TRAFFIC COMMITTEE AGENDA

November 17, 2021 – 7:30 P.M.

Council Boardroom – Troy City Hall – 500 West Big Beaver

1. Roll Call
2. Approval of Minutes – October 20, 2021 Traffic Committee

PUBLIC HEARINGS

3. No Public Hearings

REGULAR BUSINESS

4. Request for Traffic Control – Hartland Avenue at Ellenboro Avenue
5. 2022 Traffic Committee Meeting Schedule
6. Public Comment
7. Other Business
8. Adjourn

Copy to:

Item 4: Properties within 300'

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 – October 20, 2021 Traffic Committee

PUBLIC HEARING

3. No Public Hearings

REGULAR BUSINESS

4. Request for Traffic Control – Hartland Avenue at Ellenboro Avenue

Traffic Committee member Kilmer requests that the intersection of Hartland Avenue at Ellenboro Avenue be reviewed for purposes of replacing the existing Yield sign on Ellenboro Avenue with a Stop sign. He stated that the rest of Hartland Avenue has Stop signs and the Yield sign creates confusion for drivers.

SUGGESTED RESOLUTIONS:

a. RESOLVED, that the intersection of Hartland Avenue at Ellenboro Avenue be **MODIFIED** from a Yield sign on Ellenboro Avenue to a STOP sign on the Ellenboro Avenue approach to the intersection.

b. RESOLVED, that **NO CHANGE** be made at the intersection of Hartland Avenue at Ellenboro Avenue.

5. 2022 Traffic Committee Meeting Schedule

According to the City of Troy Traffic Committee By-Laws, Article IV – Meetings:

"Regular meetings will be held on the third Wednesday of each month at 7:30 p.m. at the Troy City Hall, 500 West Big Beaver Road, Troy, Michigan."

There are no other by-laws or procedures that establish the actual dates of the meetings, but an annual calendar of meetings is published by the City so meeting dates need to be set for this purpose.

SUGGESTED RESOLUTION:

a. Recommended dates for 2022 Traffic Committee meetings are detailed below:

- Wednesday, January 19
- Wednesday, February 16
- Wednesday, March 16
- Wednesday, April 20
- Wednesday, May 18
- Wednesday, June 15
- Wednesday, July 20
- August – NO MEETING
- Wednesday, September 21

- Wednesday, October 19
- Wednesday, November 16
- December – NO MEETING

6. Public Comment

7. Other Business

8. Adjourn

A regular meeting of the Troy Traffic Committee was held Wednesday, October 20, 2021 in the Council Boardroom at Troy City Hall. Pete Ziegenfelder called the meeting to order at 7:30 p.m.

1. Roll Call

Present: Richard Kilmer
Cindy Nurak
Al Petrulis
Abi Swaminathan
Cynthia Wilsher
Pete Ziegenfelder

Absent: Sunil Sivaraman
Alankar Shende, Student Representative

Also present: Mandy Kostrzewski 3325 Mirage
Mike & Pam Brady 576 Trombley
Ken Konwinski 554 Colebrook
Kristin LaPado 783 Colebrook
Sgt. Justin Novak, Police Department
Bill Huotari, City Engineer/Traffic Engineer

2. Minutes – September 15, 2021

Resolution # 2021-10-18
Moved by Kilmer
Seconded by Petrulis

To approve the September 15, 2021 minutes as printed.

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

MOTION CARRIED

PUBLIC HEARINGS

3. No Public Hearings

REGULAR BUSINESS

4. Request for No Parking – West Side of Ellenboro Avenue, Trombley Avenue to Colebrook Avenue

Mandy Kostrzewski of 3325 Mirage requests that the west side of Ellenboro Avenue, between Trombley Avenue and Colebrook Avenue be posted as a No Parking zone. The east side of

Trombley Avenue is already posted as a No Parking zone.

Traffic Engineering received three (3) emails and one (1) call prior to the meeting and two (2) additional emails were provided at the meeting.

