



Department of Transportation

## Traffic Engineering and Parking Divisions

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## SUMMARY OF STAFF RECOMMENDATIONS To PBMVC

January 23, 2018

1. Agriculture Drive & Femrite Drive: Recommend maintaining current stop sign control.
2. American Parkway & American Family Drive: Recommend installation of a traffic signal.
3. Atwood Avenue & Sugar Avenue & Oakridge Avenue: Recommend maintaining current stop sign control.
4. Commerce Drive & Watts Road: Recommend maintaining current stop sign control.
5. Elderberry Road & N. Pleasant View Road: Recommend maintaining current stop sign control.
6. Proudfit Street & W. Main Street: Recommend maintaining current stop sign control
7. Hilldale Way & Maple Terrace & University Avenue: Recommend installation of a traffic signal.

## 2017 TRAFFIC SIGNAL PRIORITY LIST SPECIAL STUDIES FOR PBMVC SELECT INTERSECTIONS

### Actions completed to date

#### 1. **Agriculture Drive & Femrite Drive**

Collected 24 hour automatic machine counts.

Manual turning movement counts.

Manually recorded vehicle delay.

Collected spot speed study (by hose).

Review of crash history

#### 2. **American Parkway & American Family Drive**

Collected 24 hour automatic machine counts.

Manually recorded vehicle delay.

Automatic speed study by hose.

Review of crash history.

#### 3. **Atwood Avenue & Sugar Avenue & Oakridge Avenue**

Collected 24 hour automatic machine counts.

Manually recorded vehicle delay.

Review of crash history.

#### **4. Commerce Drive & Watts Road**

Collected 12 hour manual counts.  
Manually recorded vehicle delay.  
Review of crash history.

#### **5. Elderberry Road & North Pleasant View Road**

Collected 24 hour automatic machine counts.  
Manual turning movement counts.  
Review of crash history.

#### **6. Proudfit Street & West Main Street**

Collected 24 hour automatic machine counts.  
Manual turning movement counts.  
Review of crash history.

#### **7. Hilldale Way & Maple Terrace & University Avenue**

Reviewed Crash History.

## **TRAFFIC SIGNAL PRIORITY LIST COMMENTARY**

### **Agriculture Drive & Femrite Drive (#3 on 4-Way Stop List)**

The Agriculture Drive & Femrite Drive intersection is currently a 4-way stop controlled intersection located approximately 4,800 feet east of the signalized intersection at the S Stoughton Rd & E Broadway and approximately 1,340 west of the un-signalized intersection at Marsh Court.

#### **Crash History**

- During the five-year period 2012-2016, there have been a total of seven (7) crashes reported which are types considered to be correctable by traffic signals.
- The 4-way stop control has resulted in a reasonable safety record at this intersection. If signals are installed, we anticipate more intersection crashes and more rear-end collisions on the approaches.

#### **Application of Traffic Signal Criteria**

- Recent manual and automatic hose counts show that this intersection is 27% short of meeting the adopted minimum numerical volume for traffic signals.

#### **Staff Recommendation**

At this time, staff recommends maintaining the current stop sign control.

### **American Parkway & American Family Drive (#23 on List)**

The American Parkway & American Family Drive intersection is currently a 2-way stop controlled intersection located on American Parkway approximately 985 feet east of the signalized intersection at Buttonwood Drive, and 1,050 feet southwest of the un-signalized intersection at Tancho Drive.

#### **Crash History**

- During the five-year period 2012-2016, there have been a total of nineteen (19) crashes reported which are types considered to be correctable by traffic signals, eight (8) of which occurred in 2016.

#### **Application of Traffic Signal Criteria**

- Recent manual and automatic hose counts show that this intersection is 50% short of meeting the adopted minimum numerical volume for traffic signals.

- At eight crashes of types preventable by installing a traffic signal, this intersection exceeds Warrant 7, Crash Experience.

#### **Staff Recommendation**

Given the crash record, staff recommends installing a traffic signal at the intersection of American Parkway & American Family Drive.

#### **Atwood Avenue & Sugar Avenue & Oakridge Avenue (#47 on List)**

The Atwood Avenue & Sugar Avenue & Oakridge Avenue intersection is located approximately 1,235 feet east of the signalized intersection at Atwood Avenue & Fair Oaks Drive, and approximately 2,200 feet west of the signalized intersection at Atwood Avenue & Walter Street.

