

VILLAGE OF DOWNERS GROVE
REPORT FOR THE VILLAGE COUNCIL WORKSHOP
APRIL 12, 2011 AGENDA

SUBJECT:	TYPE:	SUBMITTED BY:
Adoption of Traffic Control Amendments in 2010 Neighborhood Traffic Study Area	✓ Resolution Ordinance Motion Discussion Only	Nan Newlon, P.E. Director of Public Works

SYNOPSIS

An ordinance has been prepared to amend sections of the Municipal Code concerning the installation of Stop, Yield and School Crossing and Pedestrian Crossing signs and pavement markings on various streets within the 2010 Neighborhood Traffic Study Area, bounded by Main Street, Maple Avenue, Fairview Avenue, and 55th Street.

STRATEGIC PLAN ALIGNMENT

The goals for 2011-2018 identified *Top Quality Infrastructure*.

FISCAL IMPACT

N/A

RECOMMENDATION

Approval on the April 19, 2011 active agenda.

BACKGROUND

The Village initiated this first neighborhood-wide traffic study in October 2010. The purpose of the study was two-fold: to address traffic and pedestrian issues on a neighborhood basis to improve safety and to address safety concerns at the intersection of Washington Street and 55th Street. Historically, concerns expressed by residents within this area have been related to speeding, cut-through traffic, conflicts between pedestrian and motorists, and parking regulations.

The scope of the study included data collection, including traffic counts on all streets within the study area, pedestrian counts, intersection peak hour counts, parking observations and general intersection measurements. The study began the first week of October 2010 and was completed by the third week of November. Residents in the neighborhood were kept informed of the progress by means of mailings and updated postings on the Village's web site. A brochure highlighting the specific goals for the study was developed by staff and included information about the operation of traffic controls and general traffic management information.

Throughout the study staff met on several occasions with the consultant, KLOA, Inc., to discuss the study's progress, the data received, potential recommendations and strategies for implementation. An informal neighborhood meeting was held January 26, 2011 at Whittier Elementary School for the purpose of presenting the preliminary recommendations and soliciting comments from residents of the neighborhood. Approximately 40 people attended the meeting and comments from the meeting were incorporated into the draft study presented to the Transportation and Parking Commission on March 9, 2011.

The draft study includes recommendations for short-term to long-term improvements.

Proposed Short-Term Improvements

The TAP Commission voted unanimously to approve the study's short-term recommendations which consist of traffic control amendments including amendments to Stop, Yield and School Crossing and Pedestrian Crossing signs and pavement markings on various streets within the 2010 Neighborhood Traffic Study Area. The specific amendments include:

1. STOP and Yield Signs

- Remove YIELD sign on Grand Ave at Burlington Ave
- New STOP sign on Grand Ave at Burlington Ave
- New YIELD sign on Summit St at Blodgett Ave (EB)
- New YIELD sign on Farley Pl at Lyman Ave (WB) and at Park Ave (EB)
- New YIELD signs on Webster St. at Summit St (NB and SB both)
- New STOP signs on Park Ave at Randall St (All-Way)
- Remove STOP from Hill St at Blodgett Ave (WB)
- New STOP signs on Hill St. at Blodgett Ave (All-Way)
- New STOP signs on Lyman Ave at Summit St (All-Way)
- New STOP sign on Elmwood Ave at Randall Ave (SB)
- New STOP sign on Randall Ave at Elmwood Ave (EB)
- New STOP sign on Webster St. at Randall Ave (NB)
- Remove STOP signs on Grand Ave and Hill St (N-S)
- New STOP signs on Grand Ave at Hill St. (All-Way)
- Revise STOP direction on Randall St. at Benton Ave from STOP E-W to STOP N-S
- Revise STOP direction on Randall St. at Fairmount Ave from STOP E-W to STOP N-S
- Revise STOP direction on Lyman Ave at Randall St. fro STOP E-W to STOP N-S

2. School Crossings / Pedestrian Crossings

- Relocate school crossing on 55th St, from Benton Ave to Blodgett Ave (West leg)
- New pedestrian crossing on Maple Ave at Mackie Pl (East leg)
- Relocate school crossing on Washington Ave at Randall St. from South side to North side
- New school designated crossings east-west along Summit St, at Lyman Ave, Park Ave, Fairmount Ave, Benton Ave, and Blodgett Ave.

