



CITIZENS for REGIONAL TRANSIT

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Cc.: Amherst Traffic Safety Board, NYSDOT Region 6 Office, Supervisor Joe Emminger, Supervisor Brian Kulpa, Willow Ridge Civic Association President Erich Krueger

Significant improvements on the safety of pedestrian crossings along Niagara Falls Boulevard (NFB) have been accomplished. We commend NYS Department of Transportation and the Towns of Amherst and Tonawanda for these improvements. Some additional improvements are recommended.

1.0 Background.

Every transit trip starts as a pedestrian trip and involves crossing a street, road, or highway before or after the bus trip to get to the bus stop. When the street is a busy arterial like NFB pedestrian crossings can be intimidating and dangerous. In fact, several pedestrian deaths occurred along NFB, many when transit riders were crossing to catch the #34 bus.

As President of Citizens for Regional Transit, I wrote to the Greater Buffalo Niagara Transportation Council (GBNRTC) and Towns of Amherst and Tonawanda in February 2017 about this issue and to recommend improvements.

Also motivated by the NFB pedestrian deaths, the Towns of Tonawanda and Amherst conducted detailed evaluations of all NFB pedestrian crossings. This led to the formation of a multi-agency pedestrian safety committee led by Erie County and the Towns of Amherst and Tonawanda. I was a member of this committee. The committee met periodically for over a year and generated recommendations for pedestrian safety improvements. NFB was selected for early implementation.

2.0 Improvements that Have Been Made.

Many improvements along NFB have been implemented based on this work:

- Speed limits were lowered.
- The number of lanes pedestrians must cross were reduced in places.
- Refuge islands were installed at selected locations to reduce crossing distance and allow crossing in two stages.
- Improved pedestrian crosswalk markings were added.



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- Improved Roadway lighting was installed.
- Pedestrian signal heads and equipment were upgraded.
- “NO TURN ON RED” signs were installed at selected intersections.

Here are pictures from the corner of NFB and Willowridge Drive (WRD) showing the current situation highlighting the many improvements.



Figure 1. Improvements made at NFB and WRD



Figure 2. Refuge Island and Driver Warnings Added at NFB near Sheridan Drive



We are pleased to see that pedestrian crossing improvements are continuing to be made at additional intersections along NFB.

3.0 Additional Improvements Recommended.

The improvements recommended in this section are for the pedestrian crossing at the corner of WRD and NFB. They should guide evaluations of other NFB intersections and region wide. They are drawn from the FHWA's Pedestrian Safety Guide and Countermeasure Selection System (Reference 1) and the pedestrian signal section (Chapter 41, page 718) of the Manual on Uniform Traffic Control Devices for Streets and highways (MUTCD) (Reference 2).

3.1 Protection from Turning Vehicles

A pedestrian safety critical situation still exists at the corner of NFB and WRD. This situation is shown in Figure 3 and warrants high priority attention. The problem is that cars turning right from WRD onto NFB get the green light at exactly when pedestrians are told it's OK to cross. *This is especially dangerous because right-turning drivers are looking left to see if any cars are running the light when pedestrians are told to cross.*

