

203 Bridge Street, P.O. Box 285 Richmond, Vermont 05477



Date: October 5, 2023

To: Richmond Transportation Committee (RTC)

From: K. Oborne, Director P&Z

Subject: THBC Alternative's Pros and Cons

General – At the September 26, 2023 RTC meeting a discussion on the Pros and Cons of the Thompson Road, Huntington Road, Bridge Street, and Cochran Road (THBC) intersection alternatives was discussed. The board has narrowed down the alternatives to two, the Four Way Stop (Alt 1 of the Complete Streets Study, pgs. 9-10) and the VHB alternative (page 35 of the same study).

Below is a compilation of board member's Pros and Cons as well as input from the VHB Complete Streets Corridor Study, which is denoted in italics:

Four-way stop - Pros:

- 1. Easily understandable for motorists
- 2. Safer for pedestrians to cross ensures cars will stop and peds will be more visible.
- 3. Cheaper
- 4. Straightforward, makes cars stop (inherently slowing them), less expensive.
- 5. It would most reliably improve pedestrian safety in crosswalks and thereby allow greater pedestrian access, including to the daycare on Thompson Road, to Richmond Terrace, and to the commercial area on Huntington Road. This alternative best aligns with the 2018 Town Plan goals for a walkable/bikeable community.
- 6. It would "normalize" the intersection to a right-of-way pattern understood by all users, not just locals. This should help reduce the crash frequency (6 crashes listed between 2015-2019).
- 7. It would most reliably improve bike safety in the intersection.
- 8. In the AM peak hour, the delay/queue on Huntington Rd. would reduce the delay/queue on Bridge St, thus same total time to get through the rate limiting Bridge/US2/Jericho intersection but divided into two segments. This could also have the benefit of less congestion at the Railroad/Jolina Ct./Bridge St. intersection.

Four-way stop - Cons:

- 1. Potential for backing up traffic.
- 2. May be undesirable for drivers.
- 3. Neighbors are not in favor of stopping/starting of cars & trucks.
- 4. It will be contentious, might not be necessary to stop traffic here relative to traffic volumes, not clear how pedestrian infrastructure will be part of intersection besides painted crosswalks.
- 5. Vehicle traffic would need to come to a full stop. This would create some delay. From page 9 of the VHB study, "Based on simulations of the all-way stop condition, the most significant queuing would be expected for the Huntington Road approach in the AM peak hour at approximately 100' (95th percentile queue) and for the Bridge Street approach in the PM peak hour at approximately 120' (95th percentile queue). A comparison of simulated queues for the alternatives and the no build condition are detailed in the appendices." This is much less than the queues that occur on

- Bridge St. northbound in the morning and on US2 eastbound in the evening and westbound in the morning and considered in the acceptable range by traffic engineers.
- 6. There would be some increase in noise from vehicles starting from a full stop.
- 7. Complaints from vehicle operators are anticipated, as they are accustomed to traversing this intersection without slowing.

VHB Alternative – Pros:

- 1. Bump outs are helpful for pedestrians waiting to cross: currently no place to stand at some corners
- 2. Island might slow down cars moving from Huntington Road to Cochran Road
- 3. Keeps major traffic pattern flowing between Bridge St. and Huntington
- 4. Squares off the intersection which slows cars down turning onto Bridge St. from Huntington Road
- 5. Slows traffic without stopping it, converts the intersection into multi-modal infrastructure, maybe provides enhanced pedestrian safety.
- 6. It is an improvement on the current situation in terms of safety, in that it would slow (but not stop) vehicles.
- 7. It might change driver's perception of the intersection to a more "share the road" and less "Richmond Gran Prix" perspective.
- 8. It is much less expensive than a signalized intersection or a roundabout.

VHB Alternative – Cons

- 1. Potential for continued confusion unless signage is very clear.
- 2. Would need flashing walk lights.
- 3. Would need speed tables for Huntington Road
- 4. More expensive, still might induce right-of-way confusion.
- 5. Compared to a four-way stop, it is less effective in improving pedestrian and bike safety and less effective in achieving the 2018 Town Plan goals.
- 6. It does not reliably slow traffic going straight through from Huntington Rd. to Cochran Rd.
- 7. It does not "normalize" the right-of –way pattern of the intersection. The confusion will remain.
- 8. The mountable center island is seen as a problem by some, although a standard VTRANS infrastructure feature.

Other Considerations:

- 1. Need to consider the effect of increased traffic with the addition of additional housing!
- 2. Need a sidewalk on the south side of Huntington Road between Thompson Road and the Round Church commercial complex.
- 3. Could we add the bump outs to the 4-way stop option?
- 4. Could crosswalks be raised, making them more visible and acting as a small speed bump?