



Traffic Engineering Division

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SUMMARY OF STAFF RECOMMENDATIONS To TRANSPORTATION COMMISSION

April 24, 2024

- PACKERS AVENUE & WHEELER ROAD (#1 on the Intersections Meeting Warrant List): recommend maintaining existing two way stop control intersection.
- MILWAUKEE STREET & SPRECHER ROAD (#2 on THE Intersections Meeting Warrant List): recommend maintaining existing all way stop control intersection and coordinate any future changes with potential I-94 Milwaukee Street ramp planning.
- HIGH POINT ROAD & MIDTOWN ROAD (#3 on All-Way Stop Intersection List): recommend maintaining existing all way stop control intersection until future road re-alignment.
- CROSS COUNTRY ROAD & MAPLE GROVE DRIVE & NESBITT ROAD (#9 on list All-Way Stop Intersection List): recommend maintaining existing all way stop control and consider roundabout design for future intersection control.
- SCHROEDER ROAD & STRUCK ROAD (#12 on list Not Meeting Warrant): recommend maintaining existing stop control.
- GAMMON ROAD & TEMVO LANE & VEL PHILIPS HIGH SCHOOL DRIVEWAY (#16 on list Not Meeting Warrant): recommend maintaining existing stop control.
- ELDERBERRY ROAD & JUNCTION ROAD (#21 on list Not Meeting Warrant): recommend maintaining existing stop control.
- COTTAGE GROVE ROAD & MEADOWLARK DRIVE (#45 on list Not Meeting Warrant): recommend maintaining existing stop control.
- GORHAM STREET & LIVINGSTON STREET (#56 on list Not Meeting Warrant): recommend maintaining existing stop control and add crosswalk to Safe Streets Madison list for RRFB consideration.
- CEDAR & PARK STREET (STH 151) (#109 on list Not Meeting Warrant): recommend maintaining existing stop control and coordinate future planning with North-South Bus Rapid Transit planning team.

2023 TRAFFIC SIGNAL PRIORITY LIST SPECIAL STUDIES FOR TRANSPORTATION COMMISSION SELECT INTERSECTIONS

Actions completed to date

- **PACKERS AVENUE & WHEELER ROAD**
Review of crash history.
Collect automated 24 hour speed and volume counts.
Collect turning movement counts.
Collect vehicle delay observations.
Evaluate stop control, signal, and roundabout operation using Synchro modeling software.

- **MILWAUKEE STREET & SPRECHER ROAD**
Review of crash history.
Collect automated 24 hour speed and volume counts.
Collect turning movement counts.
Collect vehicle delay observations.

- **HIGH POINT ROAD & MIDPOINT ROAD**
Review of Crash History.
Collect automated 24 hour speed and volume counts.

- **CROSS COUNTRY ROAD & MAPLE GROVE ROAD & NESBITT ROAD**
Review of crash history.
Collect automated 24 hour speed and volume counts.
Collect turning movement counts.
Evaluate stop control, signal, and roundabout operation using Synchro modeling software.

- **SCHROEDER ROAD & STRUCK ROAD**
Review of crash history.
Collect automated 24 hour speed and volume counts.

- **GAMMON ROAD & TEMVO LANE & VEL PHILIPS HIGH SCHOOL DRIVEWAY**
Review of crash history.
Collect automated 24 hour speed and volume counts.
Collect turning movement counts.
Collect Vehicle delay observations.
Pedestrian crossing observations.

- **ELDERBERRY ROAD & JUNCTION ROAD**
Review of crash history.
Collect automated 24 hour speed and volume counts.

- **COTTAGE GROVE ROAD & MEADOWLARK DRIVE**
Review of crash history.
Collect automated 24 hour speed and volume counts.
Collect manual turning movement counts.
Collect vehicle delay observations.

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- **GORHAM STREET & LIVINGSTON STREET**
Review of crash history.
Collect automated 24 hour speed & volume counts.
- **CEDAR STREET & PARK STREET**
Review crash history.
Perform vehicle delay study.
Perform pedestrian crossing.

