



# **TRAFFIC COMMITTEE AGENDA**

**September 15, 2021 – 7:30 P.M.**

**Council Boardroom – Troy City Hall – 500 West Big Beaver**

1. Roll Call
2. Approval of Minutes – July 21, 2021 Traffic Committee

## **PUBLIC HEARINGS**

3. No Public Hearings

## **REGULAR BUSINESS**

4. Request for Traffic Control – Daniels Drive at McKinley Drive
5. Public Comment
6. Other Business
7. Adjourn

## **Copy to:**

Traffic Committee Members; Sgt. Justin Novak, Police Department; Lt. Paul Firth, Fire Department

## **TRAFFIC COMMITTEE**

### **MESSAGE TO VISITORS, DELEGATIONS AND CITIZENS**

The Traffic Committee is composed of seven Troy citizens who have volunteered their time to the City to be involved in traffic and safety concerns. The stated role of this Committee is:

- a. To give first hearing to citizens' requests and obtain their input.
- b. To make recommendations to the City Council based on technical considerations, traffic surveys, established standards, and evaluation of citizen input.
- c. To identify hazardous locations and recommend improvements to reduce the potential for traffic crashes.

Final decisions on sidewalk waivers will be made by the Committee at this meeting.

The recommendations and conclusions arrived at on regular items this evening will be forwarded to the City Council for their final action. Any citizen can discuss these recommendations before City Council. The items discussed at the Traffic Committee meeting will be placed on the City Council Agenda by the City Manager. The earliest date these items might be considered by City Council would normally be 10 days to 2 weeks from the Traffic Committee meeting. If you are interested, you may wish to contact the City Manager's Office in order to determine when a particular item is on the Agenda.

Persons wishing to speak before this Committee should attempt to hold their remarks to no more than 5 minutes. Please try to keep your remarks relevant to the subject at hand. Please speak only when recognized by the Chair. These comments are made to keep this meeting moving along. Anyone wishing to be heard will be heard; we are here to listen and help in solving or resolving your particular concerns.

## **2. Approval of Minutes – July 21, 2021 Traffic Committee**

### **PUBLIC HEARING**

## **3. No Public Hearings**

### **REGULAR BUSINESS**

## **4. Request for Traffic Control – Daniels Drive at McKinley Drive**

Debbie Villneff of 5820 Houghton states that the lack of traffic control signs at the intersection of Daniels Drive at McKinley Drive creates a hazardous condition.

### **SUGGESTED RESOLUTIONS:**

- a. RESOLVED, that the intersection of Daniels Drive at McKinley Drive be **MODIFIED** from no traffic control to **ADD** a STOP sign on the Daniels Drive approach to the intersection.
- b. RESOLVED, that **NO CHANGE** be made at the intersection of Daniels Drive at McKinley Drive.

## **5. Public Comment**

## **6. Other Business**

## **7. Adjourn**

A regular meeting of the Troy Traffic Committee was held Wednesday, July 21, 2021 in the Council Boardroom at Troy City Hall. Pete Ziegenfelder called the meeting to order at 7:31 p.m.

**1. Roll Call**

Present: Richard Kilmer  
Cindy Nurak  
Al Petrulis  
Abi Swaminathan  
Cynthia Wilsher  
Pete Ziegenfelder  
Alankar Shende, Student Representative

Absent: Sunil Sivaraman

Also present: Jonathan Aronson, 2137 Red Maple  
Sandeep Sood, 6385 County Ridge  
Harish Mistry, 6403 County Ridge  
Rajiv Mangal, 6402 County Ridge  
Chengyu Gu, 6384 County Ridge  
Sgt. Justin Novak, Police Department  
Lt. Eric Caloia, Fire Department  
Bill Huotari, City Engineer/Traffic Engineer

**2. Minutes – March 17, 2021**

Resolution # 2021-07-13  
Moved by Kilmer  
Seconded by Nurak

To approve the March 17, 2021 minutes as printed.