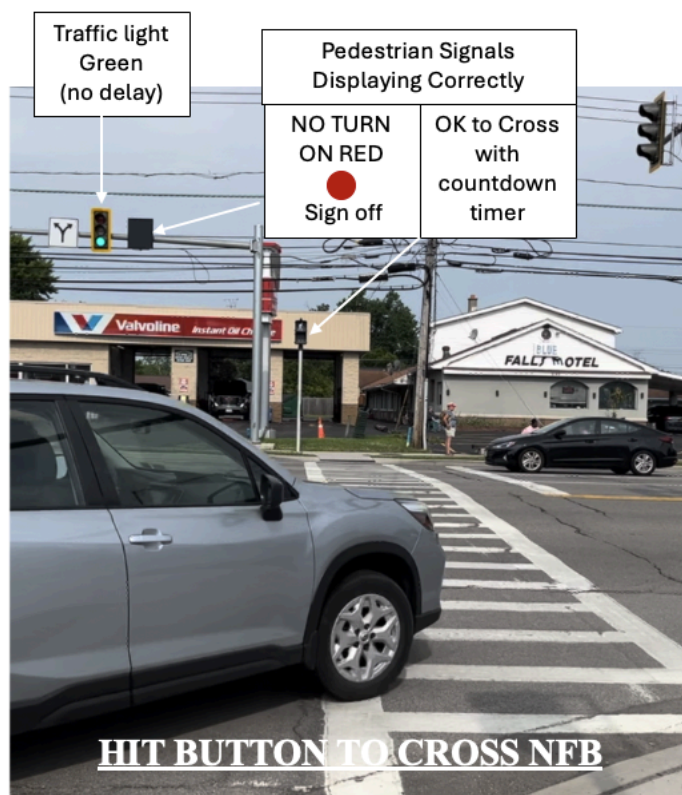


Figure 3. When the pedestrian indicates the desire to cross NFB the OK to cross signal head illuminates at the same time that the green light for cars turns on.



A recommended solution is to delay the green phase for cars while giving pedestrians wanting to cross a head start. This is called a *“leading pedestrian interval” (LPI)* and should be timed to give pedestrians time to get past the danger zone before cars start (see Reference 1).

A similar situation exists for pedestrians crossing WRD, although with a lower level of danger since drivers will not be looking in the opposite direction. When pedestrians indicate a desire to cross WRD the crossing signals work properly but there is no delay for the green light that would give pedestrians a safe head start. Either a delay before giving northbound NFB drivers a green light or implementing a red turning arrow or both would work. We note that a turning arrow part of the traffic signal is installed but not currently implemented. We hope plans are in place to make this improvement as work along NFB signals proceeds. This is shown in Figure 4.

