



City of Batavia

Residential Traffic and Sign Policy

Introduction

Like so many growing communities, Batavia has its share of traffic problems. In addition to cross town and commercial congestion, residents often complain of speeding traffic and reckless driving within their own neighborhoods. Expressions of concern for the safety of children, disabled and elderly citizens are common. From the number of complaints police receive on a weekly basis, one could easily be convinced that most drivers choose to disregard traffic laws. In truth, the vast majority of motorists are law abiding, safe drivers who become victimized by the few who are not.

This booklet discusses issues of signage, speed, methods of traffic calming, pedestrian safety and the City of Batavia's policy for dealing with them as they relate to residential neighborhoods. There is a special section defining the City's policy as it governs the installation of stop signs, one of the most frequently requested speed control devices. This policy manual is meant to be used as a guideline for elected officials and City staff and to be shared with citizens whose safety remains paramount in decisions affecting their neighborhoods.

Applicability of Policy

This policy is formulated for use on local residential streets. It is not intended for application on arterial highways or collector streets where traffic signage is governed by the more stringent limitations of the Manual on Uniform Traffic Control Devices (MUTCD).

The following streets/highways are designated as arterial or collector streets:

Regional Arterial Highways

Fabyan Parkway

Kirk Road

Randall Road

City-wide Major Arterial Highways

Main Street

Wilson Street

Batavia Avenue (Rt. 31)

River Street (Rt. 25) – south of Wilson

Washington Avenue (Rt. 25) – north of Wilson

Collector Streets

McKee Street

Morton Street

Lathem Street

Pine Street

Giese Road

Deerpath Road

Western Avenue

Woodland Hills Road

Van Nortwick Avenue

Prairie Street

Banbury Road

Hart Road

Raddant Road

Millview Drive

Wind Energy Pass

Addressing the Problem

Opinions differ as to the scope of neighborhood traffic problems in Batavia. Crashes, or near misses, that occur as the result of careless or reckless driving tend to stir a neighborhood into action. Citizen complaints may be driven by the emotions associated with those events. People may insist on the need for a stop sign, often when the problem is one of speed control. Established residents sometimes take exception to expansive growth in their neighborhoods that generates greater traffic volume and speed. Whatever the reason, all driving complaints are treated seriously and investigated by the police department.

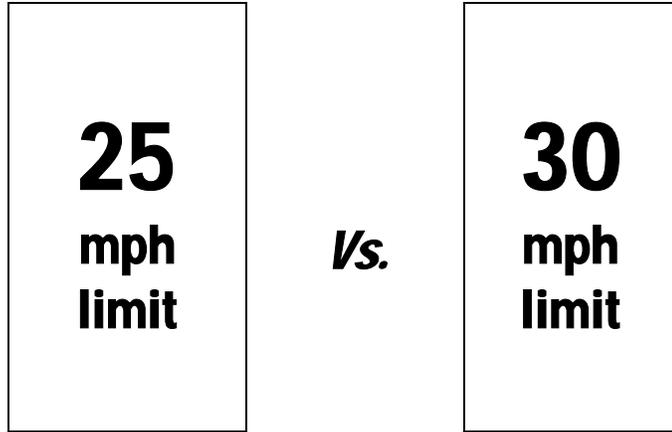
The Batavia Municipal Code makes the Chief of Police responsible for the appropriate installation of traffic signs. The decisions on where and what kind of traffic control devices are needed is sometimes simple, occasionally complex and may, at times, become emotional issues when residents' feelings are at odds with staff recommendations. Frequently, the safety of neighborhood children and senior citizens becomes an issue when driving complaints are made.

Any traffic policy must leave room for judgment and special circumstances; it cannot be all-inclusive. It is intended, though, that this policy will make traffic control decisions easier, fairer, more efficient and more objective.

Residential

Speed

Limits



Traffic engineers, legislators, citizens and municipal leaders have for years debated the appropriate speed limit for residential neighborhoods. Often, residents who perceive a traffic problem in their neighborhood will request that the speed limit on their street be lowered to slow traffic down.

The Illinois Vehicle Code sets the residential speed limit in all municipalities at 30 miles per hour. It also gives local authorities the option of altering the speed limit, to not lower than 25 miles per hour, when accompanied by an engineering study to justify the need for such a change.