Yes: Kilmer, Nurak, Swaminathan, Petrulis, Wilsher, Ziegenfelder  
No: None  
Absent: Sivaraman

**MOTION CARRIED****PUBLIC HEARINGS****3. Request for Sidewalk Waiver – 195 McKinley (Sidwell # 88-20-09-426-029)**

Jonathan Aronson of 2137 Red Maple Drive requests a sidewalk waiver for the sidewalk at 195 McKinley (Sidwell # 88-20-09-426-029). Mr. Aronson states:

- a. There are no other sidewalks in the subdivision. This would be the only sidewalk and property on both sides as well as across the street have no sidewalks. A sidewalk*

*would literally be a sidewalk to nowhere.*

- b. There are several new construction homes in the subdivision and none of them have sidewalks.*
- c. The builder has quoted a cost of \$10,000 to \$15,000 to install the sidewalk, including having to put in a second catch basin because of the sidewalk.*
- d. We are building this ranch as an “age in place” home for ourselves and adding the burden of clearing a sidewalk (that no one will use) increases the difficulty of continuing to live independently.*

The Department of Public Works (DPW) recommends approving the waiver request and not requiring the installation of sidewalk “*Due to the lack of sidewalk on the surrounding parcels and the open drainage ditches of the area*”, subject to the submission of a cash deposit for future construction to assure consent and participation in any future sidewalk installation.

Jonathan Aronson of 2137 Red Maple Drive was present at the meeting. Mr. Aronson stated that they were downsizing and building a ranch to move into. There is no other sidewalk in the area and this would be 100 feet of sidewalk to nowhere. They would be the only house in the neighborhood with sidewalk.

There was discussion amongst the Traffic Committee members about whether to require a cash deposit or not as members believed that sidewalk would not be installed in this area anytime in the near future, if ever. The area was built without sidewalks and there would be practical difficulties in installing sidewalk in this built out area.

Resolution # 2021-07-14

Moved by Kilmer

Seconded by Wilsher

WHEREAS, City of Troy Ordinances, Chapter 34, allows the Traffic Committee to grant waivers of the City of Troy Design Standards for Sidewalks upon a demonstration of necessity; and

WHEREAS, Jonathan Aronson has requested a waiver of the requirement to construct sidewalk based on lack of sidewalk on surrounding parcels; and

WHEREAS, the Traffic Committee has determined the following:

- a. A waiver will not impair the public health, safety or general welfare of the inhabitants of the City and will not unreasonably diminish or impair established property values within the surrounding area, and
- b. A strict application of the requirements to construct a sidewalk would result in practical difficulties to, or undue hardship upon, the owners, and
- c. The construction of a new sidewalk would lead nowhere and connect to no other walk, and thus will not serve the purpose of a pedestrian travel-way.

NOW THEREFORE, BE IT RESOLVED, that the Traffic Committee **GRANTS** a waiver of the sidewalk requirement for 195 McKinley (Sidwell # 88-20-09-426-029) with no contingencies attached.

Yes: Kilmer, Nurak, Swaminathan, Petrulis, Wilsher, Ziegenfelder  
No: None  
Absent: Sivaraman

**MOTION CARRIED**

**REGULAR BUSINESS**

**4. Request for Traffic Control – Wyngate Drive at Country Ridge Drive**

The Wyngate of Troy Homeowner's Association states that the lack of traffic control signs at the intersection of Wyngate Drive at Country Ridge Dive creates a hazardous condition.

Chengyu Gu of 6384 County Ridge and representing the HOA, provided written comments that he read at the meeting as follows:

Dear board members,

My name is Charles Gu, Troy resident since 1999. Thanks for the City Traffic Committee to give me a chance as Wyngate of Troy Homeowner Association board secretary presenting our request for a traffic control at the intersection of Wyngate Drive and Country Ridge Drive. On our last HOA member annual meeting, many members requested our board to contact City for adding traffic sign at Wyngate Drive/Country Ridge Drive intersection.

There have been several unreported crash accidents and many near misses occurred last few years at the intersection, mostly in the rush hours. Our neighborhood includes more than 80 families in-and-out through the 4-way intersection without traffic sign. Though we have not heard any fatal accident yet, neighborhood raised more and more concerns and urged us to forward the request to the city to add traffic signs at the intersection to prevent unfortunate event in the future.

After received our request, Bill has done a lot of studies and informed us a recommendation of adding Yield signs on the Country Ridge Drive approaches to the intersection. We agree. This definitely will be a good step toward improving our neighborhood safety.

