CITY OF SOMERVILLE, MASSACHUSETTS
JOSEPH A. CURTATONE
MAYOR

To: Board of Alderman
Re: Traffic Calming Petition Procedure Status Update
Date: December 7, 2016

The traffic calming petition procedure is a community process designed to improve the safety and livability of Somerville-owned streets. This status update summarizes implementation activities during the past nine months and outlines next steps.

It is important to note that the traffic calming petition procedure is only one aspect of the city's traffic calming efforts, which include reducing speed limits citywide to 25 miles per hour, expanding the 20 miles per hour safety zones, expanding and maintaining pavement markings, installing semi-permanent and permanent traffic impediments like speed humps and raised crosswalks, traffic enforcement, and driver and cyclist education.

Traffic Calming Background

Traffic calming is an evolving field that describes a community process used to accomplish one or more of the following goals on a given street segment or intersection:

1. Reduce the frequency and severity of collisions;
2. Reduce speed; and,
3. Reduce cut-through motor vehicle traffic.

In Somerville, traffic calming is carried out through Article XIV of the Traffic Commission's Rules and Regulations. Prior to 2016, Article XIV required 66% of residents on a given street to sign a petition expressing concern about the traffic safety on their street before the petition could be submitted to the Traffic Commission. The Traffic Engineer ultimately evaluated all petition locations and determined appropriate interventions.

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Traffic Calming Petition Procedure

In response to calls from the community and Board of Aldermen to make it easier to submit a petition, Somerville updated Article XIV in early 2016 by lowering the threshold for submitting a petition to either 33% of the residents on a given street or nine residents, whichever is lower.

The City also instituted a Traffic Calming Petition Procedure (Appendix 1), which establishes the action steps the City will follow when it receives a traffic calming petition. The core of this procedure is a data-driven evaluation and prioritization process, the goal of which is to direct limited resources for traffic safety improvements to the highest-need petition locations. The procedure establishes a timeline for accepting petitions, evaluating petitions, and implementing traffic safety improvements at high-priority petition locations (see Figure 1).

Figure 1. Traffic Calming Petition Procedure Timeline

	Year 1												Year 2												Year 3	
	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April on
Petition acceptance	Cohort 1												Cohort 2													
Petition evaluation							Cohort 1												Cohort 2							
Traffic safety improvements													Cohort 1												Cohort 2	

Accepting Petitions

In order to prioritize petition locations to determine which are most in need of traffic safety interventions, the City must establish a defined set, or cohort, of petitions. As established in the Traffic Calming Petition Procedure, the City accepts petitions between March and August of each year, thereby creating a cohort of petitions on an annual basis.

Evaluating Petitions

Once the cohort of petitions has been received, the City evaluates the petition locations, which starts with collecting data on 19 factors for each location. These factors include average speed, traffic volume, and proximity to playgrounds, nursing homes, or schools. Once the data is collected, the City prioritizes the cohort of petitions according to need using the Matrix for Traffic Calming Interventions included in the Traffic Calming Petition Procedure. The evaluation period as established in the Traffic Calming Petition Procedure requires 7 months (from September to February) due to the significant amount of time needed to collect data for two of the key factors (average speed and traffic volume).

Implementing Traffic Safety Improvements

With the cohort of petitions prioritized, the City makes recommendations for traffic safety improvements at the highest-need locations and implements those improvements with available resources between March and November.

As reflected in the Traffic Calming Petition Procedure timeline, establishing a priority ranking of the cohort of petitions takes 12 months, and implementation of traffic safety improvements takes another 9 months.

Status of Somerville's Traffic Calming Procedure

The Traffic Commission received 17 traffic calming petitions in the first acceptance period after the Traffic Calming Petition Procedure went into effect (between March and September of 2016). Prior to the implementation of the Petition Procedure, Traffic & Parking had received 13 requests for temporary speed bumps, and these were folded into the process, bringing the total number of petitions in the first cohort to 30.

In response to calls from the community and the Board of Aldermen, the City expedited data collection for the petition locations, wrapping up collection 4 months ahead of schedule. We have also evaluated the underlying data against each of the factors in the Matrix for Traffic Calming Interventions, which will allow us to prioritize the petition locations (our next step). This data is attached as Appendix 2.

Because this data is difficult to interpret on its own, we have also attached as Appendix 3 some of the key underlying data, including summary traffic speed and volume for each of the petition locations. Finally, Appendix 4 is a representative example of the detailed traffic speed and volume data that we collect for each street in order to produce the summary data included in Appendix 3. This detailed data will be shared with each petitioner.

The City has also named the Transportation Planner in OSPCD as the program lead for traffic calming, improving coordination across departments and creating a central point of contact for residents with traffic calming concerns.

Areas for Improvement and Next Steps

The City of Somerville is a learning organization and recognizes that there are improvements to be made to the Traffic Calming Petition Procedure, chief among them the need to communicate more frequently with traffic calming petitioners with updates on the status of their petition cohort. The City will be reaching out to all petitioners with an update shortly.

The City has also contracted with GPI, an engineering consulting firm with extensive expertise in traffic calming, to help us:

- Complete the Traffic Calming Petition Procedure for the outstanding cohorts of petitions, including prioritization of petition locations and identification of traffic safety improvements for the highest-need petition locations;
- Identify improvements to the Traffic Calming Petition Procedure; and,
- Identify improvements to our broader traffic calming efforts.

The City will update Board on this work in early spring of 2017. We look forward to working with the Board of Aldermen and the community to ensure continued improvements to the safety of Somerville's streets.

Appendix 1: Traffic Calming Petition Procedure

CITY OF SOMERVILLE
TRAFFIC CALMING PETITION PROCEDURE
February 16, 2016[1]

This document clarifies the action steps required should the City receive a *Neighborhood Action Request Form (Traffic Calming)* petition. This document shall serve as an interim, internal procedure while a Citywide mobility plan is in development.

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[1] With minor updates on December 5, 2016.

I. TRAFFIC CALMING PETITION PROCEDURE ACTION STEPS

1) Eligible *Neighborhood Action Request Form (Traffic Calming)* is submitted to the Traffic Commission via the Traffic & Parking Department.