The 2010 Neighborhood Traffic Study also recommended a series of amendments to parking regulations in this area for the purpose of providing more consistency within the neighborhood. Because of a lack of consensus support from residents on the parking amendments, the changes are not recommended for implementation at this time and will be discussed at the next neighborhood meeting.

Proposed Mid-Term Improvements (for future TAP and Council consideration)

Mid-term improvements include items that impact the collector and arterial roadways that surround this neighborhood and either improve the efficiency of traffic flow or address safety concerns. Because they either involve the expenditure of funds, or have traffic impacts on other areas within the neighborhood, staff recommends that there be further review and meetings prior to implementation. These improvements include such items as improving lane use at the intersection of Main Street and Maple Avenue, the County's implementation of an AM lead-left turn movement for eastbound traffic at 55th and Main, and possible turn restrictions at various intersections including Main and Washington Streets. These are items that involve working with DuPage County, further staff review and dialogue with residents and the expenditure of funds.

Specifically, these mid-term time-frame improvements included in the draft study are the following:

- Work with DuPage County to install AM peak-hour left-turn phase at Main Street and 55th Street for eastbound traffic

- Restriction of turning movements for traffic on Washington Street at 55th Street
- Restriction of turning movements at Webster Street at 55th Street
- Expansion of the existing turn restriction at Maple Ave and Blodgett Ave from PM peak hour to 24-hour restriction
- Restriction of northbound and southbound left-turn movements on Main Street at Maple Avenue and creation of exclusive right-turn lane on northbound Main Street at Maple Avenue
- Traffic signal phasing changes at Main Street and Maple Avenue to maximize capacity and safety

Long-Term Improvements (for future TaP and Council consideration)

Longer term improvements include full intersection improvements with exclusive left turn lanes in all directions at Main and 55th and Fairview at 55th. These projects were favorably received by attendees at the neighborhood meeting. DuPage County is in the process of preparing grant application for this work which could occur within a three to five year time-frame.

RECOMMENDATION

Staff recommends approval of an ordinance amending sections of the Municipal Code concerning the installation of Stop, Yield and School Crossing and Pedestrian Crossing signs and pavement markings on various streets within the 2010 Neighborhood Traffic Study Area. If approved by Council, following implementation of the revised traffic control, staff will monitor the improvements and report to Council on the effectiveness of the measure. Staff will continue to evaluate the traffic impacts and costs of the mid-term and long-term improvements and include a follow-up presentation of these items at an upcoming TAP meeting.

ATTACHMENTS

Ordinance

Meeting Minutes – TAP Commission March 9, 2011

Project Exhibits

Neighborhood Traffic Study brochure

ORDINANCE NO. _____

AN ORDINANCE AMENDING 4-WAY STOPS AND CROSSWALKS

BE IT ORDAINED by the Village Council of the Village of Downers Grove in DuPage County, Illinois, as follows: (Additions are indicated by shading/underline; deletions by ~~strikeout~~):

Section 1. That Section 14.63 is hereby amended to read as follows:

14.63 Isolated yield right-of-way signs.

On the basis of traffic investigations at the below named intersections, it is found that traffic conditions warrant preference to traffic as indicated and that the enumerated streets should be designated as "yield right-of-way entrances".

* * *

Farley Place. At the northeast corner of the intersection of Farley Place and Lyman Avenue, regulating westbound traffic on Farley Place.

Farley Place. At the southwest corner of the intersection of Farley Place and Park Avenue, regulating eastbound traffic on Farley Place.

* * *

~~Grand Avenue. At the southeast corner of the intersection of Grand Avenue and Burlington Avenue, regulating northbound traffic on Grand Avenue.~~

* * *

Summit Street. At the southwest corner of the intersection of Summit Street and Blodgett Avenue, regulating eastbound traffic on Summit Street.

* * *

Webster Street. At the southeast and northwest corners of the intersection of Webster Street and Summit Street, regulating northbound and southbound traffic on Webster Street.

