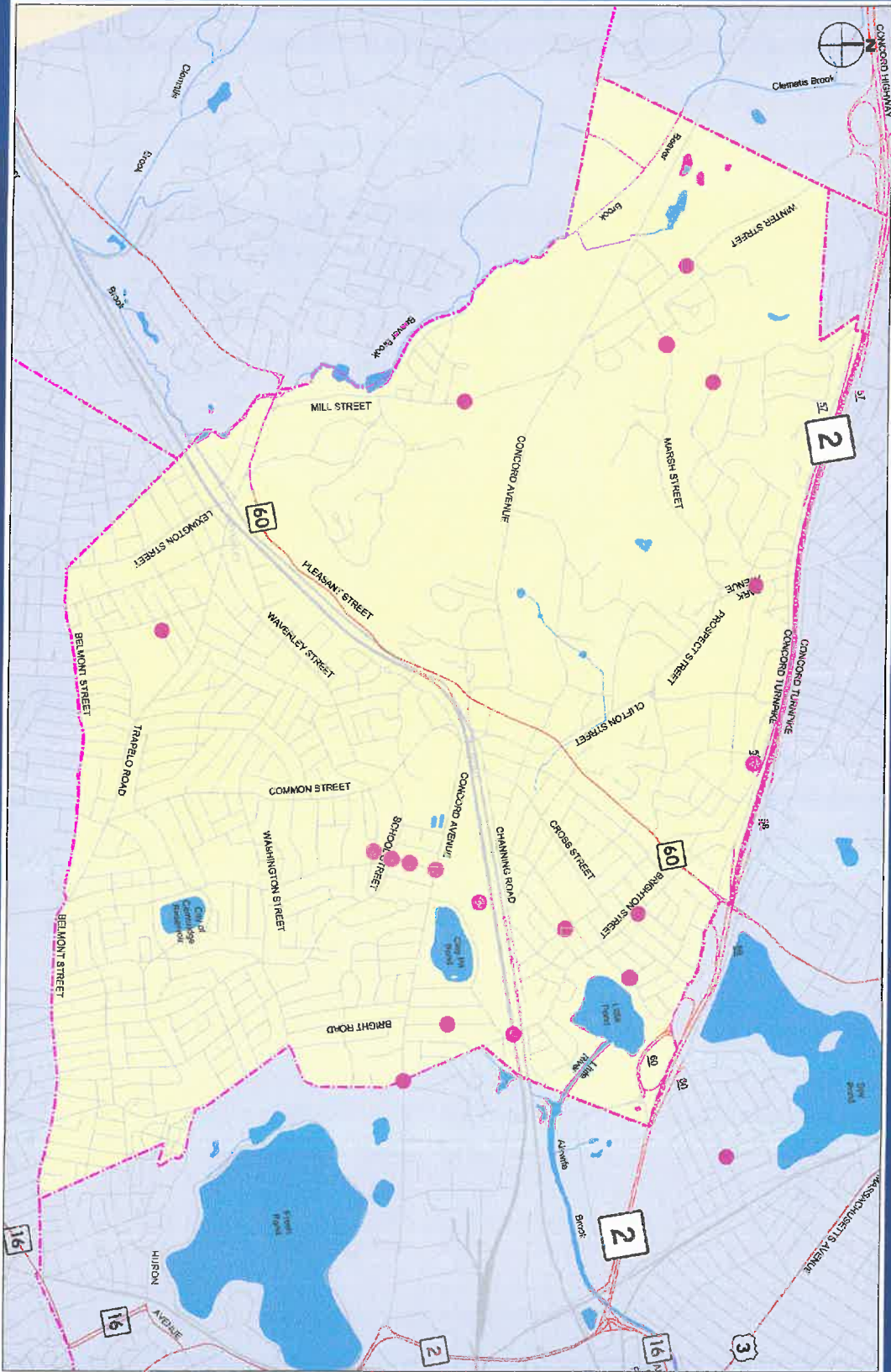


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Resident Concerns Map



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Data Collection

- 12-Hour Turning Movement counts at 22 locations:
 - **Pedestrians; Bicycles; Vehicles**
- Recording of media access control (MAC) address of Wi-Fi enabled devices at 11 locations to determine:
 - **Travel times; Cut-through traffic**
- 48-hour automated traffic recording (ATR) counts at 3 locations
- License Plate surveys by Belmont Police at 7 locations



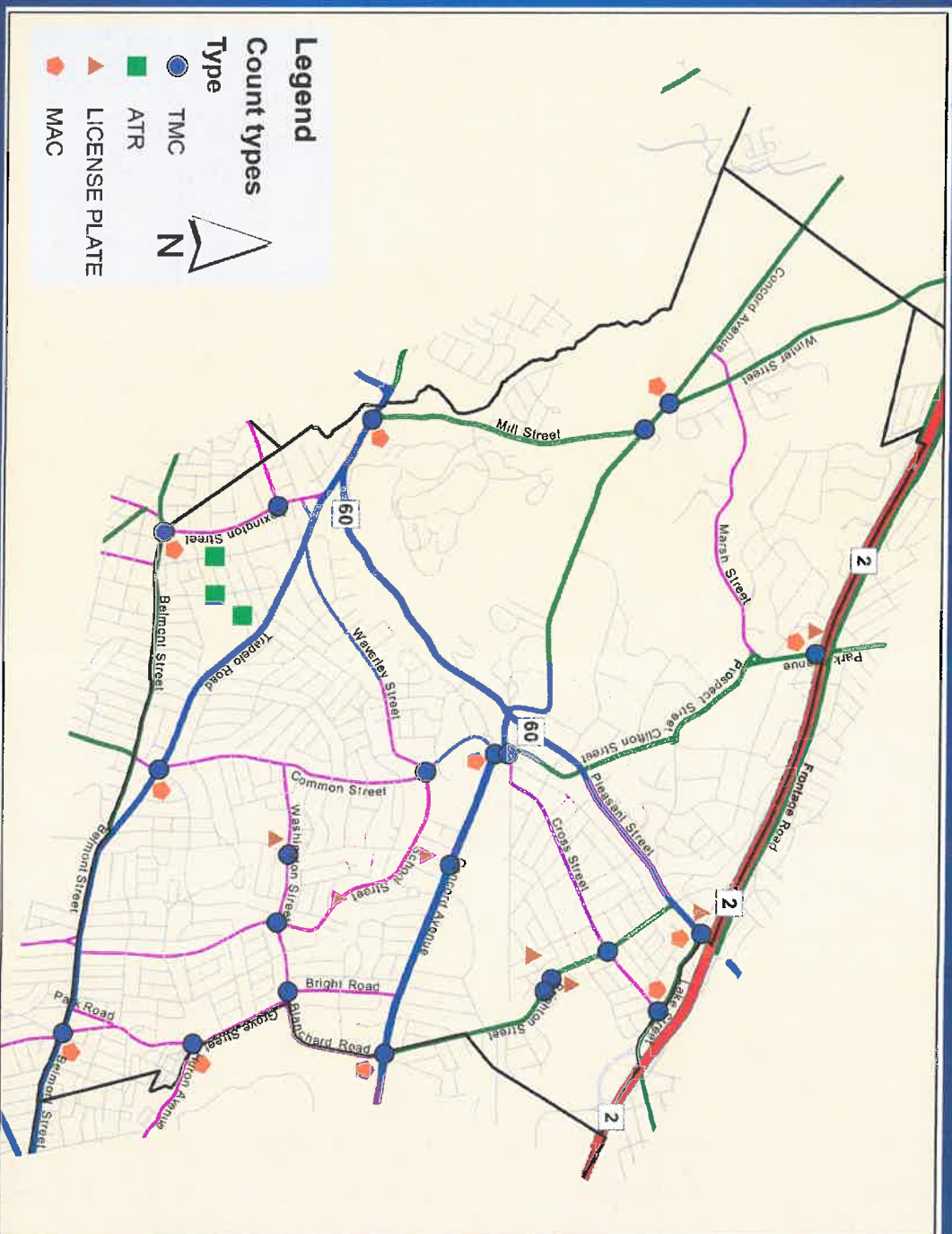
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Study Area

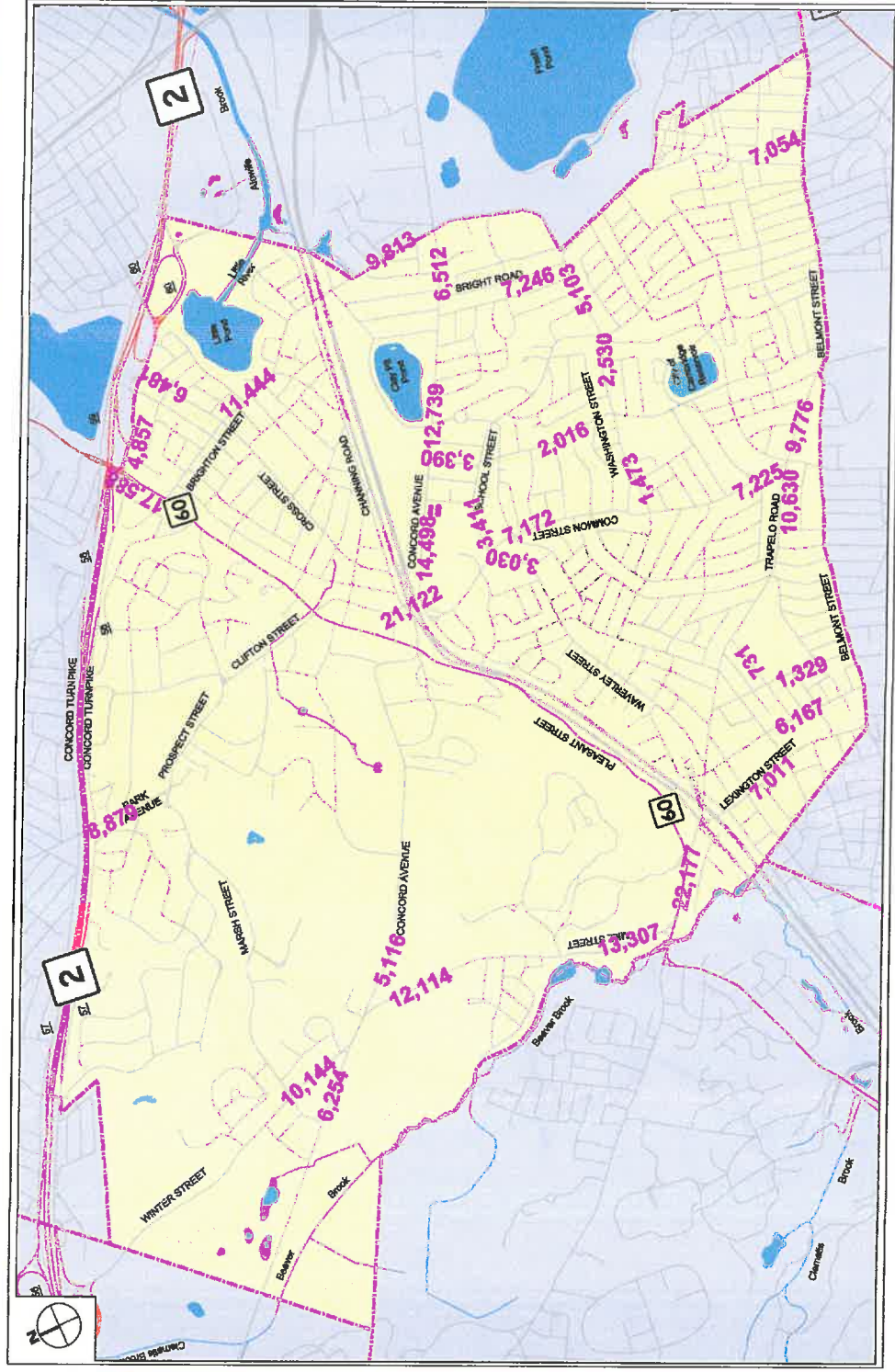
LOCATION	TMC	ATR	LICENSE	MAC
Winter/Concord	X			X
Concord/Mill	X			
Trapelo/Mill	X			X
Lexington/Beimont	X			X
Park/Rt 2	X		X	X
Common/Concord	X			X
Common/School	X			
Common/Trapelo	X			X
Concord/Goden	X		X	
Goden/Washington	X		X	
Pleasant/Lake	X		X	X
Brighton/Cross	X			
Washington/School	X			
Lake/Cross	X			X
Blanchard/Concord	X			X
Washington/Bright	X			
Grove/Huron	X			X
Beimont/Grove	X			X
Brighton/Starter	X		X	
Brighton/Eliot	X			
Lexington/Sycamore	X			
White/Walnut		X		
Walnut/Trapelo		X		
Maple/Chestnut			X	
Waterhouse/Eliot			X	
School/Stone			X	
Concord/Leonard	X			



