

**Submission to Lexington Board of Selectmen
by
Arlington Board of Selectmen
and
Arlington Transportation Advisory Committee**

**Proposed Changes to Intersection of
Lowell Street and Westminster Avenue**

October 20, 2008

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Letter of Request

The Mt. Gilboa Neighborhood has long been known for its traffic safety concerns. Westminster Avenue, Lowell Street and Crescent Hill Avenue span the towns of Lexington and Arlington, and residents from both communities have expressed concerns about the traffic hazards in their neighborhood. Speeding has resulted in cars crashing into homes on Westminster Avenue (the most recent involving a fatality), a pedestrian fatality on Lowell Street, as well as several less serious incidents.

Last year, the Arlington Board of Selectmen endorsed the formation of a working group of neighborhood residents and members of the Town's Transportation Advisory Committee (TAC) to identify solutions. This process began with short-term recommendations that were implemented last year. Long-term infrastructure measures for the neighborhood are currently under review. These include installation of curbing, sidewalks and traffic calming devices along Westminster Avenue and Lowell Street.

In addition to the changes proposed for Arlington, the working group has identified a need for certain changes in Lexington. The most significant is modifications to the intersection of Westminster Avenue and Lowell Street to calm and direct traffic. Given the level of support of Lexington residents in the neighborhood, we respectfully request that the Town of Lexington implement changes to the intersection (such as a traffic island) to accomplish this purpose. We also request Lexington's cooperation to allow appropriate signage to be installed on Westminster Avenue in advance of a traffic calming device near the Town line.

This report outlines Arlington's work on the Mt. Gilboa project to date, including petitions from the Lexington residents on Lowell Street and Westminster Avenue. We hope that, by collaborating in this manner, both towns will make the Mt. Gilboa neighborhood less hazardous for pedestrians, residents, and motorists.

Project Background

On April 26, a Public Meeting organized by Town Meeting Members and other residents of the Mt. Gilboa neighborhood was held to discuss traffic problems on Westminster Avenue. At the meeting, neighborhood residents presented their concerns following two recent crashes to members of the Board of Selectmen, the Town Manager, the Chief of Police, the Public Works Director and members of the TAC.

Following the Public Meeting, a working group composed of five members of the TAC and sixteen neighborhood residents was formed. The neighborhood members are residents of Westminster Avenue, Lowell Street, Westmoreland Avenue, Montague Street and Park Avenue Extension. The working group's initial meeting defined goals for the project. These were to:

- Decrease overall speed
- Discourage excessive speeding
- Increase protection at Westminster curve
- Increase pedestrian safety.

The working group defined and carried out several tasks, and then agreed on several short-term recommendations for the neighborhood. The working group's recommendations were approved by the TAC and voted by the Arlington Board of Selectmen. The seven short-term recommendations were:

1. Install Stop signs on Westminster to create a 4-way stop at Westmoreland.
2. Install multiple chevrons on temporary metal posts at Westminster curve.
3. Replace curve sign with speed advisory sign eastbound on Westminster before curve.
4. Paint edge lines on Westminster in vicinity of the curve.
5. Install crosswalk signs on Lowell at three existing crosswalks.
6. Increase enforcement on Westminster and Lowell immediately after changes.
7. Monitor traffic volume and speed before and after changes to evaluate effectiveness.

In June of 2007, Arlington's Public Works Director and a member of the TAC met with Peter Chalpin at Lexington's public offices. Mr. Chalpin was interested to hear what Arlington was planning and gave us planning and engineering drawings of the area to assist our work.

Ongoing Work

It was determined early in the project that the recommendations should be separated into short and long term, in order that the short term items could be implemented while the long term items were being studied and funded.

The TAC is currently studying several long-term solutions for the traffic and pedestrian problems in this neighborhood. These solutions involve looking at the entire length of Westminster Avenue (including the intersection with Lowell Street in Lexington), Lowell Street between Downing Square and the Lexington line and certain areas on Westmoreland Avenue and Montague Street.

Traffic data collected before and after the short-term recommendations were implemented on Westminster confirmed that further traffic calming measures were needed. The working group preferred solutions that would reduce the traffic speed in the neighborhood without restricting the traffic flow on the roadways. Long-term Solutions currently under consideration are:

On Westminster Avenue:

- Install high profile granite curb on south side of Westminster at curve.
- Repair sidewalk on south side of Westminster at curve.
- Install bollards with reflectors on south side of Westminster at curve.
- Install neck down on Westminster between Westmoreland and curve.
- Install median or neck down on Westminster near the Lexington line.