In 2003, the Public Safety Committee (now City Services), consisting of seven (7) aldermen, debated the option of lowering the speed limit, citywide, to 25 mph. After the presentation of a traffic consultant, followed by considerable discussion, the Committee felt it would not be in the best interests of Batavia to lower the speed limit. It remains at 30 miles per hour, unless otherwise posted.

Thirty miles per hour is considered to be a safe speed for residential neighborhoods. Vehicles driven at or below that speed likely would generate few complaints. Problems persist when residents perceive that vehicles are traveling faster than the speed limit. Residents are encouraged to call 9-1-1 to get an immediate response from the police, who will investigate driving complaints. Citizens can be most helpful to the police in curtailing repeat traffic violators if they note the time that they observed the violation and as complete a description of the vehicle(s) as possible, along with a description of the driving behavior.

For more general complaints not requiring immediate service, residents are urged to call the police administrative number, 879-2840, to discuss the matter with a member of the police department administrative staff. General driving complaints, including speeding by multiple violators, will result in a police staff member generating a Traffic Watch Report (see example next page). Patrol officers will make concentrated, multiple spot checks to the site indicated for enforcement and documentation purposes. The results of Traffic Watch Reports will be shared with citizens at their request. In addition, individuals or groups who wish to discuss traffic signage or safety in their neighborhoods are urged to call the administrative number of the police department.

BATAVIA POLICE DEPARTMENT TRAFFIC WATCH REPORT

TO: Sgt. T40
 FROM: Sgt. Dixon

DATE: 9-24-04

ACTIVITY TO BE MONITORED: WOODLAND HILLS, MEADOWRUC.
Speeders, STOP SIGN VIOLATIONS.
4 TO 6:30 P.M. (PER. CHIEF)

PLEASE MONITOR THE AREA FOR THE ABOVE COMPLAINT ACTIVITY. WHEN COMPLETE PLEASE RETURN THE FORM TO ADMINISTRATION.

DATE / TIME OFFICER	NUMBER OF VEHICLES / TRAFFIC CONDITIONS	OFFICER ACTIVITY - STOPS, WARNINGS, CITATIONS	SPECIAL INFORMATION
#152 10/1/04 1650-1615	13 CLEAR/AVAILABLE	Ø	23-28 MPH.
10/3/04 1700-1730	LOW TRAFFIC	Ø	"
#152 10/5/04 1550-1615		Ø	NO STOP SIGN / NO NOT IN POSITION TO OBSERVE SPEED
160 10/06/04 1600-1630	Light traffic	Ø	25-30 mph
160 10/06/04 1615-1645	Light traffic	Ø	20-30 mph

TRAFFIC WATCH REPORT

Children and Traffic

Anxiety over the safety of Batavia's children overrides all other concerns. The hard fact is that children and traffic must co-exist, leading to many moments of apprehension for the parents of youngsters. Children must be supervised and taught at an early age the perils of playing near traffic.

Parents often ask the City to post "Children Playing" signs on their street. In fact, if every such request were honored, there would hardly be a block in town without such signage. The result of indiscriminate installation of traffic signs is that drivers tend to ignore them because they are everywhere.



"Children Playing" signs may also induce a false sense of security if parents rely on them to keep their children safe. Unless children are actually playing in the street, where they should not be, these types of signs are unnecessary. Motorists should always be alert for unexpected behavior from bicyclists and pedestrians, but especially from children.

The keys to safety for children are education, supervision and self-discipline. Parents must take the time to teach their children about pedestrian safety and then set a good example for their children to follow.

Specialized signage for disabled or impaired individuals will be considered on an individual case basis.

Traffic Calming

There are a number of measures available to induce motorists to drive slower. They range from simple strategies to complex feats of engineering. City staff members will work with residents in an effort to find a solution for their neighborhood.

Often, parking two cars across the street from each other, or slightly staggered, will slow traffic. Residents should use care to ensure that there is plenty of room for emergency vehicles to pass through if this measure is tried. Neighborhood children must also be cautioned about the dangers of darting into the street from behind parked cars.

The police department uses an unmanned squad car with a radar-controlled digital speed display mounted to its trunk to advise motorists of their speed. This device works to slow traffic, but only temporarily. The police department moves the car daily to new locations to maximize its effectiveness.

