

Office of the City Engineer

John C. Rooney, P.E.
Assistant Commissioner of Public Works/
City Engineer



City Hall
730 Washington Avenue
Racine, WI 53403
262.636.9191
Fax: 262.636.9545

October 2, 2017

MEMO

To: John C. Rooney, P.E.

Re: Traffic Study - Intersection Analysis of Maria St and Westwood Drive

From: Ara P. Molitor, P.E.

Purpose: Determine if there is a warranted change required for the control of the intersection.

Method: Field observation, traffic count and an accident analysis.

ANALYSIS:

Existing Conditions

- Maria Street and Westwood Drive are 36-foot face to face concrete streets in a residential neighborhood with very light traffic.
- The western approach of the intersection wraps around to the north forming a residential circle, creating a separate “T” intersection to the north (150’ +/-).
- The subject intersection and the one to the north are both “uncontrolled” intersections.
- There are no parking restrictions other than those defined by ordinance for overnight parking.

Traffic Analysis

- A 3-hour intersection count was taken on 9/26/17 from 2-5 PM. The hour with the highest volume was then converted into a theoretical Average Daily Traffic:
 - ADT 142 – calculated (see attached calculations and count data)
 - In the actual count there were 23 vehicles in the entire 3 hours.
 - The highest “hour” counted had 10 vehicles in the hour.
- Accident Study 2012-2017 Findings
 - 0 total accidents reported in the intersection: 0 Injuries 0 Deaths (see attached)

Field Observations

- All four quadrants of the intersection have more than adequate vision for safe stopping distances.

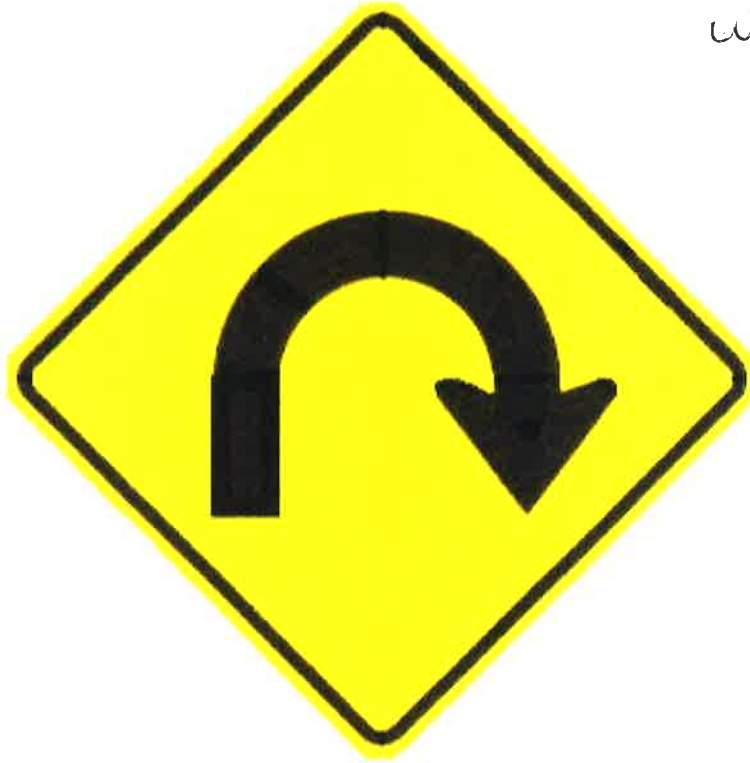
Intersection Control Warrants

- **No Control** – by definition: the intersection of two local (residential) streets where all of the following conditions are met:
 - A total average daily traffic (ADT) for the intersection is less than 1,000 vehicles.
 - Safe approach speed (SSSD) is approximately equal to or greater than the 85%ile speed.
 - Accident history indicates less than 3 right angle accidents per year.

CONCLUSIONS:

- It is my opinion to leave the intersection “As-Is”. This intersection is exactly the definition of an ‘Uncontrolled’ intersection.
- Just to the west of the intersection the addition of a warning sign W1-11 (30”x30”) with a cautionary speed of 15 MPH W13-1P (12”x12”) – see attached

Recommendation: more speed enforcement and monitoring.



W1-11
(30x30)



W13-1P
15 MPH
(12x12)