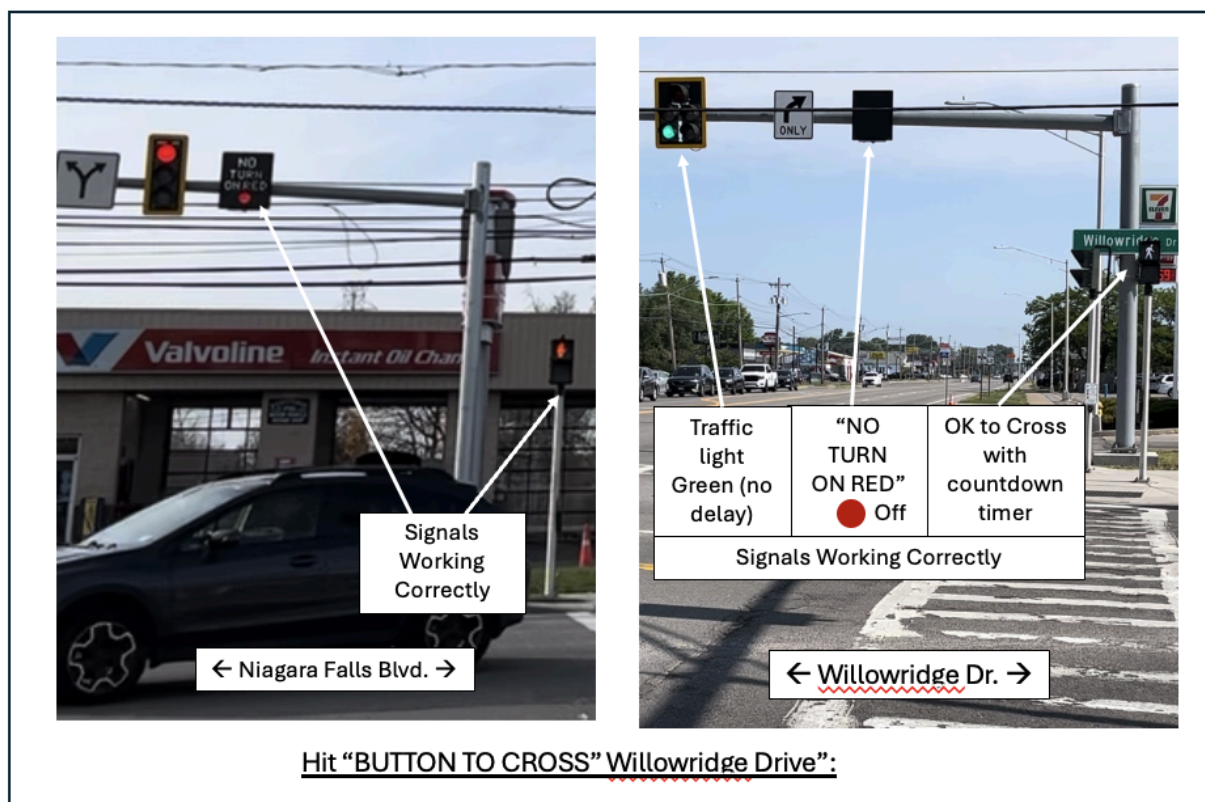


Figure 4. When the pedestrian indicates the desire to cross WRD (either direction) the OK to cross signal head illuminates at the same time that the green light for cars turns on.

These recommended improvements for crossing WRD already work for left turning cars. The northbound red light is kept red, and the NO TURN ON RED sign is illuminated when cars are turning left onto WRD from NFB. This is shown in Figure 5.