Some communities use speed humps or speed tables to slow motorists. Studies show that speed humps or tables give mixed results. While they may slow vehicles temporarily, they are costly to install and maintain. Batavia does not currently use these devices.

Extraordinary means of traffic calming require more thought and greater planning. Extreme methods could alter the neighborhood traffic flow, restrict movements and create other unforeseen traffic problems.

Stop Signs

City staff handles citizen requests for stop signs more frequently than for any other traffic control device. The apparent logic is that by placing a stop sign at their intersection, traffic will slow down. Stop signs do, in fact, cause motorists to slow down, but only temporarily. Engineering studies have shown that the



indiscriminate installation of too many stop signs tends to create contempt among drivers who then feel that they must make up the time that they lost while stopped.

Residents almost always have the very best intentions when they request stop signs, citing safety for their children and concerns about speeding vehicles. Often, though, they fail to take into account the "bigger picture" of how their requested stop sign may affect the rest of their neighborhood. The truth is that unnecessary stop signs create needless delays for motorists. There needs to be an objective means of determining when stop signs are warranted.

There are few intersections in Batavia that are uncontrolled, without stop signs for one direction or the other. Rarely is there disagreement on the need for or placement of 2-way stop signs. Debate more often takes place over the need for 4-way or all-way stop signs.

The MUTCD

The Manual on Uniform Traffic Control Devices (MUTCD) sets standards for traffic sign uniformity. Published by the United States Department of Transportation (DOT), the manual has been adopted for use by the State of Illinois. In like manner, the City of Batavia has adopted State standards by reference, making the MUTCD the City's model for traffic sign installation. The MUTCD can be researched in its entirety at <http://mutcd.fhwa.dot.gov/>

The MUTCD requires that traffic guidance standards be met prior to the installation of a stop sign. The standards for a 2-way stop are relatively simple (Section 2B.05-2B.06). Guidance for a multi-way stop sign is more stringent and complex (Section 2B.07). For example, one of the standards for a multi-way stop sign requires a minimum of five traffic accidents within a year at the intersection being considered. Another standard requires a minimum of 300 vehicles per hour entering the intersection for any eight - hour period in a day.

The MUTCD sets reasonable standards for arterial and collector streets, but few local street intersections could come close to meeting the warrants listed above. Because so many requests for stop signs come from relatively quiet residential neighborhoods, the City of Batavia has adopted an alternative multi-way stop sign policy (following pages) that allows a fair and objective evaluation of the intersection being considered for signage without the higher volumes required by the MUTCD.

Stop Sign Evaluation Policy

A City of Batavia professional traffic consultant designed the following policy in 2002. The required standards are relatively simple and based upon accident causing conflicts combined with traffic volume.

The methodology contains three measured criteria:

- 1) Left turn conflicts
- 2) Vehicle/pedestrian conflicts
- 3) Line of sight

Each category is calculated using a table that combines it with the traffic volume for a particular intersection. Points are assigned for each category and added to determine the need for traffic control. A total of (40) points from all categories combined will warrant the installation of a multi-way stop sign.

Prior to the application of this study to a particular intersection, it is necessary to conduct an automated traffic count to determine the AM and PM peak traffic periods. The City's Engineering Department has the equipment needed to make that determination.

A police department staff member will evaluate the results and discuss them with the requesting party(s). Residents whose request for a stop sign is turned down may ask for a review by the City Services Committee, a process that will be facilitated by the police staff member. The decision of the City Services Committee will be final.

City of Batavia

Methodology to Evaluate the Installation of All-Way Stop Signs on Local Residential Street Intersections

The methodology is intended to be a relatively simple method to gather data and evaluate the need to install an All-Way Stop sign traffic control based on the guidance provided in the Manual of Uniform Traffic Control Devices (MUTCD). The methodology also clearly provides room for the application of judgment to deal with unique or unusual traffic control situations. The intent of the policy is to improve traffic safety on local streets within residential neighborhoods.

The methodology is largely based on Criteria A, B, and C contained in Section 2B-07 of the 2003 Edition of the MUTCD. It is felt these criteria are most applicable to the lower traffic volumes found on local residential street intersections.