2) Traffic & Parking Director notifies contact person on *Action Request Form*, including:

    a. Confirmation that the petition has been received and is under evaluation by the Traffic Engineer and the Traffic Unit of the Somerville Police Department.
    b. Explains the petition process procedure and timeline:

Action Requests are accepted March 1 through August 31 and evaluated September 1 to February 28. Action requests are implemented after March 1 if approved.

	Year 1												Year 2												Year 3	
	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April on
Petition acceptance	Cohort 1												Cohort 2													
Petition evaluation							Cohort 1												Cohort 2							
Traffic safety improvements													Cohort 1												Cohort 2	

3) Traffic Calming projects are prioritized by the Transportation and Infrastructure team within the Office of Strategic Planning and Community Development. Prioritization will be based on:

    a. Matrix evaluation. The "Matrix for Traffic Calming Interventions" (page 4) is completed by the Somerville Police Department and Traffic & Parking in conjunction with Transportation and Infrastructure.
    b. Planning and public safety priorities.
    c. Funding available for traffic calming interventions, speed studies, and other traffic calming devices.

4) Once prioritized, the Traffic Calming Team – which shall include the Director of Traffic and Parking, the Traffic Engineer, a representative from the Traffic Unit of the Somerville Police Department, and a representative from the Office

of Strategic Planning and Community Development – will make recommendations for next steps, which may include:

a. Speed hump or other traffic calming intervention installation
b. Radar study
c. Recommendation for MassDOT speed study
d. Resident education

5) Results of study or other recommended actions will be reported to the Traffic Commission. Notification will be as follows:

a. The Traffic & Parking Director will submit a report to the Traffic Commission and inform petitioner that a report has been filed.
b. Once a meeting has been established, the Traffic & Parking Director will notify petitioners of date and time for the Traffic Commission meeting.

II. MATRIX FOR TRAFFIC CALMING INTERVENTIONS

Warrant	Criteria	Satisfied (Y/N)
Street Classification	Street classified as either “residential” or “local”	
Prevailing Speed	85th percentile speed exceeds 25 mph	
Number of Lanes	Does not exceed two lanes with one lane in each direction	
Street Width	The paved width of the street (curb-to-curb) does not exceed 40 feet	
Minimum Traffic Volume	Average Daily Traffic of at least 300 vehicles per day	
Maximum Traffic Volume	Average Daily Traffic of no more than 2500 vehicle per day	
Street Length	Street is at least 750 feet	
Maximum Gradient	Street grade is less than 5%	
Minimum Curvature	Radius of street curve if present is more than 300 feet	
Street Use	Street shall not be: • truck route (at least 5% trucks of the ADT) • transit route • ”Opticon” or main corridor emergency routes	
Parallel Street	No parallel street of equal or lower order that would be impacted due to traffic diversion	
Adjacent Land Use	Street serves or is adjacent to a school, playground, or park, senior center, or building of worship	
Public Support	At least 33% of residents or 9 residents on the street support the installation of a traffic calming intervention.	
Acceptable Location	Potential location should be: • 250 feet away from nearest intersection • 10 feet away from nearest driveway • 15 feet from nearest fire hydrant • 200 feet of sight distance	
	Number of warrants satisfied	

EXPLANATION OF RANKINGS

All warrants shall be weighted equally, where Y=1 point and N=0 points. The requests with the highest total warrants satisfied will be prioritized and recommended for study.

GLOSSARY OF WARRANT TERMS

***Traffic calming interventions:* A traffic calming intervention typically refers to objects that require physical changes to the streetscape. This includes, but is not limited to, speed humps, raised crosswalks, speed tables, chicanes, neckdowns, pinch points, and even the addition of on-street parking. The Matrix for Traffic Calming Interventions was created with these types of objects or changes in mind. These streetscape changes are not the only type of traffic calming interventions, however. Streets that do not fit the criteria under the Matrix for Traffic Calming Interventions may be better suited for other types of interventions, which include installing signage, planting trees, educating residents, and enforcing traffic laws.

Street Classification: Traffic calming interventions should be restricted to local streets and some residential streets. These devices are not appropriate on arterials or collectors as these streets are typically designed to handle higher volumes of traffic.

Prevailing Speed: Traffic calming interventions are primarily intended to slow traffic on local streets where the prevailing speed is greater than the posted speed limit. Most local/residential streets within the City of Somerville have a *prima facie* speed limit of 25 mph unless otherwise posted. If the result of a speed study conducted on a local street indicate that the 85th percentile speed is greater than the 25 mph speed limit, then that street is a good candidate for traffic calming intervention.

Number of Lanes: Traffic calming interventions are designed for installation on a two-lane street – one lane in each direction. Streets with more than one lane in each direction are indicative of streets with potentially heavy traffic volumes and hence may not be functioning as a local street.

Street Width: Traffic calming interventions should be restricted to streets with a curb-to-curb width of less than 40 feet. This width restriction is also designed to limit traffic calming interventions to local streets.

Minimum Traffic Volume: If a local street has extremely low level of traffic, with rare occurrences of speed limit violation, then most traffic calming interventions will not be cost-effective. Streets with at least a minimum traffic volume level but with consistent speed limit violation make for good candidates for traffic calming intervention. Unless otherwise noted, the minimum traffic volume level considered is 300 vehicles per day.

Maximum Traffic Volume: Most traffic calming interventions should not be installed on heavily traveled streets as it will result in undesired diversion of traffic to adjacent streets. This warrant ensures that traffic calming interventions are installed on truly local streets, where it is important to control speeds from a safety perspective. If a local street has a high level of traffic, then the classification of that street will be reviewed in order to confirm if it truly is a local street. Unless otherwise noted, the maximum traffic volume considered is 2,500 vehicles per day.

Street Length: Drivers should have adequate warning as they approach traffic calming interventions to have adequate sight distance. In addition, it is desirable to install traffic calming interventions at a certain

minimum distance from an intersection, as discussed in the "Acceptable Location" section below. To allow for these requirements, traffic calming devices should be installed on streets that are at least 750 feet long.

Maximum Grade: A traffic calming intervention on a sustained downgrade may negatively impact a vehicle or may damage the calming installation itself. On the other hand, installing a traffic calming intervention on a street with a steep positive grade may be unnecessary for speed control. Consequently, traffic calming interventions are best suited for streets with less than a 5% grade.

