AGENDA OF THE TRAFFIC, BICYCLE, & PEDESTRIAN COMMISSION

MONDAY, JANUARY 18, 2021, 5:30 PM
Virtual Meeting - Public may view via Zoom.

A. Zoom Meeting Information.

1. This item contains documents which provide call-in information and instructions for the Zoom meeting.

B. Roll Call.

1. *Members:* Chairperson Matt Kuepers, Vice Chairperson Daniel Theno, Ald. Craig Stevens, Lieutenant Mike Sobieck, Brighid Riordan, and 2 vacancies.

C. Approval of the Agenda.

1. Approval of the Monday, January 18, 2021 Traffic, Bicycle, and Pedestrian Commission meeting agenda.

D. Approval of Minutes.

1. Approval of the Monday, November 16, 2020 Traffic, Bicycle, and Pedestrian Commission meeting minutes.

E. Regular Business.

1. *General Business:* Report by the Police Department of the 2020 4th quarter serious injury and fatal crashes. (All Alders)

2. *Initial Request:* Consideration with possible action on a request by Tess Warner of Huth Street to remove the stop signs on Oakdale Avenue at the intersection of Huth Street to convert an ineffective three-way stop to a single-stop intersection. (Ald. Gerlach – District 3)

3. *Initial Request:* Consideration with possible action on the request by Ald. Scannell to move the truck route from North Broadway to McDonald Street between Mather and Alexander Streets. (Ald. Scannell – District 7)

4. *Initial Request:* Consideration with possible action on the request by Ald. Johnson to establish a NO PARKING zone on the west side of 12th Avenue from 3rd Street to West Mason Street. (Ald. Johnson - District 9)

5. *Initial Request:* Consideration with possible action on the request by Ald. Johnson to remove the 2-HOUR 7 AM TO 7 PM MONDAY THROUGH FRIDAY parking zone on the east side of South Broadway south of Mason Street. (Ald. Johnson – District 9)

6. *Initial Request:* Consideration with possible action on the request by Ald. Brunette to review and potentially change the SPEED LIMIT 35 zone on Hillcrest Drive from West Point Road to West Mason Street. (Ald. Brunette - District 12)

7. *Referred Back from Study:* Consideration with possible action on the request by Ald. Vander Leest to establish a 4-WAY STOP condition on Parkwood Drive at Fawn Lane. (Ald. Vander Leest – District 11)

8. *Termination of 90-Day Trial:* Establish a NO PARKING zone on the south side of Fern Lane from a point 80 feet west of Bader Street to Bader Street.

9. *Termination of 90-Day Trial:* Remove the NO PARKING MONDAY THROUGH FRIDAY zone on the west side of Irwin Avenue from a point 200 feet north of Cass Street to a point 130 feet south of Mason Street.

10. *Termination of 90-Day Trial:* Remove the NO PARKING zone on the north side of Mills Street from a point 80 feet west of Henry Street to Henry Street.

11. *Termination of 90-Day Trial:* Establish a NO PARKING 15-MINUTE LOADING zone on the north side of Mills Street from a point 80 feet west of Henry Street to Henry Street.

12. *Termination of 90-Day Trial:* Establish a 1-WAY YIELD condition on Ricky Drive at August Street.

13. *Termination of 90-Day Trial:* Establish a NO PARKING zone on both sides of Hillcrest Drive from Haven Place to West Mason Street.

F. Informational.

1. Request by Ald. Stevens for a report by GBPD on 2020 traffic enforcement activities and recognitions. (Ald. Stevens – District 5)

2. Report by the Traffic Engineer on the Intersection Control Evaluation of Dousman Street at Gray Street. (Ald. Steuer - District 10)

3. Next meeting: Monday, February 15, 2021.

G. Public Hearings.

H. Adjournment.

1. Adjournment of the current Traffic, Bicycle, and Pedestrian Commission meeting.

1) THIS MEETING IS RECORDED: THE VIDEO OF THIS MEETING AND MINUTES ARE AVAILABLE ONLINE AT www.greenbaywi.gov
2) ACCESSIBILITY: Any person wishing to attend who requires special accommodation because of a disability, should contact the City Safety Manager at 920-448-3125 at least 48 hours before the scheduled meeting time so that arrangements can be made.
3) QUORUM: Please take notice that a majority or quorum of the Common Council will attend this Traffic, Bicycle, & Pedestrian Commission meeting and will constitute a meeting of the Common Council for purposes of discussion and information gathering relative to this agenda.
4) REPRESENTATION: The party requesting the communication, or their representative, should be present at this meeting.

Virtual Meeting Instructions

Traffic, Bicycle, & Pedestrian Commission

Zoom Meeting Information

Join Zoom Meeting

https://us02web.zoom.us/j/88142236222?pwd=T3d6Q2RKTmEyczF6Rm5qVGJmb0Q5QT09

Meeting ID: 881 4223 6222

Passcode: 938023

One tap mobile
+19292056099,,88142236222#,,,,*938023# US (New York)
+13017158592,,88142236222#,,,,*938023# US (Washington D.C)

Dial by your location

+1 929 205 6099 US (New York)
+1 301 715 8592 US (Washington D.C)
+1 312 626 6799 US (Chicago)
+1 669 900 6833 US (San Jose)
+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)

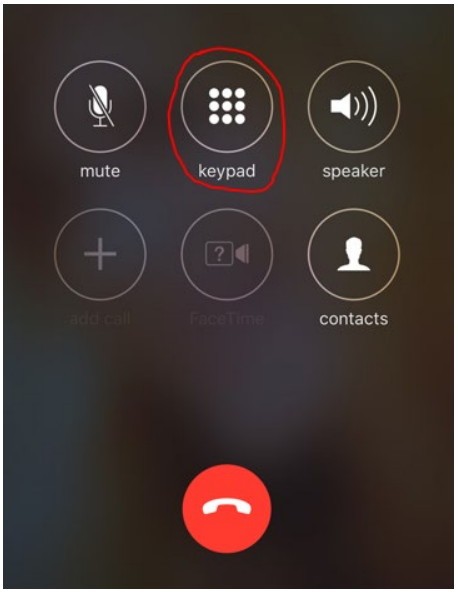
Meeting ID: 881 4223 6222
Passcode: 938023
Find your local number: https://us02web.zoom.us/u/kcQxbzaI3T