MUTCD Criteria A - The need to control left-turn conflicts.

This criterion is intended to measure the degree of vehicle conflict present at the subject intersection due to left turning vehicles. A manual turning volume traffic count is taken during the AM and PM peak periods. The percentage of all peak hour left turn movements as a percent of total peak hour intersection entering volume is calculated. Points are awarded as shown in Table A for the period with the highest degree of potential conflicts.

Unusual intersection configurations which cannot be reasonably corrected and that make motorist's determination of vehicular right-of-way for left turn movements more confusing, or which compound vehicle/pedestrian right of way conflicts during left turn vehicle movements may be awarded an additional (10) points.

Intersections on an established school walking route or intersections with over (20) pedestrians present during the peak hour of vehicular volume are awarded an additional (10) points. A lack of sidewalks from any leg of the intersection will result in the awarding of an additional (10) points.

Table A						
Peak Hour % of Left Turns of all Entering Vehicles	Peak Hour Entering Traffic Volume (# of Vehicles)					
		0-100	100-200	200-300	300-400	>400
	0-5%	0	5	5	10	15
	5-10%	5	5	10	10	15
	10-15%	5	10	10	15	20
	15-20%	5	10	15	20	25
>20%	5	15	20	25	30	

MUTCD Criteria B. - The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes.

The potential for vehicle/pedestrian conflicts can be quantified by determining the number of pedestrians crossing and vehicles entering the subject intersection. A manual traffic and pedestrian count is taken during the AM and PM peak periods, along with any other time of more intense pedestrian activity, Points are awarded as shown in Table B for the period (hour) with the highest degree of potential conflicts.

Table B						
# of Pedestrians (Peak Hr)	Peak Hour Entering Traffic Volume (# of Vehicles)					
		0-100	100-200	200-300	300-400	>400
	0-9	0	5	5	10	15
	10-19	5	5	10	10	15
	20-29	5	10	10	15	20
	30-39	5	10	15	20	25
	>40	5	15	20	25	30

The volume of schoolchildren during periods when a school crossing guard is present at the subject intersection should not apply toward the point system. Pedestrian volumes when a school crossing guard is not present should apply toward the point system.

MUTCD Criteria C. - Locations where a road user, after stopping, cannot see conflicting traffic and is not able to safely negotiate the intersection unless conflicting cross traffic is also required to stop.

This criterion assumes one or more of the intersection approaches is already under stop control. The distance a vehicle standing at the stop bar can see approaching traffic on the free-flow street is measured. If no stop bar is present, the sight distance is measured at the stop sign location.

Corrective measures to improve the sight distance of approaching vehicles are identified. These measures may include trimming of landscaping, removal/relocation of on-street parking, or other measures to improve sight distance visibility at the intersection. These measures should be considered in the decision-making process. Both the sight distance before and after the potential correction should be calculated. Points are assigned as shown in Table C.

Table C	
Sight Distance	Points
0-150 Feet	30
150-200 Feet	20
200-350 Feet	10
>350 Feet	0

Additional Considerations

Overall Impact of Stop Sign Installation:

This policy is intended for residential cells, bound by collector or arterial streets. These cells are neighborhoods that have established vehicular and pedestrian traffic patterns, with the pedestrian movements often involving school children. While the evaluation system of this policy quantifies the need to install an All-Way Stop control within these neighborhoods, it must be recognized that additional judgment must be applied beyond the raw numbers of the evaluation system. The installation of an All-Way Stop sign at one location can change traffic patterns within the neighborhood. For this reason, the following questions should be asked and considered during the decision-making process regarding the installation of an All-Way Stop sign:

Is the installation of the All-Way Stop likely to improve pedestrian safety, especially for schoolchildren, elderly or disabled residents?

Is the installation of the All-Way Stop sign likely to change travel patterns within the neighborhood in a way that will increase, decrease, or not change the degree of safety?

Conclusion

Batavia is fortunate to have a history with very few pedestrian accidents in residential neighborhoods. Elected officials and City staff, however, must not see that factor as a reason to overlook the safety concerns of residents. This policy contains a number of options and suggestions for neighborhood safety, but it should be reviewed and revised frequently to ensure that its contents remain relevant. Traffic safety is everyone's responsibility.