* * *

Section 2. That Section 14.67. is hereby amended to read as follows:

14.67. Crosswalks designated.

(a) Pedestrian crosswalks are hereby designated at the locations listed below on the following streets:

* * *

Blodgett Avenue. Across 55th Street on the west side of Blodgett Avenue.

* * *

Mackie Place. Across Maple Avenue on the east side of Mackie Place.

* * *

Section 3. That Section 14.71. is hereby amended to read as follows:

14.71. School Crosswalks designated.

The crosswalks within the Village designated hereby as "school crossings" are as follows:

* * *

Summit Street. Across Lyman Avenue on the south side of Summit Street.

Summit Street. Across Park Avenue on the south side of Summit Street.

Traffic Stops -2010

Summit Street. Across Fairmount Avenue on the south side of Summit Street.

Summit Street. Across Benton Avenue on the south side of Summit Street.

Summit Street. Across Blodgett Avenue on the south side of Summit Street.

* * *

Washington Street. Across Washington Street on the ~~south~~^{north} side of Randall Street.

* * *

Section 4. That Section 14.80 is hereby amended to read as follows:

14.80 Isolated stop signs.

There shall be erected in conspicuous places as hereinafter designated, signs lettered with the word "Stop", which signs shall be so located as to direct vehicular traffic on the specified streets to come to a full stop before proceeding into or across the intersecting streets:

* * *

Elmwood Avenue. At the northwest corner of the intersection of Elmwood Avenue and Randall Street, regulating southbound traffic on Elmwood Avenue.

* * *

Grand Avenue. At the southeast corner of the intersection of Grand Avenue and Burlington Avenue, regulating northbound traffic on Grand Avenue.

~~Grand Avenue. At the northwest and southeast corners of the intersection of Grand Avenue and Hill Street, to direct vehicular traffic proceeding northerly and southerly on Grand Avenue to come to a full stop before proceeding across or into Hill Street.~~

* * *

~~Hill Street. At the northeast corner of the intersection of Hill Street and Blodgett Avenue to direct traffic proceeding westerly on Hill Street to come to a full stop before proceeding into Blodgett Avenue.~~

* * *

Randall Street. At the northwest and southeast corners of the intersection of Randall Street and Benton Avenue, to direct vehicular traffic proceeding northerly and southerly on Benton Avenue to come to a full stop before proceeding across or into Randall Street.

Randall Street. At the southwest corner of the intersection of Randall Street and Elmwood Avenue, regulating the eastbound traffic on Randall Street.

Randall Street. At the northwest and southeast corners of the intersection of Randall Street and Fairmount Avenue to direct vehicular traffic proceeding northerly or southerly on Fairmount Avenue to come to a full stop before proceeding into Randall Street.

Randall Street. At the northeast and southwest corners of the intersection of Randall Street and Washington Street, to direct vehicular traffic proceeding easterly and westerly on Randall Street to come to a full stop before proceeding across or into Washington Street.

~~Randall Street. At the northeast and southwest corners of the intersection of Randall Street and Fairmount Avenue to direct vehicular traffic proceeding easterly or westerly in Randall Street to come to a full stop before proceeding into Fairmount Avenue.~~

~~Randall Street. At the northeast and southwest corners of the intersection of Randall Street and Benton Avenue, to direct vehicular traffic proceeding easterly and westerly on Randall Street to come to a full stop before proceeding across or into Benton Avenue.~~

* * *

Webster Street. At the southeast corner of the intersection of Webster Street and Randall Street, regulating northbound traffic on Webster Street.

* * *

Section 5. That Section 14.80.1. is hereby amended to read as follows:

Traffic Stops -2010

14.80.1. Four-way stop signs.

There shall be erected in conspicuous places at the following intersections signs lettered with the words "4-Way Stop", which signs shall be so located as to direct all traffic to come to a full stop before proceeding into the intersection:

* * *

Grand Avenue and Hill Street.

* * *

Hill Street and Blodgett Street.

* * *

Lyman Avenue and Summit Street.

* * *

Park Avenue and Randall Street.

* * *

Section 6. That all ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

Section 7. That this ordinance shall be in full force and effect from and after its passage and publication in the manner provided by law.

