



DEPARTMENT OF PUBLIC WORKS

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DATE: March 10, 2016

TO: City Council
Mayor Shawn Reilly
Administrator Kevin Lahner

FROM: Dr. Fred Abadi, PhD, PE, Director
Department of Public Works

RE: Department of Public Works Evaluation of an All Way Stop Control at the Intersection of W. Main Street & Gaspar Street

With the onset of the reconstruction of W. Main Street from Clinton Street to N. Barstow Street, the Department of Public Works had studied some safety related concerns that were brought to our attention by residents and observed by engineering staff. The safety issues are related to difficulty of pedestrians to cross W. Main Street and for vehicles on Gaspar Street to make turns onto W. Main Street. In an effort to create a more vibrant, mobile and pedestrian friendly downtown environment, the Department of Public Works is proposing installing an All-Way stop control at the intersection of W. Main Street & Gaspar Street.

The purpose of this document is to transmit information to City Council on the evaluation and decision making process which lead the Department of Public Works to propose the installation of an All-Way stop control at the intersection of W. Main Street & Gaspar Street.

The Department of Public Works deployed traffic and pedestrian counting equipment in early October of 2015 to collect data for a 48 hour period during an average weekday. This data was used to evaluate how many pedestrians use the intersection of W. Main Street and Gaspar Street and to assess the flow of vehicular traffic through the intersection. One of the main concerns we had were pedestrian crossing issues seen by means of video data capture. Pedestrians had a very hard time, at times of heavy vehicle traffic flow, crossing W. Main Street. Some people had to run across the crosswalk to avoid vehicles on W. Main Street. This intersection today has many pedestrian crossing signs. On an average weekday, nearly 300 pedestrians in a 12 hour period cross W. Main Street and Gaspar Street. Vehicular volumes were also collected. W. Main Street has an Average Daily Traffic (ADT) volume of 5,100 vehicles per day and Gaspar Street had an ADT of 560.

Department of Public Works had conducted a study of the intersection. The study had concluded that pedestrians have a hard time crossing W. Main Street at Gaspar, vehicles had a hard time turning from northbound Gaspar Street to W. Main Street and often got caught in the intersection. As many as 300 pedestrians, during a 12 hour period, cross at this intersection. Some pedestrians have to wait long periods of time to cross and some have been observed running across the intersection to avoid vehicles.

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We considered three options. Option 1 is to do nothing, which is to leave the existing condition of a stop for Gaspar Street and free flow traffic on W. Main Street. This option would have not done anything to fix the pedestrian crossing issue nor provided safer turning from Gaspar to W. Main.

Option 2 is similar to the first, to keep W. Main Street free flow and provide a Pedestrian warning sign that lights up and is activated. Our experience with activated signage is that it is expensive maintenance, requires pedestrians to actuate it and requires drivers to acknowledge and stop. This still doesn't address difficulty with vehicles trying to make turns and also may not provide a safer crossing for pedestrians.

Option 3 was to introduce an All Way Stop at the intersection. This option would provide a safer pedestrian crossing and would also allow for easier turning movements for northbound vehicles trying to access W. Main Street. Option 3 was selected by Public Works because it addressed all the needs for pedestrians and vehicle movements from Gaspar Street.

The Public Works Department also studied the affects of proposing the intersection of W. Main Street and Gaspar Street to be an All-Way stop, which is to have a stop sign in all directions. The operational and capacity evaluation of an All-Way stop showed no adverse effects on the intersection and provided a very safe opportunity to pedestrians crossing the intersection. There will be queuing in the peak hours of traffic on eastbound and westbound W. Main Street. However, our studies showed that the queuing will be 2 to 3 cars and will be a short duration. Some concerns have been raised that adjacent parking will be affected by queuing vehicles. Staff acknowledges there will be some delay for parked vehicles, but will be dissipated regularly. The Department of Public Works staff strongly recommends approval of an All-Way Stop at the intersection of W. Main Street & Gaspar Street.

Submitted by the Department of Public Works Staff