

August 17, 2022

SENT VIA E-MAIL

Kenneth Kovalchik
Town Planner
Town of Guilderland
P.O. Box 339
Guilderland, NY 12084-0339

**RE: TDE Review – Traffic Analysis Review:
Crossgates Mall Rd and Gabriel Terrace/Dick’s Entrance**

Dear Mr. Kovalchik,

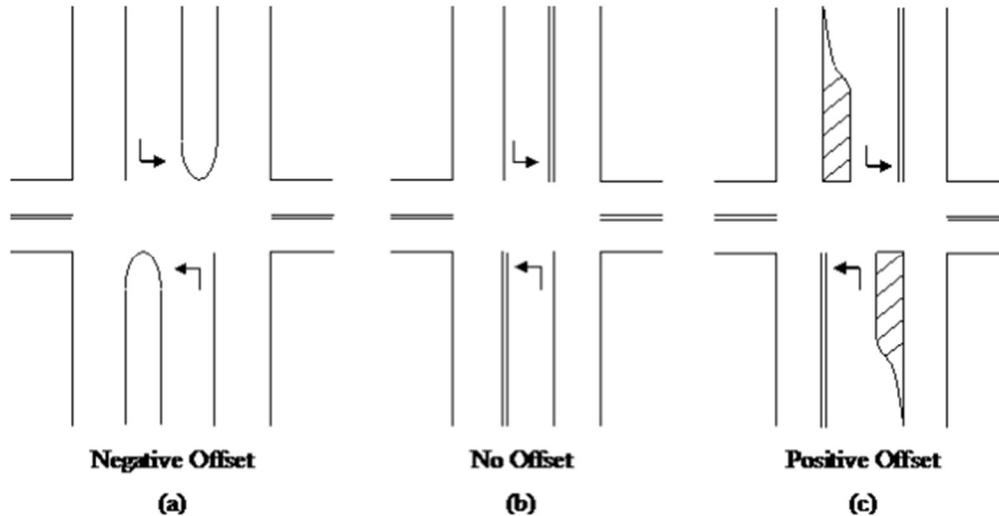
GPI has received the following documents provided by JMT of New York, Inc.:

- Traffic analysis letter for the above referenced intersection, dated August 9, 2022
- Concept sketch for the above reference intersection, dated August 10, 2022

GPI has completed our review of the materials submitted and offer the following technical comments:

1. The letter summarized the traffic analysis performed, which included level of service (LOS) analysis at the Crossgates Mall Rd and Gabriel Terrace/Dick’s Entrance for the no-build condition and three separate build alternatives: (1) Two-Way Stop Control (TWSC), (2) Signalized Control, (3) Roundabout Control. The analysis showed that TWSC would cause the southbound approach from the mall to operate at LOS F with delays of 100 seconds or more. However, this approach should still operate within capacity with volume being about 92% of capacity, and all other approaches operate at LOS C or better. Operations for both signalized and roundabout control were shown to be LOS A overall in the analysis.
2. Issues with the analyses performed include:
 - a. The signalized analysis was performed using a 40 second cycle length, but the recommendations propose signal coordination between this location and the two adjacent traffic signals. It is unlikely that the adjacent signals would effectively operate at a 40 second cycle, so the signal analyses for these signals should be included and it should be shown how they would coordinate operations with the Gabriel Terrace signal. As a side note, it is rare to use less than 60 seconds for a cycle length.
 - b. Are the clearance intervals in the signalized analysis consistent with the adjacent signals? They appear to be the defaults and were not adjusted for conditions.
 - c. Signal analysis is for a pretimed signal at this location? Even if coordinated with adjacent signals, vehicle detection should be provided on all approaches and side streets should be actuated.
 - d. Table 2 shows no approach levels of service for the roundabout and lists a 7.2 sec/veh overall delay. However, the roundabout analysis worksheet in the attachments shows a 9.8 sec/veh overall delay. It is unclear if this is a type-o, or if there was another analysis performed that wasn’t included.
3. A traffic signal is recommended, but a signal warrant analysis was not performed. Please include a warrant analysis to justify the installation of a signal.

4. The analysis letter rejects the use of a mini-roundabout, suggesting that capacity would be an issue with such traffic control. However, even if a mini-roundabout wouldn't work, the analysis shows a single-lane roundabout has significantly more capacity than required. The Town would like to see concept sketches of a single-lane and double-lane roundabout with grading lines to better analyze if this option is feasible.
5. Left turn lanes along Crossgates Mall Rd at the intersection in the concept sketch show a striped median in a negative offset configuration. For increased safety, this should be striped with a positive offset. See figure below for an example of these configurations.



6. Left turn bay tapers in the concept sketch appear much shorter than recommended guidelines would require. Please ensure lane design meets current standards.

Based on GPI's review of the submitted sketch and traffic analysis, more information is required before a final assessment can be made. The applicant should revise analysis to address the issues identified, they should provide coordinated signal analyses for the two adjacent signals, they should provide a traffic signal warrant for Gabriel Terrace location, they should provide roundabout concept sketches and they should update the signalized concept sketch to address the concerns noted.

Please feel free to contact us with any questions.

Regards,

GPI/GREENMAN-PEDERSEN, INC.

Ryan Trunko, PE
 Project Manager
 80 Wolf Road, Suite 300, Albany, NY 12205
 518-898-9551 | rtrunko@gpinet.com

GPI/GREENMAN-PEDERSEN, INC.

Michael R. Wieszchowski, P.E., PTOE
 Vice President | Director of Traffic Engineering