



**Multi-Way Stop for the Intersection of
Sixth St. and Maple St.
City Engineering Department
May 2015**

Criteria for Multi-Way Stop Installation
Based on MUTCD 2009 Edition Standards

Criterion 1: Crash Experience

This criterion is **not satisfied** because there was one (1) accident at this intersection in the past 12 months that could have been prevented by a Multi-Way Stop.

Criterion 2: 8-hour Vehicular Volume

This criterion is **not satisfied** because the vehicles per hour entering the intersection of Maple St. and Sixth St. coming from Maple St. is 99, which does not exceed the required minimum 300 vehicles per hour for any 8 hours of an average day. The vehicles per hour entering the intersection from Sixth St. is 104 with an average delay to vehicular traffic of 2.44 seconds, which does not exceed the required minimum 200 vehicles per hour for the same 8 hours and the minimum average delay time of 30 seconds per vehicle during the peak hour.

Criterion 3: Major Road Approach Speed

This criterion is **not satisfied** because the 85th-percentile approach speed of traffic on Maple St. is 29 mph, which does not exceed the required minimum of 40 mph.

Additional Notes

The level of service of the intersection was found to be a level A with an average control delay of 2.44 seconds per vehicle. Many of the vehicles that did travel on Sixth St. tended to rolling stop through the intersection, and 5 of the total 104 vehicles on Sixth St. ran the stop sign. It is also worth noting that although the average speed is only 25 mph, roughly 53.3% of vehicles at this intersection were going faster than 25.0 mph.

Prepared By:  Date: 5/26/15

Reviewed By:  Date: 12-15-15



Encl: 6th and Maple Field Observations
6th and Maple Speed Count
6th and Maple Speed Count Enforcement Request
6th and Maple Speed Count Enforcement Evaluator
6th and Maple Speed Count Directional
6th and Maple Speed Count Combined



Location	Sixth St and Maple St
Day, Date	Tuesday, May 19th, 2014
Conditions	Cloudy, mid 40's
Time	2:45-3:45pm
Gap Length	9.5
Observer	Nick Tafelsky

G= W/4 + 3
 About 12' per lane
 8' for parking

STOP WARRANT FIELD OBSERVATIONS

PEDESTRIANS	SCHOOL CHILDREN	HANDICAP
Total of 9 pedestrians over the 1 hour period	None	None

GAPS	Notes	Blown Stops	LINE OF CARS WAITING LONGER THAN 5 CARS
98		There were a total of 5 blown stops in that hour. A blown stop was determined to be someone approaching a stop sign who made absolutely no attempt to stop or slow down.	0

STOP TIME DELAY				
0	1	2	1	4
1	1	2	1	2
1	1	2	12	1
2	2	2	2	0
1	2	4	2	1
12	2	3	1	1
0	0	1	7	0
5	1	1	1	1
1	2	2	1	
1	0	1	4	
1	1	1	1	
1	3	1	1	
1	5	1	1	
1	4	2	9	
0	10	2	12	
1	2	1	1	
1	6	7	3	
2	3	5	0	
2	12	1	1	
1	15	3	1	
0	2	3	1	
2	1	6	2	
3	2	5	0	
1	1	1	0	

Stop Time Delay:	254
Number of Stops:	104
Average Stop Delay:	2.44

Total Gap Time:	2660
Number of Gaps:	98
Average Gap:	27.14