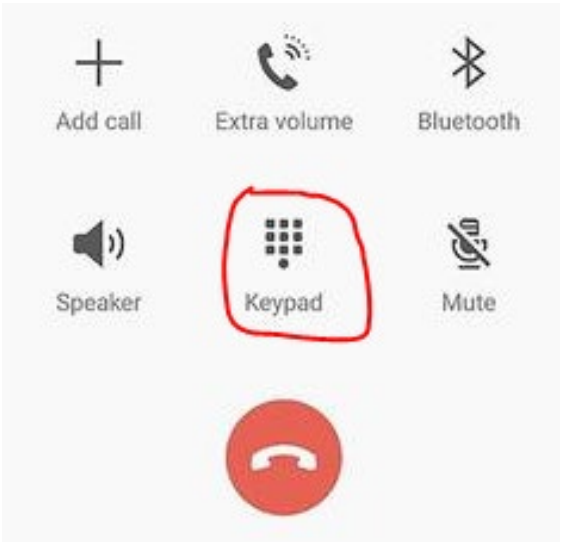
Additional Information

1. Wisconsin Open Meetings Law still applies
    a. Persons interested in speaking to an item must give their name and address
    b. Committee/Commission/Board members will still follow *Roberts Rules of Order*
2. All zoom meetings will have a password in the instructions. Please enter when prompted.
3. Please log into the Zoom meeting 10 minutes before the meeting starts to ensure proper technology is working.
    a. If you are a Board Member, please log into CivicClerk with a computer, laptop, or tablet device.
4. Once you are in the meeting please mute yourselves.
    a. You may unmute yourself when you are called upon to speak.
5. Waiting room
    a. When you call in, all callers/participants will be placed in a "waiting room."
    b. Persons on the agenda will be admitted to the meeting, and then once the item is concluded, the host will permanently mute you from the meeting (you can still hear the meeting).
6. Using Zoom with a tablet or computer
    a. Tablet—you will be asked to sign in. Download the app either with the Apple Store or the Play Store
    b. Computer—you will be asked to sign in. You may download the app or click on the link to open Zoom in your browser.
7. Registering
    a. The host may ask you to register for the meeting. A registration link will be sent to you along with the invite. You'll receive another email confirming that you're registered for the meeting.
    b. If you're using a phone, your registration will still be tied to an email.
8. Raising your hand
    a. Committee members—you can either use CivicClerk and request to speak or you can "raise your hand" in the zoom meeting (you'd need to use a computer or tablet) to let the host know you'd like to speak. You can also un-mute yourselves and start speaking.
    b. Persons on the agenda—you can "raise your hand" but you'd need to use a computer. You will be allowed to speak, per Wisconsin Open Meetings Rules, once the committee has "opened the floor for interested parties to speak." Once the committee is finished with your agenda item, the host will mute you permanently, unless the committee opens the floor again.
9. What devices should I use?
    a. Smart phone (please see more detailed instructions on page 3)
    b. Land line
    c. Tablet—well in advance of the meeting, please download the Zoom Meeting app before you join a meeting by using either the Apple Store or the Play Store. You will be asked to input your name, thus identifying you for the meeting. You'll also be asked to verify your email.
    d. Computer—well in advance of the meeting, please download the Zoom Meeting app, but you can also click on a link to open the Zoom Meeting in your browser. You will be asked to input your name, thus identifying you for the meeting.
    e. For tablet and computer users--if you download the app you will be asked to verify your email.
10. Zoom etiquette
    a. Muting yourselves when you're not talking will prevent your background noise from interfering with others' ability to listen to and participate in the meeting.
    b. If you're using a telephone, please identify yourself with your phone number and name before you speak. Zoom meeting hosts can see only your telephone number and will ask you to identify yourselves.
11. Closed session
    a. Persons in the Zoom meeting will be put into a waiting room while the committee meets in Closed Session. Participants will be admitted back into the Zoom meeting once the committee reconvenes in Open Session.
    b. Persons watching live on YouTube will see a gray screen with the City logo during closed session.
12. Persons interested in attending anonymously or listening to the meeting may call in by dialing *67 followed by the phone number above.

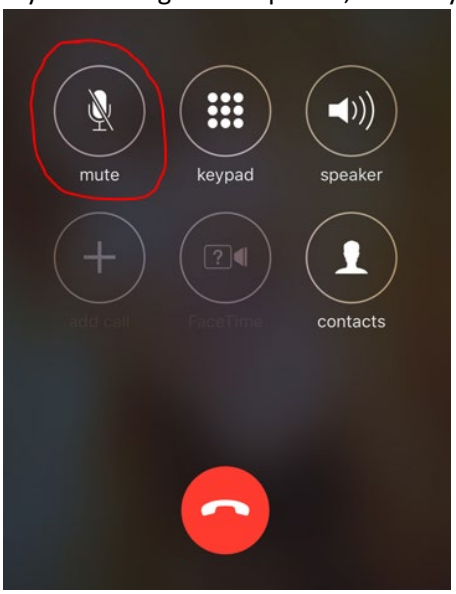
Calling into the Zoom meeting using a smartphone

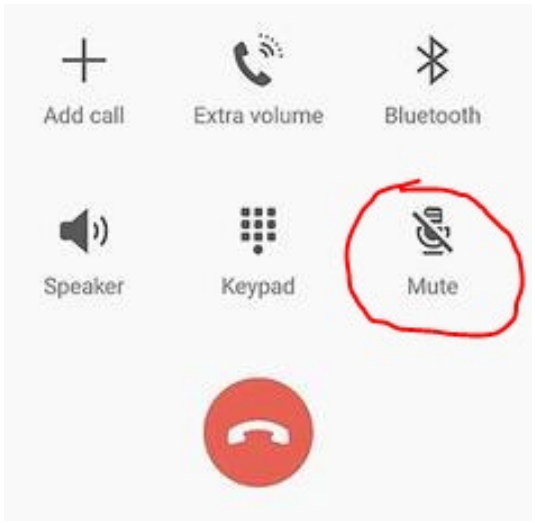
1. Dial the phone number listed at the beginning of this document.
2. When prompted, enter the Meeting ID number followed by **#**
    a. If you're using a smartphone, you can access the keypad by clicking "Keypad" on your screen





3. Once you are in the meeting, notify the meeting host that you are in and state your name.
4. If you do not need to talk, please make sure your phone is on **Mute**
    a. If you're using a smartphone, look at your screen and click the Mute button





    b. If you're using a computer, you should see a Mute button in the Zoom application

Green Bay Police Department
Operations Division

Lieutenant M. Sobieck Email: Mike.Sobieck@greenbaywi.gov 920-448-3200 ext 0921

Fourth quarter crashes

Main St / Pecan St October 2nd, 2020 20-209489

On October 2nd at 12:17pm officers were dispatched to a two vehicle accident at Main St and Pecan St. One vehicle was driving southbound on Main St and the other was northbound on Main St and making left turn into Walmart parking lot. Both vehicles had a green light and the driver of the vehicle turning into Walmart failed to yield to the right of way while making a left turn. The vehicles collided with major damage to each vehicle. The drivers of both vehicles were transported to the hospital with injuries. Unfortunately, the driver of the vehicle that failed to yield to the right of way, a 91 year old female driver passed away from complications from the accident on 10-03-20. She was a resident of Bellevue.

W Mason St Frontage Rd near Packerland Dr October 24th, 2020 20-210248

On October 24th at approximately 7:39pm officers were dispatched to a pedestrian vs vehicle accident on the W Mason Frontage Rd near Packerland Dr. The driver of the vehicle was traveling west on the frontage road between Hobart Dr and Packerland Av. The pedestrian was walking south from W Mason St down the slope onto the frontage rd. The pedestrian walked into traffic in front of the driver. The pedestrian was struck by the vehicle and the driver stopped. The pedestrian was transported to the hospital. On October 28th the pedestrian passed away at the hospital from injuries sustained from the accident.

615 S Norwood Av October 29th, 2020 20-210409

On October 29th at approximately 10:33pm officers were dispatched to a car vs house accident where one male was ejected from the vehicle. The vehicle was traveling west on W. Mason St and was driving recklessly. The passenger in the vehicle was concerned about the driving and fastened their seatbelt just prior to the car losing control and leaving the roadway and crashing into the home at 615 Norwood. The driver was ejected from the vehicle, was transported to an area hospital for treatment. The driver passed away on November 3rd from injuries sustained during the crash. Alcohol appears to be a factor in this crash; however, the toxicology report is not yet complete.

Report to the
Traffic, Bicycle and Pedestrian Commission of the City of Green Bay

MEETING DATE	PREPARED BY
January 18, 2021	Dave Hansen, Traffic Engineer

AGENDA ITEM # E.2

Initial Request: Consideration with possible action on a request by Tess Warner of Huth Street to remove the stop signs on Oakdale Avenue at the intersection of Huth Street to convert an ineffective three-way stop to a single-stop intersection. (Ald. Gerlach – District 3)

BACKGROUND

Based on neighborhood reports, motorists have been rolling through the STOP signs at the intersection. The two intersecting roads are local residential streets. It is likely that since traffic volumes are so low, motorists may be trying to make up for lost time since they rarely experience side street traffic upon approaching the STOP condition. Multi-way STOP conditions are intended to control motorist rights-of-way at intersections or correct other issues such as intersection sight distance or crashes.

RECOMMENDATION

Refer to staff for an intersection control evaluation study of the intersection of Huth Street and Oakdale Avenue.

FISCAL IMPACT

ATTACHMENTS

None

Report to the
Traffic, Bicycle and Pedestrian Commission of the City of Green Bay

MEETING DATE	PREPARED BY
January 18, 2021	Dave Hansen, Traffic Engineer

AGENDA ITEM # E.3

Initial Request: Consideration with possible action on the request by Ald. Scannell to move the truck route from North Broadway to McDonald Street between Mather and Alexander Streets. (Ald. Scannell – District 7)

BACKGROUND

N Broadway in this segment is on the city's heavy truck route system. The road segment is also part of Brown County's and the Port of Green Bay's Oversize/Overweight (OSOW) truck routes to connect to the Wisconsin Department of Transportation's (DOT) truck routes to ensure OSOW loads can be transported to and from the Port as development occurs. Lastly, the road is part of the OSOW High Clearance Truck Load Routes to and from the Port of Green Bay's North Terminal.

Removing trucks from this segment of N Broadway would not only need City approval but would require its removal from the two OSOW county routes noted. Since the County vetted their route system thoroughly in 2018, it is presumed that their OSOW route cannot be relocated to Mather, McDonald, and Alexander Sts for either height, weight, or width reasons.

Outside of the County-related issues on the request, it is not advised to move trucks to streets that have not been evaluated for their ability to withstand increased and perpetual truck loadings. Introducing multiple turns and stop conditions to a truck route is not advisable with heavy trucks not only for traffic safety concerns but also environmental concerns with increased emissions from stopping/starting, additional length added to a truck's route, and the associated noise from this activity.