Email from: Heather Svoboda (Wattles Parent – address not provided)

Good Evening, I would like to express my concern regarding traffic flow on Ellenboro between Trombley and Colebrook. It has become a major source of stress for my family. The mornings and afternoons are absolutely not safe for pedestrians. The road is quire narrow, and there is 2 way traffic flow. There is barely enough room for vehicle flow as it is, and this year cars are now parked on Ellenboro Street. These parked cars have become an obstacle for cars traveling South on Ellenboro. So now you have southbound cars dodging parked cars, and northbound cars veering into pedestrians. Literally there are school buses driving straight at us – ask the bus drivers. There are parents, kids, kids on bikes, all inches (centimeters?) away from hostile morning commuters speeding and dodging each other. It's awful. It's completely unsafe. Please don't take my word for it, come observe any weekday morning. It gets worse in the winter when snow/ice is piled up on yards and pedestrians require more room in the street. Please help as this situation becomes more hazardous every day.

Email from: Micaela Vasquez (524 Colebrook)

Hello William & Traffic Committee, I am reaching out regarding the Resident Request for a No Parking Zone on the west side of Ellenboro, between Trombley & Colebrook. My home property is directly impacted by this request, as I live at the corner of that intersection. I am in favor of this decision because of the following:

- Vehicles parking in this area has caused damage to the street. We are constantly picking up chunks of broken concrete from our lawn which has also caused damage to our lawn equipment.
- Vehicles parked in this area creates a traffic issue. Cars cannot pass each other and causes backups, especially during school drop-off/pickups.
- Pedestrians are forced to walk on our property when vehicles are parked there to safely avoid passing traffic.

I would be happy to discuss further if needed. Thank you for your consideration!

Email from: Robert Olsztyn (448 Trombley)

I am opposed to a "No Parking Zone" on the west side of Ellenboro between Trombley and Colebrook. Our neighborhood currently has parking on one side of most streets and myself as well as many neighbors park in the street as needed. Whenever we have family over in the summer or for holidays, several of our guests park on Ellenboro (I come from a large family). Not sure the reason for this request. If the reason is due to the car traffic on Ellenboro, I agree Ellenboro does get busy during the school year at the start and end of the school day with children walking and parents picking up children. Sidewalks would certainly make it safer for students walking, but doesn't seem to be a possible option. A suggested compromise would be no parking from 8:00 - 9:00 AM and 3:00 - 4:00 PM (whatever time works for the start and end of the school day.)

Email from: Chuck and Colleen Hickman (address not provided)

Hello, we are writing to you today to express our concern for the parking situation on the end of Ellenboro, between Colebrook and Trombley, near Wattles Elementary. We are parents of a student at Wattles, and we see firsthand the congestion that is created in the morning at droop off and in the afternoon at pick up. The entrance to the parking lot is fairly narrow and if a car is parked in the street, it creates a bottleneck situation which is unsafe for the children walking and biking to and from school. It also creates a tight squeeze for the busses to get in on time to load and unload students. It will all of this in mind that I am asking you to consider making this small portion of Ellenboro a no parking zone, at least during school hours. Thank you for your time.

Email from: Debbie Olsztyn (448 Trombley)

I am opposed to a NO PARKING ZONE on the west side of Ellenboro, between Trombley and Colebrook. As with most streets, there is parking on one side of the street in this neighborhood. Myself as well as many neighbors park in the street from time to time. Whenever someone in this area has a party, the overflow of vehicles park on Ellenboro or Kilmer. People are bringing food, gifts, additional chairs, etc. to these gatherings and it is not practical for some to park more than a block away. I have lived here for more than 20 years and raised my children here. We have learned to adapt to the traffic flow in the early AM and late afternoon. The people who live here are very cognizant of the walkers in the street, be it children going to school or adults exercising or taking their pets for their daily walk. I don't understand why this is coming up now, but I do oppose it.

Follow up email from: Debbie Olsztyn (448 Trombley)

Since it is supported by the school district, police, and Wattles I agree the safety of our children come first. I think having specific times of the day on Monday through Friday for the no parking would improve the safety on that street.

Phone message from: Anonymous

Traffic Engineering received a call in opposition to the No Parking request for the west side of Ellenboro, from Trombley to Colebrook. The resident did not identify herself on the call other than say that she lived in the area and does not understand what the concern is about. She continued that she feels that parked vehicles slow traffic down. She further stated that the school will always be an issue. Vehicles park on the other streets in the neighborhood and there is one vehicle that parks near the corner. She closed with a concern that she can't get out of her driveway during school arrival and dismissal as no one lets her out.