Additional concern from some of our members is: vehicles from outside coming into the subdivision will see the 25 Mile/Hour speed limit sign and slow down before approaching the intersection, but more frequently vehicles from the inside of the intersection on Wyngate Drive are still too fast. We worry about that once the Yield signs are added on Country Ridge Drive, we might see more westbound vehicles speed up to pass the intersection instead of slow down. Is it possible to add one more sign face to the eastside of Wyngate to remind/alert west bound vehicle drivers to slow down and watch the intersection traffic?

We would like to hear from experts and the Traffic Committee Meeting decision.

Thank you.

Chengyu (Charles) Gu  
Wyngate HOA Secretary  
[wyngateoftroyboard@googlegroups.com](mailto:wyngateoftroyboard@googlegroups.com)

Rajiv Mangal of 6402 County Ridge stated that he has lived in this subdivision for over 15 years. He has witnessed many near misses at the intersection. There are many small children that live and play in this area. He would prefer Stop signs over Yield signs.

Harish Mistry of 6403 County Ridge stated that he has also witnessed many rear accidents and that there have been other actual crashes that were not reported. He reiterated that there are a lot of children near the intersection. He is OK with Yield signs but would prefer to have All-Way Stop control at the intersection.

Sgt. Novak discussed how close the intersection is to Coolidge Road and the difficulties and confusion that may be caused if Stop signs were installed on the Wyngate Drive approaches. He supports Stop signs on the Country Ridge Drive approaches only.

Ms. Nurak would also prefer Stop signs.

Mr. Kilmer noted that the road curves as you approach the intersection and that there should be Stop signs.

Mr. Petrulis agreed and added that the intersection comes up on you quickly.

Resolution # 2021-07-15  
Moved by Petrulis  
Seconded by Kilmer

RESOLVED, that the intersection of Wyngate Drive at Country Ridge Drive be **MODIFIED** from no traffic control to **ADD STOP** signs on the Country Ridge Drive approaches to the intersection.

Yes: Kilmer, Nurak, Swaminathan, Petrulis, Wilsher, Ziegenfelder  
No: None  
Absent: Sivaraman

## **MOTION CARRIED**

### **5. Public Comment**

There was no further public comment at the meeting.

### **6. Other Business**

Abi Swaminathan introduced herself to the Traffic Committee members.

A discussion of what the Traffic Committee and its members roles are ensued.

Ms. Wilsher discussed concerns about the Speedway at Maple Road and Rochester Road relative to tall weeds that obstruct vision for turning traffic from the site. The vegetation is on private property so Traffic Engineering will refer the concern to Code Enforcement.

Mr. Kilmer requested that all Traffic Committee members go out to Firefighter's Park in the evening to review park activity. He would like to discuss options for the park to help with pedestrian and vehicular traffic once members have had the opportunity to visit the park.

Lt. Caloia announced that this would be his last meeting. He is retiring on September 2.

### **13. Adjourn**

The meeting adjourned at 8:11 p.m.

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Pete Ziegenfelder, Chairperson

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William J. Huotari, City Engineer/Traffic Engineer

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## **TRAFFIC COMMITTEE REPORT**

August 25, 2021

TO: Traffic Committee

FROM: Bill Huotari, City Engineer/Traffic Engineer

SUBJECT: Request for Traffic Control – Daniels Drive at McKinley Drive

### **Background:**

Debbie Villneff of 5820 Houghton states that the lack of traffic control signs at the intersection of Daniels Drive at McKinley Drive creates a hazardous condition.

The posted speed limit on both streets is 25 mph.

The intersection is currently uncontrolled.

There is no clear major versus minor street. However, for the purpose of analysis, McKinley Drive is presumed to be the major road, while Daniels Drive is considered the minor road.

There were zero crashes recorded in the past full five (5) years within a 250' radius of the intersection.

The major potential sight distance obstruction at the intersection for a motorist traveling northbound on Daniels Drive would be the vegetation and trees (including the pine tree) on the southeast quadrant and the house corner on the southwest quadrant of the intersection.

The safe approach speed for northbound vehicles on Daniels Drive is 10 mph due to the permanent sight distance obstruction from the house corner on the southwest quadrant and the vegetation/trees on the southeast quadrant of the intersection.