#### **Crash History**

- During the five-year period 2012-2016, there have been a total of zero (0) crashes reported which types are considered to be correctable by traffic signals.

#### **Application of Traffic Signal Criteria**

- Recent manual and automatic hose counts show that this intersection is 63% short of meeting the adopted minimum numerical volume for traffic signals.

#### **Staff Recommendation**

Staff recommends maintaining the current stop signal control with additional pedestrian crossing treatments for the West leg of the intersection crossing Atwood Avenue as part of the upcoming Atwood Avenue reconstruction project.

#### **Commerce Drive & Watts Road (#6 on List)**

The Commerce Drive & Watts Road intersection is a 2-way stop controlled intersection located approximately 1,300 feet east of the signalized intersection at Junction Road & Watts Road and approximately 1,980 feet west of the signalized intersection at S High Point Road & Watts Road.

The intersection is currently equipped with a Rectangular Rapid Flashing Beacon on the West leg of the intersection crossing Watts Road.

#### **Crash History**

- During the five-year period 2012-2016, there have been a total of three (3) crashes reported which is a type considered to be correctable by traffic signals.
- A review of our crash database, which goes back to 2002, indicates that there have been no reported crashes at this intersection involving pedestrians.

#### **Application of Traffic Signal Criteria**

Recent manual counts show that this intersection is 32% short of meeting the adopted minimum numerical volume for traffic signals.

#### **Staff Recommendation**

Staff recommends maintaining the current stop sign control and continuing to closely monitor as development increases in the neighborhood.

### **Elderberry Road & North Pleasant View Road (#70 on List)**

The Elderberry Road & North Pleasant View Road intersection is a 2-way stop controlled intersection located approximately 2,665 feet north of the roundabout at Mineral Point Road & N Pleasant View Road and approximately 2,580 feet south of the signalized intersection of Old Sauk Road & N Pleasant View Road.

#### **Crash History**

- During the five-year period 2012-2016, there have been a total of zero (0) crashes reported which types are considered to be correctable by traffic signals.

#### **Application of Traffic Signal Criteria**

- Automatic hose counts show that this intersection is 77% short of meeting the adopted minimum numerical volume for traffic signals.

#### **Staff Recommendation**

Staff Recommends maintaining the current stop sign control.

### **Proudfit Street & West Main Street (#43 on List)**

The Proudfit Street & West Main Street intersection is a 2-way stop controlled intersection located approximately 450 feet east of the signalized intersection at Proudfit Street & Regent Street & West Washington Avenue and approximately 2,950 feet west of the North Shore Drive & North Shore Drive intersection.

#### **Crash History**

- During the five-year period 2012-2016, there have been a total of two (2) crashes reported which are types considered to be correctable by traffic signals.

#### **Application of Traffic Signal Criteria**

- Automatic hose counts show that this intersection is 61% short of meeting the adopted minimum numerical volume for traffic signals.
- Due to the close proximity to Regent St. & W. Washington Ave. & Proudfit St. signalized intersection, two way coordination would not be possible between the two intersections. Any coordination would require a longer than desirable signal cycle length which would result in longer delays to all modes of traffic entering the intersection.

#### **Staff Recommendation**

Staff Recommends maintaining the current stop sign control.

### **Hilldale Way & Maple Terrace & University Avenue (Not on List)**

The Hilldale Way & Maple Terrace & University Avenue intersection is a 2-way stop controlled intersection located approximately 550 feet west of the signalized intersection at Midvale Boulevard & University Avenue and approximately 1,000 feet east of the Segoe Road & University Avenue intersection.

#### **Crash History**

- During the five-year period 2012-2016, there have been a total of twenty-five (25) crashes reported which are types considered to be correctable by traffic signals installed with a protected left turn phase.

#### **Application of Traffic Signal Criteria**

- Crash history indicates an average of 5 preventable crashes per year over the past 5 years. This average meets Warrant 7, Crash Experience.

#### **Staff Recommendation**

Staff Recommends reconstructing the median to allow left turns from University Avenue and right out only from Hilldale Way and Maple Terrace and installing a traffic signal. This unique design allows a traffic signal to be installed in close proximity to the signal at University Avenue & Midvale Boulevard.

The Midvale Blvd. & Midvale Ave. signalized intersection is currently at or near capacity during peak hour traffic periods. Development currently underway is expected to increase traffic volumes at this intersection. Addition of a traffic signal will facilitate left turns into the commercial access at Hilldale Way, and is expected to improve traffic operation and safety at both intersections.