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Existing 12-Hour Traffic Volumes



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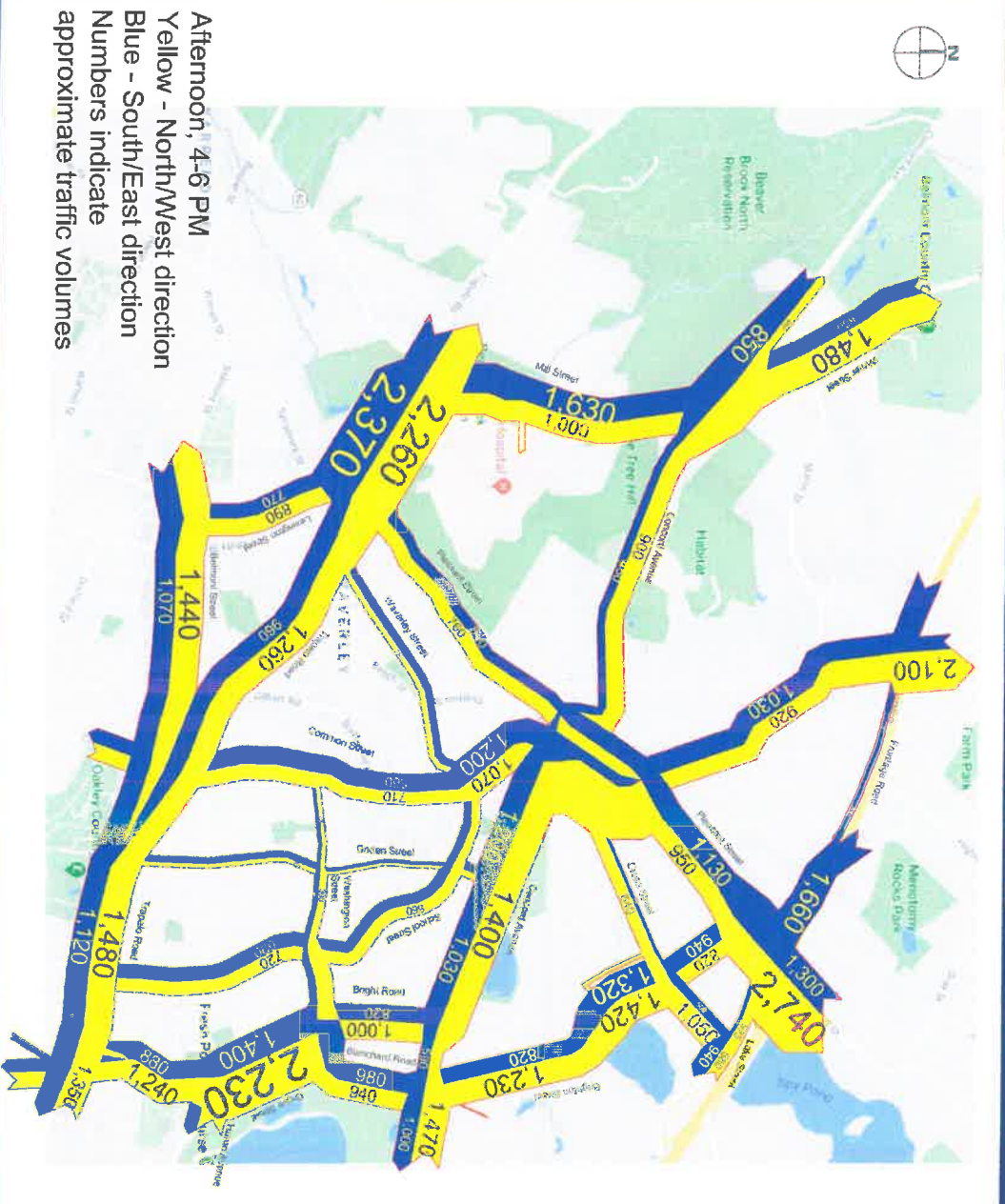




7-9 AM
North/West direction
South/East direction
Traffic volumes

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Travel Patterns PM



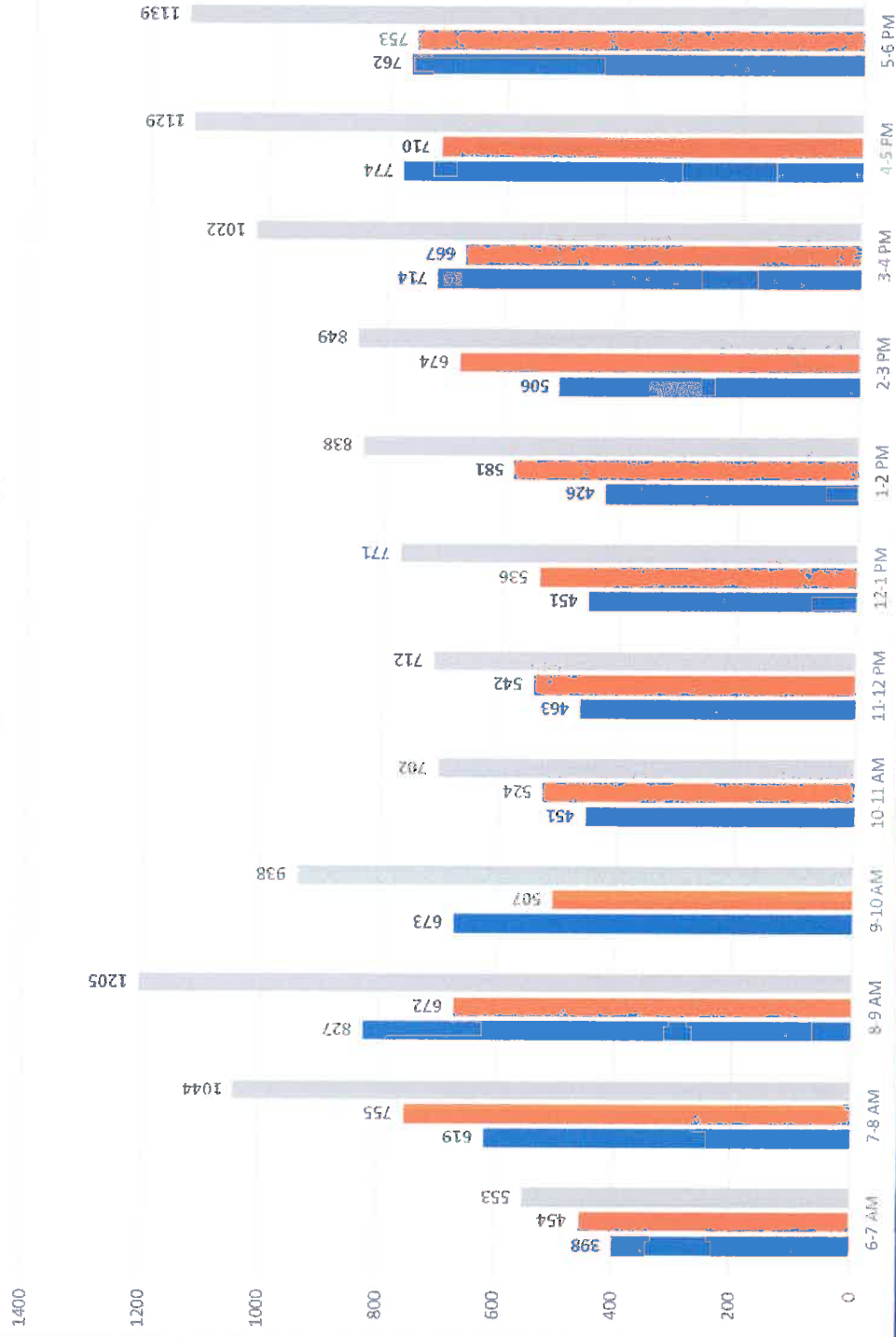
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Hourly Traffic Volume Variation

TRAPELO ROAD @ MILL STREET

■ Mill St SB ■ Trapelo Rd EB ■ Trapelo Rd WB



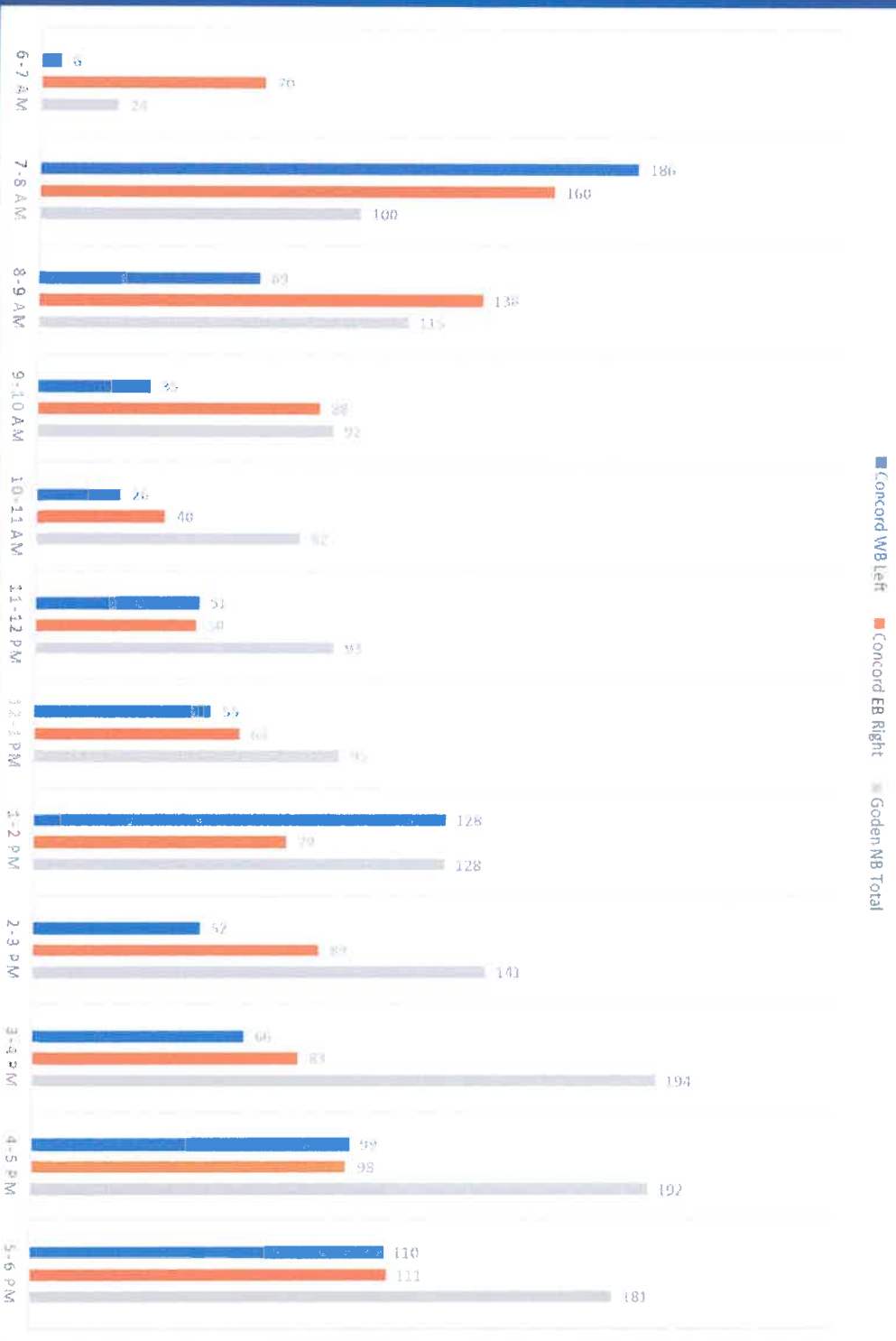
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Hourly Traffic Volume Variation