OHM recommends installing a STOP sign on the Daniels Drive approach to the intersection.

The city requested that OHM review the intersection and provide their findings and recommendations (copy attached).

July 20, 2021

Mr. William Huotari, PE  
City Engineer  
City of Troy  
500 W. Big Beaver Rd  
Troy, MI 48084

RE: Traffic Control Recommendation for  
Daniels Drive at McKinley Drive

Dear Mr. Huotari:

As requested, we have reviewed the intersection of Daniels Drive at McKinley Drive to determine the proper traffic control. Daniels Drive at McKinley Drive is a 3-legged intersection located in the City of Troy. The speed limit on both streets is 25 mph. The intersection does not have any controlled approaches. Attached are aerial and intersection photos.

### **Types of Roadways**

Both Daniels Drive and McKinley Drive are considered local streets. Daniels Drive runs north to south providing direct access to the neighborhood from W Long Lake Road. McKinley Drive runs east to west offering access to the neighborhood off of Livernois Road.

The surrounding land use is entirely single-family residential. On-street parking is permitted on the east and west sides of Daniels Drive and on the north and south sides of McKinley Drive. There is no clear major versus minor street. However, for the purpose of analysis McKinley Drive is presumed to be the major road, while Daniels Drive is considered the minor road. Both McKinley Drive and Daniels Drive serve as key routes throughout the neighborhood.

### **Traffic Control Analyses**

Traffic control analyses described herein adheres to the requirements presented in the Michigan Manual on Uniform Traffic Control Devices (MMUTCD) that are considered mandates of state law. A reference document explaining the background behind the analyses is attached to this memo.

### **Crash Analysis**

Based on information obtained through the Traffic Improvement Association of Michigan, there were no crashes recorded in the past full five (5) years within a 250' radius of the intersection. The crash history does not constitute a compelling case for modifying the existing controls.



### Traffic Volumes

Traffic counts were not collected in the vicinity of the intersection. Traffic volumes in residential areas are predominantly driven by the number of single-family residential homes in the neighborhood. Based on the residential nature and the number of homes in the surrounding area it is highly improbable that this location would satisfy any of the minimum volume warrants for an all-way STOP (see attached Reference Guide).

It is therefore extremely unlikely that McKinley Drive meets and sustains the 300 vehicles per hour threshold for a minimum of 8 hours. The combined vehicular, pedestrian, and bicycle volumes entering from Daniels Drive is similarly unlikely to average at least 200 units for any 8 hours. Additionally, since the posted speed limit is only 25mph, it is reasonable to assume that the 85<sup>th</sup> percentile approach speed does not exceed 40mph on either road; thus, the minimum vehicular volume warrants cannot be discounted to 70 percent of the values described previously. Finally, the study intersection is likely to fall significantly shy even of the reduced 80 percent volumes, based on expected trip generation for this neighborhood. Therefore, the minimum volume criteria for an all-way STOP has not likely been met.

Traffic volumes in residential areas are predominantly driven by the number of single-family residential homes in the neighborhood.

### Approach Speed Limits

The approach speed limit on all study streets is 25mph. Speed limits alone cannot be used in this case to determine which direction of traffic should be assigned the right-of-way.

### Sight Distance

The major potential sight distance obstruction at the intersection of Daniels Drive at McKinley Drive for a motorist traveling northbound on Daniels Drive would be the vegetation and trees (including the pine tree) on the southeast quadrant and the house corner on the southwest quadrant of the intersection. These obstructions impact the calculated safe approach speeds for the intersection. The safe approach speed is the speed at which a vehicle can approach an intersection and still stop in time to avoid a collision with a vehicle seen on the cross street.

When the safe approach speed is found to be less than 10 mph, a STOP sign is recommended. When the safe approach speed is found to be more than 10 mph, a YIELD sign is recommended. In this case, the safe approach speed for northbound vehicles on Daniels Drive is 10 mph due to the permanent sight distance obstruction from the house corner on the southwest quadrant and the vegetation/trees on the southeast quadrant of the intersection. Thus, based on the safe approach speed calculations, STOP-control is the computed right-of-way control for Daniels Drive approach. The safe approach speed calculation spreadsheet for the intersection is attached for reference.