Moving the truck route onto the proposed streets would send heavy truck traffic past the NEW Community Shelter, which generates both vehicle and pedestrian trips. Relocating the truck route past the shelter could introduce safety issues for its staff and transitional living occupants.

Past studies have evaluated removing Broadway from the truck route system and have failed for many of the mentioned reasons and more. These issues are as relevant today as they were in the past.

RECOMMENDATION

Deny the request to move the truck route from North Broadway to McDonald Street between Mather and Alexander Streets.

FISCAL IMPACT

ATTACHMENTS

None

Report to the
Traffic, Bicycle and Pedestrian Commission of the City of Green Bay

MEETING DATE	PREPARED BY
January 18, 2021	Dave Hansen, Traffic Engineer

AGENDA ITEM # E.4

Initial Request: Consideration with possible action on the request by Ald. Johnson to establish a NO PARKING zone on the west side of 12th Avenue from 3rd Street to West Mason Street. (Ald. Johnson - District 9)

BACKGROUND

Currently there is a NO PARKING HERE TO CORNER zone on the W side of 12th Ave south of W Mason St. Its length is 110 feet, or nearly 1/3 of the block between W Mason St and 3rd St. If approved, the NO PARKING zone extension would impact 3 residential properties.

RECOMMENDATION

Staff has no need or preference for the requested zone, and has no official position or recommendation.

FISCAL IMPACT

ATTACHMENTS

None

Report to the
Traffic, Bicycle and Pedestrian Commission of the City of Green Bay

MEETING DATE	PREPARED BY
January 18, 2021	Dave Hansen, Traffic Engineer

AGENDA ITEM # E.6

Initial Request: Consideration with possible action on the request by Ald. Brunette to review and potentially change the SPEED LIMIT 35 zone on Hillcrest Drive from West Point Road to West Mason Street. (Ald. Brunette - District 12)

BACKGROUND

Hillcrest Dr was reconstructed during the summer of 2020. Due to the new roadway surface, some residents have complained of motorists speeding. The speed limit south of West Point Rd is 25 mph while the speed limit north of it is 35 mph. Per state statute, any modification of speed zone requires that a speed study be conducted.

RECOMMENDATION

Refer to staff for a speed study of Hillcrest Drive from West Point Road to West Mason Street.

FISCAL IMPACT

ATTACHMENTS

None

Report to the
Traffic, Bicycle and Pedestrian Commission of the City of Green Bay

MEETING DATE	PREPARED BY
January 18, 2021	Dave Hansen, Traffic Engineer

AGENDA ITEM # E.7

Referred Back from Study: Consideration with possible action on the request by Ald. Vander Leest to establish a 4-WAY STOP condition on Parkwood Drive at Fawn Lane. (Ald. Vander Leest – District 11)

BACKGROUND

Report is attached.

RECOMMENDATION

To deny the request to establish a 4-WAY STOP condition at Parkwood Drive and Fawn Lane and to maintain the existing uncontrolled intersection.

FISCAL IMPACT

ATTACHMENTS

1. M awsc warrants Parkwood-Fawn 2020.djah

MEMORANDUM

Department of Public Works | Traffic Division

To: Traffic, Bicycle, and Pedestrian (TB&P) Commission
Public Works Director Steven Grenier, P.E.

From: Traffic Engineer David J.A. Hansen, P.E., PTOE

Re: **All-Way Stop Control Warrant Analysis, Parkwood Drive at Fawn Ln Drive**

Date: Tuesday, December 8, 2020

This memorandum serves as my response to the TB&P motion to refer to staff the request by Ald. Vander Leest to establish a 4-WAY STOP condition at Parkwood Drive and Fawn Lane. (Ald. Vander Leest – District 11).

This memo will be presented at the Mon Jan 18, 2021 TBPC meeting.

Existing Site Conditions

The intersection of Parkwood Dr and Fawn Ln is located on the west side of the City of Green Bay, in Aldermanic District 11 (Ald. Vander Leest). See Figure 1 for General Location, Figures 2a-2c for Neighborhood Views and Figure 3 for an Intersection View.

Figure 1 – General Location

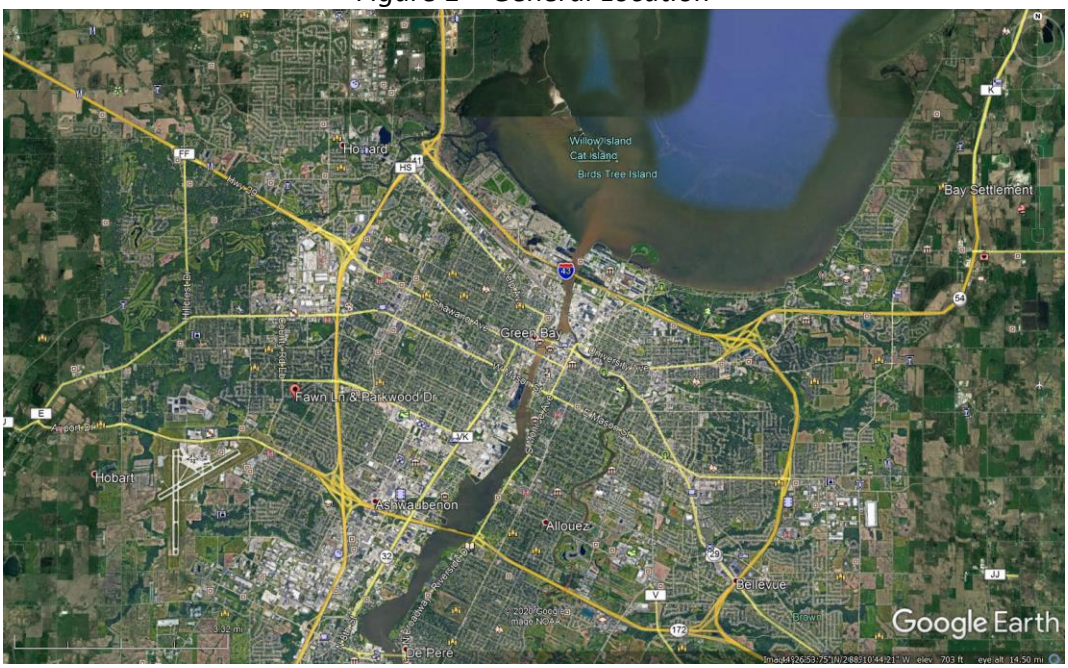


Figure 2a – Neighborhood View

Figure 2b – Neighborhood View

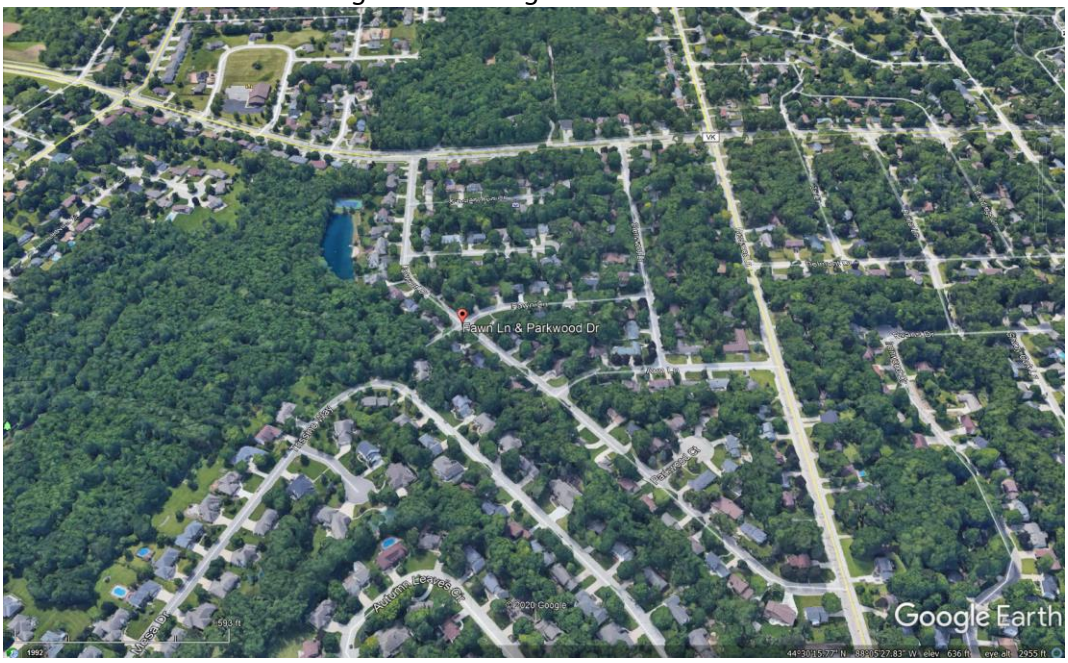


Figure 2c – Neighborhood View

Figure 3 – Intersection View

The intersection of Parkwood Dr and Fawn Ln does not have any intersection control, i.e., no YIELD or STOP signs are present. Furthermore, no intersections within the neighborhood surrounded by Packerland-Parkwood-Hazelwood have intersection control. Parkwood-Fawn is a four-approach intersection which functions like a “T-intersection” since the south leg is a short cul-de-sac that serves 1 residence and is a trailhead to the Sherwood Forest. Parkwood Dr terminates at both Packerland Dr (west, a.k.a., County Highway EB) and Hazelwood Ln (east, a.k.a., County Highway VK) and is under 1-WAY STOP control (Parkwood Dr traffic stops) at both intersections.