Maximum Curvature: Curvature on a street can potentially limit the sight distance to a traffic calming intervention. Furthermore, it is more difficult to construct most interventions on a horizontal curve. For this reason, interventions should be installed on curves that have a radius of at least 300 feet.

Street Use: A speed hump or other traffic calming intervention cannot be installed on streets that function as a major truck route (with truck volumes at least 5% of the Average Daily Traffic, or ADT), are on a transit route or have been classified as an emergency route by the City. See "Emergency Intersections," below.

EMERGENCY INTERSECTIONS, ACCORDING TO INSTALLATION OF OPTICOM SYSTEM:

Broadway/Boston Ave/Willow Ave
Broadway/Cedar St
Broadway/Main St
Broadway/North St
Broadway/Packard Ave
Broadway/School St
Broadway @ Teele Sq
Broadway/Temple St
Cedar St/Elm St
Central St/Medford St
Highland Ave/Central St
Highland Ave @ Davis Sq
Highland Ave/Lowell St
Higland Ave/Medford St
Highland Ave/School St
Highland Ave/Walnut St
Highland Ave/Willow Ave
Powder House Blvd/North St
School St/Medford St
Summer St/Cedar St
Summer St/Central St
Summer St/School St

Parallel Street: If a street that is being considered for traffic calming intervention has a parallel street of equal or 'lower' classification -- for example, another local street -- then the installation may not be appropriate due to potential diversion of traffic. In other words, the intervention installation may transfer a given problem from one local street to an adjacent local street.

Adjacent Land Use: Streets that abut or provide access to schools, playgrounds or parks where the level of pedestrian activity is higher, especially with children, are candidates for installation of traffic calming intervention.

Public Support: It is essential that a speed hump or other traffic calming intervention installation on any street have the support of a majority of residents on that street. A 33% level of resident support is required for this warrant, consistent with the City's current traffic regulations. (NOTE: This warrant is included for the 2016 cohort to distinguish streets that received a petition in the 2016).

Acceptable Location: Traffic calming interventions should be installed only if an acceptable location can be identified. An acceptable location for a proposed intervention location should be 250 feet from the nearest intersection, 10 feet away from the nearest driveway, 15 feet away from a fire hydrant, and provide a minimum of 200 feet of sight distance. Other interventions may still be appropriate in cases where some of these criteria are not met.

Appendix 2: Matrix for Traffic Calming Interventions, 2016 Petition Streets

Traffic Calming Request Source	Date of Petition Submission	Residential Street Classification	Prevailing Speed	Number of Lanes
Avon St	Speed hump request email	Yes	No	Yes
Bigelow Street	03/14/16	Yes	No	Yes
Boston Street	03/25/16	Yes	No	Yes
Cameron Ave	Speed hump request email	No	Yes	Yes
Clarendon Ave	Speed hump request email	Yes	No	Yes
Columbus Ave.	04/14/16	Yes	No	Yes
Fairfax St	05/01/16	Yes	No	Yes
Florence Street	05/07/16	Yes	No	Yes
Hamlet Street	03/05/16	Yes	No	Yes
Highland Rd	10/03/15	Yes	No	Yes
Ibbetson St.	Speed hump request email	Yes	No	Yes
Kidder Ave	Speed hump request email	No	No	Yes
Kingston St	Speed hump request email	Yes	No	Yes
Madison St	03/28/15	Yes	No	Yes
Morrison Ave	09/30/15	No	No	Yes
Munroe Street	03/25/16	Yes	No	Yes
Newbury St (at Washburn Ave)	Speed hump request email	Yes	No	Yes
Powder House Blvd (West Somerville School)	Speed hump request email	No	Yes	Yes
Prospect Hill Parkway	03/07/16	Yes	No	Yes
Putnam St	Speed hump request email	Yes	No	Yes
Raymond Ave.	04/06/16	Yes	No	Yes
Rogers Ave.	05/06/16	Yes	No	Yes
Sartwell Street	06/17/16	Yes	No	Yes
Somerville Ave (Veteran's Skating Rink)	Speed hump request email	No	Yes	Yes
Stone Ave.	05/14/16	Yes	No	Yes
Sycamore St	Speed hump request email	Yes	Yes	Yes
Walnut Rd	Speed hump request email	Yes	No	Yes
Walnut St (Giles Park)	02/20/16	No	Yes	Yes
Warren Avenue	04/27/16	Yes	No	Yes
Wigglesworth St	Speed hump request email	Yes	No	Yes

Traffic Calming Request Source	Street Width	Minimum Traffic Volume	Maximum Traffic Volume	Street Length	Maximum Gradient
Avon St	Yes	Yes	Yes	Yes	Yes
Bigelow Street	Yes	Yes	Yes	No	Yes
Boston Street	Yes	Yes	No	Yes	Yes
Cameron Ave	Yes	Yes	No	Yes	Yes
Clarendon Ave	Yes	Yes	Yes	Yes	Yes
Columbus Ave.	Yes	Yes	Yes	Yes	Yes
Fairfax St	Yes	Yes	Yes	Yes	No
Florence Street	Yes	Yes	Yes	Yes	Yes
Hamlet Street	Yes	Yes	No	No	Yes
Highland Rd	Yes	Yes	No	Yes	Yes
Ibbetson St.	Yes	Yes	Yes	Yes	No
Kidder Ave	Yes	Yes	No	Yes	Yes
Kingston St	Yes	No	Yes	No	Yes
Madison St	Yes	Yes	Yes	Yes	Yes
Morrison Ave	Yes	Yes	No	Yes	Yes
Munroe Street	Yes	Yes	Yes	Yes	Yes
Newbury St (at Washburn Ave)	Yes	Yes	Yes	Yes	Yes
Powder House Blvd (West Somerville School)	Yes	Yes	No	Yes	Yes
Prospect Hill Parkway	Yes	Yes	No	Yes	No
Putnam St	Yes	Yes	Yes	Yes	Yes
Raymond Ave.	Yes	Yes	Yes	Yes	Yes
Rogers Ave.	Yes	Yes	Yes	Yes	Yes
Sartwell Street	Yes	Yes	Yes	No	Yes
Somerville Ave (Veteran's Skating Rink)	Yes	Yes	No	No	Yes
Stone Ave.	Yes	Yes	Yes	No	No
Sycamore St	Yes	Yes	No	Yes	Yes
Walnut Rd	Yes	Yes	Yes	No	Yes
Walnut St (Giles Park)	Yes	Yes	No	Yes	No
Warren Avenue	Yes	Yes	No	Yes	Yes
Wigglesworth St	Yes	Yes	Yes	No	Yes

