

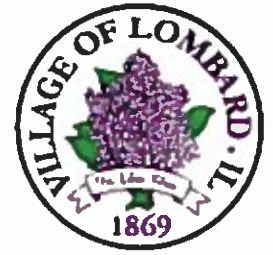
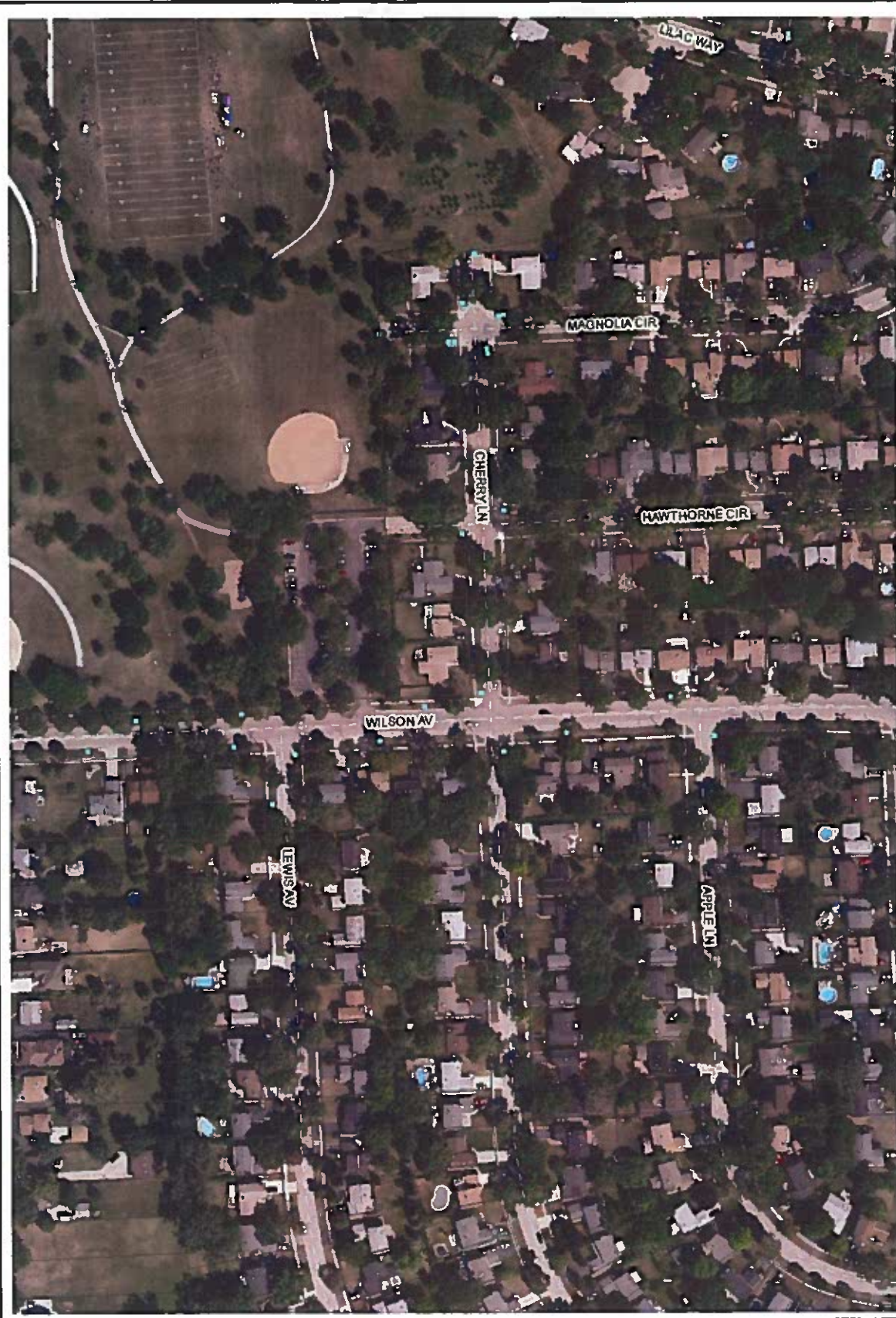


To: Chairperson and Transportation and Safety Committee
From: Frank Kalisik, Civil Engineer *FK*
Through: Carl S. Goldsmith, Director of Public Works *CJ*
Date: January 26, 2010
Subject: Wilson and Cherry Intersection 4-Way Stop Sign Request

A request for placement of a 4-way stop intersection has been requested by Trustee Ware. Currently, the intersection is controlled by stop signs on Cherry Street. Both streets are posted at the state regulated 30 mph speed limit. Traffic accident history has been compiled by PD with 3 known accidents at the intersection since 2006, no injuries were reported.

Neither traffic counts nor a speed study have been conducted due to weather and equipment complications/considerations. There is no recommendation by staff due to insufficient traffic data at this time. An aerial map of the intersection is attached for your reference along with a copy of the MUTCD (Manual on Uniform Traffic Control Devices) section on stop sign placement requirements.

cc: William Ware, Trustee, District 6



Centerline

JURIS

— DPC TRAIL

--- RIVER

— RxR

— TOLLWAY

□ Parcels

□ limits-poly

• Signs



228 ft



Intersection of Wilson and Cherry

Section 2B.06 STOP Sign Applications

Guidance:

- 01 *At intersections where a full stop is not necessary at all times, consideration should first be given to using less restrictive measures such as YIELD signs (see Sections 2B.08 and 2B.09).*
- 02 *The use of STOP signs on the minor-street approaches should be considered if engineering judgment indicates that a stop is always required because of one or more of the following conditions:*
- A. *The vehicular traffic volumes on the through street or highway exceed 6,000 vehicles per day;*
 - B. *A restricted view exists that requires road users to stop in order to adequately observe conflicting traffic on the through street or highway; and/or*
 - C. *Crash records indicate that three or more crashes that are susceptible to correction by the installation of a STOP sign have been reported within a 12-month period, or that five or more such crashes have been reported within a 2-year period. Such crashes include right-angle collisions involving road users on the minor-street approach failing to yield the right-of-way to traffic on the through street or highway.*

Support:

- 03 *The use of STOP signs at grade crossings is described in Sections 8B.04 and 8B.05.*

Section 2B.07 Multi-Way Stop Applications

Support:

- 01 *Multi-way stop control can be useful as a safety measure at intersections if certain traffic conditions exist. Safety concerns associated with multi-way stops include pedestrians, bicyclists, and all road users expecting other road users to stop. Multi-way stop control is used where the volume of traffic on the intersecting roads is approximately equal.*
- 02 *The restrictions on the use of STOP signs described in Section 2B.04 also apply to multi-way stop applications.*

Guidance:

- 03 *The decision to install multi-way stop control should be based on an engineering study.*
- 04 *The following criteria should be considered in the engineering study for a multi-way STOP sign installation:*
- A. *Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.*
 - B. *Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.*
 - C. *Minimum volumes:*
 - 1. *The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and*
 - 2. *The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but*
 - 3. *If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.*
 - D. *Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.*

Option:

- 05 *Other criteria that may be considered in an engineering study include:*
- A. *The need to control left-turn conflicts;*
 - B. *The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;*
 - C. *Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop; and*
 - D. *An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.*