Parkwood Dr is a suburban local street which functions as a neighborhood collector to mostly cul-de-sacs. Single family residential homes abut the roadway. Parkwood Dr has an asphaltic surface and consists of 1 travel lane in each direction and parking lanes on both sides of the street. Roadway width is 36 ft wide. Parking is not restricted or regulated. The posted speed limit is 25 mph. No sidewalk exists along both sides of Parkwood Dr. No centerline or lane line markings exist. Street lighting exists along Parkwood Dr. No marked crosswalks exist except at Hazelwood Ln. The roadway slopes downhill from Ann Ln to Fawn Ln.

Fawn Ln is a suburban local street. Single family residential homes abut the roadway. Fawn Ln has an asphaltic surface and consists of 1 travel lane in each direction and parking lanes on both sides of the street. Roadway width is 36 ft. Parking is not restricted or regulated north of Parkwood Dr but is restricted south of Parkwood Dr on both sides of the street, presumably because trail walkers may have parked vehicles in the cul-de-sac prior to restricting the on-street parking. The speed limit is 25 mph. No sidewalk exists along both sides of Fawn Ln. No centerline or lane line markings exist. Street lighting exists along Fawn Ln and at its intersection with Parkwood Dr. No marked crosswalks exist. The roadway slopes downhill from Cherrywood Ln to Parkwood Dr.

Stopping sight distance (SSD) for both streets is 155 ft based on the posted speed limit of 25 mph. In-field observed SSD is significantly longer than 155 ft, more than the minimum required. No Green Bay Metro Transit bus routes or stops exist near the intersection. Since no STOP or YIELD conditions exist at Parkwood-Fawn, no intersection control advance warning signs exist approaching the intersection. See Figures 4a through 4d for photos of the intersection.

Figure 4a – Northbound Fawn Ln at Parkwood Dr looking East

Figure 4b – Northbound Fawn Ln at Parkwood Dr looking West

Figure 4c – Southbound Fawn Ln at Parkwood Dr looking East

Figure 4d – Southbound Fawn Ln at Parkwood Dr looking West

Crash History

No crashes have occurred at the intersection in the past 5 years.

Vehicle and Pedestrian Traffic

Weekday vehicle volumes are summarized in Table 1. No pedestrian or bike counts were collected as part of this study.

Table 1 –Weekday Vehicle Volume Summary, Parkwood Dr at Fawn Ln

Major Street: Parkwood Dr Eastbound & Westbound
Minor Street: Fawn Ln Northbound & Southbound

Start Date: 26-Oct-20
End Date: 6-Nov-20

TIME						Major	Minor	
FROM	TO	NB	SB	EB	WB	EB + WB	NB + SB	TOTAL
12:00 AM	1:00 AM	-	-	-	-	-	-	-
1:00 AM	2:00 AM	-	-	-	-	-	-	-
2:00 AM	3:00 AM	-	-	-	-	-	-	-
3:00 AM	4:00 AM	-	-	-	-	-	-	-
4:00 AM	5:00 AM	-	-	-	-	-	-	-
5:00 AM	6:00 AM	-	-	-	-	-	-	-
6:00 AM	7:00 AM	0	1	2	1	3	1	4
7:00 AM	8:00 AM	0	1	5	3	8	1	9
8:00 AM	9:00 AM	0	1	11	3	14	1	15
9:00 AM	10:00 AM	1	1	5	6	11	2	13
10:00 AM	11:00 AM	1	1	8	8	16	2	18
11:00 AM	12:00 PM	0	2	10	9	19	2	21
12:00 PM	1:00 PM	1	1	11	13	24	2	26
1:00 PM	2:00 PM	1	2	10	10	20	3	23
2:00 PM	3:00 PM	1	2	9	10	19	3	22
3:00 PM	4:00 PM	2	2	9	11	20	4	24
4:00 PM	5:00 PM	0	2	13	13	26	2	28
5:00 PM	6:00 PM	1	3	12	12	24	4	28
6:00 PM	7:00 PM	0	1	8	13	21	1	22
7:00 PM	8:00 PM	1	1	6	8	14	2	16
8:00 PM	9:00 PM	0	0	4	7	11	0	11
9:00 PM	10:00 PM	0	0	2	3	5	0	5
10:00 PM	11:00 PM	0	1	3	3	6	1	7
11:00 PM	12:00 AM	-	-	-	-	-	-	-
TOTAL		9	22	128	133	261	31	292

Multi-Way Stop Application Warrant Analysis

A multi-way STOP application study for the intersection can be found in Table 2. All warrants as defined in the current editions of the Federal and State Manual on Uniform Traffic Control Devices (MUTCD) were evaluated.

Table 2 - Multi-Way Stop Application Warrant Analysis

ASWC Warrant Criteria

MUTCD No

MUTCD

Met? Criteria

No A. Is a signal justified? No

No B. # of crashes in a 12 month period that can be corrected by multi-way stop control: 0

No C. Minimum Volumes

1. Major road approach volume (total of both) at least 300 vph for min 8 hours?
2. Combined ped, bike, and veh volume on minor approach (total of both) at least 200 units per hour for the same 8 hours as criteria C-1?
3. If the 85th percentile speed on the major road exceeds 40 mph, may use 70% of the values in C-1 and C-2

Major Street 85th percentile mph: 33.35

Time Period	From	To	Major Road: Both App.	Minor Road: Both App. (VPH)	C-1	C-2	Both Met?	D (80%)		Both Met?
1	6:00	7:00	3	1	No	No	No	No	No	No
2	7:00	8:00	8	1	No	No	No	No	No	No
3	8:00	9:00	14	1	No	No	No	No	No	No
4	9:00	10:00	11	2	No	No	No	No	No	No
5	10:00	11:00	16	2	No	No	No	No	No	No
6	11:00	12:00	19	2	No	No	No	No	No	No
7	12:00	13:00	24	2	No	No	No	No	No	No
8	13:00	14:00	20	3	No	No	No	No	No	No
9	14:00	15:00	19	3	No	No	No	No	No	No
10	15:00	16:00	20	4	No	No	No	No	No	No
11	16:00	17:00	26	2	No	No	No	No	No	No
12	17:00	18:00	24	4	No	No	No	No	No	No
13	18:00	19:00	21	1	No	No	No	No	No	No
14	19:00	20:00	14	2	No	No	No	No	No	No
15	20:00	21:00	11	0	No	No	No	No	No	No
16	21:00	22:00	5	0	No	No	No	No	No	No

No D. Use when previous criteria have not been met:

If 80% minimum values of Criteria B, C-1, and C-2 (C-3 excluded) are satisfied, warrant is met.

Other criteria considered included:

A. The need to control left-turn conflicts: NO

B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes: NO

C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop: NO

D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection: NO

Discussion

In review of the 5-year crash history, having no crashes at the intersection point to a safe traffic environment existing currently. Adding a STOP condition on Parkwood Dr may add crashes, specifically rear-end crashes, especially in the westbound and southbound directions which have downgrades toward the Parkwood-Fawn intersection.

MUTCD Section 2B.04, Right-of-Way at Intersections, states that “YIELD or STOP signs should not be used for speed control”. If concerned residents are requesting the STOP condition on Parkwood Dr to reduce motorist speed, DPW maintains the position of the FHWA and WisDOT by not recommending installing STOP signs for speed control.

Referring to a comprehensive study conducted by W. Martin Bretherton Jr., P.E. (Georgia), a member of the Institute of Transportation Engineers (ITE), entitled ”Multi-Way Stops - The Research Shows the MUTCD is Correct!” which concluded that:

1. Multi-way stops do not control speeds

2. Stop compliance is poor at unwarranted multi-way stop signs

3. Before-After studies show multi-way stop signs do not reduce speeds on residential streets

4. Unwarranted multi-way stops increased speed some distance from intersections (the studies hypothesizing that motorists are making up the time they lost at the "unnecessary" stop sign)

5. Multi-way stop signs have high operating costs based on vehicle operating costs, vehicular travel times, fuel consumption and increased vehicle emissions

6. Safety of pedestrians is decreased at unwarranted multi-way stops, especially small children (it seems that pedestrians expect vehicles to stop at the stop signs but many motorists have gotten in the habit of running the "unnecessary" stop sign)

7. Stop signs increase noise in the vicinity of an intersection. The noise is created by the vehicle braking noise at the intersection and the cars accelerating up to speed.