### Recommendation

The preceding analyses did not determine that any criteria were met for all-way STOP-control. Additionally the safe approach speed calculations suggested STOP-control would be appropriate for the minor street (Daniels Drive) approach.

OHM recommends installing a STOP sign on the Daniels Drive approach.



Sincerely,  
**OHM Advisors**

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Ife Ogundeji  
Traffic Engineer

Attachments:

- Aerial Photo
- Safe Approach Speed Calculation Spreadsheet
- Intersection Photos
- Traffic Control Determination Reference Guide





Notes:



## Safe Approach Speed Calculation

McKinley Dr and Daniels Dr  
City of Troy

Date: 7/8/2021  
Analyst: Ife Ogundeji

### Measured:

#### Width of Roads

Road 1 = 20 (ft)  
Road 2 = 22 (ft)

#### Distance to Obstruction

a = 46 (ft)  
b = 85 (ft)  
c = 36 (ft)  
d = 10 (ft)

#### Angle of Intersection

Delta = 90 (degrees, measure counterclockwise)

#### Road 1 Posted

Speed Limit = 25 (mph)

### Assumed:

Speed of Vehicle A = Speed of Vehicle C  
= Posted Speed Limit on Road 1

+ 5 (mph)  
V<sub>1</sub> = 30 (mph)

#### Perception / Reaction Time (AASHTO)

t = 2.5 (sec)

#### Deceleration rate (AASHTO)

A = 11.20

Clearance distance in excess of safe stopping distance (AAA)

EC = 0 (ft)

### Calculated Safe Approach Speed for Vehicle B

Approaching on Road 2

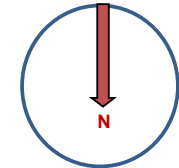
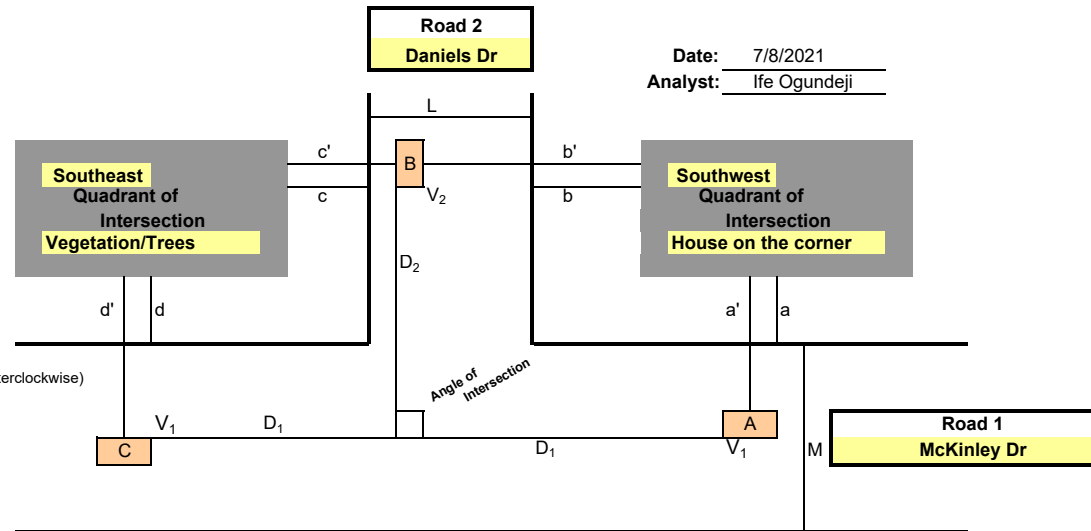
18.5 (mph) [Based on Veh. A]  
or V<sub>2</sub> = 10.0 (mph) [Based on Veh. C]

### Threshold of Safe Approach Speed (AAA, FHWA & NSC)

to Recommend STOP Control 10.0 (mph)

to Recommend YIELD Control 25.0 (mph)

Otherwise Recommends NO CONTROL.