Mandy Kostrzewksi of 3325 Mirage was present at the meeting. Ms. Kostrzewksi stated that she is a parent of two (2) children and they live within ½ mile of Wattles Elementary so they must walk or drive to school. There is no sidewalk in this area so they walk in the road. Last year this was not an issue while students were attending school virtually due to COVID-19. The road is narrow and cannot carry two-way traffic when a vehicle is parked on the west side of the road. There have been more days this year when vehicles have been parked along the

road creating congestion and an unsafe situation for parents and children. There are only four (4) houses on this section of Ellenboro. Of these four (4) houses on two (2) have driveways out to Ellenboro. Colebrook may be a better option to park. Traffic backs up on Ellenboro during arrival and dismissal times. After school is worse as everybody is leaving at the same time. Cars and busses drive close to pedestrians. Ms. Kostrzewski requests that the west side of Ellenboro be posted No Parking, even if it is only between the hours of 8AM-9AM and 3PM-4PM to coincide with the arrival and dismissal times of Wattles Elementary.

Ken Konwinski of 554 Colebrook was present at the meeting. Mr. Konwinski owns the home at the southeast quadrant of the intersection and stated that he was never contacted by the school or other parents and did not know of the concern until he received the notice of the meeting. He is a contractor and is typically gone by 7AM and home by 4PM-4:30PM. He has lived at this location for 18 years. Traffic backups slow traffic down. People rush through and do not stop at the stop signs. This has never been an issue in the past. He needs an area to park extra vehicles. He does not feel safe to leave his truck parked away from his home as he has tools that are stored in the truck. People walk through his yard all the time. When you live by a school, you get used to the traffic. He shovels the road and sidewalk in the area and has been doing so for the past 10 years.

Pam Brady of 576 Trombley was present at the meeting. Ms. Brady states that she sees cars park on the west side of the street. The issue does not extend very far. She questions why cars have to park along the road as she does not see cars park one block over.

Kristin LaPado of 783 Colebrook was present at the meeting. Ms. LaPado has lived at her home for 15 years. She deems the street unsafe to walk to school. The issue is with the neighborhood. Traffic is heavier this year as more parents are driving their kids to school rather than letting them take the bus due to COVID-19. She walks along Colebrook and feels it is unsafe. Parents running late to get their kids to school are dangerous. She does not believe the solution is to limit the parking at the corner. Mr. Konwinski's son rides his bike to the high school, rain or shine, and parks his truck on the west side of the road. Is it safe for Mr. Konwinski's daughter to park further away from their house at night and walk home alone, in the dark? What about events like Thanksgiving? She understands both sides of the issue. The traffic issue is only for a limited time in the morning and afternoon.

Mr. Ziegenfelder asked about the old 1975 Traffic Control Order (TCO) that was rescinded in 1980. The 1975 TCO was for north of Colebrook (nearest the school).

Mr. Kilmer stated that he spent over an hour at the intersection for the morning arrival. He spoke to the principal, crossing guard and some parents. There was a truck parked on the west side of the street, just south of the intersection. Busses and cars have to stop to let the other pass by. He observed approximately 50 kids walking. The person that owned the truck never came out. It's a mess. When the snow files and have to plow around the truck the kids will have to walk through the slush. He supports no parking on the west side at all times. Kids are walking with their back to cars. Kids can walk in the road rather than on resident's lawns.

Mr. Petrulis asked about no parking being limited to certain hours. [Many of the schools in Troy have time limited parking zones]. Would that be a sufficient solution? This would allow the use of the west side of the road during off-peak times.

Sgt. Novak stated that hardly anyone is taking the bus due to COVID-19 concerns. He has officers working with the schools to try and find solutions. He believes this is a structural issue as we have 1960's schools dumping out to 1960's roads. He is hesitant to recommend a long-term proposal that is caused by the parents of the school age children during COVID-19 times. Every school is bad right now. Cars line up to get into a school and traffic gets backed up. Bus drivers need to stay on schedule. Parents dropping kids off at school need to be aware of what is around them. Property owners have a right to park by their property.