Traffic Calming Request Source	Minimum Curvature	Street Use -- NOT a Truck Route	Street Use -- NOT a Transit Route
Avon St	Yes	Yes	No
Bigelow Street	Yes	Yes	Yes
Boston Street	Yes	Yes	Yes
Cameron Ave	Yes	Yes	Yes
Clarendon Ave	Yes	Yes	Yes
Columbus Ave.	Yes	Yes	Yes
Fairfax St	Yes	Yes	Yes
Florence Street	Yes	Yes	Yes
Hamlet Street	Yes	Yes	Yes
Highland Rd	Yes	Yes	Yes
Ibbetson St.	Yes	Yes	Yes
Kidder Ave	Yes	Yes	Yes
Kingston St	Yes	Yes	Yes
Madison St	Yes	Yes	Yes
Morrison Ave	Yes	Yes	Yes
Munroe Street	Yes	Yes	Yes
Newbury St (at Washburn Ave)	Yes	Yes	Yes
Powder House Blvd (West Somerville School)	Yes	Yes	Yes
Prospect Hill Parkway	Yes	Yes	Yes
Putnam St	Yes	Yes	Yes
Raymond Ave.	Yes	Yes	Yes
Rogers Ave.	Yes	Yes	Yes
Sartwell Street	Yes	Yes	Yes
Somerville Ave (Veteran's Skating Rink)	No	Yes	Yes
Stone Ave.	Yes	Yes	Yes
Sycamore St	Yes	Yes	Yes
Walnut Rd	Yes	Yes	Yes
Walnut St (Giles Park)	Yes	Yes	Yes
Warren Avenue	Yes	Yes	Yes
Wigglesworth St	Yes	Yes	Yes

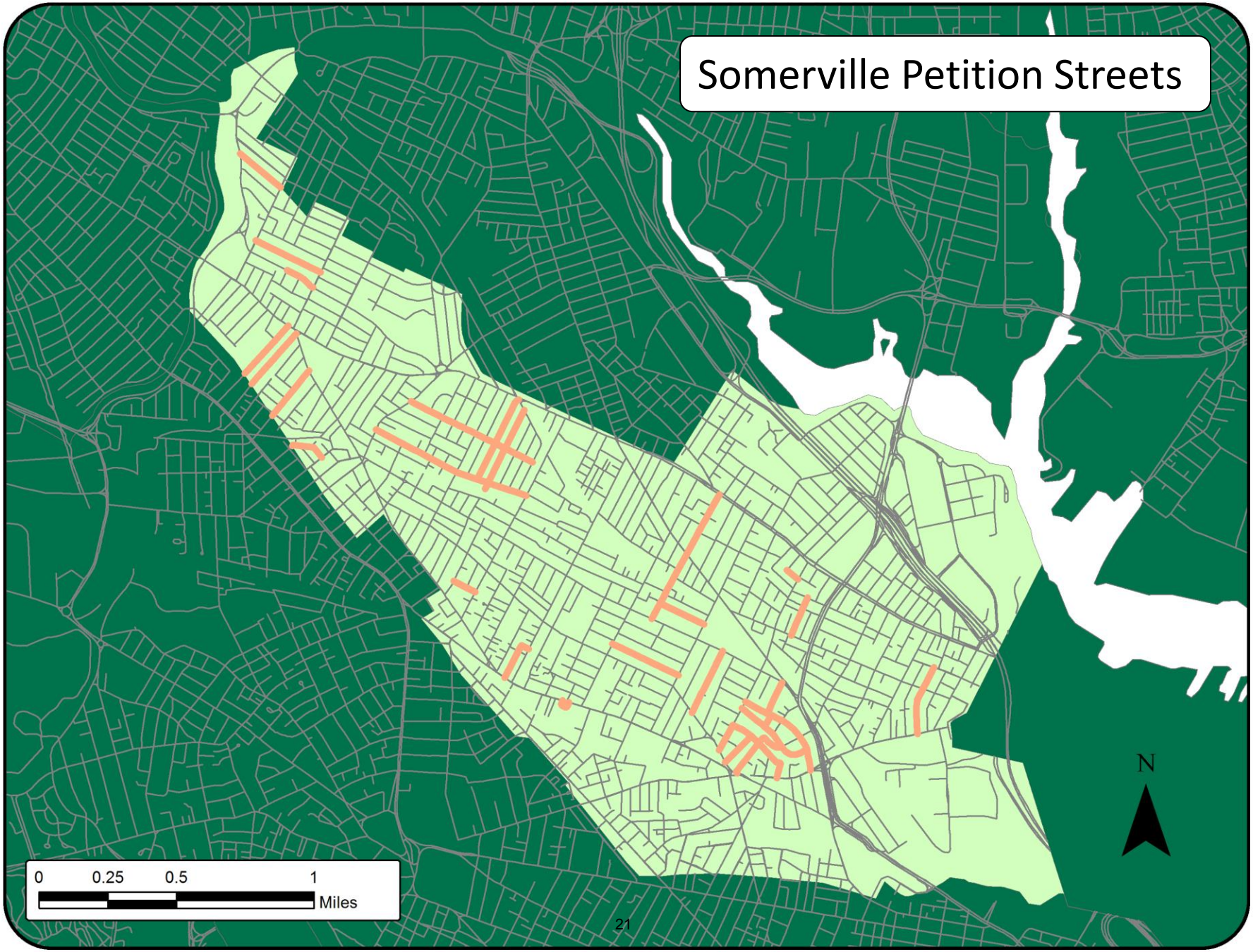
Traffic Calming Request Source	Street Use -- NOT "Opticon" or Emergency Route	Parallel Street	Adjacent Land Use	Public Support
Avon St	Yes	Yes	No	No
Bigelow Street	Yes	Yes	No	Yes
Boston Street	Yes	Yes	Yes	Yes
Cameron Ave	Yes	Yes	No	No
Clarendon Ave	Yes	Yes	No	No
Columbus Ave.	Yes	Yes	No	Yes
Fairfax St	Yes	Yes	No	Yes
Florence Street	Yes	Yes	Yes	Yes
Hamlet Street	Yes	Yes	No	Yes
Highland Rd	Yes	Yes	No	Yes
Ibbetson St.	Yes	Yes	Yes	No
Kidder Ave	Yes	Yes	Yes	No
Kingston St	Yes	Yes	Yes	No
Madison St	Yes	Yes	Yes	Yes
Morrison Ave	Yes	Yes	Yes	Yes
Munroe Street	Yes	Yes	Yes	Yes
Newbury St (at Washburn Ave)	Yes	Yes	No	No
Powder House Blvd (West Somerville School)	No	Yes	Yes	No
Prospect Hill Parkway	Yes	Yes	Yes	Yes
Putnam St	Yes	Yes	Yes	No
Raymond Ave.	Yes	Yes	Yes	Yes
Rogers Ave.	Yes	Yes	Yes	Yes
Sartwell Street	Yes	Yes	Yes	Yes
Somerville Ave (Veteran's Skating Rink)	Yes	Yes	Yes	No
Stone Ave.	Yes	Yes	No	Yes
Sycamore St	Yes	Yes	Yes	No
Walnut Rd	Yes	Yes	No	No
Walnut St (Giles Park)	Yes	Yes	Yes	Yes
Warren Avenue	Yes	Yes	Yes	Yes
Wigglesworth St	Yes	Yes	No	No