CONCORD AVENUE @ GODEN STREET



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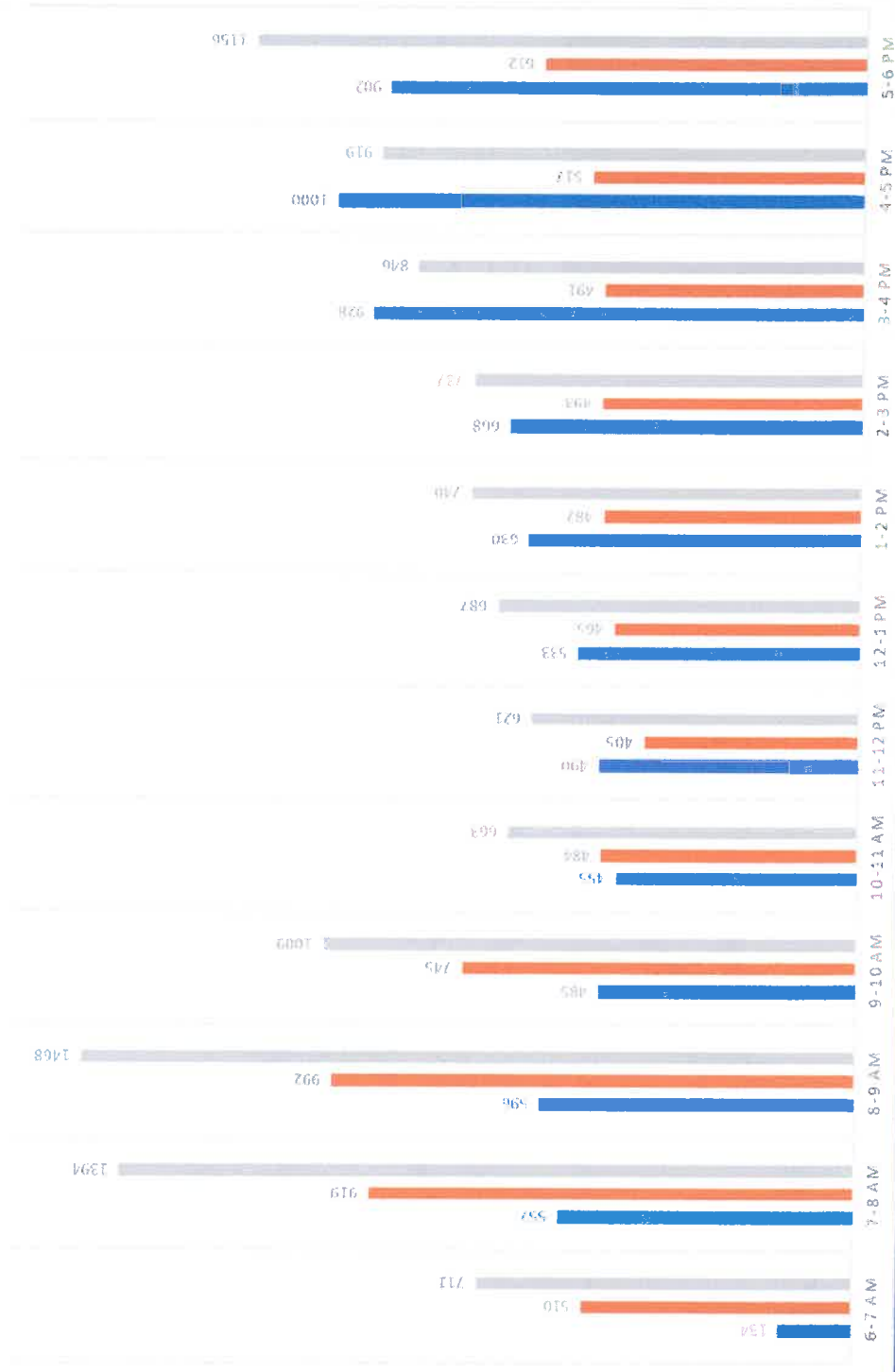


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Hourly Traffic Volume Variation

CONCORD AVENUE @ COMMON STREET

■ Concord WB ■ Common EB ■ Concord SB



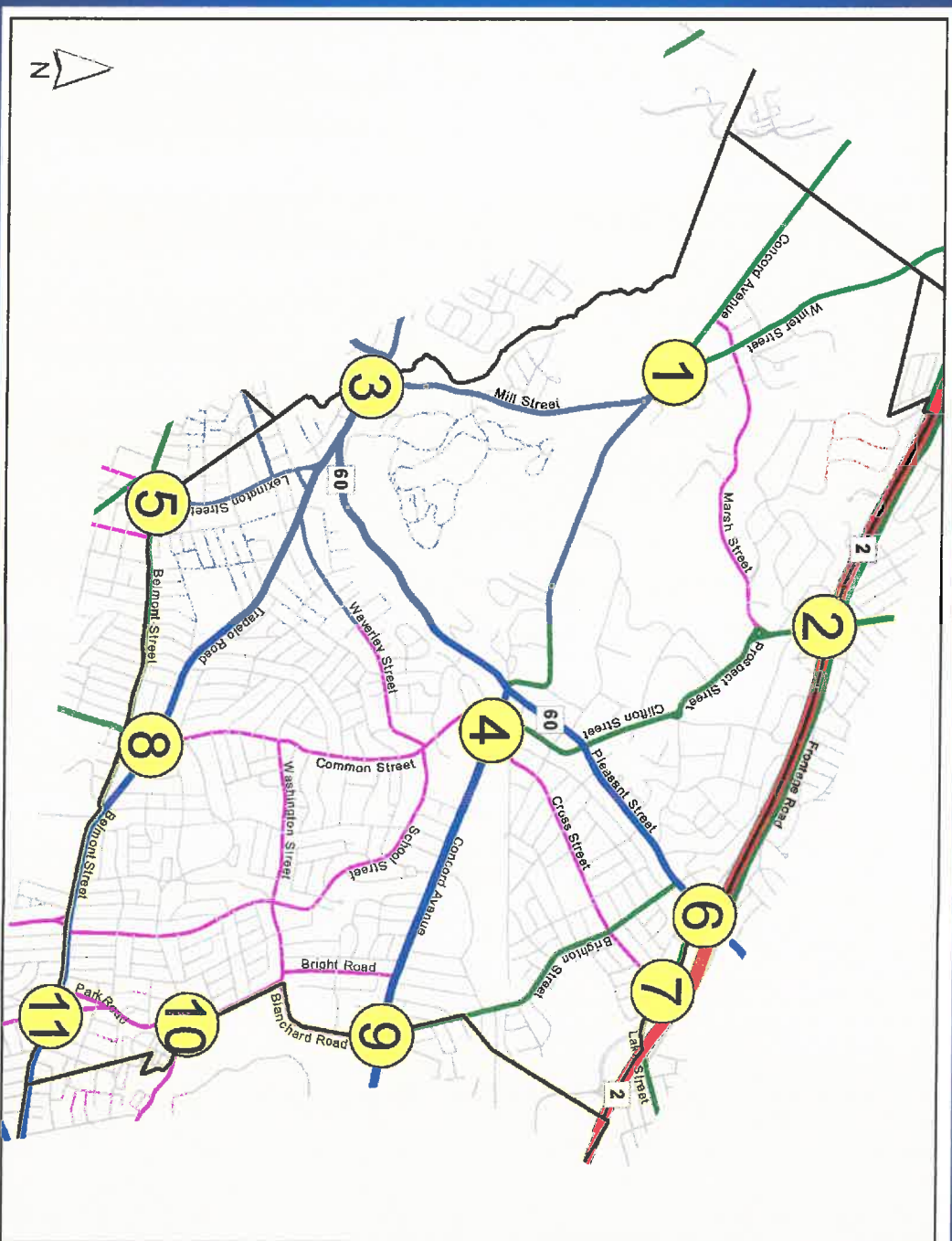
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Trip Pattern – Node Map

NODE	LOCATION
1	Concord Avenue/Marsh Street
2	Park Avenue/Route 2
3	Mill Street/Trapelo Road
4	Concord Avenue/Common Street
5	Lexington Street/Belmont Street
6	Pleasant Street/Lake Street
7	Cross Street/Lake Street
8	Cushing Square
9	Concord Avenue/Blanchard Road
10	Huron Avenue/Grove Street
11	Belmont Street/Grove Street