Conclusions

No multi-way stop warrants were met. No other traffic issues or concerns were found during the field observations. The warrant study resulted in a recommendation to continue operating the intersection as an uncontrolled intersection.

Recommendations

To deny the request to establish a 4-WAY STOP condition at Parkwood Drive and Fawn Lane and to maintain the existing uncontrolled intersection.

Report to the
Traffic, Bicycle and Pedestrian Commission of the City of Green Bay

MEETING DATE	PREPARED BY
January 18, 2021	Dave Hansen, Traffic Engineer

AGENDA ITEM # E.8

Termination of 90-Day Trial: Establish a NO PARKING zone on the south side of Fern Lane from a point 80 feet west of Bader Street to Bader Street.

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

None

Report to the
Traffic, Bicycle and Pedestrian Commission of the City of Green Bay

MEETING DATE	PREPARED BY
January 18, 2021	Dave Hansen, Traffic Engineer

AGENDA ITEM # E.9

Termination of 90-Day Trial: Remove the NO PARKING MONDAY THROUGH FRIDAY zone on the west side of Irwin Avenue from a point 200 feet north of Cass Street to a point 130 feet south of Mason Street.

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

None

Report to the
Traffic, Bicycle and Pedestrian Commission of the City of Green Bay

MEETING DATE	PREPARED BY
January 18, 2021	Dave Hansen, Traffic Engineer

AGENDA ITEM # E.10

Termination of 90-Day Trial: Remove the NO PARKING zone on the north side of Mills Street from a point 80 feet west of Henry Street to Henry Street.

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

None

Report to the
Traffic, Bicycle and Pedestrian Commission of the City of Green Bay

MEETING DATE	PREPARED BY
January 18, 2021	Dave Hansen, Traffic Engineer

AGENDA ITEM # E.11

Termination of 90-Day Trial: Establish a NO PARKING 15-MINUTE LOADING zone on the north side of Mills Street from a point 80 feet west of Henry Street to Henry Street.

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

None

Report to the
Traffic, Bicycle and Pedestrian Commission of the City of Green Bay

MEETING DATE	PREPARED BY
January 18, 2021	Dave Hansen, Traffic Engineer

AGENDA ITEM # E.12

Termination of 90-Day Trial: Establish a 1-WAY YIELD condition on Ricky Drive at August Street.

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

None

Report to the
Traffic, Bicycle and Pedestrian Commission of the City of Green Bay

MEETING DATE	PREPARED BY
January 18, 2021	Dave Hansen, Traffic Engineer

AGENDA ITEM # E.13

Termination of 90-Day Trial: Establish a NO PARKING zone on both sides of Hillcrest Drive from Haven Place to West Mason Street.

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

None

MEMORANDUM

Department of Public Works | Traffic Division

To: Traffic, Bicycle, and Pedestrian (TB&P) Commission
Public Works Director Steven Grenier, P.E.
Assistant City Engineer, Project Development, Matt Woicek, P.E.

From: Traffic Engineer David J.A. Hansen, P.E., PTOE

Re: **Intersection Control Evaluation, Dousman Street at Gray Street**

Date: Friday, January 15, 2021

This memorandum serves as my response to DPW | Engineering Division's request to provide a traffic signal plan for the 2021 Gray St (Dousman St – Mather St) reconstruction project. Knowing that the intersection has experienced lower traffic volumes since the closure of the USH 41 & Dousman St interchange, I reviewed the need for traffic signals at this intersection.

This memo will be presented at Monday, January 18, 2021 meeting.

Existing Site Conditions

The intersection of Dousman St and Gray St is located on the west side of the City of Green Bay, in Aldermanic District 10 (Ald. Steuer). See Figure 1 for General Location, Figures 2a-2d for Aerial Views and Figure 3 for an Intersection View.