Traffic Calming Request Source	Acceptable Location -- 250ft from intersection	Acceptable Location -- 10 ft from driveway
Avon St	Yes	Yes
Bigelow Street	No	Yes
Boston Street	Yes	Yes
Cameron Ave	Yes	Yes
Clarendon Ave	Yes	Yes
Columbus Ave.	No	Yes
Fairfax St	Yes	Yes
Florence Street	Yes	Yes
Hamlet Street	Yes	Yes
Highland Rd	Yes	Yes
Ibbetson St.	Yes	Yes
Kidder Ave	No	Yes
Kingston St	No	Yes
Madison St	Yes	Yes
Morrison Ave	Yes	Yes
Munroe Street	Yes	Yes
Newbury St (at Washburn Ave)	Yes	Yes
Powder House Blvd (West Somerville School)	No	Yes
Prospect Hill Parkway	Yes	Yes
Putnam St	Yes	Yes
Raymond Ave.	Yes	Yes
Rogers Ave.	Yes	Yes
Sartwell Street	No	Yes
Somerville Ave (Veteran's Skating Rink)	No	No
Stone Ave.	Yes	Yes
Sycamore St	Yes	Yes
Walnut Rd	No	Yes
Walnut St (Giles Park)	Yes	Yes
Warren Avenue	Yes	Yes
Wigglesworth St	Yes	Yes

Traffic Calming Request Source	Acceptable Location -- 15 ft from hydrant	Acceptable Location -- 200 ft sight distance
Avon St	Yes	Yes
Bigelow Street	Yes	No
Boston Street	Yes	Yes
Cameron Ave	Yes	Yes
Clarendon Ave	Yes	Yes
Columbus Ave.	Yes	Yes
Fairfax St	Yes	Yes
Florence Street	Yes	Yes
Hamlet Street	Yes	Yes
Highland Rd	Yes	Yes
Ibbetson St.	Yes	Yes
Kidder Ave	Yes	Yes
Kingston St	Yes	Yes
Madison St	Yes	Yes
Morrison Ave	Yes	Yes
Munroe Street	Yes	Yes
Newbury St (at Washburn Ave)	Yes	Yes
Powder House Blvd (West Somerville School)	Yes	Yes
Prospect Hill Parkway	Yes	Yes
Putnam St	Yes	Yes
Raymond Ave.	Yes	Yes
Rogers Ave.	Yes	Yes
Sartwell Street	Yes	Yes
Somerville Ave (Veteran's Skating Rink)	Yes	No
Stone Ave.	Yes	Yes
Sycamore St	Yes	Yes
Walnut Rd	Yes	No
Walnut St (Giles Park)	Yes	Yes
Warren Avenue	Yes	Yes
Wigglesworth St	Yes	Yes

Traffic Calming Request Source	Total Warrant Score
Avon St	15
Bigelow Street	14
Boston Street	17
Cameron Ave	15
Clarendon Ave	16
Columbus Ave.	16
Fairfax St	16
Florence Street	18
Hamlet Street	15
Highland Rd	16
Ibbetson St.	16
Kidder Ave	14
Kingston St	14
Madison St	18
Morrison Ave	16
Munroe Street	18
Newbury St (at Washburn Ave)	16
Powder House Blvd (West Somerville School)	14
Prospect Hill Parkway	16
Putnam St	17
Raymond Ave.	18
Rogers Ave.	18
Sartwell Street	16
Somerville Ave (Veteran's Skating Rink)	11
Stone Ave.	15
Sycamore St	17
Walnut Rd	13
Walnut St (Giles Park)	16
Warren Avenue	17
Wigglesworth St	15

