

## 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

DATE: October 31, 2016

TO: John Rooney, Assistant Commissioner of Public Works / City Engineer

FROM: Ara Molitor, Traffic Engineer

RE: Traffic Study – Intersection of North Wisconsin Ave. and Walton Ave.

Purpose: Determine if the warrants for intersection control dictate a change in existing conditions for the intersection.

Method: Field observation, traffic counts, crash analysis and sign warrant analysis.

## ANALYSIS

### Existing Conditions:

- At the intersection of North Wisconsin Ave. and Walton Ave. the current “stop” control is on Walton Ave. facing east and west.
- Both streets are two lane, bi-directional local roadways with a concrete pavement width of 36 feet face to face.
- There are no existing parking restrictions at this intersection for the north east and south legs. The west leg of the intersection has a “No Parking – Anytime” restriction. This is undoubtedly left over from the commercial building on the northeast corner that has long since been closed and unoccupied.
- The neighborhood consists of the aforementioned commercial building on the NW corner, 2 parking lots adjacent to south side of Walton and residential on the NE corner.
- It is predominantly a residential area in all directions, other than the first block south is commercial and the Racine Zoo is located one block to the east.
- Vision is wide open for the southern quadrants. The northern quadrants are somewhat more restricted with more mature trees, but the stopping sight distances are not compromised.

Tube counts were taken to determine the ADT’s of the roadways. Wisconsin Ave. was determined to have an ADT of 320.2 veh/day. Walton Ave. similarly ADT was 358.4 veh/day. The total ADT of 680 was used for the sign warrant analysis.

A 5-year crash analysis (2011-2015) was performed on the intersection. During the study period there was 1 crash at the intersection and that crash was not correctable.

The current ADT’s and analysis do **not** even warrant a “Yield” control (ADT  $\geq$  1000 veh/day). To warrant a 2-way Stop condition (existing) an ADT between 2000 and 8000 veh/day is recommended. I believe the current control was warranted at one time when the commercial building was occupied and the commercial building on the corner of Wisconsin Ave. and Gould St. (1 block south) was occupied as a grocery store.

## RECOMMENDATIONS

- Leave the intersection “AS IS”. I would caution changing the intersection with such low volumes to a lesser control ever. This would only make the intersection function more dangerously.
- **DO NOT** switch Stop sign directions for the same reasons as above. The ADT’s for the 2 roads are almost identical.
- Possible unrelated change – remove the parking restrictions on Walton Ave. west of the intersection. The restriction is no longer warranted and the change would have little effect to the operation of the intersection. The parking restriction can be added is once again warranted by the commercial building to the north of Walton Ave.