

**VILLAGE OF DOWNERS GROVE  
REPORT FOR THE VILLAGE COUNCIL MEETING  
MARCH 11, 2014 AGENDA**

<b>SUBJECT:</b>	<b>TYPE:</b>	<b>SUBMITTED BY:</b>
Turn Restrictions – Webster Street at 55 <sup>th</sup> Street	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">✓</div> <div>           Resolution Ordinance Motion Discussion Only         </div> </div>	Nan Newlon, P.E. Director of Public Works

**SYNOPSIS**

An ordinance has been prepared to amend sections of the Municipal Code to permit right turns only on southbound Webster Street at 55<sup>th</sup> Street.

**STRATEGIC PLAN ALIGNMENT**

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

**FISCAL IMPACT**

N/A

**UPDATE & RECOMMENDATION**

This item was discussed at the December 13, 2011 Village Council meeting and tabled at the January 3, 2012 Council meeting. The item was discussed at the March 4, 2014 meeting. Staff recommends approval of the motion for a dead-end closure of Webster at 55<sup>th</sup> Street to provide direction to DuPage County for its road improvement project on the March 11, 2014 Active Agenda.

**BACKGROUND**

During the 2010 Neighborhood Traffic Study in January, 2011, the Village received comments as well as petitions from residents of the Webster Street neighborhood regarding safety concerns due to sight distance limitations at this intersection and cut-through traffic. The residents requested a complete road closure of Webster Street at 55<sup>th</sup> Street.

Staff reviewed this intersection and found the following:

- The sight distance for southbound Webster Street traffic for left, through and right turn movements is less than the minimum recommended.
- Traffic volumes on this street are significantly lower than average for residential streets with 230 vehicles/day.
- Vehicle crashes in the vicinity of the intersection have not been higher than average during the past three years.

To address the sight distance concerns, staff reviewed several alternatives. The alternatives are summarized in the attached report to the Transportation and Parking Commission. Based on the review of the operation of this street, staff recommends permitting right turns only on southbound Webster Street at 55<sup>th</sup> Street. In addition, DuPage County has installed warning signs on 55<sup>th</sup> Street to alert motorists of the approaching intersection at Webster Street.

In 2012, DuPage County and the Village will begin a larger Phase I Engineering study for the future improvement of the 55<sup>th</sup> Street/Main Street intersection. Staff will recommend that the intersection of Webster Street and 55<sup>th</sup> Street is included in the analysis and engineering designs.

This item was presented to the Transportation and Parking Commission on November 16, 2011. The Commission voted 4-0-1 to permit right turns only on southbound Webster Street at 55<sup>th</sup> Street. Staff concurs with this recommendation.

**ATTACHMENTS**

Staff Report and Meeting Minutes – November 16, 2011 Transportation and Parking Commission

**VILLAGE OF DOWNERS GROVE**  
**COUNCIL ACTION SUMMARY**

**INITIATED:** Public Works **DATE:** March 11, 2014  
(Name)

**RECOMMENDATION FROM:** \_\_\_\_\_ **FILE REF:** \_\_\_\_\_  
(Board or Department)

**NATURE OF ACTION:**

- ☐ Ordinance
- ☐ Resolution
- ☒ Motion
- ☐ Other

**STEPS NEEDED TO IMPLEMENT ACTION:**

Motion to recommend to the County of DuPage that Webster at 55<sup>th</sup> Street become a dead end.



**SUMMARY OF ITEM:**

Adoption of this motion will recommend a dead end closure of Webster Street at 55<sup>th</sup> Street in connection with intersection design plans by DuPage County.

**RECORD OF ACTION TAKEN:**

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# Memorandum



Date: November 19, 2013

To: Morgan Cotten, DuPage County

From: Jimmy Robinson, Burns & McDonnell

Project: 55<sup>th</sup> Street Phase I Project

Re: Webster Street Geometric Alternatives

Cc: Paul Kruegar (DuDOT)  
Mike Mack (BMcD)  
File 68671

The purpose of this tech memo is to summarize a new geometric alternative for the north leg of Webster Street at 55<sup>th</sup> Street.

## **Background Information**

At the onset of the project the Village of Downers Grove expressed concern with the existing geometry of the 55<sup>th</sup> Street / Webster Street intersection. The concerns include the number of vehicles which use Webster Street as a bypass route to the downtown and sight distance of vehicles exiting onto 55<sup>th</sup> Street from the north leg of Webster Street.

A 2011 petition, which was unanimously signed by residents on the north leg of Webster Street, stated traffic along Webster Street is primarily cut through traffic and requested Webster Street be dead ended at 55<sup>th</sup> Street. At that time, it was determined by the VODG that dead ending the street was not a viable option due to limited space to provide a turnaround. It should be noted that Webster Street does not serve as direct route to the downtown as seen on the map to the right. Webster Street does not extend to Maple Avenue.

## **Sight Distance Evaluation**

The Village of Downers Grove has stated that the house on the northeast corner of Webster Street/55<sup>th</sup> Street intersection is a leading cause of the sight distance issue at the intersection.