Appendix 3: Summary Speed and Volume Data, 2016 Petition Streets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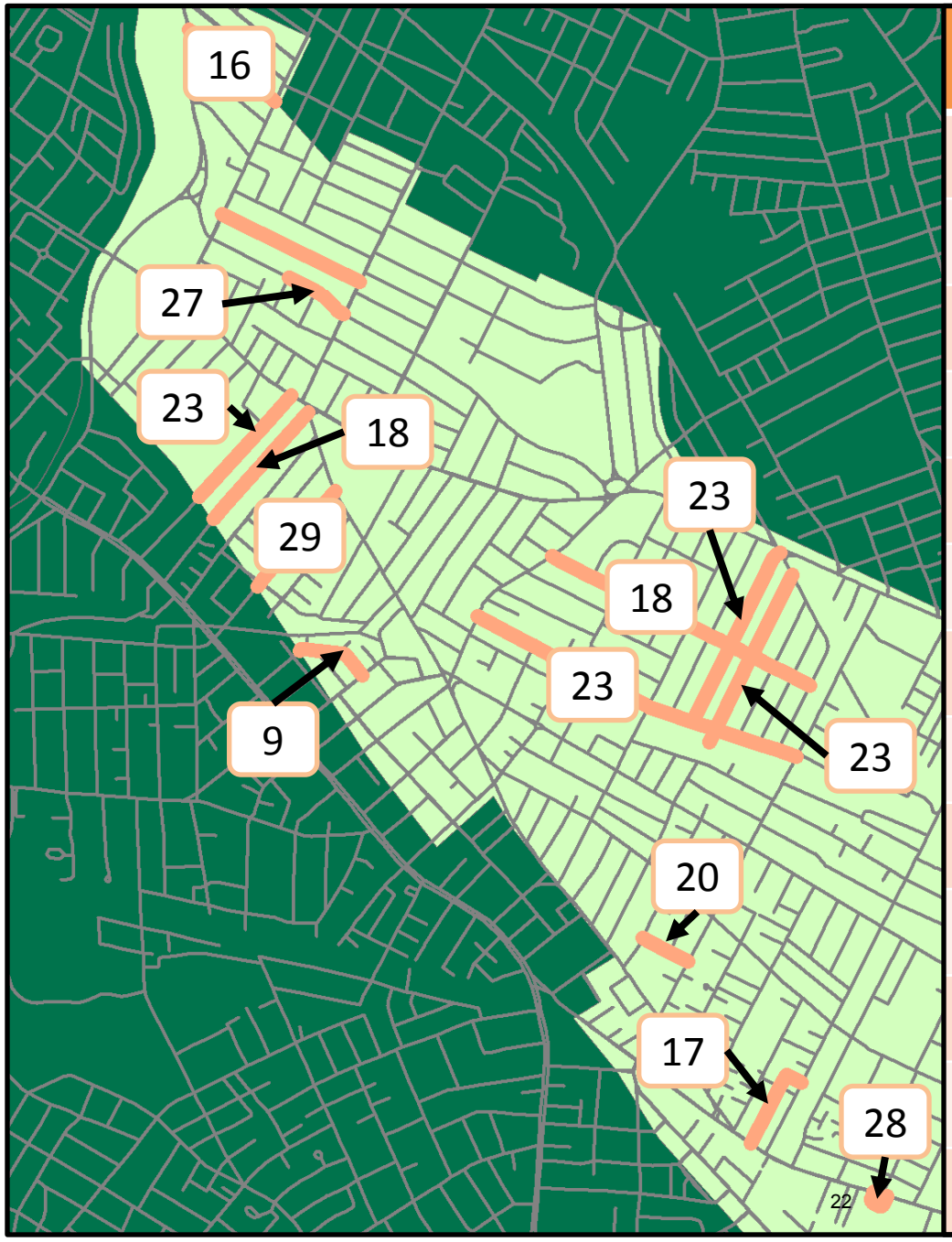
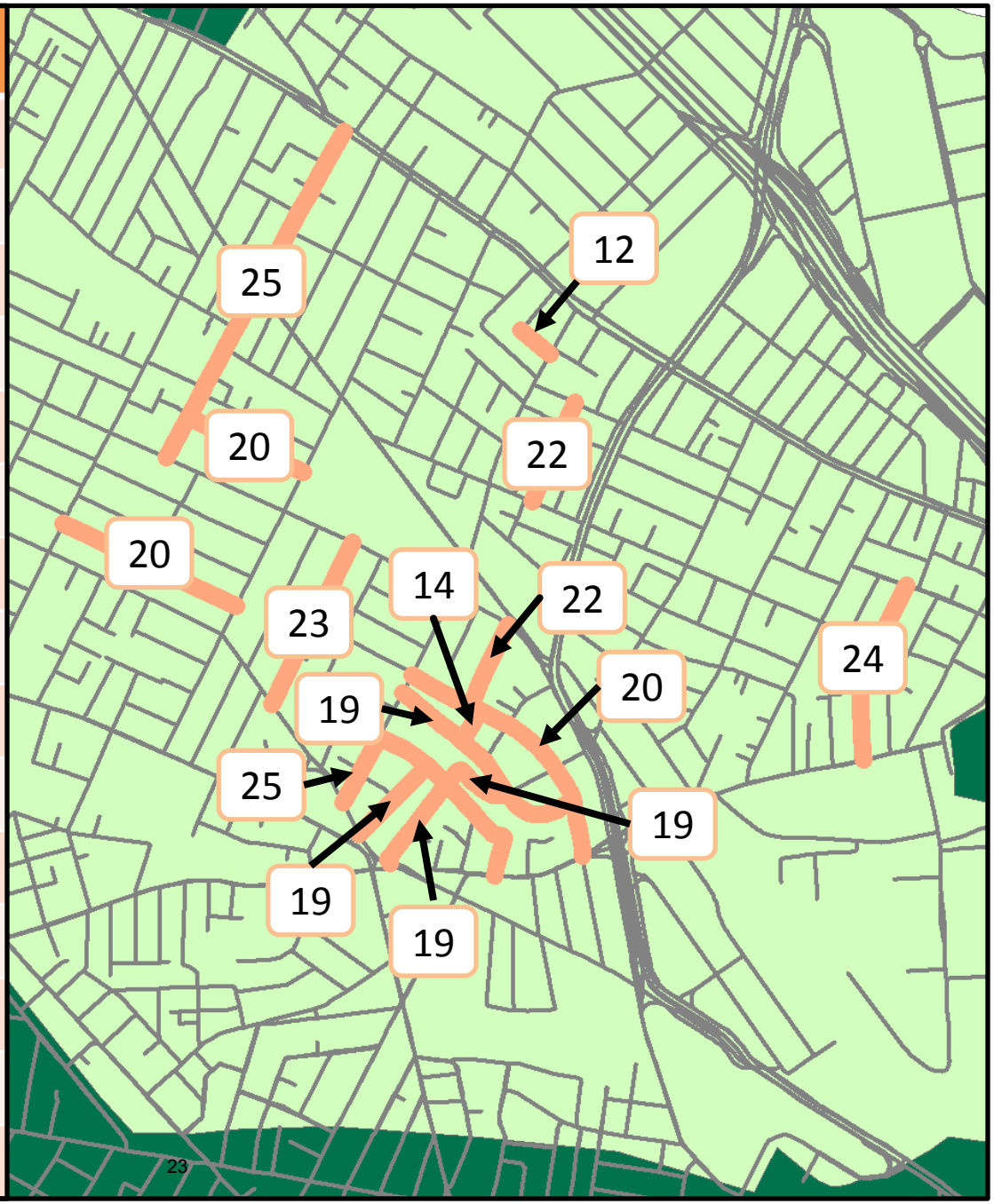