### Intermediate Calculations:

D<sub>1</sub> = 196  
D<sub>2A</sub> = 101  
D<sub>2C</sub> = 46.2  
a' = 52  
b' = 95  
c' = 42  
d' = 18

Based On  $D_1 = (1.075 V_1^2 / A) + 1.4667 V_1 t + EC$

$D_{2A} = \frac{a' * D_1}{(D_1 - b')}$  or  $D_{2C} = \frac{c' * D_1}{(D_1 - d')}$

Notes: Enter field measurements in yellow highlighted area.

Blue fields are std. default values; change only for cause.

Calculated by spreadsheet

Recommended ROW control for Road 2  
based on safe approach speed : STOP Sign





**Photograph No. 1: Daniels Drive- Heading North**  
**Date:** 07/08/2021      **Photographer:** Ife Ogundeji



**Photograph No. 2: Daniels Drive- Heading North looking right**  
**Date:** 07/08/2021      **Photographer:** Ife Ogundeji



**Photograph No. 3:** Daniels Drive- Heading North looking left  
**Date:** 07/08/2021      **Photographer:** Ife Ogundeji



**Photograph No. 4:** McKinley Drive- Heading West  
**Date:** 07/08/2021      **Photographer:** Ife Ogundeji





**Photograph No. 5:** McKinley Drive - Heading West and looking left  
**Date:** 07/08/2021      **Photographer:** Ife Ogundeji



**Photograph No. 6:** McKinley Drive - Heading East  
**Date:** 07/08/2021      **Photographer:** Ife Ogundeji



**Photograph No. 7:** McKinley Drive- Heading East looking right  
**Date:** 07/08/2021      **Photographer:** Ife Ogundeji



**Photograph No. 8:** McKinley Drive - Heading South  
**Date:** 07/08/2021      **Photographer:** Ife Ogundeji

## **Reference Guide on Traffic Control Determination in the State of Michigan**

### **Background**

This document is intended to be used as a reference guide for performing intersection traffic control studies of intersections on public roadways in Michigan. The document explains the procedure and requirements necessary to implement traffic control at an intersection as stipulated by the Michigan Manual on Uniform Traffic Control Devices (MMUTCD). Act 300 of Public Acts of 1949 (as amended) requires the adoption of this Manual, and further requires conformance to the manual for all state highways, county roads and local streets open to public travel.

Generally, the starting premise is an uncontrolled intersection. The first step would then be to verify if the intersection should remain uncontrolled or if YIELD or STOP controls on the minor street approach(es) should be provided. For locations with higher traffic volumes and /or crash issues, then an evaluation of the location for all-way STOP warrants would be performed. The appropriate analysis for each level of control described below.

### **YIELD Traffic Control Guidance**

The use of a YIELD sign is intended to assign the right-of-way at intersections where it is not usually necessary to stop before proceeding into the intersection. Conversely, the STOP sign is intended for use where it is usually necessary to stop before proceeding into the intersection.

The following conditions should be fully evaluated to determine how the right-of-way should be assigned:

- Traffic Volumes: Normally, the heavier volume of traffic should be given the right-of-way.
- Approach Speeds: The higher speed traffic should normally be given the right-of-way.
- Types of Highways: When a minor highway intersects a major highway, it is usually desirable to control the minor highway.
- Sight Distance: Sight distance across the corners of the intersection is the most important factor and is critical in determining safe approach speeds.

### **STOP Traffic Control Guidance**

Based on the MMUTCD there are four conditions where STOP signs may be warranted:

- At the intersection of a less important road with a main road where application of the normal right-of-way rule is unduly hazardous.
- On a street entering a through highway or street.
- At an unsignalized intersection in a signalized area.
- At other intersections where a combination of high speed, restricted view, or crash records indicate a need for control by the STOP sign.

In many cases STOP signs are installed where they may not be warranted. Traffic experts agree that unnecessary STOP signs:

- Cause accidents they are designed to prevent.
- Breed contempt for other necessary STOP signs.
- Waste millions of gallons of gasoline annually.
- Create added noise and air pollution.
- Increase, rather than decrease, speeds between intersections.

There is also an explicit restriction in the MMUTCD that STOP signs are not to be used for speed control, in Section 2B.04.

Evaluation of All-Way STOP Traffic Control

Based on the MMUTCD there are four conditions where **all-way** STOP signs may be warranted:

- 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.*