



Traffic Engineering Division

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SUMMARY OF STAFF RECOMMENDATIONS To PBMVC

November 24, 2009

1. Old Sauk and Westfield: Recommend maintaining current stop sign control.
2. Cottage Grove & Thompson: Recommend maintaining current stop sign control.
3. Nakoma, Seminole and Yuma: Recommend maintaining current stop sign control.
4. Blair & Main: Recommend budgeting for a future traffic signal.

2009 TRAFFIC SIGNAL PRIORITY LIST SPECIAL STUDIES FOR PBMVC SELECT INTERSECTIONS

Actions completed to date

1. **Old Sauk & Westfield**
Collected 24 hour automatic machine counts.
2. **Cottage Grove & Thompson**
Collected 24 hour automatic hose counts.
Recorded vehicle delay, 7-8 am.
3. **Nakoma, Seminole and Yuma**
Collected 24 hour automatic hose counts.
4. **Blair & Main**
Collected 24 hour automatic hose counts.
Analyze signal interconnection potential.

TRAFFIC SIGNAL PRIORITY LIST COMMENTARY

Old Sauk Road & Westfield Road

The Old Sauk-Westfield intersection is located on Old Sauk Road approximately 1600 feet west of the signalized intersection at Gammon Road, and approximately 2,900 feet east of the signalized intersection at High Point Road.

Recent manual and automatic hose counts show that this intersection is 23% short of meeting the adopted minimum numerical volume for traffic signals.

A delay study performed previously in 2006 during the peak p.m. traffic period showed that the actual delay to motorist on Westfield is 80% short of meeting the minimum delay criteria for traffic signals. The highest 15-minute delay period was found to be from 5:15 – 5:30 p.m. during which time the average delay to motorist on the southbound approach was found to be 44 seconds per vehicle. Delay during this same period was measured at 43 seconds per vehicle in 2003. Average delays recorded during all other time intervals were significantly less.

Crash History

- The crash history for the past five years, 2004 thru 2008, shows there have been an average of 1.5 crashes per year (of crash types considered correctable by traffic signals). A traffic signal is not expected to improve upon this low number of crashes.

Application of Traffic Signal Criteria

- Recent manual and automatic hose counts show that this intersection is 23% short of meeting the adopted minimum numerical volume for traffic signals.

If this intersection is to become signalized, the intersection will need to be reconstructed via remarking to provide left-turn lanes for both eastbound and westbound Old Sauk Road, and will require widening the east-leg of Old Sauk Road in order to maintain bike lanes. The eastbound Bike and Right Turn Only lane designation between Westfield and Gammon Road would need to be removed.

Cottage Grove & Thompson

The Cottage Grove-Thompson intersection is located on Cottage Grove Road approximately 600 feet west of the bridge over Interstate Highway 90. It is approximately 4,400 feet east of the signalized intersection at Acewood Blvd. and approximately 5,300 feet west of the signalized intersection at Sprecher Road. The Cottage Grove-Thompson intersection forms a “T” intersection with Cottage Grove having the right-of-way and Thompson Road being stop controlled.

A delay study performed during the peak a.m. traffic period showed that the actual delay to motorist on the Thompson northbound is 87% short of meeting the minimum delay criteria for traffic signals. The highest 15-minute delay period was found to be from 7:45 – 8:00 a.m. during which time the average delay to motorist on the northbound approach was found to be 28 seconds per vehicle. Average delays recorded during all other time intervals were significantly less.

Crash History

- The intersection crash rate is favorable. A total of four crashes have been reported during the past three years.

Application of Traffic Signal Criteria

- Recent manual and automatic hose counts show that this intersection is 18% short of meeting the adopted minimum numerical volume for traffic signals.

Staff recommends maintaining the current stop sign control. We will continue to monitor the Cottage Grove-Thompson intersection to assess changing conditions.

Nakoma Road, Seminole Hwy & Yuma Drive

The Nakome-Seminole-Yuma intersection is located approximately 2,700 feet northeast of the signalized intersection at Midvale, Nakoma and Hammersley Road, and approximately 4,150 feet southwest of the signalized intersection at Glenway Street and Monroe Street. The distance from this intersection to Midvale Drive is approximately 2200 feet along Yuma Drive.

An Adult School Crossing Guard is stationed at this intersection during school crossing hours. A median island in the southwest leg of Nakoma and a zebra striped crosswalks on both legs of Nakoma were placed October 2006 to improve pedestrian crossings.

Numerous complaints regarding speeding and use of Yuma Drive as a cut-through route between Nakama and Midvale have been logged as far back as Traffic Engineering has kept records. In 1999 a Temporary traffic circle was placed at Waban Hill and Yuma Drive. In 2000, speed humps on Yuma Drive were approved to be installed. A traffic signal would be expected to exacerbate this problem.

Crash History

- During the five-year period 2004-2008, there have been a total of six crashes reported which were types considered to be correctable by traffic signals. Five of these six crashes were reported in 2008, the other one was reported in 2007.
- 0 crashes reported in both 2005 and 2006.

Application of Traffic Signal Criteria

- Recent counts show that this intersection is 40% short of meeting the adopted minimum numerical volume for traffic signals.

Blair & Main

This intersection is located on Blair Street 320 feet to the south of the signalized Blair-East Washington intersection and 690 feet to the north of the signalized Blair-John Nolen-Williamson intersection. This intersection is located approximately one-third of a mile from the Capitol Square in an area populated by office buildings and parking lots.

During peak traffic periods, northbound Blair traffic often backs up thru the Main Street intersection. A traffic signal placed at this intersection would need to be coordinated with the Blair-East Washington traffic signal to ensure that southbound vehicles on Blair to not back up into East Washington and northbound vehicles do not queue into the Main Street intersection.

Crash History

- During the five-year period 2004-2008, there have been a total of 23 crashes reported which were types considered to be correctable by traffic signals (an average of 4.8 crashes per year). Seven of these crashes were reported in 2008.

Application of Traffic Signal Criteria

- Recent counts show that this intersection is 43% short of meeting the adopted minimum numerical volume for traffic signals.
- The observed crash rate is close to the minimum crash criteria of five correctable crashes per year.