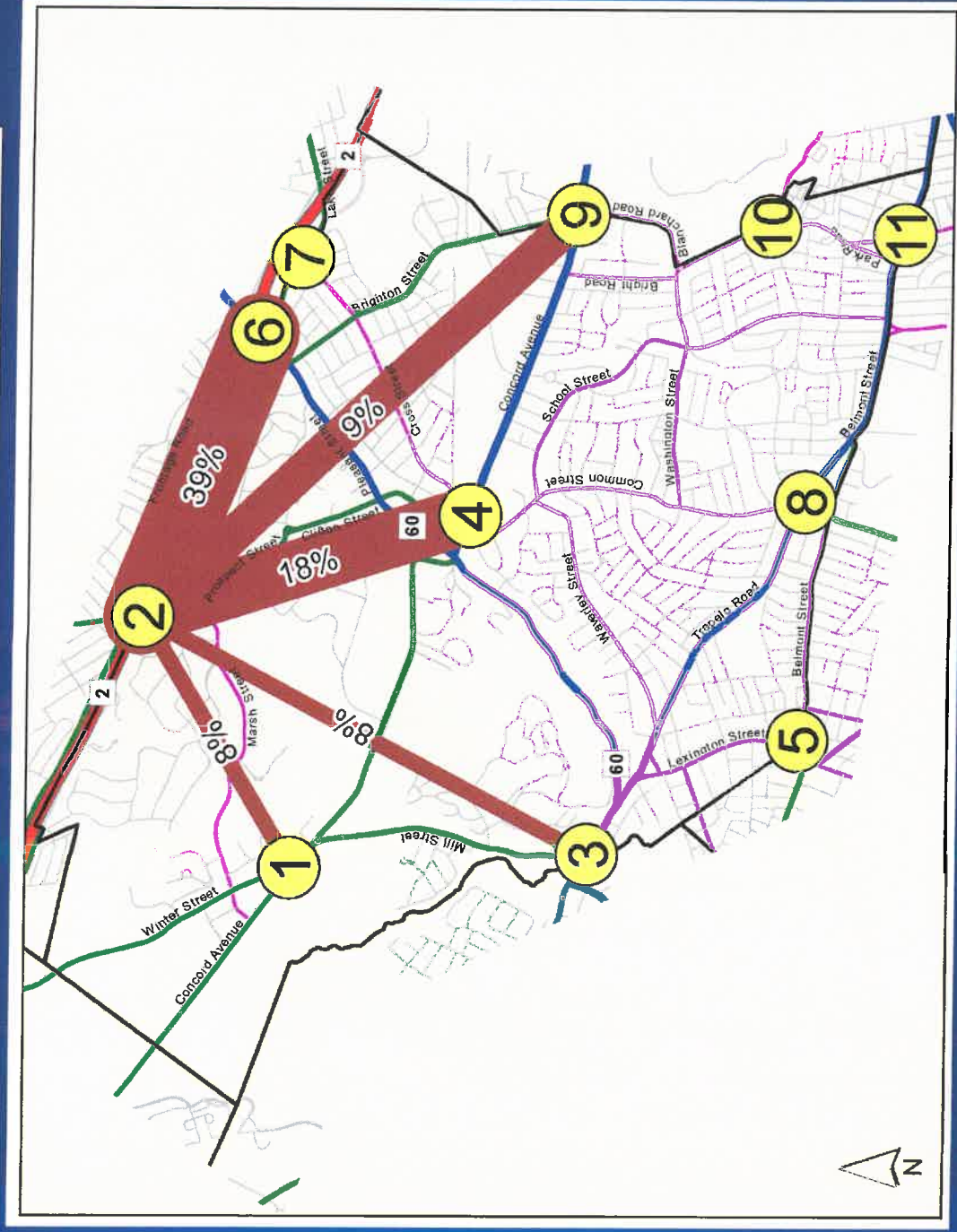


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AM Trip Pattern – From Park Ave

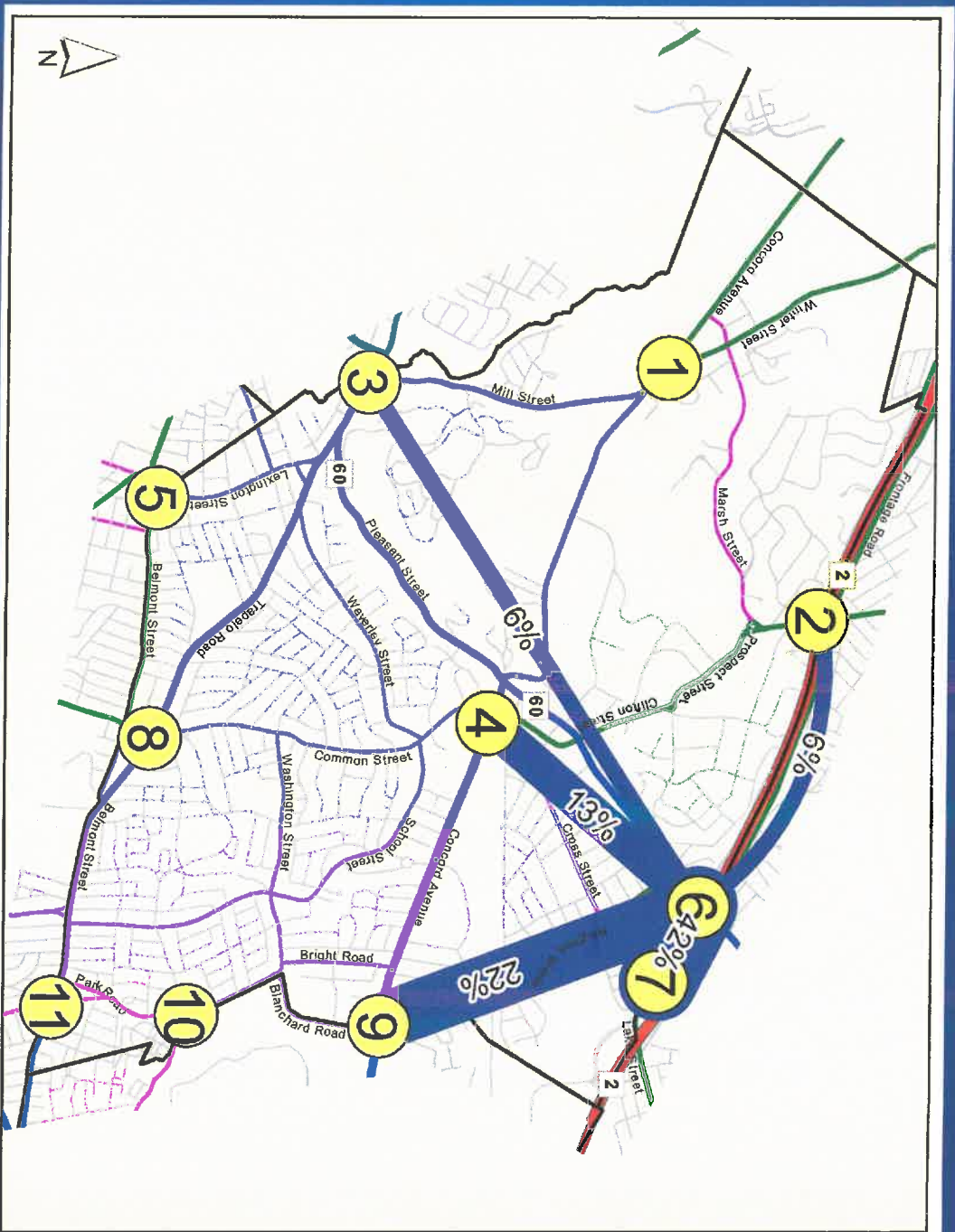


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AM Trip Pattern – From Pleasant St

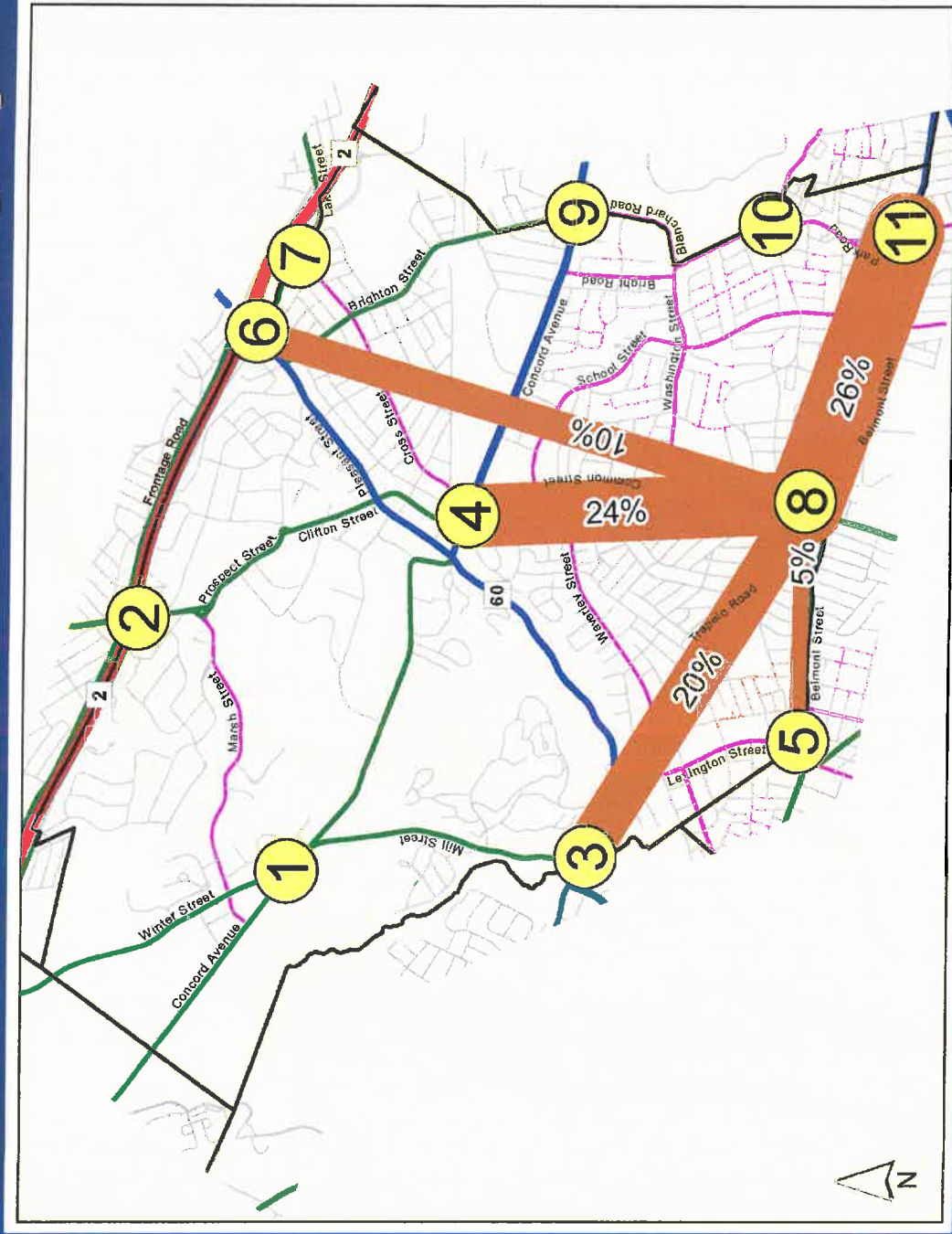


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PM Trip Pattern – From Cushing Sq