A discussion regarding sidewalks ensured.

Mr. Kilmer does not support time limited no parking zones as he does not believe they will work.

A discussion of picture provided in the agenda ensued as there was some confusion about the direction of traffic and how buses pass through the intersection. Cars have to "stand" in the road when the school parking lot backs up with can further create congestion in and around the school.

Mr. Kilmer stated that the Wattles Elementary parking lot is full by 9AM.

Ms. Swaminathan stated that there are no parking zones by the school in her subdivision.

Ms. Nurak agreed and stated that there are no parking zones by the school in her subdivision as well. She supports time limited no parking at this location.

Mr. Kilmer stated that time limited no parking will not work. The residents will not move their cars.

Mr. Kilmer made a motion to establish a NO PARKING ZONE for the west side of Ellenboro Avenue, between Trombley Avenue and Colebrook Avenue.

The motion failed as there was no second.

Resolution # 2021-10-19
Moved by Nurak
Seconded by Swaminathan

> RESOLVED, that a NO PARKING ZONE be **APPROVED** for the west side of Ellenboro Avenue, between Trombley Avenue and Colebrook Avenue, from 8AM-9AM and 3PM-4PM, SCHOOL DAYS ONLY.

Yes: Nurak, Swaminathan, Petrulis, Ziegenfelder
No: Kilmer, Wilsher
Absent: Sivaraman

MOTION CARRIED

5. Request for Traffic Control – Finch Road at Huntsford Drive

Dongmei Gao of 916 Huntsford Drive requests that Stop signs be installed at the intersection of Finch Road and Huntsford Drive. She states that the existing Yield signs don't do anything and no one yields at the intersection. She had a recent experience where she as almost hit by a vehicle and would like Stop signs installed.

Traffic Engineering received one (1) email in support of Stop signs at this location.

Email from: Bob Beauchamp (880 Huntsford)

I have lived at the north east corner of Finch Rd and Huntsford Drive since 1978 and would like to have a stop sign at that intersection. For years, whenever traffic backs up on Crooks or Wattles Rd, our subdivision becomes a shortcut to avoid the traffic light at Crooks and Wattles. People often speed through our neighborhood which becomes a dangerous situation for children and pedestrians.

Mr. Ziegenfelder is in favor of Stop signs at all intersections.

Mr. Petrulis supports Stop signs at this location.

Sgt. Novak stated that Troy Police has spent considerable time on Finch Road as it is a cut-through when Crooks Road backs up. He recommends that ALL-WAY STOP at this intersection may assist in reducing cut-through traffic and provide for a safer intersection.

Resolution # 2021-10-20
Moved by Petrulis
Seconded by Wilsher

> RESOLVED, that the intersection of Finch Road at Huntsford Drive be **MODIFIED** from Yield signs on the Finch Road approaches to ALL-WAY STOP at the intersection of Finch Road and Huntsford Drive.

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

MOTION CARRIED

6. Public Comment

There was no further public comment at the meeting.

7. Other Business

Mr. Kilmer requested that the intersection of Ellenboro at Hartland be reviewed for purposes of replacing the existing Yield signs with Stop signs. He stated that the rest of Hartland has Stop signs and the Yield signs create confusion for drivers.

8. Adjourn

The meeting adjourned at 8:38 p.m.

Pete Ziegenfelder, Chairperson

William J. Huotari, City Engineer/Traffic Engineer

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TRAFFIC COMMITTEE REPORT

November 3, 2021

TO: Traffic Committee

FROM: Bill Huotari, City Engineer/Traffic Engineer

SUBJECT: Request for Traffic Control – Hartland Avenue at Ellenboro Avenue

Background:

Traffic Committee member Kilmer requests that the intersection of Hartland Avenue at Ellenboro Avenue be reviewed for purposes of replacing the existing Yield sign on Ellenboro Avenue with a Stop sign. He stated that the rest of Hartland Avenue has Stop signs and the Yield sign creates confusion for drivers.

The posted speed limit on both streets is 25 mph.

The intersection is currently controlled by a Yield sign on the Ellenboro Avenue approach to Hartland Avenue.