Figure 1 – General Location

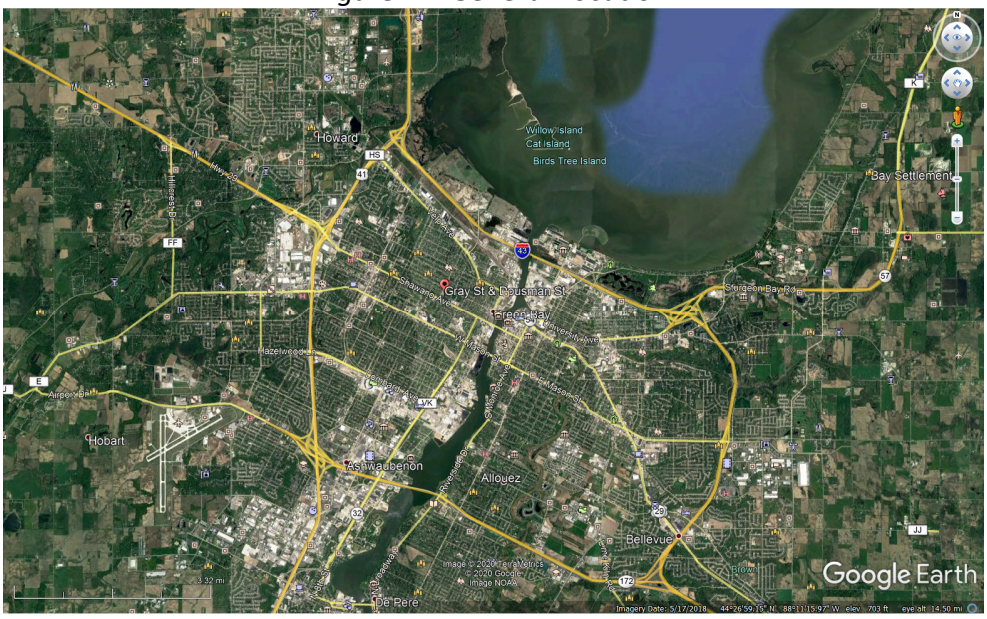


Figure 2a – Aerial View

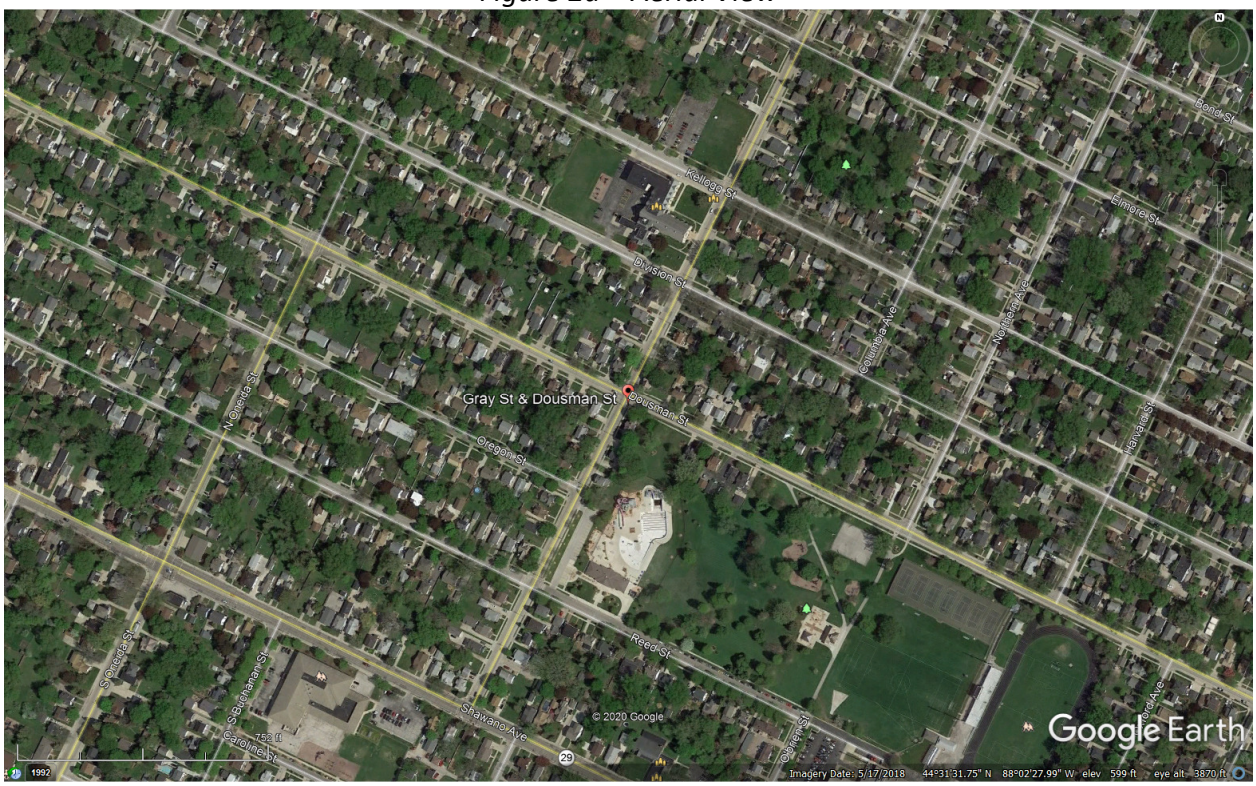


Figure 2b – Aerial View

Figure 2c – Aerial View

Figure 2d – Aerial View

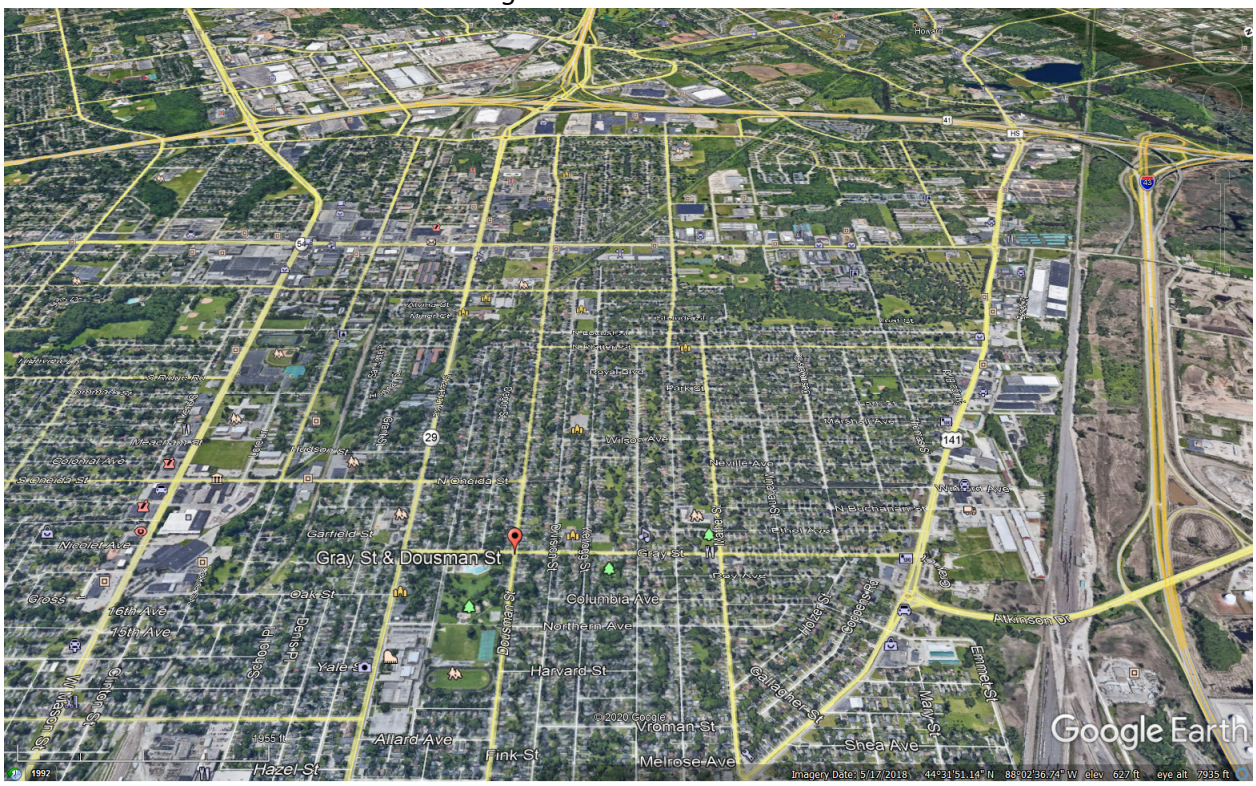
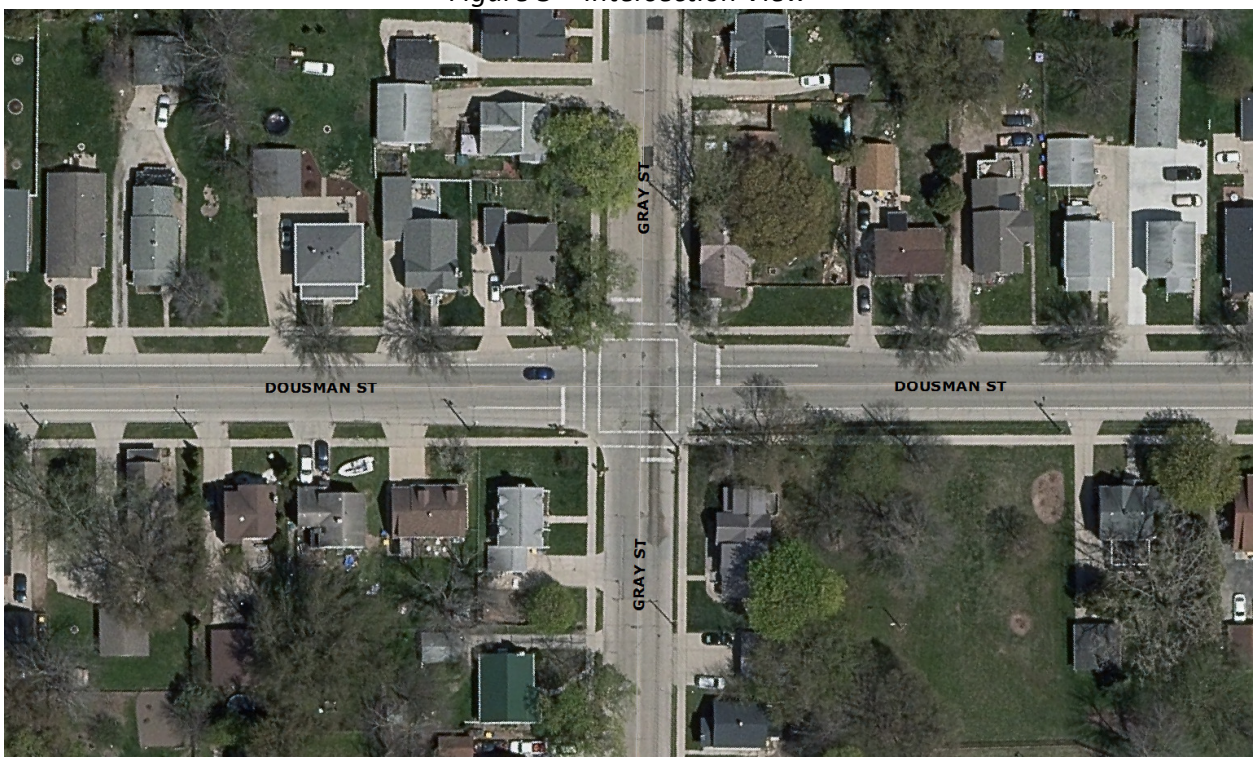


Figure 3 – Intersection View



Although signal timing sheets were found from 1977, its construction date is unknown. The signal has been retimed multiple times since 1977. The last signal timing change occurred on Oct 3, 2013. Currently the signal controller cabinet contains legacy equipment, some no longer available when repairs are required. Absent is any vehicle detection system as well, meaning all light indications are pre-timed and phases cannot be skipped when no vehicles are present. Due to its old age and potential conflict with the 2021 Gray St Reconstruction Project, the traffic signal is scheduled to be reconstructed as part of the 2021 DPW Traffic Capital Improvement Program (CIP).

The four-approach intersection of Dousman St and Gray St is signal controlled. The nearest signalized intersections are approximately 1,000 ft from the intersection: Dousman-Oneida to the west, and Shawano-Gray to the south. Dousman St terminates at Taylor St to the west and turns into Main St at the Nitschke Bridge. Dousman St has bike lanes both east and west of the intersection. However, the intersection is not wide enough to support bike lanes through the intersection. The lane configuration of eastbound and westbound Dousman St at the intersection is one thru-left-turn and one right-turn lane. The lane configuration of northbound and southbound Gray St at the intersection is one thru-left-turn and one thru-right-turn lane. The traffic signal operates under 2-phases, meaning it displays circular green-yellow-red for Dousman St then circular green-yellow-red for Gray St.