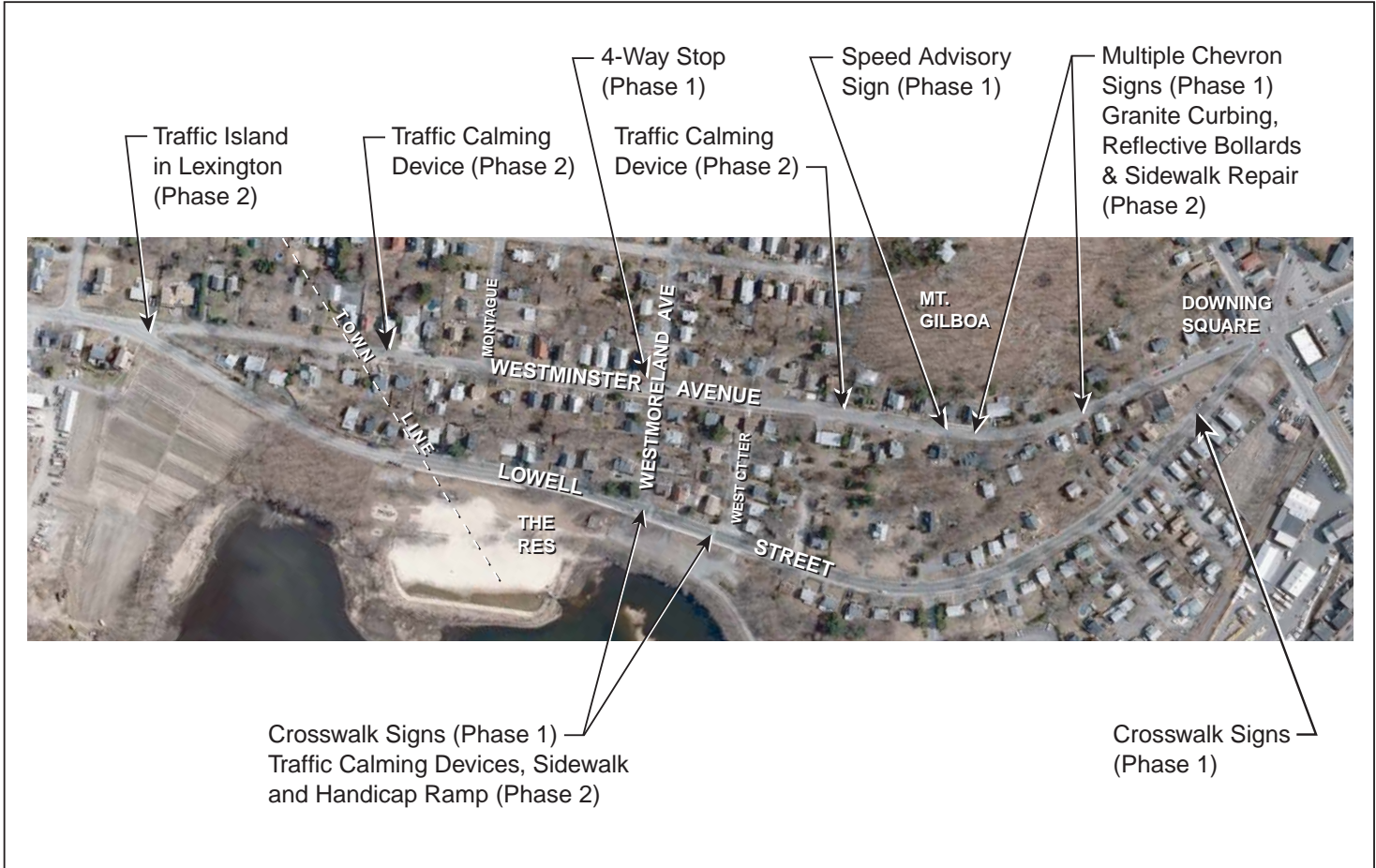
On Lowell Street:

- Install medians on Lowell Street near Westmoreland and West Court.
- Install sidewalk on north side of Lowell from West Court to #239.
- Install handicap ramp on north side of Lowell at Westmoreland.