Mayor

Passed:







Published:

Attest: _____
Village Clerk

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LEGEND

-  - TRAFFIC SIGNAL WITH PEDESTRIAN SIGNAL HEADS
-  - ADD PEDESTRIAN SIGNAL HEADS TO EXISTING TRAFFIC SIGNAL
-  - CROSSING GUARD
-  - CROSSWALK
-  - BIKE ROUTE
-  - REMOVE EXISTING CROSSWALK
-  - RELOCATED SIGN
-  - NEW SIGN
-  - REMOVE SIGN

- ① →  ④ → 
- ② →  ⑤ → 
- ③ →  ⑥ → 



PROJECT:
VILLAGE OF DOWNERS GROVE
NEIGHBORHOOD TRAFFIC STUDY







TITLE:
RECOMMENDED MODIFICATIONS TO THE
PEDESTRIAN AND BICYCLE FACILITIES
AND TRAFFIC CONTROL DEVICES

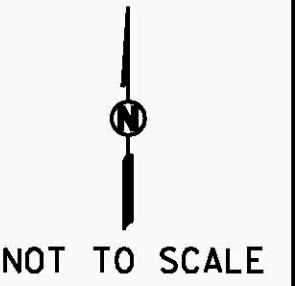
PROJECT NO: 10-135

KLOA

FIGURE NO: II


LEGEND

-  - TRAFFIC SIGNAL
-  - EXISTING STOP SIGN
-  - EXISTING YIELD SIGN
-  - PROPOSED STOP SIGN
-  - PROPOSED YIELD SIGN
-  - REMOVE EXISTING SIGN



PROJECT:
VILLAGE OF DOWNERS GROVE
NEIGHBORHOOD TRAFFIC STUDY

TITLE:
RECOMMENDED INTERSECTION TRAFFIC CONTROL

PROJECT NO: 10-135

 FIGURE NO: 9

Introducing the NEIGHBORHOOD TRAFFIC STUDY

RESIDENTIAL MEETING

Wednesday, January 26, 2011
7:00 p.m.
Whittier Elementary School
536 Hill Street
Downers Grove, IL 60515

Parking is available on adjacent streets. Enter at the school's main entrance and follow the signs to the gymnasium.

The purpose of this meeting is to present information from the Village's first Neighborhood Traffic Study and to receive your comments and suggestions before recommendations are presented to the Village Council later in 2011.

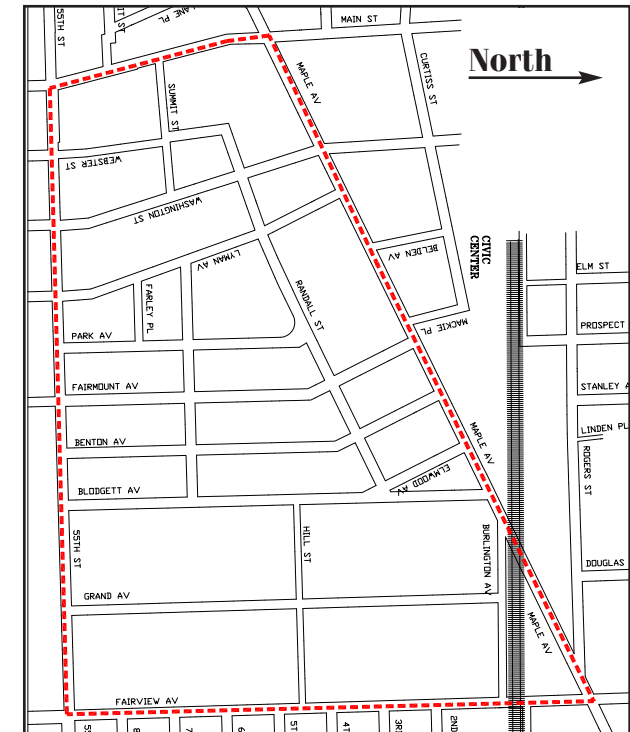
ABOUT THE TRAFFIC STUDY

The purpose of a Neighborhood Traffic Study is to thoroughly examine a neighborhood with the goal of mitigating issues of travel speed, cut-through traffic, pedestrian/traffic conflicts, intersection controls, street network performance, and overall neighborhood safety issues. The study consists of data collection and analysis, neighborhood input, and final recommendations to be presented to and approved by the Village Council.