Dousman St is an urban minor arterial street. Single family residential homes abut the roadway. Dousman St has a concrete surface and consists of 1 travel lane in each direction and bike lanes on both sides of the street. Roadway width is 36 ft. Parking is restricted. The posted speed limit is 25 mph. Sidewalk exists along both sides of Dousman St. Centerline markings exist approaching and through the intersection while lane line markings exist at the intersection and

for the bike lanes. Street lighting exists along Dousman St. Marked crosswalks exist on both east and west approaches crossing Dousman St. The roadway is relatively flat with no major grade changes.

Gray St is an urban minor arterial street. Single family residential homes abut the roadway. Gray St has a concrete surface and consists of 1 travel lane in each direction and parking lanes on both sides of the street. Roadway width is 36 ft. Parking is restricted on both sides of Gray St except north of the intersection on the west side. The posted speed limit is 25 mph. Sidewalk exists along both sides of Dousman St. Centerline markings exist approaching and through the intersection. No lane line markings exist. Street lighting exists along Dousman St. Marked crosswalks exist on both north and south approaches crossing Gray St. The roadway is relatively flat with no major grade changes.

Stopping sight distance (SSD) for both streets is 155 ft based on the posted speed limit of 25 mph. In-field observed SSD is longer than 155 ft, more than the minimum required. A Green Bay Metro Transit bus route exists on Dousman St with stops on the northeast and southwest corners of the intersection. No intersection control advance warning signs exist approaching the intersection. See Figures 4a through 4d for photos of the intersection.

Figure 4a – Eastbound Dousman St at Gray St looking East (Forward)

Figure 4b – Eastbound Dousman St at Gray St looking North (Left)

Figure 4c – Eastbound Dousman St at Gray St looking South (Right)

Figure 4d – Westbound Dousman St at Gray St looking West (Forward)

Figure 4e – Westbound Dousman St at Gray St looking South (Left)

Figure 4f – Westbound Dousman St at Gray St looking North (Right)

Figure 4g – Northbound Gray St at Dousman St looking North (Forward)

Figure 4h – Northbound Gray St at Dousman St looking West (Left)

Figure 4i – Northbound Gray St at Dousman St looking East (Right)

Figure 4j – Southbound Gray St at Dousman St looking South (Forward)

Figure 4k – Southbound Gray St at Dousman St looking East (Left)

Figure 4l – Southbound Gray St at Dousman St looking West (Right)

Intersection Control Warrants

Since the closure of the USH 41 & Dousman St interchange, a substantial amount of traffic which had traveled Dousman St has moved either to Velp Ave or Shawano Ave. Given this decrease in traffic volumes over time and also the need to address an aging and antiquated traffic control signal that will be impacted by the 2021 reconstruction of Gray St north of the intersection, an Intersection Control Evaluation (ICE) of the need of the traffic control signal was conducted. This study was conducted in multiple parts. First was to determine if the traffic control signal was still needed for traffic to operate at safe and acceptable levels of service. Second was to evaluate the control delays and levels of service for the existing traffic conditions, and future traffic conditions if other methods of traffic control are considered in addition to crash history.

Traffic Signal Warrants

Refer to Table 1 for a summary of the traffic signal warrants as applied to the Dousman-Gray intersection. All warrants except Warrant 5 (School Crossing), Warrant 7 (Crash Experience), and Warrant 9 (Intersection Near a Grade Crossing) were evaluated. Warrants 5 and 9 did not apply due to no nearby school and no nearby railroad crossing. Warrant 7 was not evaluated as it looks for crashes correctable by installing a traffic signal, of which the intersection is already signalized.

Table 1

Wisconsin Department of Transportation Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Dousman Street & Gray Street
County: Brown
City: Green Bay

Major Street: Dousman Street
Critical Approach Speed: 25 mph
Lanes: 2 or more lanes

Minor Street: Gray Street
Critical Approach Speed: 25 mph
Lanes: 2 or more lanes

% Right Turns Included
From North (SB) 0%
From East (WB) 0%
From South (NB) 0%
From West (EB) 0%

In built-up area of isolated community of < 10,000 population? No
Total number of approaches at intersection? 4 or more
If it is a "T" intersection, inflate minor threshold to 150%? No
Manually set volume level? 100%

Analysis based on EXISTING volume data.

Date	Day of the Week	Time (HH:MM)			
		From	AM / PM	To	AM / PM
7/15/2019	Monday	7	AM	7	PM

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	**No**
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	**No**
Warrant 3: Peak Hour Volume	**No**
Warrant 4: Pedestrian Volume	**No**
Criterion A: Four-Hour	
Criterion B: Peak-Hour	
Warrant 5: School Crossing	**N/A**
Warrant 6: Coordinated Signal System	**No**
Warrant 7: Crash Experience	**N/A**
Warrant 8: Roadway Network	**No**
Warrant 9: Intersection Near a Grade Crossing	**N/A**

Warrant Analysis Conducted By:
Name: David J.A. Hansen, P.E., PTOE
Agency: City of Green Bay | Department of Public Works | Traffic Division
Date: 11/24/2020

No evaluated warrants were met. The Manual on Uniform Traffic Control Devices (MUTCD) states that “the satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal”. Put another way, only intersections that meet one or more warrants should be considered for traffic signals. Since this traffic signal did not meet any signal warrants, consideration of other forms of intersection control should be considered. Regression in the hierarchy of intersection control is the multi-way STOP condition.

Multi-Way Stop Application Warrant Analysis

A multi-way STOP application study for the intersection can be found in Table 2. All warrants as defined in current editions of the Federal and State Manual on Uniform Traffic Control Devices (MUTCD) were evaluated.

Table 2

ASWC Warrant Criteria

MUTCD Yes WisDOT Yes

MUTCD B, V, 1, 2, 3, 5

Met?		Criteria
No	A.	Is a signal justified? No
Yes	B.	# of crashes in a 12 month period that can be corrected by multi-way stop control: 6
Yes	C.	Minimum Volumes

1. Major road approach volume (total of both) at least 300 vph for min 8 hours?
2. Combined ped, bike, and veh volume on minor approach (total of both) at least 200 units per hour for the same 8 hours as criteria C-1?
3. If the 85th percentile speed on the major road exceeds 40 mph, may use 70% of the values in C-1 and C-2

Major Street 85th percentile mph: 32

Time Period	From	To	Major Road: Both App.	Minor Road: Both App. (VPH)	C-1	C-2	Both Met?	D (80%)		Both Met?
1	6:00	7:00								
2	7:00	8:00	322	284	Yes	Yes	Yes	No	No	No
3	8:00	9:00	281	252	No	Yes	No	No	No	No
4	9:00	10:00	308	224	Yes	Yes	Yes	No	No	No
5	10:00	11:00	307	182	Yes	No	No	No	No	No
6	11:00	12:00	404	283	Yes	Yes	Yes	No	No	No
7	12:00	13:00	425	285	Yes	Yes	Yes	No	No	No
8	13:00	14:00	494	285	Yes	Yes	Yes	No	No	No
9	14:00	15:00	546	282	Yes	Yes	Yes	No	No	No
10	15:00	16:00	602	293	Yes	Yes	Yes	No	No	No
11	16:00	17:00	473	357	Yes	Yes	Yes	No	No	No
12	17:00	18:00	479	266	Yes	Yes	Yes	No	No	No
13	18:00	19:00	380	275	Yes	Yes	Yes	No	No	No
14	19:00	20:00								
15	20:00	21:00								
16	21:00	22:00								

No D. Use when previous criteria have not been met:
If 80% minimum values of Criteria B, C-1, and C-2 (C-3 excluded) are satisfied, warrant is met.

WisDOT

Met?		Criteria
Yes	1	**Functional Highway Classification**

Approach	Classification
1: (SB)	Minor Arterial
2: (WB)	Minor Arterial
3: (NB)	Minor Arterial
4: (EB)	Minor Arterial

Yes 2 **Average Daily Traffic**

Approach	AADT
Minor 1	2236.8
Minor 2	3470.4
Major 1	1684.8
Major 2	2554.8

Yes 3 **Crash History**
# of crashes in a 12 month period that can be corrected by multi-way stop control: 6
Expected to significantly reduce the overall severity of future crashes? Yes

4 **Alternatives**
Refer to TGM 13-26-5 Section D.