In Lexington:

- Request Lexington's reconfiguration of Westminster / Lowell intersection.

The working group is talking with abutters and plans a neighborhood public meeting in the coming months. Final long-term recommendations will likely come before the Arlington Board of Selectmen early next year, with implementation expected in 2009.



Overview of Mt. Gilboa Project and Phases



Sketch of Traffic Island at Intersection of Lowell Street and Westminster Avenue

Appendix

Lexington Neighbor Petitions

Map of Lexington Petition Signatures

Traffic Data for Lowell and Westminster

Draft Arlington Traffic Calming Proposals

We the undersigned are Lexington residents living in or near the Mt. Gilboa Neighborhood. This includes Westminster Avenue, Lowell Street, and Crescent Hill Avenue. Like our Arlington neighbors, we are concerned about the traffic safety hazards of our neighborhood, especially excessive speeding such as that leading to the fatal accident on Westminster Avenue in April, 2007.

We support the efforts of the Mt. Gilboa Neighborhood Working Group, consisting of Arlington residents and members of the Arlington Transportation Advisory Committee, to improve traffic safety in our neighborhood. *In particular, we would welcome a change at the intersection of Westminster Avenue and Lowell Street in Lexington that would discourage traffic from entering Westminster Avenue at high speed.*

Name:

Address:

R. L. G. H.

Randolph G Hudson
17 Westminster Ave Lex

Sue Schmepp

SUE SCHMEPP
17 Westminster Ave, Lexington

Edward K Mann

Edward K Mann
15 Westminster Ave, Lexington

Eleanor Mann

Eleanor Mann
15 Westminster Ave, Lexington

Jim Ireland

23 Lowell St., Lexington

Eileen Battite

4 Westminster Ave. Lex

Dawn Battite

4 Westminster Ave Lex

Linda Mae Isaac

192 Westminster Ave, Arlington/
Lexington

Kisha E Reed

15 Westminster Ave #2, Lexington 02420

Lynn A Reed

15 Westminster Ave #2 Lexington 02420

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Signature	Date	Print name and address
<i>Pat Gallesse</i>	11-8-07	Pat Gallesse 82 Lowell St Lexington MA
<i>Crystal D'Abbraccio</i>	12-15-07	Crystal D'Abbraccio 14 Westminster Ave
<i>Sean D'Abbraccio</i>	"	Sean D'Abbraccio Lexington MA
<i>Paul Peter</i>	"	6 Westminster
<i>Mrs. Dupuy - Edg</i>	"	38 Lowell St. Lexington
<i>Elizabeth Wheeler</i>	"	46 Lowell St. Lexington
<i>Jonathan Judlow</i>	"	46 Lowell St. Lexington
<i>Colin South</i>		57 Lowell St Lexington
<i>Thuy T</i>	12-15-07	THUY TUNG LIH, 15 Lowell St Lexington, MA
<i>Paula Borensztein</i>	12-16-07	60 Lowell St. Lexington
<i>Edward J. Boudot</i>	12-15-07	EDWARD J. BOUDOT 3 LOWELL ST LEX MA 02420



Lexington Neighborhood Petition Signatures (1/05/08)

Westminster Speed Data

The Arlington Police Department conducted traffic speed data for Westminster Avenue before and after the implementation of the Phase 1 recommendations. The data was collected at two locations, east and west of the intersection with Westmoreland Avenue.

May 29th (Tuesday 9:45AM) - June 1st (Friday 10:15AM)

91 Westminster Ave (roughly halfway between Westmoreland and crash sites):

ADT = 1,396 (646 EB, 750 WB)
Total Vehicles = 1,949 Eastbound, 2,292 Westbound
85th Percentile = 34 MPH Eastbound, 33 MPH Westbound
Mean Speed = 28 MPH Eastbound, 28 MPH Westbound
Number of Vehicles 41-45 MPH = 9 Eastbound, 8 Westbound
Number of Vehicles 46-50 MPH = 2 Eastbound, 2 Westbound
Number of Vehicles 51-55 MPH = 2 Eastbound, 1 Westbound
Number of Vehicles 56-60 MPH = 0 Eastbound, 0 Westbound
Number of Vehicles 61-65 MPH = 0 Eastbound, 0 Westbound
Number of Vehicles 66-70 MPH = 1 Eastbound, 0 Westbound
Number of Vehicles 71-75 MPH = 0 Eastbound, 1 Westbound
Number of Vehicles >76 MPH = 6 Eastbound, 2 Westbound