Hartland Avenue is considered to be the major road as it serves as a key route throughout the neighborhood, while Ellenboro Avenue is considered to be 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 westbound on Hartland Avenue would be the trees/bushes on the northwest quadrant. The potential sight distance obstruction for a motorist traveling eastbound on Hartland Avenue would be the hedge trees on the northeast quadrant of the intersection.

The safe approach speed for westbound vehicles on Hartland Avenue is 8.8 mph due to the permanent sight distance obstruction from the trees/bushes on the northwest quadrant.

OHM recommends installing a STOP sign on the Ellenboro Avenue approach to the intersection.

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

ARCHITECTS. ENGINEERS. PLANNERS.

OHM Advancing Communities®

November 2, 2021

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

RE: Traffic Control Recommendation for
Hartland Drive at Ellenboro Drive

Dear Mr. Huotari:

As requested, we have reviewed the intersection of Hartland Drive at Ellenboro Drive to determine the proper traffic control. Hartland Drive at Ellenboro Drive is a 3-legged intersection located in the City of Troy. The speed limit on both streets under investigation is 25 mph. Ellenboro Drive has an existing YIELD sign on the southbound approach to the intersection. Attached are aerial and intersection photos.

Types of Roadways

Both Hartland Drive and Ellenboro Drive are considered local streets. Hartland Drive runs east to west providing direct access to the neighborhood from Livernois Road and Rochester Road. Ellenboro Drive runs north to south offering access to the neighborhood off of Colebrook Avenue.

The surrounding land use is entirely single-family residential. On-street parking is permitted on the north side of Ellenboro Drive before the intersection. Hartland Drive is considered to be the major road as it serves as a key route throughout the neighborhood, while Ellenboro Drive is considered to be the minor road.

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.

OHM Advisors
34000 PLYMOUTH ROAD
LIVONIA, MICHIGAN 48150
T 734.522.6711
F 734.522.6427
OHM-Advisors.com

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 Ellenboro 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 Hartland 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 85th 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.

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 Hartland Drive at Ellenboro Drive for a motorist traveling westbound on Hartland Drive would be the trees/bushes on the northwest quadrant and the potential sight distance obstruction for a motorist traveling eastbound on Hartland Drive would be the hedge trees on the northeast 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 westbound vehicles on Hartland Drive is 8.8 mph due to the permanent sight distance obstruction from the trees/bushes on the northwest quadrant. Thus, based on the safe approach speed calculations, STOP-control is the computed right-of-way control for Ellenboro approach. The safe approach speed calculation spreadsheet for the intersection is attached for reference.

Recommendation

The preceding analysis determined that the criteria were not met for all-way STOP-control. The safe approach speed calculations suggested STOP-control would be appropriate for the minor street (Ellenboro Drive) approach.

OHM recommends implementing a STOP sign on the Ellenboro Drive approach. The intersection should be reevaluated if traffic volumes increase, or crashes begin to occur.

Sincerely,
OHM Advisors

Ife Ogundeji
Traffic Engineer

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

OHM Advisors
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GIS Online

Legend:

Road Centerline Text

Notes:

Map Scale: 1=716

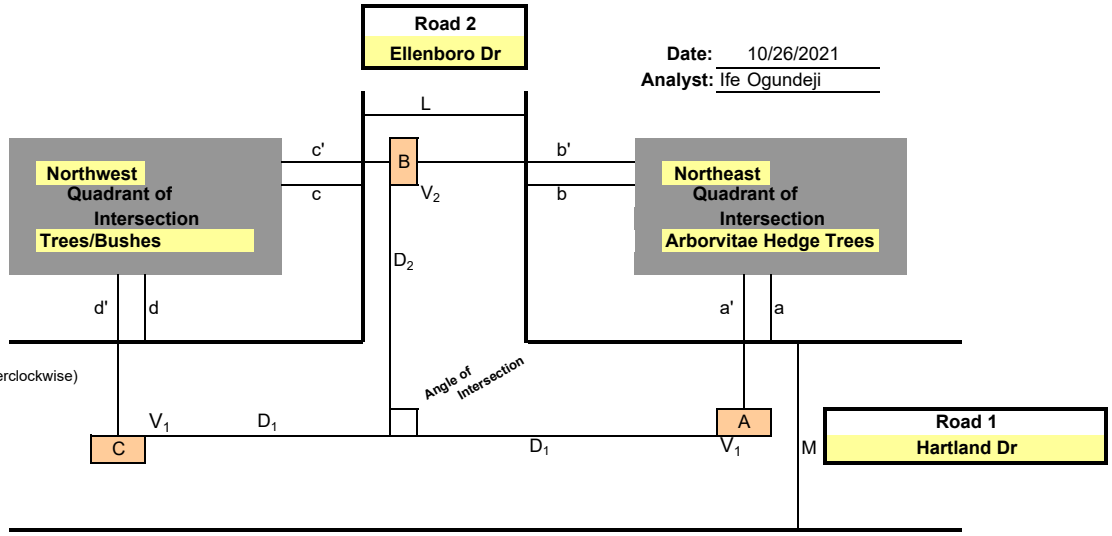
Created: October 22, 2021

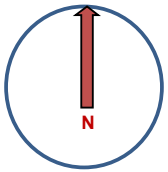
Note: The information provided by this application has been compiled from recorded deeds, plats, tax maps, surveys, and other public records and data. It is not a legally recorded map survey. Users of this data are hereby notified that the source information represented should be consulted for verification.

Safe Approach Speed Calculation

Hartland Dr and Ellenboro Dr
City of Troy

Date: 10/26/2021
Analyst: Ife Ogundeji





Measured:

Width of Roads
- Road 1 = 22 (ft)
- Road 2 = 22 (ft)

Distance to Obstruction
- a = 71 (ft)
- b = 93 (ft)
- c = 25 (ft)
- d = 33 (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_1 = 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)

Intermediate Calculations:

D_1 =	196	a' =	77
D_{2A} =	162	b' =	103
D_{2C} =	39.7	c' =	31
		d' =	43

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

Calculated Safe Approach Speed for Vehicle B
Approaching on Road 2
- 26.2 (mph) [Based on Veh. A]
- or V_2 = 8.8 (mph) [Based on Veh. C]

Notes:
- Enter field measurements in yellow highlighted area.
- Blue fields are std. default values; change only for cause.
- Calculated by spreadsheet

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.

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

Photograph No. 1: Hartland Drive- Heading West
Date: 10/26/2021 **Photographer:** Ife Ogundeji

Photograph No. 2: Hartland Drive- Heading West looking right
Date: 10/26/2021 **Photographer:** Ife Ogundeji

Photograph No. 3: Ellenboro Drive- Heading South
Date: 10/26/2021 **Photographer:** Ife Ogundeji

Photograph No. 4: Ellenboro Drive- Heading South looking right
Date: 10/26/2021 **Photographer:** Ife Ogundeji

Photograph No. 5: Ellenboro Drive - Heading South and looking left
Date: 10/26/2021 **Photographer:** Ife Ogundeji

Photograph No. 6: Hartland Drive - Heading East
Date: 10/26/2021 **Photographer:** Ife Ogundeji

Photograph No. 7: Hartland Drive- Heading East looking left
Date: 10/26/2021 **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.*

TRAFFIC COMMITTEE REPORT

November 2, 2021

TO: Traffic Committee

FROM: Bill Huotari, City Engineer/ Traffic Engineer

SUBJECT: 2022 Traffic Committee Meeting Schedule

According to the City of Troy Traffic Committee By-Laws, Article IV – Meetings:

"Regular meetings will be held on the third Wednesday of each month at 7:30 p.m. at the Troy City Hall, 500 West Big Beaver Road, Troy, Michigan."

There are no other by-laws or procedures that establish the actual dates of the meetings, but an annual calendar of meetings is published by the City so meeting dates need to be set for this purpose.

Recommended dates for 2022 Traffic Committee meetings are detailed below:

- Wednesday, January 19
- Wednesday, February 16
- Wednesday, March 16
- Wednesday, April 20
- Wednesday, May 18
- Wednesday, June 15
- Wednesday, July 20
- August – NO MEETING
- Wednesday, September 21
- Wednesday, October 19
- Wednesday, November 16
- December – NO MEETING