TRAFFIC SIGNAL PRIORITY LIST COMMENTARY

PACKERS AVENUE & WHEELER ROAD (#1 on the Intersections that Meet Warrant List)

The Packers Avenue & Wheeler Road intersection is located approximately 2,080 feet north of the side street stop-controlled intersection of Anhalt Drive & Packers Avenue. The intersection is the first intersection within the City of Madison as you enter the city from the north on Packers Avenue.

The intersection is currently a side street stop-controlled intersection where Wheeler Road is stop controlled.

Crash History

- During the five-year period 2019-2024 there have been no reported crashes at this intersection.

Application of Traffic Signal Criteria

- Automatic hose counts show that this intersection is 30 percent above meeting the adopted minimum numerical volume for warrant 1-B, and 19 percent above meeting warrant 1-A.
- A manual delay observation indicated the intersection meets the numerical minimum for the Peak Hour warrant, however, does not meet on the basis of vehicle delay.

Staff Recommendation

Staff recommends maintaining the current stop control operation.

MILWAUKEE STREET & SPRECHER ROAD (#10 on All-Way Stop Intersection List)

The Milwaukee Street & Sprecher Road intersection is an all-way stop controlled intersection. This intersection is located approximately 2,630 feet south of the signalized intersection at CTH T and Sprecher Road; and approximately 925 feet east of the two way stop intersection at Milwaukee Street & Rustic.

This intersection is currently an all way stop controlled intersection, equipped with flashing 12-inch red LED indicators to draw attention to the stop signs for the Sprecher Road approaches.

Crash History

- During the five-year period 2019-2024 there have been a reported ten (10) crashes; of which, six (6) are of type considered to be correctable by traffic signal control.
- During the five-year period 2019-2024, there have been two (2) crashes resulting in injuries (three individuals), of which, both were a result of crashes of types considered to be correctable with traffic signal operations.
- Since the last study, these crash totals have decreased from fourteen (14) in a five year period to ten (10); however has increased from five (5) correctable crashes to six (6).

Application of Traffic Signal Criteria

- Automatic hose counts show that this intersection is 7 percent above meeting the adopted minimum numerical volume for traffic signal warrant 1-B.
- A manual delay observation indicated the intersection meets the numerical minimum for the Peak Hour warrant, however, does not meet on the basis of vehicle delay.

Staff Recommendation

Staff recommends maintaining all way stop configuration. Due to a potential future interchange with I-94, this intersection should be planned in accordance with that effort and consider a roundabout or traffic signal.

HIGH POINT ROAD & MIDTOWN ROAD (#3 on The All-Way Stop Intersection List)

The High Point Road & Midtown Road intersection is located on the southwest side of the City, where High Point Road T's into Mid Town Road approximately 1,450 feet south of Twinflower Drive and 470 feet east of Legacy Lane and 1,070 feet west of Marty Road.

The "T" intersection is currently controlled by stop signs on all approaches.

Crash History

- During the five-year period 2019-2024 there have been a reported five (5) crashes; none of which are of type considered to be correctable by traffic signal control.
- None of the reported crashes resulted in injury or fatality.

Application of Traffic Signal Criteria

- Automatic hose counts show that this intersection is 30 percent below meeting the adopted minimum numerical volume for warrant 1-A, but meets the minimum numerical values for the 4-hour warrant.

Staff Recommendation

Staff recommends maintaining existing stop control configuration unless the intersection is reconfigured to intercept Raymond Road (as seen on High Point – Raymond Neighborhood Development Plans).

CROSS COUNTRY ROAD & MAPLE GROVE ROAD & NESBITT ROAD (#9 on List)

The Cross Country Road & Maple Grove Road & Nesbitt Road intersection is located on the southwest side of the City approximately 470 feet east of Ambleside Drive, 730 feet south of Fairhaven Road, 600 feet west of Dolphin Drive, and 4,450 feet north of the signalized intersection at E Verona Avenue and Old PB and Maple Grove Road.