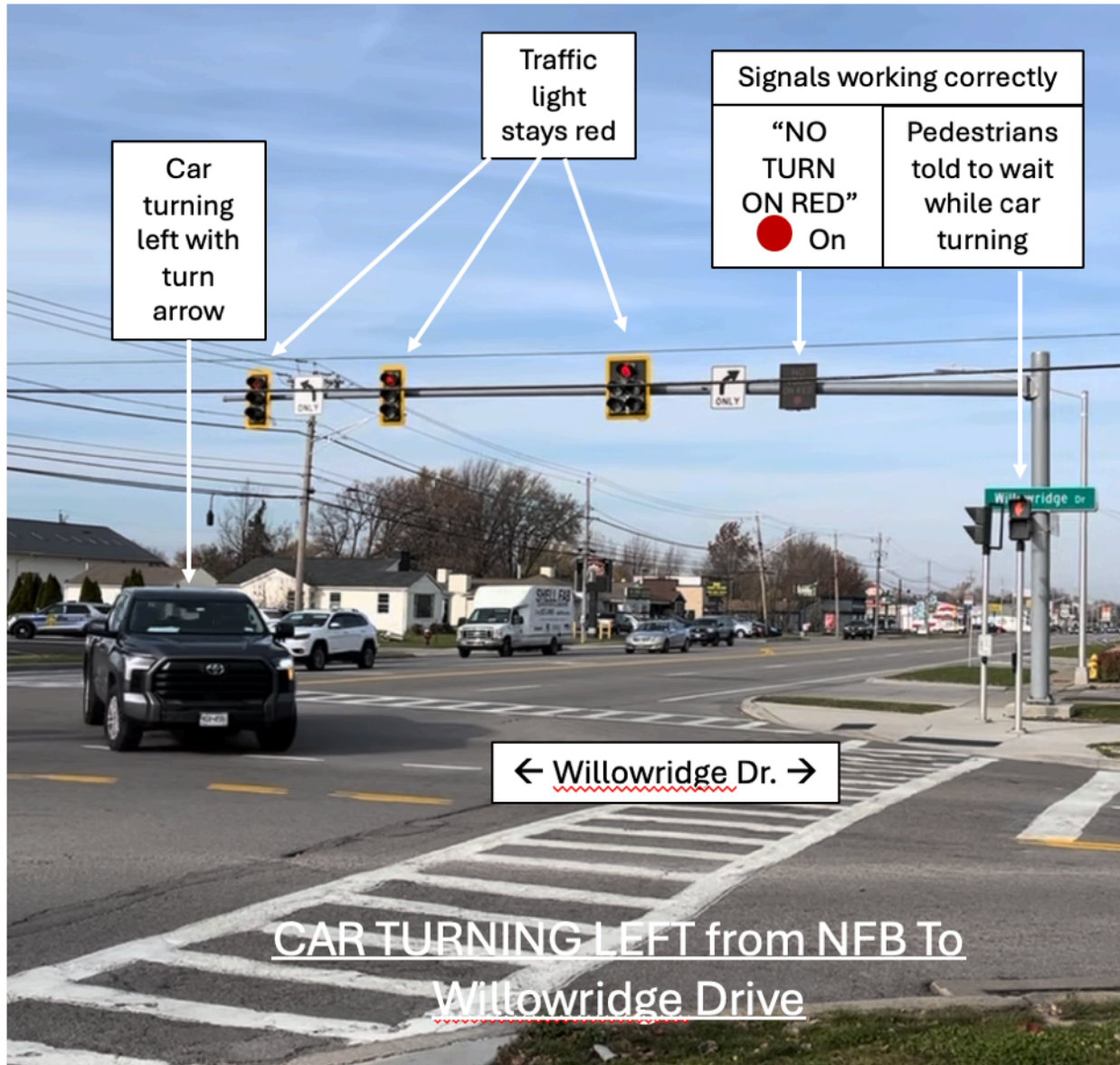


Figure 5. New safety feature for cars turning left on WRD.

3.2 Give Pedestrians Signal Priority for Crossing NFB

It is also recommended that pedestrians crossing NFB be able to change traffic light cycle rather than having to wait for the next cycle. This is called *“hot response”* and is similar, in effect, to the operation to the “hawk lights” on Sheridan Drive. As the FHWA’s Pedestrian Safety Guide and Countermeasure Selection System summary (Reference 1) says:



“... when pedestrians are required to wait a long time for the pedestrian interval, many will simply choose to ignore the signal and cross during a gap in traffic, negating the potential safety benefits of the exclusive signal.”

This is especially true at the NFB and WRD intersection because many pedestrians are crossing to catch the #34 bus. Knowing that the next #34 bus won't come for another 30 minutes (longer on weekends and evenings) pedestrians will be tempted to make a dash for it. This is especially important during high traffic periods when NFB cycle time is very long (2 minutes) and crossing is most dangerous.

3.3 Provide Pedestrian Crossing Information at All Times

The pedestrian signal head should always display crossing information, or at least whenever the pedestrian hits the “I want to cross” button. Currently the signal head for crossing NFB only displays pedestrian crossing information when the pedestrian hits “I want to cross” button during the red signal phase and after the phase changes. If the button is hit during the green phase the signal head does not display crossing safety information until the following green cycle. It should, especially when the cycle is near its end, so pedestrians won't be tempted to cross when there's not enough time left. This is called out in the MUTCD (Reference 2):

“At intersections equipped with pedestrian signal heads, the pedestrian signal indication shall be displayed except when the vehicular control signal is being operated in the flashing mode...”

Without time remaining in the cycle information pedestrians will be tempted to cross and potentially get caught in the middle with the light changes. This has happened to me.

3.4 Make pedestrian speaker volumes louder.

The speaker volume for informing vision impaired pedestrians of crossing signal status is low and difficult to hear above the loud NFB traffic noise. The volume should be increased.

4.0 Link to Video.

Here is a link to two videos showing the operations of the pedestrian crossing signals at NFB and WRD.

<https://www.youtube.com/watch?v=wEhvQrh9Dv4>



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50 Recommended next Steps.

Two recommendations for moving forward are summarized here.

1. Continue installing and improving pedestrian crossing equipment along NFB.
2. Evaluate all pedestrian crossings along NFB applying the guidelines from this analysis of NFB and WRD and from References 1 and 2.

Citizens for Regional Transit is willing to participate in the process of making further improvements in the safety of pedestrians crossing NFB.

6.0 References

Reference 1. PEDSAFE, Pedestrian Safety Guide and Countermeasure Selection System. USDOT Federal Highway Administration (FHWA).

http://www.pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=47

Reference 2. Manual on Uniform Traffic Control Devices for Streets and Highways, 11th Edition. Chapter 41. December 2023.

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Sincerely,

INSERT ELECTRONIC SIGNATURE

Douglas Funke

President, Citizens for Regional Transit