Street	Speed (85th)	Volume (ADT)
Cameron Ave	29	7742
Somerville Ave	28	16952
Powder House Blvd	27	9476
Morrison Ave	23	10464
Rogers Ave	23	1784
Clarendon Ave	23	2095
Highland Rd	23	3080
Sartwell Ave	20	1963
Newbury St	18	675
Kidder Ave	18	6912
Ibbetson St	17	634
Fairfax St	16	817
Kingston St	9	380

Street	Speed (85th)	Volume (ADT)
Sycamore St	25	2733
Walnut St	25	5858
Florence St	24	1979
Putnam St	23	3784
Hamlet St	22	3496
Wigglesworth St	22	1436
Boston St	20	3226
Madison St	20	689
Avon St	20	606
Stone Ave	19	1747
Warren Ave	19	2826
Prospect Hill Pkwy	19	2862
Munroe St	19	1926
Bigelow St	14	1360
Walnut Rd	12	405



Appendix 4: Representative Example of Detailed Speed and Volume Data Collected for All 2016 Petition Streets

Speed Summary Report

For Somerville Police Department on 8/29/2016 at 11:28 AM

Generated by Director Matthew Desmond

Location: Traffic & Parking, Clarendon Ave., N

Time of Day: 0:00 to 23:59

Dates: 8/23/2016 to 8/25/2016 (Su, M, T, W, Th, F, Sa)

Notes:

Hours	Mode	Speed Limit	Total # Vehicles	Total # Violations	% Violations	Average # Vehicles per day	Average # of Violations per day	Minimum Speed Recorded	Maximum Speed Recorded	Average Speed	50% Speed	85% Speed	Sign Effectiveness
0:00	Display Off	30	15	0	0.0 %	5.0	0.0	5	26	19	16.3	21.5	46.3 %
1:00	Display Off	30	6	0	0.0 %	3.0	0.0	13	29	20	18.3	23.3	32.7 %
2:00	Display Off	30	4	0	0.0 %	2.0	0.0	5	24	11	10.5	11.3	24.8 %
3:00	Display Off	30	5	0	0.0 %	2.5	0.0	5	25	17	15.8	17.0	40.0 %
4:00	Display Off	30	11	1	9.1 %	3.7	0.3	9	35	21	17.9	24.1	81.8 %
5:00	Display Off	30	65	2	3.1 %	21.7	0.7	6	32	22	22.1	25.6	44.1 %
6:00	Display Off	30	229	6	2.6 %	76.3	2.0	5	36	22	22.9	26.2	40.8 %
7:00	Display Off	30	351	4	1.1 %	117.0	1.3	5	34	21	21.8	25.1	37.5 %
8:00	Display Off	30	438	4	0.9 %	146.0	1.3	5	36	19	19.9	23.7	20.9 %
9:00	Display Off	30	278	1	0.4 %	92.7	0.3	5	35	19	20.7	24.1	26.4 %
10:00	Display Off	30	241	1	0.4 %	80.3	0.3	5	31	17	18.2	23.6	30.2 %
11:00	Display Off	30	201	2	1.0 %	67.0	0.7	5	32	18	18.6	23.6	27.4 %
12:00	Display Off	30	197	0	0.0 %	65.7	0.0	5	29	16	17.5	22.7	37.5 %
13:00	Display Off	30	224	0	0.0 %	74.7	0.0	5	30	17	18.0	22.9	34.4 %
14:00	Display Off	30	232	5	2.2 %	77.3	1.7	5	34	18	19.7	24.3	34.5 %
15:00	Display Off	30	202	3	1.5 %	67.3	1.0	5	33	18	19.0	23.4	24.6 %
16:00	Display Off	30	200	3	1.5 %	66.7	1.0	5	33	18	19.0	23.3	34.7 %

Speed Summary Report

For Somerville Police Department on 8/29/2016 at 11:28 AM

Generated by Director Matthew Desmond

Location: Traffic & Parking, Clarendon Ave., N

Time of Day: 0:00 to 23:59

Dates: 8/23/2016 to 8/25/2016 (Su, M, T, W, Th, F, Sa)