The intersection is currently controlled by stop signs on all approaches.

Crash History

- During the five-year period 2019-2024 there have been a reported four (4) crashes; of which, two (2) are of type considered to be correctable by traffic signal control.
- As a result of these four (4) crashes, there were no reported injuries.
- Three of the four crashes were classified as hit-and-run, two (2) angle and one (1) rear end.

Application of Traffic Signal Criteria

- This intersection does not meet minimum numerical requirements for any traffic signal warrant.

Staff Recommendation

Staff recommends maintaining existing all way stop control configuration, however if an opportunity arises to replace the intersection with a single lane roundabout, staff would support this intersection control.

SCHROEDER ROAD & STRUCK STREET (#12 on List)

The intersection of Schroeder Road & Struck Street is located approximately 1,770 feet east of the signalized intersection at S. Gammon Road & Schroeder Road, and approximately 700 feet west of the side street stop control intersection of Chapel Hill Road & Schroeder Road.

The intersection is currently a 2-way stop controlled intersection with the Struck Street approach is controlled by a stop sign and the bike path to the south accesses the intersection at the east crosswalk ramp. The east crosswalk is equipped with a Rectangular Rapid Flashing Beacon.

Crash History

- During the five-year period 2019-2024 there have been a reported four (4) crashes; of which, three (3) are of type considered to be correctable by traffic signal control.
- Of these three (3) crashes, two (2) resulted in injury.
- One potentially correctable angle crash with protected only left turns, led to 2 injuries.
- One crash resulting in a fatality of a man and his dog was not found in the crash reports but is counted in this report as a non-correctable crash due to the driver in that specific instance soon after ran a red at the next signal nearly hitting other pedestrians in the crosswalk.
 - <https://www.wmtv15news.com/2024/02/15/one-year-later-suspect-still-loose-madison-hit-and-run-that-killed-man-his-dog/>

Application of Traffic Signal Criteria

- Studies indicate this intersection does not meet any of the minimum numerical values for signal warrants.

Staff Recommendation

Staff recommends maintaining existing stop control configuration.

GAMMON ROAD & TEMVO LANE & VEL PHILLIPS HIGH SCHOOL (#16 on List)

The Gammon Road & Temvo Lane & Vel Phillips High School intersection is located approximately 840 feet north of the signalized intersection of Gammon Road & Mineral Point Road, and 925 feet south of the signalized of Tree Lane & Gammon Road.

The intersection is currently controlled by stop signs on Temvo Lane and the High School Driveway.

Crash History

- During the five-year period 2019-2024 there have been a reported five (5) crashes; of which, four (4) crashes are of types considered to be correctable with a traffic signal.
- The remaining crash is a left turn angle crash and therefore would be considered preventable with a protected only left turn signal operation.
- Four of the five crashes resulted in injuries, 5 total injuries.
- Three of the five crashes involved teen drivers, one included a 65+ driver, and one a hit and run with no data.

Application of Traffic Signal Criteria

- Studies indicate this intersection does not meet any of the minimum numerical value for traffic signal warrants.
- During a pedestrian crossing study staff observed 36 pedestrians crossing in a 15-minute interval but was not sustained beyond this 15 minute interval.
- During the same pedestrian crossing study, it was noted that approximately 8% of the pedestrian crossings ended in a car trip in the parking lot across Gammon Road, approximately 38% continued westbound through the Temvo Lane parking lots, while the remaining pedestrians crossed on foot towards the signal at Mineral Point & Gammon.

Staff Recommendation

Staff recommends maintaining the existing stop control configuration and reviewing school operations at this and at the driveway taking access off Mineral Point Road in the next several years.

ELDERBERRY ROAD AND JUNCTION ROAD (#21 on List)

The intersection of Elderberry Road & Junction Road is located approximately 1,560 feet north of the Target driveway intersection and 740 feet south of Harbour Town Drive.