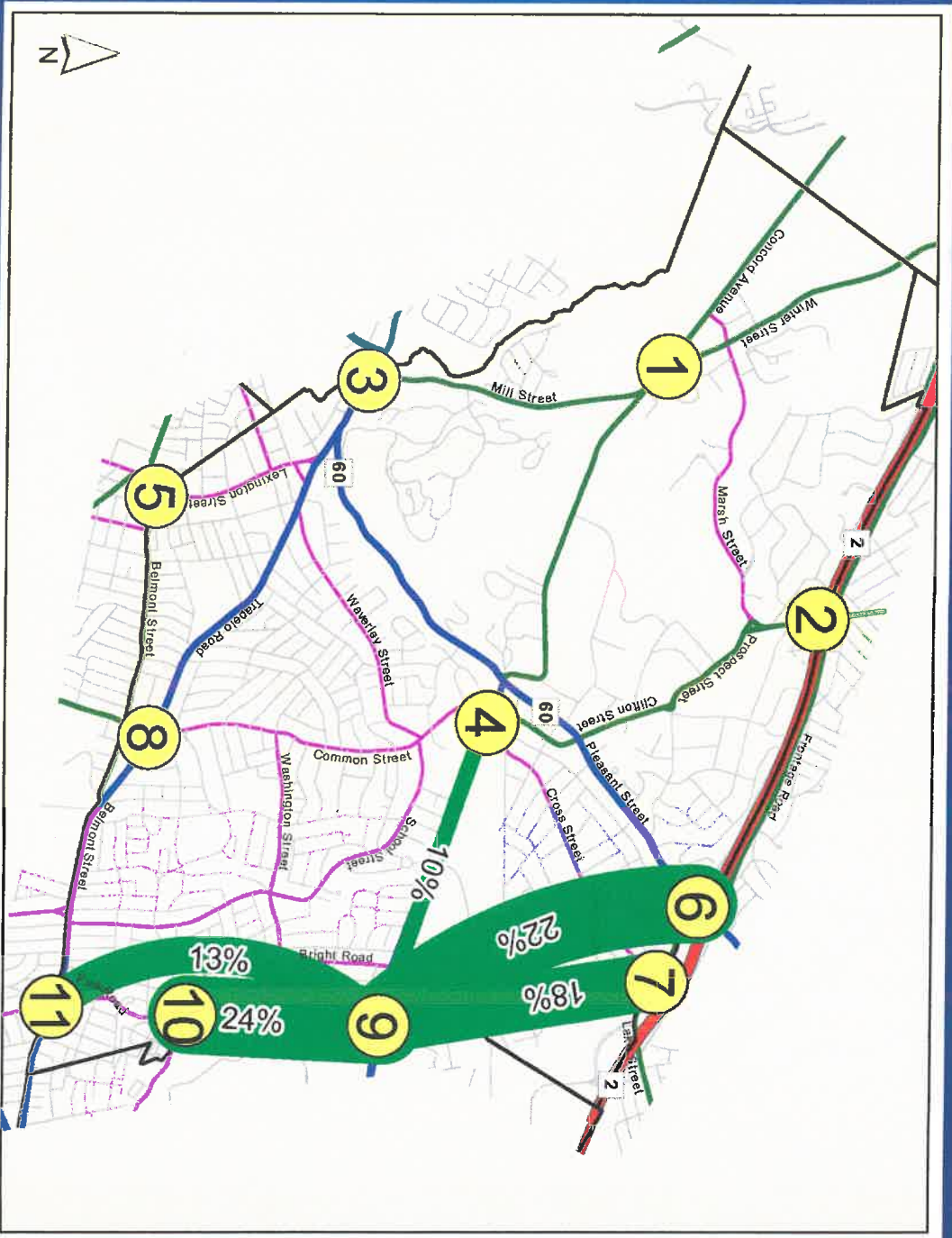


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PM Trip Pattern – From Concord/Blanchard



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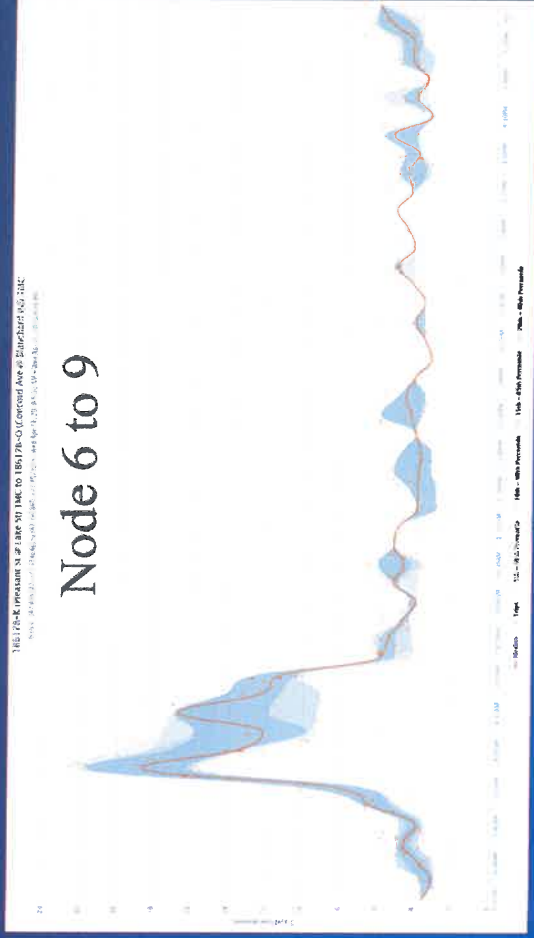


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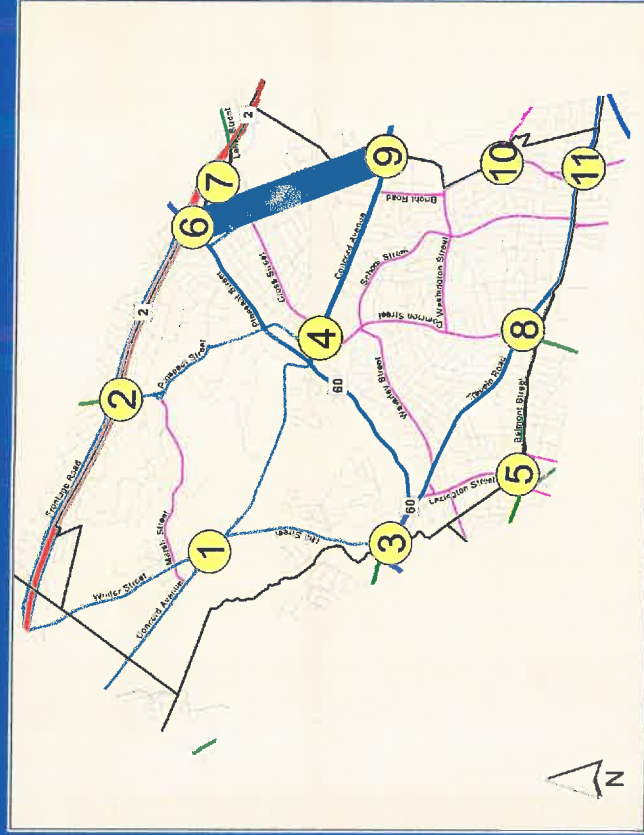
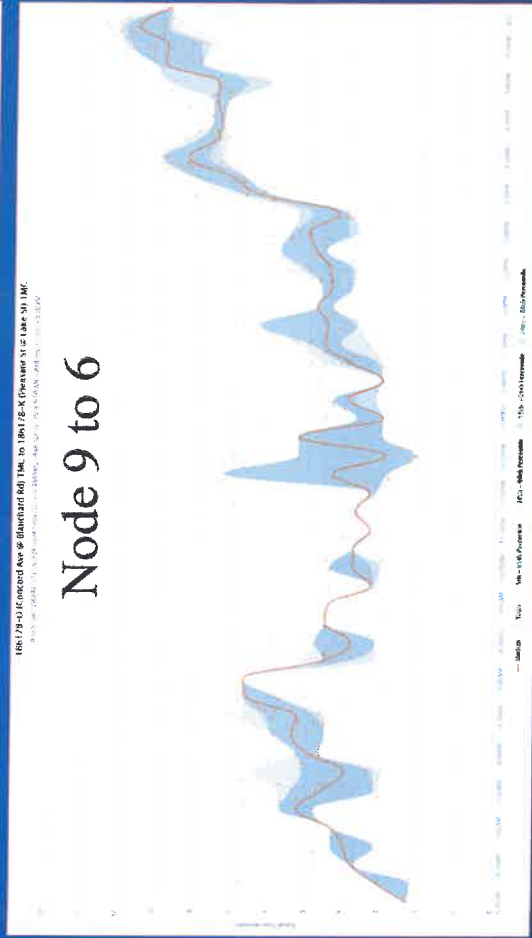
Travel Time Patterns Between

Pleasant/Lake (node 6) to Concord/Blanchard (node 9)

Node 6 to 9



Node 9 to 6



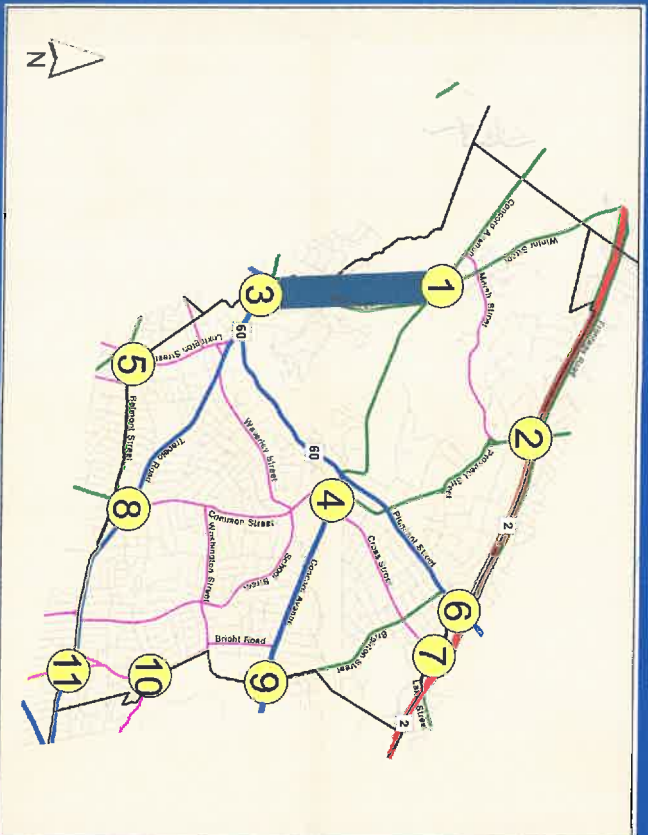
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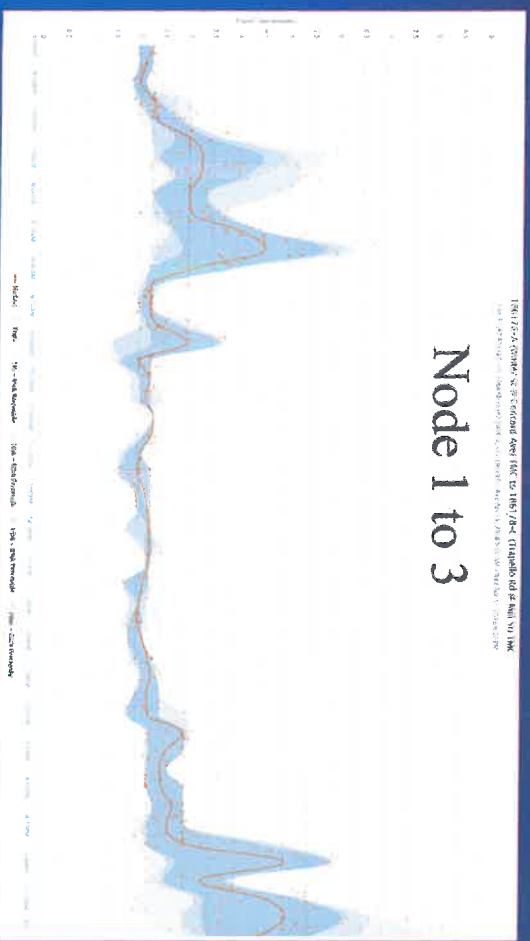
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Travel Time Patterns Between

