



Agenda Item Summary

File #: MOT 17-236, **Version:** 1

Submitted By

Jack Chalabian, Transportation Commission Chairperson
Village Engineer

Bill McKenna,

Reviewed By

LKS

Agenda Item Title

A Motion to Concur with the Transportation Commission's Recommendation to Install a STOP Sign on Forest Avenue for Northbound Traffic at Greenfield Street and Direct Staff to Prepare the Necessary Ordinance and to Install a Temporary Bump-Out on Greenfield Street at Forest Avenue

Overview

The Village of Oak Park received a petition to install all-way STOP signs at the intersection of Forest Avenue and Greenfield Street. The Village conducted crash analysis and traffic studies for the intersection. The Transportation Commission voted four to one to recommend installing a northbound STOP sign on Forest Avenue at Greenfield Street at its June 12, 2017 meeting. Staff is not in agreement with the recommendation to install a STOP sign. The Commission also recommended, in addition to the STOP sign, the installation of temporary, bike friendly bump-outs on Greenfield Street at Forest Avenue, test for several months and bring back to the Commission for review and discussion. Staff is in agreement with the temporary bump-out recommendation.

Staff Recommendation

Staff has concerns with the Transportation Commission's recommendation to install a northbound STOP sign on Forest Avenue at Greenfield Street as there does not appear to be a speeding issue on Forest Avenue nor does there appear to be a problem with vehicle crashes at the Forest Avenue and Greenfield Street intersection.

Staff is in concurrence with the Commission's recommendation to install a temporary, bike friendly bump-outs on Greenfield Street at Forest Avenue.

Fiscal Impact

Staff estimates it will cost less than \$1,000 to install signage and related pavement markings to upgrade from a two-way to an all-way STOP controlled intersection. There are available funds in the FY2017 General Fund, Public Works - Street Services, account no. 1001-43740-761-550634 for this work.

Background

On October 19, 2016, the Village of Oak Park received a petition to upgrade to all-way STOP signs at the intersection of Superior Street and Forest Avenue. Persons representing 67.7% of the street frontage on the

petitioning blocks signed the petition. The petition was certified as a valid petition.

Reasons provided for the petition are: to slow the east-west traffic on Greenfield Street, especially during AM and PM peak hours, cars often pass a vehicle that is traveling at the marked 20 miles per hour (mph) speed limit; low visibility around Lindberg Park, bicyclists and pedestrians are forced into the intersection to see because of shrubs, trees and cars parked in the NO PARKING area, and confusion of traffic patterns along the park.

See Attachment A for a copy of the petition and the original letter of explanation which accompanied the petition. See Attachment B for copies of the written public testimony received by the Village for this item.

The organizer of the petition notified staff that issues with traffic primarily occur when Lindberg Park facilities are in use. Based on this information, the data collection for the traffic study was postponed until the spring of 2017 when the fields at Lindberg Park would be in use by various teams and leagues. The Village obtained the booking schedule for Lindberg Park's facilities from the Park District of Oak Park. The scheduling of the traffic studies were based on the provided Lindberg Park booking calendar.

The petition was reviewed by the Transportation Commission at its June 12, 2017 meeting. Staff gave a presentation on the issue including: background on the petition, history of traffic control devices at the intersection, analysis of the collected traffic data and collision diagram. Area residents provided public testimony on the item. After hearing Staff's presentation and public testimony, the Transportation Commission deliberated on the item. The approved minutes for the June 12, 2017 Transportation Commission meeting are included as Attachment G.

At the June 12, 2017 meeting, the Transportation Commission made the following recommendations:

1. Install continental crosswalk markings on Greenfield Street at Forest Avenue and move the NO PARKING ANYTIME signs to 30 feet from crosswalks.
2. Install STOP sign for northbound Forest Avenue traffic at Greenfield Street.
3. Install temporary, bike friendly bump-outs on Greenfield Street at Forest Avenue, test for several months and bring back to the Commission for review and discussion.
4. Install additional speed signage (temporary speed radar signs) on Greenfield Street and seek further parking enforcement around Lindberg Park or install additional parking restriction signage.