September 18th (Tuesday 10AM) - September 20th (Thursday 2PM)

91 Westminster (roughly halfway between Westmoreland and crash sites):

ADT = 1,263 (593 EB, 670 WB)
Total Vehicles = 1,307 Eastbound, 1,468 Westbound
85th Percentile = 34 MPH Eastbound, 34 MPH Westbound
Mean Speed = 29 MPH Eastbound, 29 MPH Westbound
Number of Vehicles 41-45 MPH = 5 Eastbound, 7 Westbound
Number of Vehicles 46-50 MPH = 3 Eastbound, 1 Westbound
Number of Vehicles 51-55 MPH = 0 Eastbound, 0 Westbound
Number of Vehicles 56-60 MPH = 0 Eastbound, 0 Westbound
Number of Vehicles 61-65 MPH = 0 Eastbound, 0 Westbound
Number of Vehicles 66-70 MPH = 1 Eastbound, 0 Westbound
Number of Vehicles 71-75 MPH = 0 Eastbound, 0 Westbound
Number of Vehicles >76 MPH = 5 Eastbound, 3 Westbound

May 29th (Tuesday 10AM) - June 1st (Friday 10:30AM)

183 Westminster Ave (just west of Montague):

ADT = 612 (321 EB, 291 WB)
Total Vehicles = 964 Eastbound, 877 Westbound
85th Percentile = 34 MPH Eastbound, 34 MPH Westbound
Mean Speed = 26 MPH Eastbound, 26 MPH Westbound
Number of Vehicles 41-45 MPH = 8 Eastbound, 8 Westbound
Number of Vehicles 46-50 MPH = 1 Eastbound, 0 Westbound
Number of Vehicles 51-55 MPH = 2 Eastbound, 0 Westbound
Number of Vehicles 56-60 MPH = 0 Eastbound, 0 Westbound
Number of Vehicles 61-65 MPH = 0 Eastbound, 1 Westbound
Number of Vehicles 66-70 MPH = 0 Eastbound, 0 Westbound
Number of Vehicles 71-75 MPH = 0 Eastbound, 0 Westbound
Number of Vehicles >76 MPH = 1 Eastbound, 4 Westbound

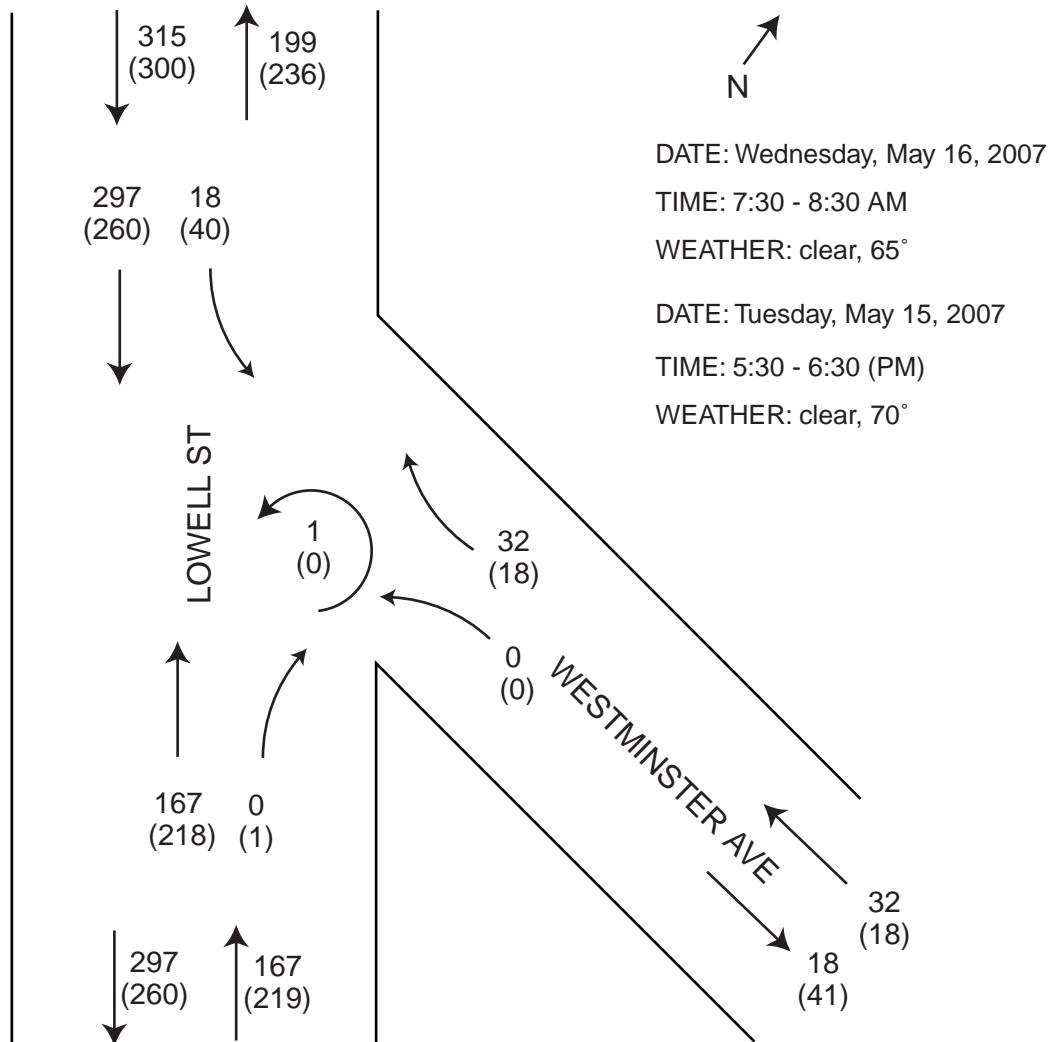
September 11th (Tuesday 10AM) - September 14th (Friday 8:15AM)