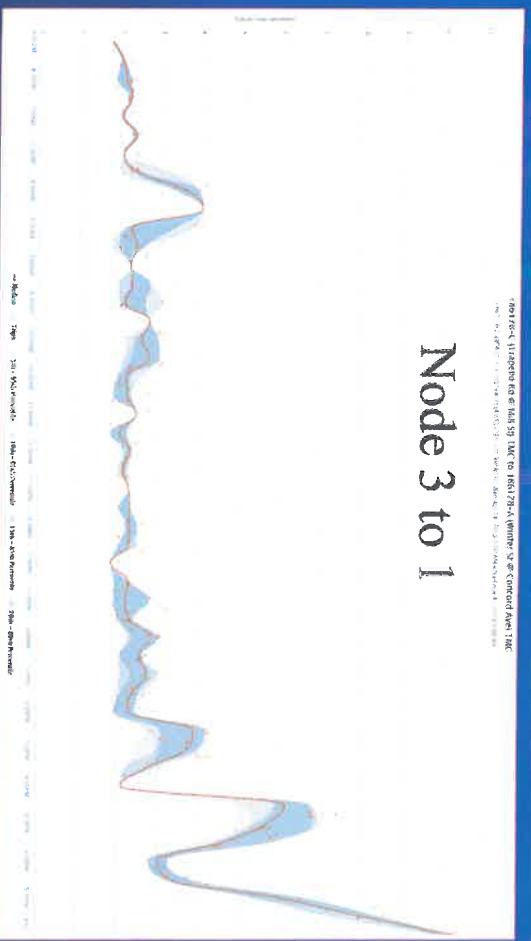
Winter/Concord (node 1) to Trapelo/Mill (node 3)



Node 1 to 3



Node 3 to 1



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Common/Concord (node 4) to Blanchard/Concord (node 9)



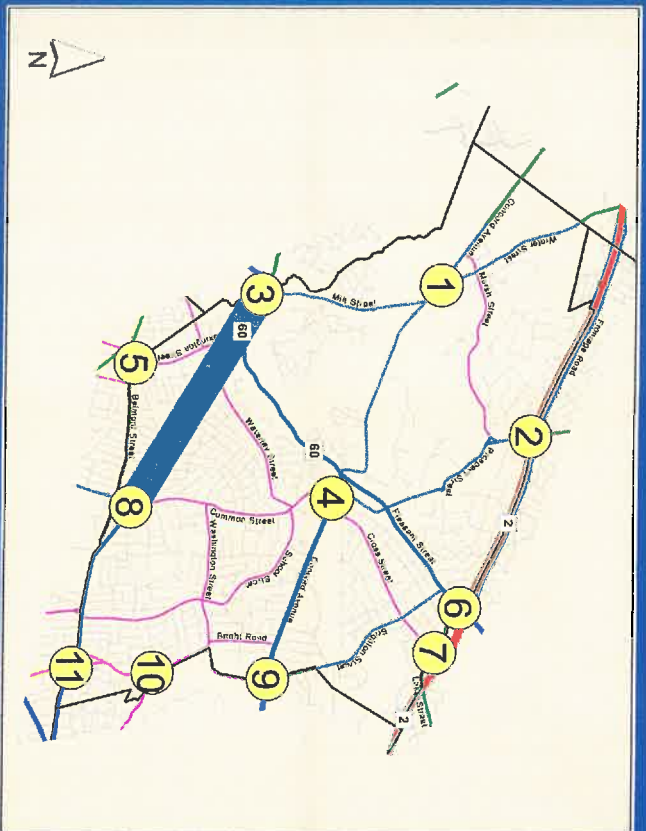
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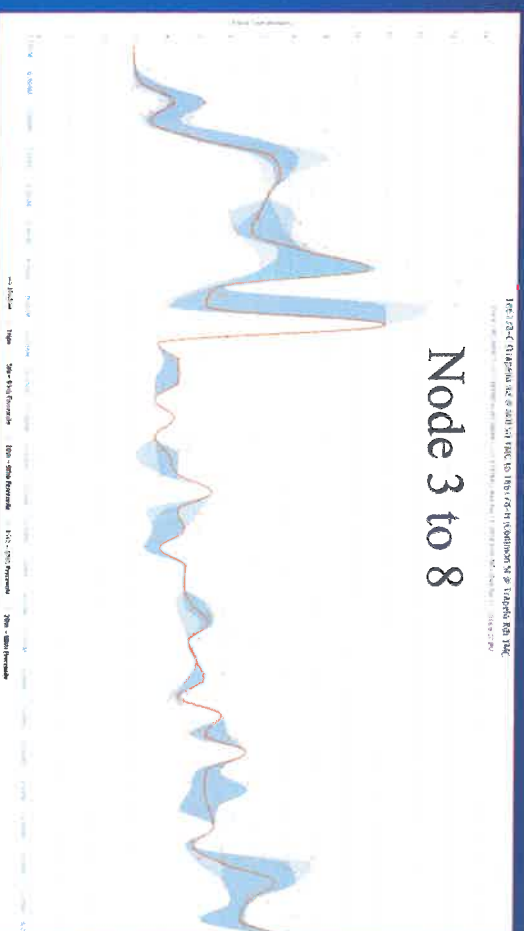
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Travel Time Patterns Between

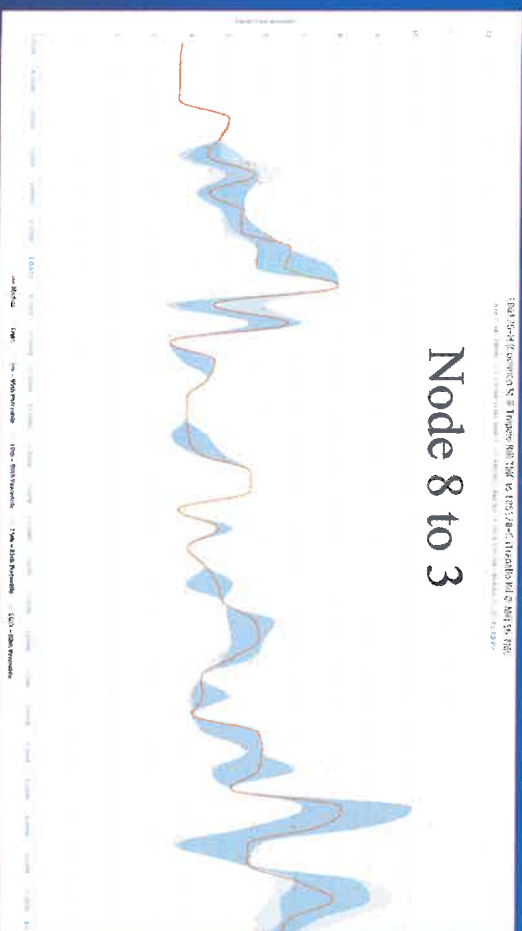
Trapelo/Mill (node 3) to Trapelo/Common (node 8)



Node 3 to 8



Node 8 to 3



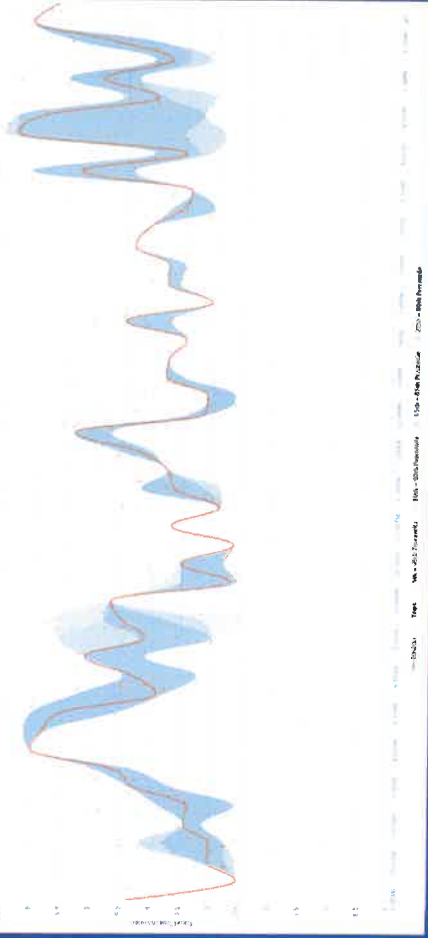
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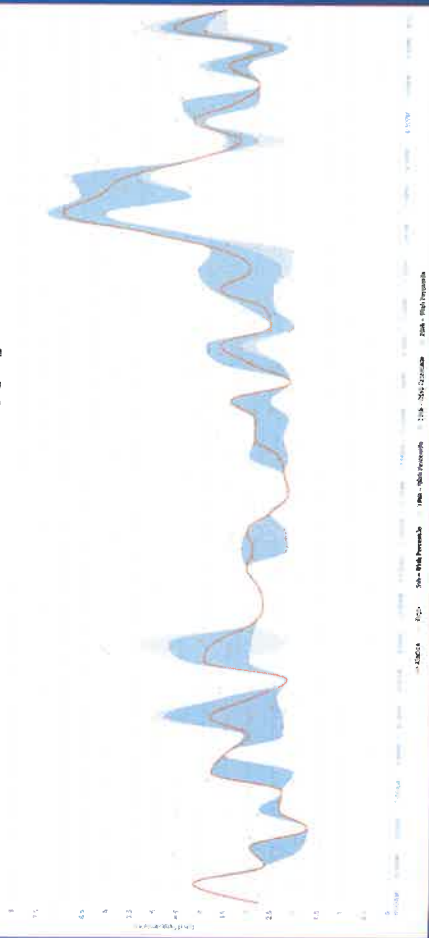
Travel Time Patterns Between

Concord/Blanchard (node 9) to Belmont/Grove (node 11)