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Burns & McDonnell performed site inspections and confirmed limited intersection sight distances for vehicles exiting Webster Street onto 55<sup>th</sup> Street due to profile issues on the east leg. Additionally, there are shrubs along the property line of the house in the northeast corner which creates an issue for vehicles stopping at the stop bar, but vehicles can move up and eliminate this issue. The house structure does not create a sight distance issue. Due to roadway widening, the shrubs may provide limited sight distance in the proposed condition. The shrubs will need to be trimmed or removed or the stop sign on the north leg of Webster Street may need to be moved to shift the decision point closer to the road. By shifting the decision point the shrubs will no longer be an obstruction to the sight distance.

According to AASHTO, the required sight distance for a vehicle turning left onto 55<sup>th</sup> Street is 390 feet. The intersection sight distance for a vehicle turning right onto 55<sup>th</sup> Street is 335 feet. The existing intersection sight distance is substandard for both turning movements as field observations show a sight distance of approximately 225 feet. When vehicles stopped at Webster Street look to the west they can see approaching vehicles but as these vehicles pass Washington Street they disappear at the bottom of a sag curve. The vehicles then reappear as they reach a crest curve west of Webster Street.

The proposed improvements include roadway widening along 55<sup>th</sup> Street to add a channelized left turn lane at the Main Street intersection. At Webster Street, the widening along 55<sup>th</sup> Street is approximately 3 feet which has the potential of reducing the intersection sight distance. The widening at Webster Street does not allow vehicles to pull up as far as the existing condition and results in the decision point being pushed further from the road. Assuming the same 225 feet intersection sight distance, which is due to the existing profile, and a 14.5 foot setback distance from the edge of pavement, the shrubs are in conflict and will need to be removed or trimmed to maintain the existing sight distance. If the vehicle moves forward to a 10 foot setback the shrubs are no longer in conflict. According to AASHTO, the setback distance is based on the distance from the front of the vehicle to the driver and the distance the vehicle stops from the edge of pavement. AASHTO assumes 8 feet from the driver's eye to the front of the vehicle and 6.5 feet or less from the edge of pavement to the front of the vehicle.

If a profile adjustment is made east of Webster Street and assuming a 14.5 foot setback and a 335 foot sight distance, the residence is not in conflict but the shrubs are an obstruction. The shrub obstruction can be eliminated if the vehicle moves forward to a 9.5 foot setback. An intersection sight distance for left turning movements has not been evaluated for the proposed condition as this movement is prohibited in the revised geometry shown below.

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### **55<sup>th</sup> Street and Webster Street Geometry**

The following option summarizes the suggested geometry revision at the 55<sup>th</sup> Street/Webster Street intersection to help mitigate the sight distance issue.

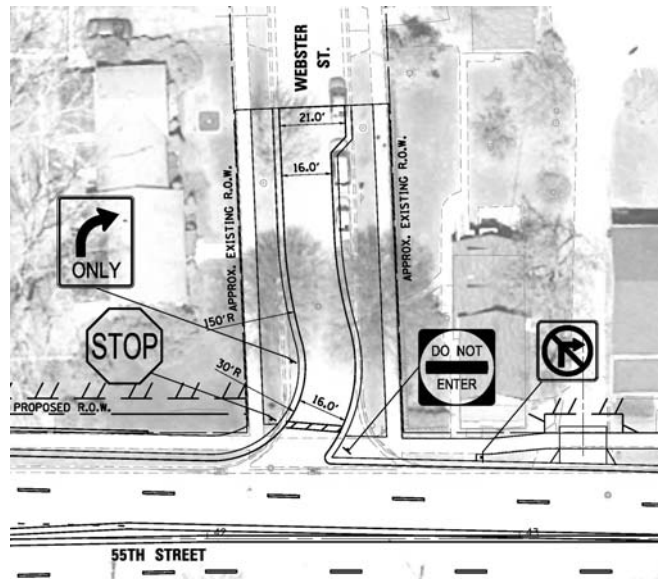
The suggested design is to convert the north leg of Webster Street to a right out only as shown below. This design prohibits access to Webster Street from 55<sup>th</sup> Street and also prohibits Webster Street traffic from turning left and crossing 55<sup>th</sup> Street. The pros and cons for this design are listed below.

#### **Pros**

- Promotes the use of Webster Street by local traffic only.
- Prohibits the bypass route as discussed above.
- Reduces R.O.W. impacts to the parcels on the northwest and northeast corner when compared to a right in/right out entrance.
- Does not require a displacement on the northeast corner which is required if a cul-de-sac is used.
- Eliminates left turns onto 55<sup>th</sup> Street which is a movement with substandard intersection sight distance.

#### **Cons**

- Does not eliminate substandard intersection sight distance for right turn movements however does not reduce sight distance.



#### **Recommendation**

This is the suggested design to be incorporated into the project. This design will address the Village's concern of safety and vehicular use of Webster Street. This design also does not impact the property on the northeast corner of 55<sup>th</sup> Street and Webster Street which has been

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requested by the County. The property on the northwest corner requires R.O.W. acquisition however this is because of the 55<sup>th</sup> Street widening, not the proposed right out only.

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