183 Westminster (just west of Montague):

ADT = 564 (289 EB, 275 WB)
Total Vehicles = 872 Eastbound, 775 Westbound
85th Percentile = 33 MPH Eastbound, 32 MPH Westbound
Mean Speed = 26 MPH Eastbound, 26 MPH Westbound
Number of Vehicles 41-45 MPH = 8 Eastbound, 2 Westbound
Number of Vehicles 46-50 MPH = 2 Eastbound, 2 Westbound
Number of Vehicles 51-55 MPH = 1 Eastbound, 1 Westbound
Number of Vehicles 56-60 MPH = 0 Eastbound, 0 Westbound
Number of Vehicles 61-65 MPH = 0 Eastbound, 0 Westbound
Number of Vehicles 66-70 MPH = 0 Eastbound, 0 Westbound
Number of Vehicles 71-75 MPH = 0 Eastbound, 0 Westbound
Number of Vehicles >76 MPH = 1 Eastbound, 3 Westbound

TURNING COUNTS

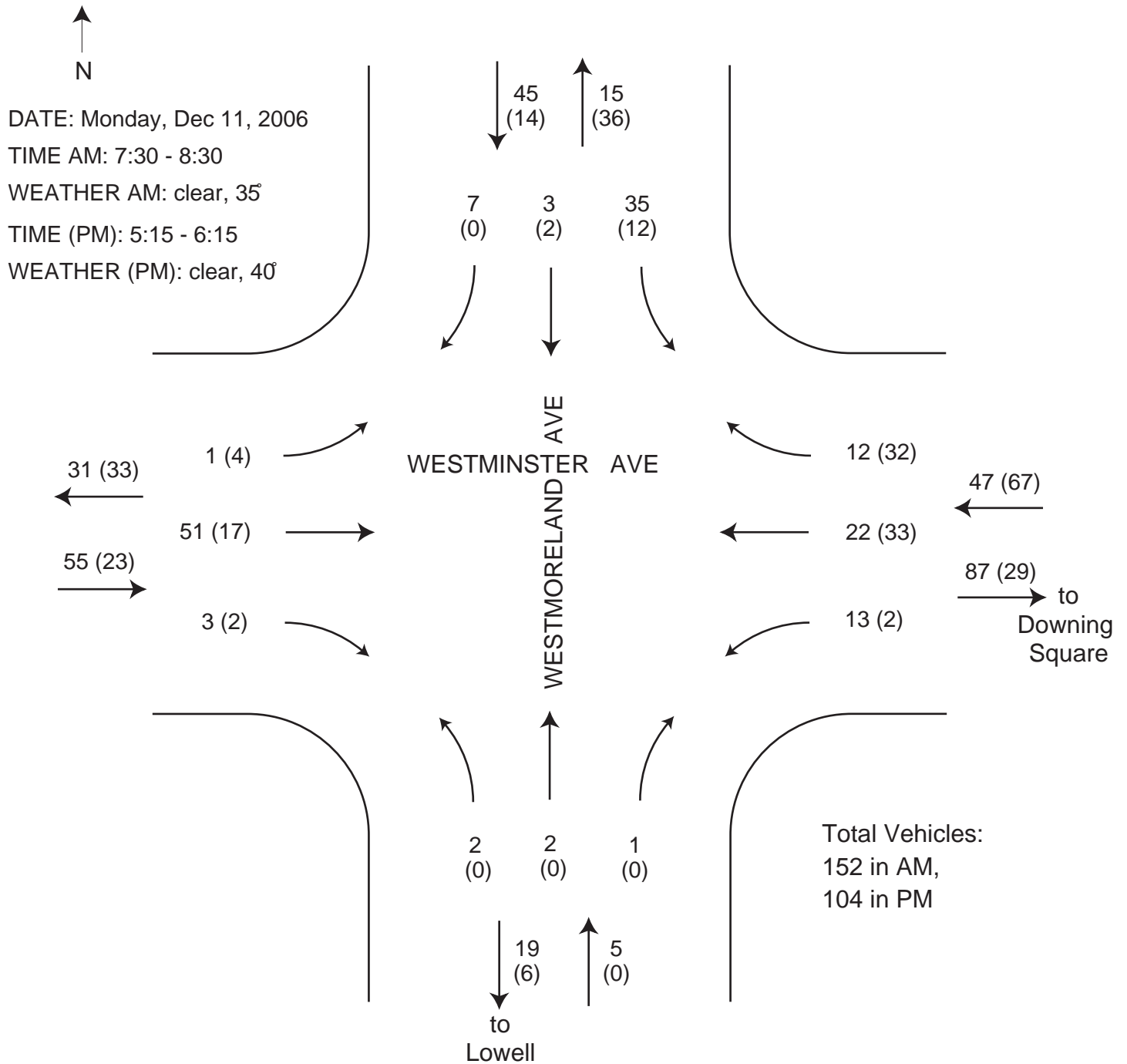
LOWELL ST & WESTMINSTER AVE



OBSERVATIONS:

- Pedestrians: 5 in AM, 6 in PM (all but one on Lowell)
- Cyclists: 3 in AM, 5 in PM (all but one on Lowell)
- School buses: 4 in AM (1 turned left onto Westminster)
- Heavy trucks: 8-10 in AM, 5-6 in PM (all on Lowell)
- Left turn from Lowell awkward (where to cross traffic)
- Some traffic turning onto Westminster speeds up to beat oncoming traffic
- EB lane on Lowell not wide enough to get around turning traffic
- Intersection confuses some drivers on Lowell
- Right turn awkward from Westminster (where to stop)

TURNING COUNTS WESTMINSTER & WESTMORELAND



OBSERVATIONS:

- Generally orderly traffic flow
- Tight turning radii
- No right turns from Westmoreland to Lowell
- AM Covenant drop off route--Westminister to Westmoreland to Lowell
- Pedestrians: 18 in AM, 8 in PM
- Cyclists: 1 in AM, 0 in PM



Draft Lowell Street Traffic Calming Proposal
20 October 2008

1. Install 2 medians with granite curbing and signs
2. Paint displaced yellow center lines around medians
3. Install speed advisory signs at each approach
4. Install parking restriction signs adjacent to #219 Lowell St and #4 Westmoreland Ave
5. Install concrete sidewalk adjacent to #3 & 4 Westmoreland Ave and #221 & 219 Lowell St
6. Install ramp on north side of Westmoreland crosswalk
7. Install street light on utility pole at northwest corner of Westmoreland Ave



Draft Westminster Avenue west Traffic Calming - Median Option
15 October 2008

1. Install planted median with granite curbing and reflectors
2. Paint yellow center lines and white edge lines
3. Install speed advisory signs at each approach (request permission from Lexington on EB approach)
4. Install hyperelevated curbing (9"-10" reveal) beside and beyond median
5. Install sidewalk at #193 and #195



Draft Westminster Avenue east Traffic Calming Proposal
30 June 2008

1. Install planted neck down with granite curbing, reflectors
2. Install speed advisory signs at each approach