ANALYSIS SECTION:

Geometry of the Intersection and Neighborhood Context (Attachments C & D)

The intersection of Forest Avenue and Greenfield Street (see Attachment C for aerial views) is on the southern border of Lindberg Park. It is also one block north and one block west of Field Park and Mann Elementary School.

Attachment D details the traffic control devices on Greenfield Street between Harlem Avenue and Oak Park Avenue as well as the following other east-west streets: Division Street, Berkshire Street and

LeMoyne Parkway.

Traffic Study - Volume and Speed (Attachment E)

Reviewing the 24-hour volumes, the average daily traffic on the 1000 block of Forest Avenue was 373 and 395 vehicles for Thursday and Saturday, respectively. The average daily traffic on the 931 and 1000 blocks of Greenfield Street ranged between 1,399 vehicles and 1,632 vehicles for those same days studied. Volumes on Forest Avenue are below the 800 to 1,200 vehicle range for typical daily volumes on residential streets within the Village of Oak Park. While the vehicle volumes on the 931 and 1000 blocks of Greenfield Street exceeded the typical daily volumes on residential streets within the Village. The elevated volumes on the 931 and 1000 blocks of Greenfield Street are due in part to the traffic generated by people coming to Lindberg Park and the blocks proximity to Harlem Avenue. Please see Attachment E for a summary of the vehicle traffic study results.

Regarding vehicular speeds, it is an accepted traffic engineering practice to set the speed limit to the 5 mile per hour increment above or below the 85th percentile speed. Village Staff holds the opinion that the majority of drivers will drive at or near the posted speed limit. In addition, it is an accepted fact that the speed indicated on speedometers can vary up to 2 percent above or below the actual speed of the vehicle.

By definition, the 85th percentile speed is the speed at which 85 percent of the vehicles are traveling at or less than. Conversely, 15 percent of the vehicles will be traveling faster than the 85th percentile speed. It has already been stated that speed limits are typically set to the 5 mile per hour increment above or below the 85th percentile speed. This implies that it is expected that approximately 15 percent of vehicles will be traveling faster than the speed limit, if the speed limit is the 5 mile per hour increment below the 85th percentile speed.

Looking at the 85th percentile speeds for the 1000 block of Forest Avenue, the directional speeds for the block for the two days studied ranged between 24 and 25 miles per hour (mph). The weekday data indicated the percentage of vehicles on the 1000 block of Forest Avenue that were traveling faster than the posted 25 mph speed limit ranged between 15.2% and 15.4% which is just above the expected 15% traveling above the speed limit. The weekend data revealed the percentage of vehicles on the 1000 block of Forest Avenue were traveling faster than the posted 25 mph speed limit ranged between 10.8% and 12.3% which is below the expected 15% traveling above the speed limit.

Looking at the 85th percentile speeds for the 931 and 1000 blocks of Greenfield Street, the directional speeds for the two blocks range between 28 mph and 30 mph. Note: this section of Greenfield Street has PARK ZONE 20 mph SPEED LIMIT WHEN CHILDREN ARE PRESENT signs posted on it. On Thursday, May 11, 2017, park facilities were scheduled to be used from 3:30pm to 8:00pm. On Saturday, May 13, 2017, park facilities were scheduled to be used from 8:00am to 6:00pm.

The weekday survey showed that 40.1% of the eastbound vehicles and 38.2% of the westbound vehicles on the 931 block of Greenfield Street were traveling faster than the posted 25 mph speed limit. During that same day on the 1000 block of Greenfield Street, the percentage of vehicles traveling faster than the posted 25 mph speed limit was 44.7% for eastbound traffic and 45.2% for westbound

traffic.