Yes 5 **Mobility Impact**
Will the high-volume "through" street experience significant delays for the benefit of reducing delays for a low-volume side street? No

6 **Right Turn Inclusion**
Refer to WisDOT TSDM 2-3-2

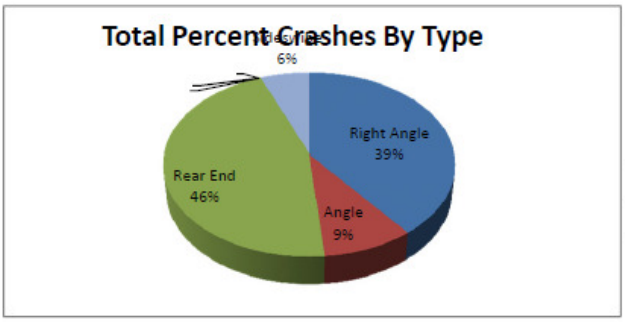
Crash History

See Table 3 for a crash summary.

Table 3

CRASH SUMMARY

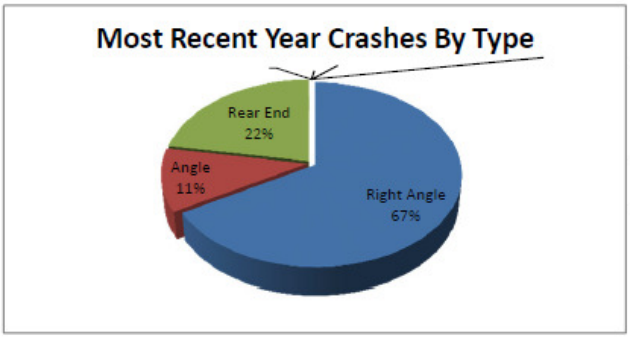
Total Type (5-Year)	
Right Angle	13
Angle	3
Rear End	15
Fixed Object	0
pedestrian	0
No Collision	0
Sideswipe	2



Total Crash Direction (5-Year)	
NB	7
EB	7
SB	7
WB	10
Unknown	2

Total Crashes (5-Year)	33

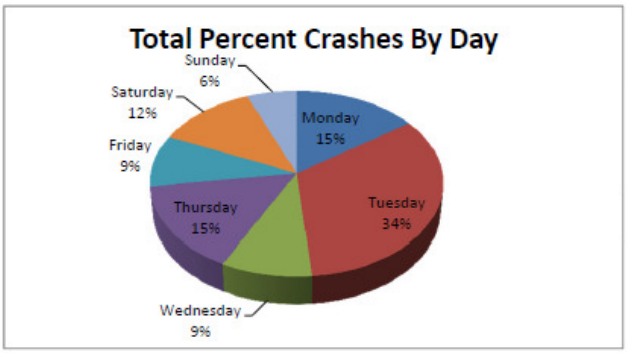
Most Recent Type	
Right Angle	6
Angle	1
Rear End	2
Fixed Object	0
No Collision	0
Pedestrian	0
Sideswipe	0



Total Peak Crashes (5-Year)	
Midnight - 10 AM	5
10 AM - 2 PM	8
2 PM - Midnight	20

Road Condition (5-Year)	
Dry	26
Wet	5
Ice	0
Snow	2

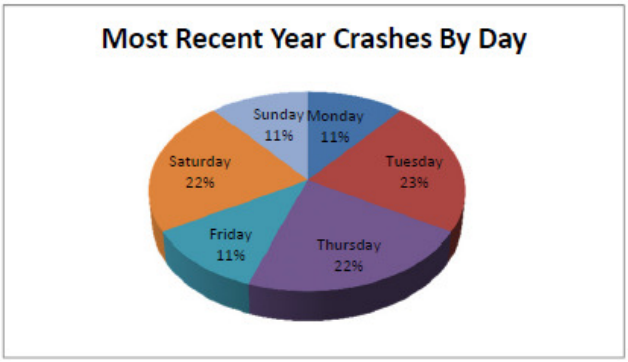
Total Day (5-Year)	
Monday	5
Tuesday	11
Wednesday	3
Thursday	5
Friday	3
Saturday	4
Sunday	2



Most Recent Peak Crashes	
12-10 AM	0
10-2PM	0
2-12 PM	9

Road Condition	
Dry	7
Wet	1
Ice	0
Snow	1

Most Recent Day	
Monday	1
Tuesday	2
Wednesday	0
Thursday	2
Friday	1
Saturday	2
Sunday	1



Most Recent PDO-Injury-Fatal	
Property Damage Only	7
Injuries	2
Fatalities	0

Last 5-Year PDO-Injury-Fatal	
Property Damage Only	24
Injuries	9
Fatalities	0

Most Recent weekday count
8289

Crash Rate (crash/million)(2019)
3.0

Thirty-three (33) crashes have occurred at the intersection in the past 5 years. All but 5 crashes, or 85% of all crashes, were either right-angle or rear-end collisions. Since traffic signals are supposed to reduce those types of crashes, this could mean that there is a capacity, delay, or timing issue that needs correction. Poor weather conditions were present only during 21% of the crashes. There were 9 injury crashes within the past 5 years, or 27% of the crashes. All

crashes took place between 2 PM and midnight. Given that westbound traffic had the highest number of crashes, a setting sun may have contributed to these crashes.

Capacity and Delay Evaluation

Synchro 10 software was used to determine control delay and levels of service (LOS) for both signal and stop control alternatives. See Table 4 for a control delay and LOS summary under both the existing signal control (both existing and optimized timings) and a potential multi-way STOP condition during the intersection's peak period, which is the evening peak hour of 3 PM based on a traffic count conducted on Monday, July 15, 2019 (pre-pandemic volumes, which are more reflective of normal traffic volumes).

Table 4

Control Delay (sec/veh) and Level Of Service
All-way STOP control & Traffic Signal Control
Dousman Street at Gray Street
PM Peak Hour

Scenario	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Intersection
Plan			L	T	R	App	L	T	R	App	L	T	R	App	L	T	R	App	
Existing	Dousman-	Signal	15.5	0.0	15.6	15.5	15.8	0	16.3	16.0	7.9	0.0	6.8	7.7	8.4	0.0	6.9	8.2	10.8
PM	Gray	Cycle = 60 sec	B	A	B	B	B	A	B	B	A	A	A	A	A	A	A	A	B
Optimized	Dousman-	Signal	8.3	0.0	8.4	8.3	8.5	0.0	8.7	8.6	10.8	0.0	9.2	10.6	11.8	0.0	9.3	11.5	10.2
PM	Gray	Cycle = 45 sec	A	A	A	A	A	A	A	A	B	A	A	B	B	A	A	B	B

Scenario	Intersection	Control	Northbound			Southbound			Eastbound			Westbound			Intersection
Plan			TL	TR	App	TL	TR	App	TL	R	App	TL	R	App	
Existing	Dousman-	All-Way STOP	12.2	11.2	11.8	12.3	11.8	12.0	16.6	9.1	15.7	21.2	9.0	19.8	15.8
PM	Gray		B	B	B	B	B	B	C	A	C	C	A	C	C

Level of Service Criteria

Level of Service	Signal Ave Ctrl Delay (s/v)	Stop Ave Ctrl Delay (s/v)	General Description
A	0-10	0-10	Free Flow
B	>10-20	>10-15	Stable Flow (slight delays)
C	>20-35	>15-25	Stable Flow (acceptable delays)
D	>35-55	>25-35	Approaching unstable flow (tolerable delay)
E	>55-80	>35-50	Unstable Flow (intolerable delay)
F	>80	>50	Forced flow (jammed)

Conclusions

The traffic signal is not warranted. Modifying the existing traffic control should be considered. An evaluation of existing vs. optimized timings was conducted. The existing intersection is operating at LOS B with no movement below a LOS B. When optimized, the intersection LOS is still B with no movement below a LOS B. Any timing improvements will not have a noticeable improvement on level of service.

A multi-way STOP condition is warranted. The intersection LOS would decrease from B to C. This is mainly due to all motorists being required to stop. All movements would operate at a LOS C or better. A multi-way STOP condition would likely decrease the number and severity of right-angle crashes. Rear-end crashes may decrease as motorists will adjust to always stopping

at the intersection vs. having the current option of proceeding through on a green indication or having to stop, sometimes while in a “dilemma zone” while approaching during a yellow then red indication. With all traffic stopping at the intersection, any right-angle crashes would be low speed and should result in little to no damage to vehicles. Right-angle crashes may be occurring because of the decrease in traffic volumes which can lead to frustrated motorists waiting for green lights (as mentioned earlier, the signal does not have a vehicle detection, meaning all timings are pre-timed and phases cannot be skipped when no vehicles are present).

Recommendations

1. On a 90-day trial, program the Dousman-Gray traffic control signal to flash red in both directions thereby creating an ALL-WAY STOP condition. Add warning signs indicating that a traffic pattern has changed.

2. If the trial is successful, then the City should permanently change the Dousman-Gray intersection traffic control from signalized to an ALL-WAY STOP condition.

3. If the trial is unsuccessful, then the City should schedule the Dousman-Gray signal for reconstruction in 2021.