The intersection is currently a 2-way stop controlled intersection with Elderberry Road approaches being stop controlled.

Crash History

- During the five-year period 2019-2024 there have been a reported one (1) crash; of which, the one crash is of a type not considered to be correctable with a traffic signal.
- The one reported crash involved a pedestrian crossing from a drivers right where the driver proceeded into the occupied crosswalk, resulting in injury to the pedestrian.

Application of Traffic Signal Criteria

- Traffic studies indicate this intersection does not meet any of the minimum numerical traffic signal warrants.

Staff Recommendation

Staff recommends maintaining stop control configuration.

COTTAGE GROVE ROAD & MEADOWLARK DRIVE & STACY LANE (#45 on List)

The intersection of Cottage Grove Road & Meadowlark Drive & Stacy Lane is located approximately 930 feet east of Flora Lane & Cottage Grove Road and 1,610 feet west of Cottage Grove Road and Ellen Avenue.

The intersection is currently a 2-way stop controlled intersection where Meadowlark Drive to the north, and Stacy Lane to the south are stop controlled. The west crosswalk is equipped with a Rectangular Rapid Flashing Beacon.

Crash History

- During the five-year period 2019-2024 there have been a reported three (3) crashes; of which, one (1) is of a type considered to be correctable by traffic signal control, another one (1) of these crashes is potentially correctable by traffic signal control but not typically considered correctable (rear end during RRFB activation).
 - There has been one (1) injury as a result of correctable crashes.
 - There has been one (1) injury as a result of the two non-correctable crashes.

Application of Traffic Signal Criteria

- Studies indicate this intersection does not meet any of the minimum numerical values of any traffic signal warrant.

Staff Recommendation

Staff recommends maintaining existing stop sign control configuration.

GORHAM STREET & LIVINGSTON STREET (#56 on List)

The intersection of Gorham Street & Livingston Street is located approximately 650 feet west of the signalized intersection of Gorham Street & Paterson Street along the one way street, Gorham Street.

The intersection is currently a 2-way stop controlled intersection along a one way street. The intersection is served by transit stop 1996 served by routes 28 and D. Per Metro Transit data, the bus stop is served by an average of 70 daily boardings.

Crash History

- During the five-year period 2019-2024 there have been no reported crashes.

Application of Traffic Signal Criteria

- Traffic studies indicate this intersection does not meet any of the minimum numerical values for traffic signal warrants.

Staff Recommendation

Staff recommends maintaining existing stop control and adding this intersection to the Safe Streets Madison list for consideration of installing a Rectangular Rapid Flashing Beacon.

CEDAR STREET & PARK STREET (#109 on List)

The intersection of Cedar Street & Park Street is located 980 feet north of the signalized intersection of Park Street & Wingra Drive, and 900 feet south of the signalized intersection of Park Street & Olin Avenue.

The intersection is a two way stop controlled intersection where Cedar Street is stop controlled in the EB & WB direction. The south crosswalk is equipped with a Rectangular Rapid Flashing Beacon and is served by transit stops 0181 and 0896 with a combined average 68 boardings per day combined.

Crash History

- During the five-year period 2019-2024 there have been five (5) reported crashes; of which, 1 are types considered to be correctable by traffic signal operation.
- The crash considered to be correctable by traffic signal involved a pedestrian crossing the SB lanes of Park Street. It is not mentioned if the RRFB was activated at the time of the crossing.

Application of Traffic Signal Criteria

- Preliminary traffic studies indicated that of the studied signal warrants (delay, peak hour, and pedestrian warrants), this intersection does not meet minimum numerical values for these traffic signal warrants.

Staff Recommendation

Staff recommends maintaining existing stop control with RRFB, updating the RRFB to include accessible pedestrian button features, and review intersection with the North-South Bus Rapid Transit team with consideration of a BRT station at this intersection.

END