Node 9 to 11



Node 11 to 9

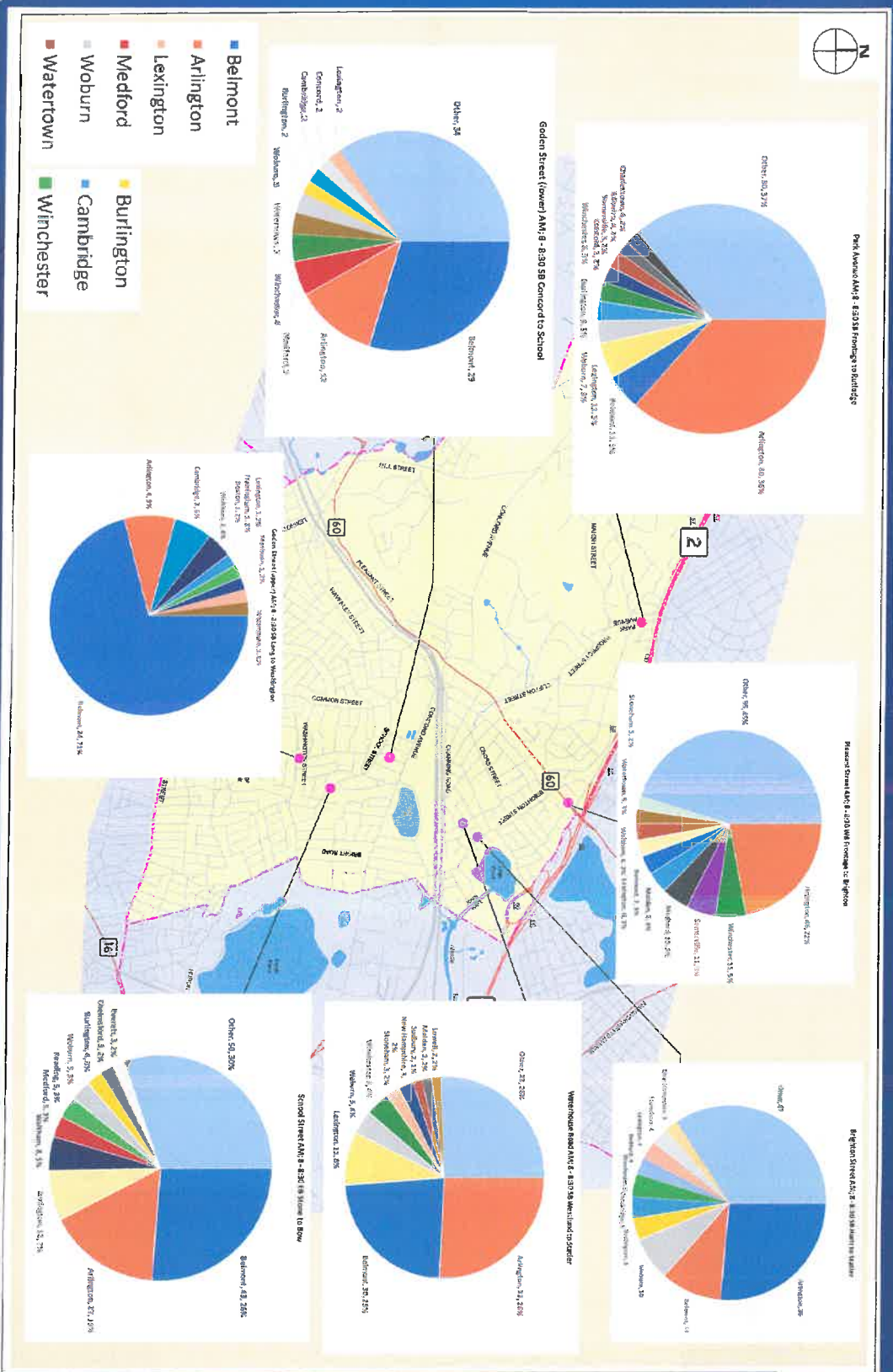


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License Plate Survey - AM



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Map of Cambridge School Catchment Areas

Legend:

- Belmont
- Arlington
- Lexington
- Medford
- Woburn
- Watertown

1. Park Avenue PM: 5-5:30 NB Routeledge to Frontage

Town	Percentage
Belmont	20.47%
Arlington	34.30%
Lexington	1.05%
Medford	3.24%
Woburn	3.24%
Watertown	3.24%
Other	53.44%

2. Goddard Street (Lower) PM: 5-5:30 NB Washington to Long

Town	Percentage
Belmont	38.52%
Arlington	4.3%
Lexington	2.1%
Medford	3.4%
Woburn	3.4%
Watertown	3.4%
Other	44.9%

3. Goddard Street (Lower) PM: 5-5:30 NB School to Concord

Town	Percentage
Belmont	40.14%
Arlington	31.8%
Lexington	3.2%
Medford	3.2%
Woburn	3.2%
Watertown	3.2%
Other	16.2%

4. Park Avenue PM: 5-5:30 NB Westland to Scatter

Town	Percentage
Belmont	20.83%
Arlington	2.5%
Lexington	1.4%
Medford	3.2%
Woburn	3.2%
Watertown	3.2%
Other	65.6%

5. Brighton Street PM: 5-5:30 NB Matt to Standar

Town	Percentage
Belmont	17%
Arlington	43.2%
Lexington	14.6%
Medford	2.4%
Woburn	3.2%
Watertown	3.2%
Other	10.7%

6. School Street PM: 5-5:30 NB Bow to Stone

Town	Percentage
Belmont	57.26%
Arlington	20.13%
Lexington	32.15%
Medford	3.2%
Woburn	3.2%
Watertown	3.2%
Other	6.7%

Approximate Cut-Through Traffic Percentages

	Trips ending outside Belmont		
ENTRY POINT	12 hr (6-6)	AM (7-9)	PM (4-6)
Concord @ Winter	25%-41%	29%-41%	19%-37%
Park @ Rt 2	38%-58%	54%-80%	20%-26%
Trapelo @ Mill	79%-89%	85%-94%	83%-93%
Belmont @ Lexington	37%-46%	25%-29%	42%-56%
Pleasant @ Rt 2	66%-82%	57%-83%	71%-81%
Lake @ Cross	44%-52%	35%-39%	51%-74%
Trapelo @ Common	48%-53%	42%-48%	64%-70%
Concord @ Blanchard	64%-71%	66%-72%	74%-83%
Grove @ Huron	30%-50%	25%-46%	35%-50%
Belmont @ Grove	64%-71%	67%-72%	69%-79%

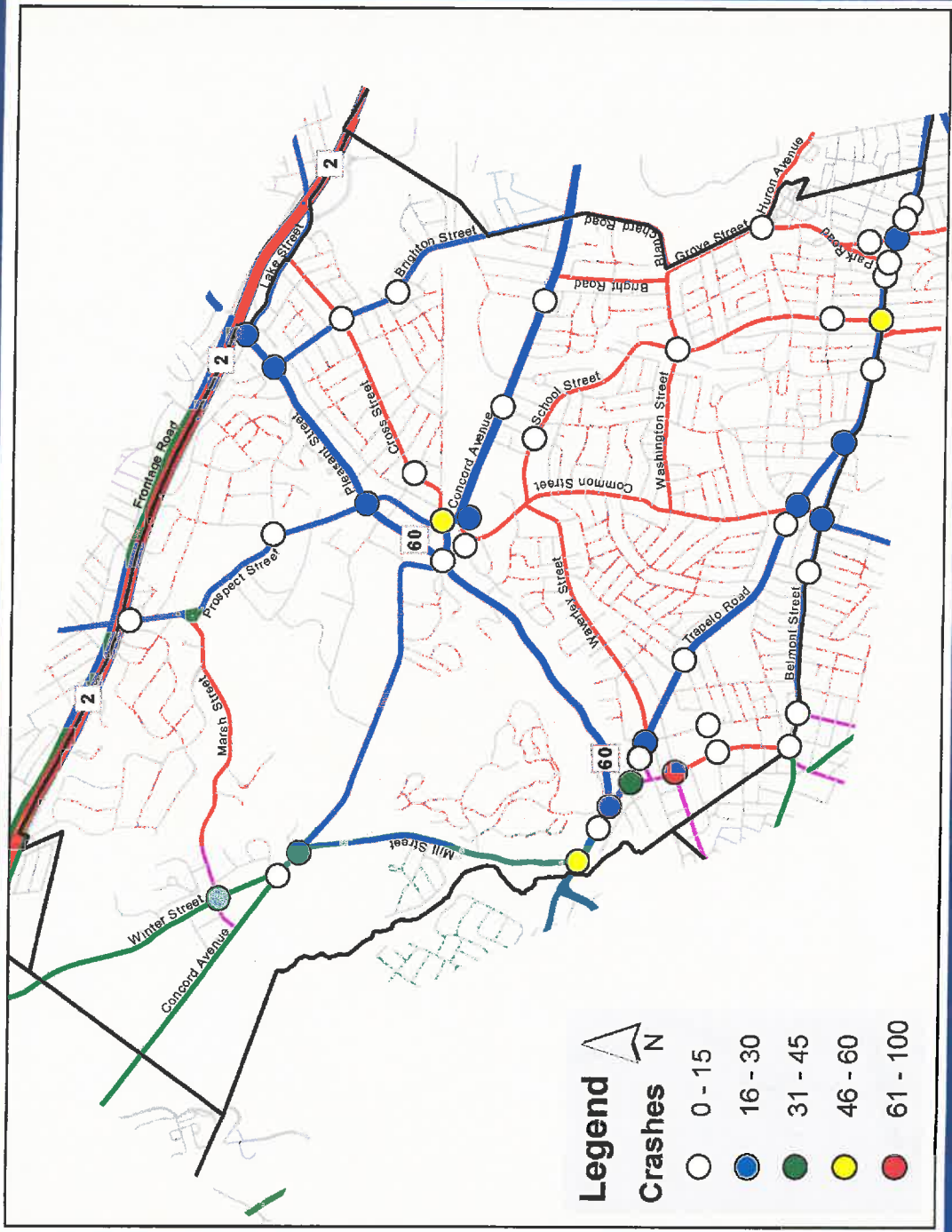


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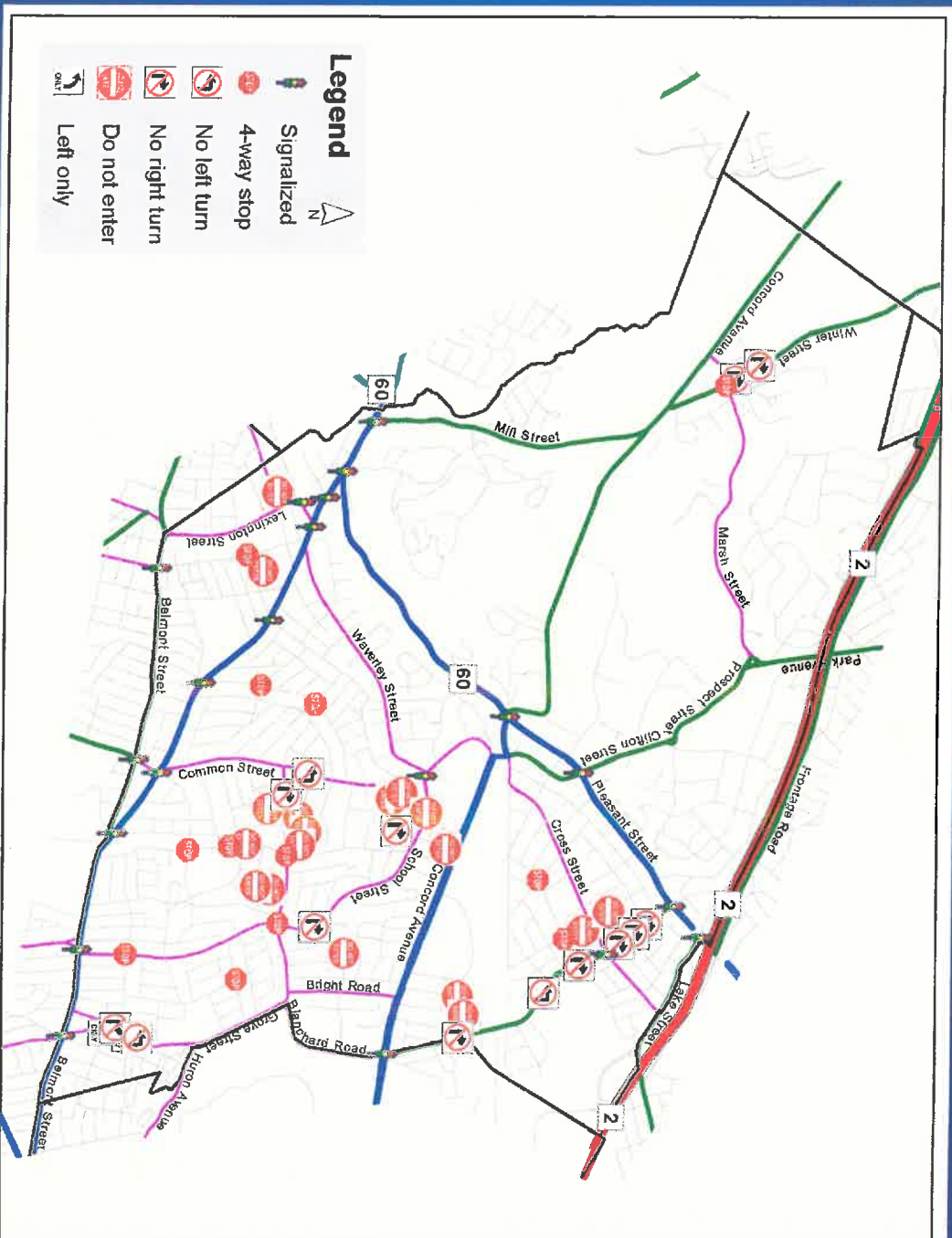
Crash Data 2008-2017