The weekend survey showed that 32.9% of the eastbound vehicles and 30.1% of the westbound vehicles on the 931 block of Greenfield Street were traveling faster than the posted 25 mph speed limit. During that same day on the 1000 block of Greenfield Street, the percentage of vehicles traveling faster than the posted 25 mph speed limit was 40.5% for eastbound traffic and 35.8% for westbound traffic.

Based on the collected data, it appears there may be a speeding issue on the 931 and 1000 blocks of Greenfield Street. The Manual on Uniform Traffic Control Devices lists that STOP signs should not be used for speed control. Studies have shown there is little or no effect on vehicle speeds on residential roads after the installation of STOP signs. Vehicle speeds are reduced within 150 feet of the intersection otherwise the effect of STOP signs on vehicle speeds is negligible.

Crash History - Collision Diagram (Attachment F)

Thirty-six months of vehicle crash reports covering the period of May 2014 through April 2017 were reviewed for the Greenfield Street and Forest Avenue intersection. Please see Attachment F for the collision diagram. The number of reported crashes that occurred at the Greenfield Street and Forest Avenue intersection for the thirty-six months ended April 30, 2017 also totaled zero. The average daily traffic for the intersection as determined as part of this traffic study is 1,822 vehicles. From this data, the 2017 crash rate for the Greenfield Street and Forest Avenue intersection is calculated to be 0.000 Acc/MEV.

This crash rate is then compared to the critical crash rate for the particular section of the Village's area-wide traffic study. For the north section of the area-wide traffic study (Augusta Street to North Avenue and Harlem Avenue to Austin Boulevard), the critical crash rate was calculated to be 0.686 Acc/MEV. If an actual accident rate exceeds the critical crash rate then it is highly probable that the accidents were caused by factors other than chance.

The 2017 crash rate for this intersection is lower than the critical crash for the area as determined in the area-wide traffic study of 1997 (0.686 Acc/MEV). In conclusion, there does not appear to be a problem with vehicle crashes at the Greenfield Street and Forest Avenue intersection.

Village Staff has concerns with the Transportation Commission's recommendation to install a northbound STOP sign on Forest Avenue at Greenfield Street as there does not appear to be a speeding issue on Forest Avenue nor does there appear to be a problem with vehicle crashes at the Forest Avenue and Greenfield Street intersection. Staff concurs with the recommendations to install continental crosswalk markings on Greenfield Street at Forest Avenue, expand the NO PARKING ANYTIME area to 30 feet from crosswalks and installation of temporary bump-outs on Greenfield St to test for several months and bring back to review the effectiveness on calming traffic. Staff also concurs on installation of temporary speed radar signs on Greenfield St and increased parking enforcement around Lindberg Park.

Alternatives

The alternative to this recommendation could be to delay action to gain additional information.

Previous Board Action

N/A.

Citizen Advisory Commission Action

The Transportation Commission recommended the following:

1. Install continental crosswalk markings on Greenfield Street at Forest Avenue and move the NO PARKING ANYTIME signs to 30 feet from crosswalks. (The motion passed unanimously).
2. Install STOP sign for northbound Forest Avenue traffic at Greenfield Street. (The motion passed four to one).
3. Install temporary, bike friendly bump-outs on Greenfield Street at Forest Avenue, test for several months and bring back to the Commission for review and discussion. (The motion passed four to one).
4. Install additional speed signage (temporary speed radar signs) on Greenfield Street and seek further parking enforcement around Lindberg Park or install additional parking restriction signage. (The motion passed unanimously).

Anticipated Future Actions/Commitments

Subject to consensus of the Village Board, staff will submit an Ordinance to the Village of Oak Park Board for adoption for the installation of the STOP sign for northbound traffic on Forest Avenue at Greenfield Street at a future Board meeting.

If the temporary bump-outs on Greenfield Street prove effective in calming traffic and are ultimately recommended by the Transportation Commission, an item for the permanent installation of bump-outs on Greenfield Street at Forest Avenue would be presented to the Village Board for consideration.

Intergovernmental Cooperation Opportunities

N/A.

Performance Management (MAP) Alignment

N/A.