In the past, decisions about stop signs, yield signs and speed limits have been made according to the needs of an individual intersection or street. This has led to a variety of traffic controls and speed limits throughout the Village and concerns from residents about speeding and cut-through traffic. By creating a higher level of traffic consistency through the Village, the expected result is an increased level of compliance to traffic laws.

Study Background

At the direction of the Village Council, traffic consultant KLOA, Inc. was retained to complete the Village's first comprehensive Neighborhood Traffic Study. Data collection was undertaken in October 2010 and final recommendations are expected to be presented to the Village Council by May 2011.



This area is bounded by Maple Avenue to the north, Fairview Avenue to the east, 55th Street to the south, and Main Street to the west.

Analysis of the data gathered from this study will result in a set of recommendations that will improve intersection controls for this neighborhood and reduce accidents.

Village of Downers Grove
801 Burlington Avenue
Downers Grove, IL 60515



RESIDENTIAL INTERSECTION TRAFFIC CONTROL

The basic purpose of a Stop or Yield sign is to define who has the right-of-way at an intersection. These signs have not been found to be effective when used as a speed control device. Studies have shown unwarranted signs lead to a high rate of disobedience and can actually cause higher speeds as motorists look to make up for “lost time.”

During the data collection phase, traffic and pedestrian data is gathered, accident records are reviewed, and measurements are taken at each intersection in the study area and evaluated against engineering criteria.

The following guidelines are proposed for the data review process:

- All 4-way intersections and most T-intersections will be controlled with signs.
- Stop signs or Yield signs will be considered as a form of traffic control.
- Stop signs will typically be recommended only on one of the two intersecting streets, unless the traffic data supports the need to stop both streets.
- Intersections will be reviewed on both an individual basis and neighborhood-wide basis to create a deliberate pattern of traffic control.

Possible Recommendations

At some locations, traffic control at an intersection will remain unchanged. In others, stop signs may be used at uncontrolled intersections or those directed by a yield sign. Working with the neighborhood, the Village will strive to implement measures and traffic control devices that provide the highest level of safety and motorist compliance.

RESIDENTIAL SPEED LIMITS

The Neighborhood Traffic Study involves gathering speed data as a basis for determining the appropriate speed limit for each street. Studies have shown that most motorists will drive at a speed which they deem to be safe and reasonable, and that setting speed limits at this level actually results in the lowest accident experience. Artificially lower speed limits have been found to have little effect on the speed at which motorists actually drive, making even the most careful driver a traffic law violator.

Factors including the number of driveways, locations of sidewalk, pedestrians and parking restrictions are taken into account before making a speed limit recommendation for a street. Special attention is given to streets around schools in determining a school speed limit zone.

Possible Recommendations

In most cases, the speed limit on a street will remain unchanged. However, on some streets the speed limit may increase or decrease. A speed limit set too high can foster unreasonable speeds for a neighborhood and a speed limit set too low can lead to tailgating, improper passing and reckless driving. Using a consistent set of standards, the Village hopes to see an increase in obedience to the speed limits.



GENERAL TRAFFIC ISSUES

While the Village believes that a neighborhood traffic study is the most comprehensive approach to addressing an area's traffic concerns, there is no one solution that will satisfy every condition.

For those streets that continue to experience traffic issues such as parking problems, speeding concerns and school safety, the Village will continue to handle those on a case-by-case basis. The Public Works and Police Departments will continue to work together to tackle these issues and will also explore new education, enforcement and engineering solutions.

If you have specific concerns, please contact:

Mr. Dorin Fera
Traffic Engineering Manager
Village of Downers Grove
Public Works Department
5101 Walnut Avenue
Downers Grove, IL 60515
Phone: 630.434.5460
Email: dfera@downers.us

WHERE CAN I GET MORE TRAFFIC STUDY INFORMATION?

Visit the Village website at
www.downers.us

Click on:
Construction Updates
Current Projects
2010 Neighborhood Traffic Study