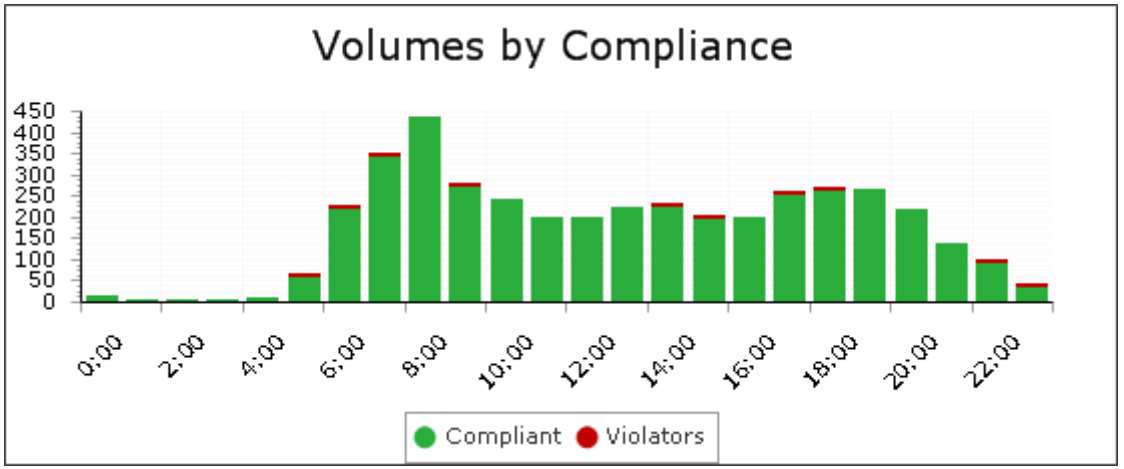
Hours	Mode	Speed Limit	Total # Vehicles	Total # Violations	% Violations	Average # Vehicles per day	Average # of Violations per day	Minimum Speed Recorded	Maximum Speed Recorded	Average Speed	50% Speed	85% Speed	Sign Effectiveness
17:00	Display Off	30	259	2	0.8 %	86.3	0.7	5	31	17	17.2	23.8	49.9 %
18:00	Display Off	30	268	1	0.4 %	89.3	0.3	5	32	16	16.9	23.1	41.2 %
19:00	Display Off	30	267	3	1.1 %	89.0	1.0	5	32	16	16.2	22.2	41.5 %
20:00	Display Off	30	220	1	0.5 %	73.3	0.3	5	33	15	13.6	22.3	49.1 %
21:00	Display Off	30	136	0	0.0 %	45.3	0.0	5	30	16	15.8	21.2	40.1 %
22:00	Display Off	30	98	1	1.0 %	32.7	0.3	5	32	18	17.9	22.6	42.2 %
23:00	Display Off	30	42	3	7.1 %	14.0	1.0	5	31	20	19.7	22.0	47.3 %
Total Volumes / Avg Speeds	Display Off	30	4189	43	1.0 %	1,398.8	14.3	5	36	18	18.1	22.6	39.0 %
Total/Avg w/o Feedback			4189	43	1.0 %	1,398.8	14.3	5	36	18	18.1	22.6	39.0 %
Total/Avg w/Feedback			0	0	0.0 %	0.0	0.0	0	0	0	0.0	0.0	0.0 %

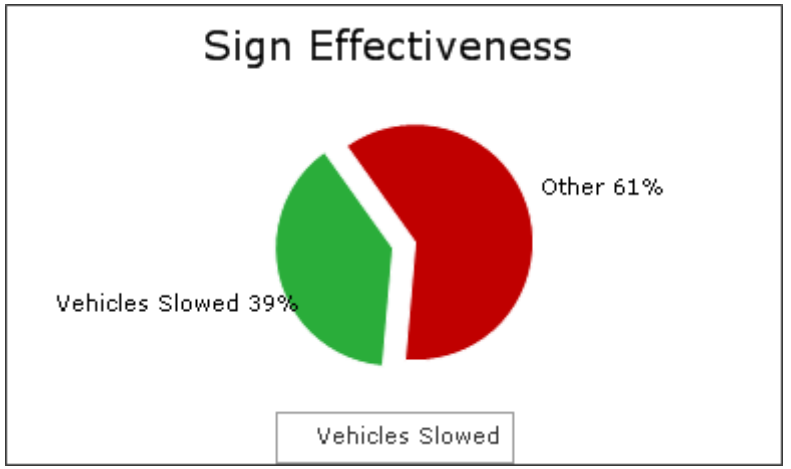
Speed Summary Report

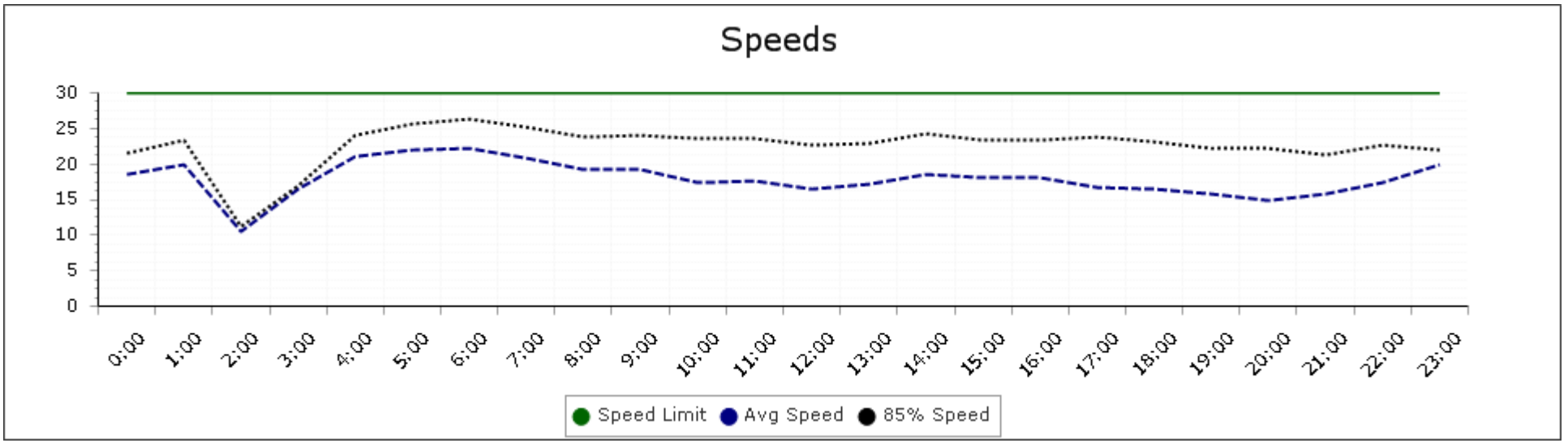
For Somerville Police Department on 8/29/2016 at 11:28 AM

Generated by Director Matthew Desmond
Location: Traffic & Parking, Clarendon Ave., N

Time of Day: 0:00 to 23:59
Dates: 8/23/2016 to 8/25/2016 (Su, M, T, W, Th, F, Sa)







Speed Summary Report

For Somerville Police Department on 8/29/2016 at 11:28 AM

Generated by Director Matthew Desmond
Location: Traffic & Parking, Clarendon Ave., N

Time of Day: 0:00 to 23:59
Dates: 8/23/2016 to 8/25/2016 (Su, M, T, W, Th, F, Sa)

Overall Summary

Total Days of Data	3
Speed Limit	30
Average Speed	17.95
50th Percentile Speed	18.06
85th Percentile Speed	22.64
Pace speed range	19 to 28
Maximum Speed	36
Minimum Speed	5
Display Status?	No Speed Feedback
Average Volume per Day	1,398.83
Total Volume	4,189