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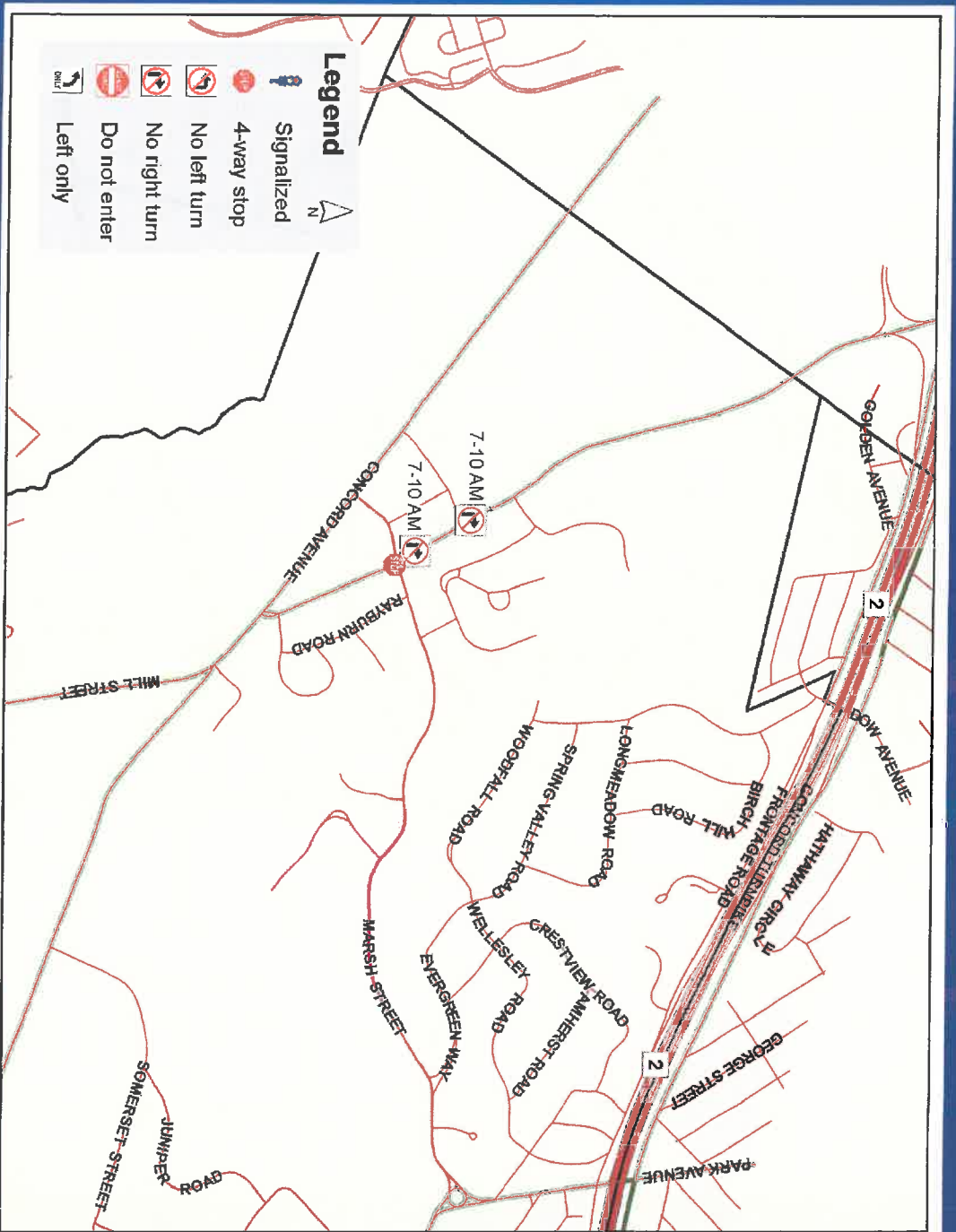
Existing Traffic Restrictions



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Existing Traffic Restrictions



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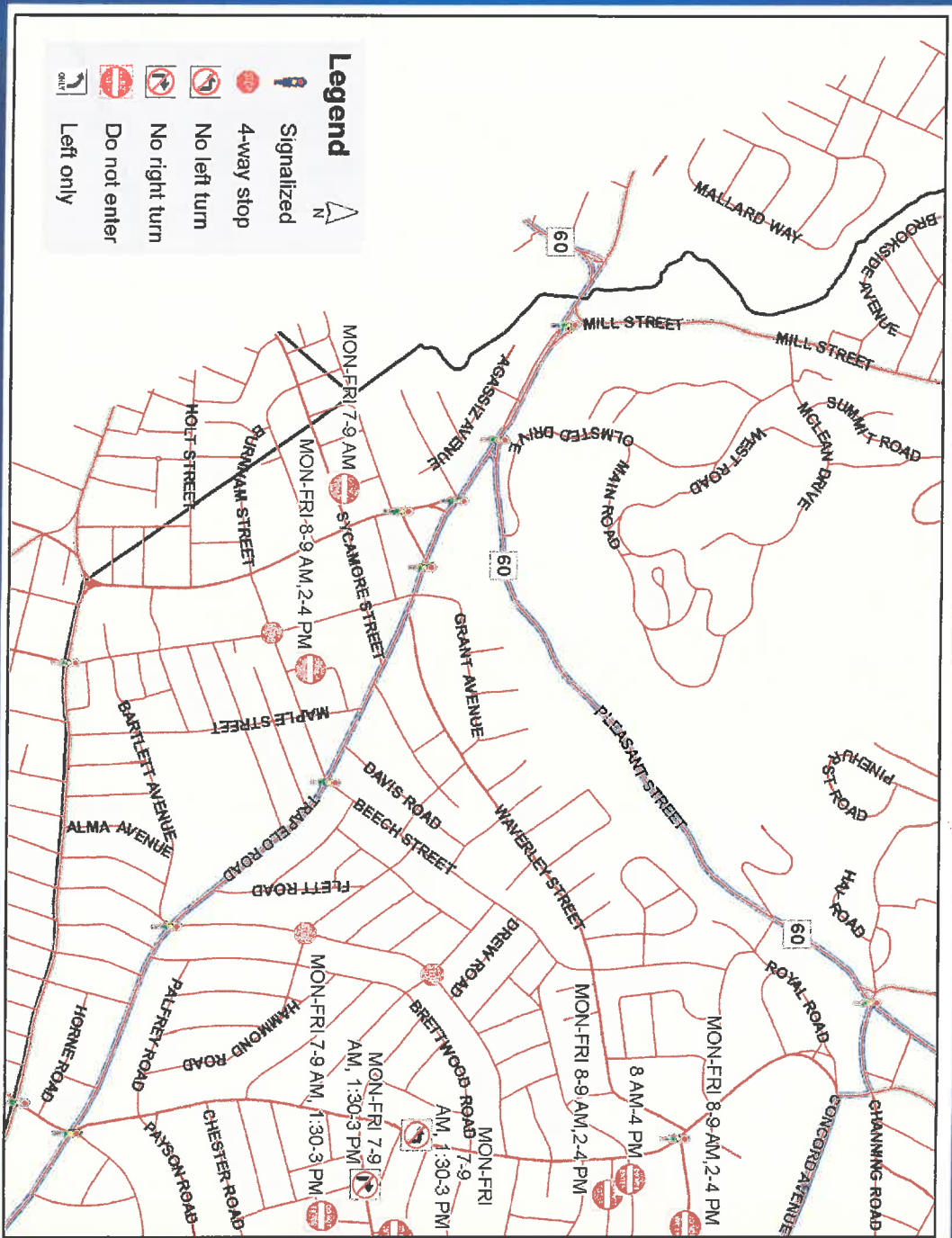


Legend

- Signalized
- 4-way stop
- No left turn
- No right turn
- Do not enter
- Left only



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Study Objectives - Restated

- Improve safety for all users
- Minimize cut-through traffic
- Reduce congestion/improve or maintain access



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Mitigation Strategies

- Safety is the Goal
- Cut-through traffic: Keep vehicles on main roads
- Speeding: Employ self regulating roadway design
- Congestion: Increase capacity at key intersections



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Traffic Calming: Volume vs Speed

- *Traffic calming* will mitigate traffic impacts on pedestrians and bicyclists
- *Volume control measures* use barriers to preclude one or more movements along a street or at an intersection (e.g. roadway closures, turn restrictions, circulation changes).
- *Speed control measures* use deflection of vehicle paths to moderate speeds (e.g. speed tables, raised crosswalks, roundabouts, parking treatments).



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Examples of Volume Control Measures



Diverter



Traffic Circle



Median Barriers



Turn Restrictions



One-Way/Circulation Changes



Road Closure



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Examples of Speed Control Measures



Speed Hump



Chicané



Choker



Lateral Shift



On-Street Parking



Corner Extension



Speed Feedback



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Examples of Pedestrian Safety

Measures



Raised Intersection



Crossing Island



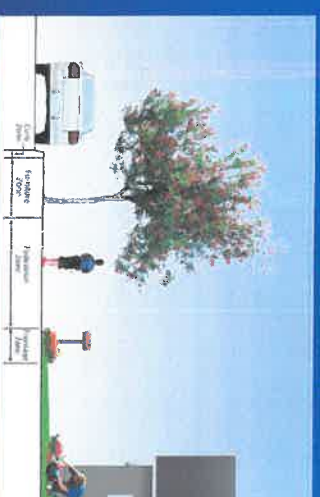
Rectangular Rapid Flashing Beacon (RRFB)



Raised Crossing



Colored Crosswalks



Curbing and Street Furniture



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Measures Under State Jurisdiction

- Tolling of Non-Residential traffic
 - **Needs state approval**
- Automatic Speed Enforcement
 - **Needs legislation**
- Restricting Access from Neighboring Towns
 - **Restricting access from/to roadways under state jurisdiction or built with Federal funds requires MassDOT permission.**
 - **Neighboring town's approval also required.**



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Next Steps

Selectmen appointed Transportation Advisory Committee will be tasked with the following:

- Reviewing the written Draft Report
- Identify acceptable commuter traffic routes through Belmont
- Recommend techniques to keep commuter traffic on the main routes
- Recommend techniques to improve safety for pedestrians and bicycles along main routes
- Evaluate existing traffic controls and recommend upgrades and improvements as required
- Evaluate the feasibility of separating Belmont traffic from commuter traffic



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• Questions???



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