



January 26, 2022

Christina Minkler, PE
JMT of New York, Inc.
19 British American Boulevard
Latham, NY 12110

**RE: ROUTE 20 (WESTERN AVE.)
GABRIEL TERRACE
SIGNAL WARRANT**

Dear Ms. Minkler:

We acknowledge receipt of the update to a signal warrant justification regarding the subject location on December 9, 2021.

The New York State Department of Transportation's position regarding access to Route 20 for the proposed "Rapp Road Residential / Western Avenue Mixed Use Redevelopment Projects" has not changed since we provided comments to the Town of Guilderland via SEQOR in 2020 and the Findings Statement was accepted as complete by the Town Planning Board on August 28, 2020. Access to Route 20 is addressed as follows in Section 3j of the Findings Statement:

Based upon comments from the public, NYS Department of Transportation, interested and involved agencies, town officials and consulting engineers, the Applicant has agreed to facilitate all of the traffic improvements summarized below. The items will be completed prior to Costco opening for business to customers, unless otherwise noted.

Gabriel Terrace Intersection with Western Avenue

Access to and from Gabriel Terrace at Western Avenue will be restricted to right turn in / right turn out movements only.

Vehicles attempting to enter or exit the property encompassed by the proposed project have several existing convenient access points via the roadway network:

1. Signalized intersection of Route 20 with Rapp Road in the southwest
2. Signalized intersection of Route 20 with Crossgates Mall Road in the southeast
3. Signalized intersection of Rapp Road with Crossgates Mall Road to the northwest
4. Unsignalized intersection of Washington Avenue Extension EB with Crossgates Mall Road to the north
5. Signalized intersection of the Washington Avenue Extension WB access road with Crossgates Mall Road to the north
6. Signalized intersection (proposed to be a roundabout) of Crossgates Mall Road with I-87 NB and SB

The Department's *Highway Design Manual* includes Appendix 5A titled, "POLICY and STANDARDS for the Design of Entrances to State Highways." Section 5A.4 of this appendix is the **General Design Requirements and Guidelines**, which states:

In the interest of public safety and traffic flow and convenience, the Department may restrict the placement of a driveway to a particular location along the owner's frontage, restrict the type of access, or require shifting of an existing driveway. When a property fronting on a State highway also fronts on and has access to any other public street, road, or highway that intersects the State highway, the Department may restrict access to the State highway if it determines that such access would be detrimental to the safety and/or operation of the State highway.

Primary vehicular access to/from the proposed development is to come from the existing adjacent public streets and highways. Allowing rights in/out at the intersection of Route 20 and Gabriel Terrace is a concession by NYSDOT, as it is within our policy to further restrict all access to the State highway because it would be detrimental to the safety and/or operation of the State highway.

The Department's position on access to the proposed site was made as representative of the 34,000 motorists that use this portion of Route 20 on a daily basis. By having primary access to the proposed site from the local highways adjacent to the existing mall, the vast majority of the additional delays resulting from the proposed development will not be encountered by Route 20 motorists. Allowing access to Route 20 at Gabriel Terrace beyond a right in/out would unnecessarily increase delays and reduce safety to the motorists on Route 20.

The following comments are in relation to the submitted signal warrant analysis, although the comments above constitute the Department's official position on this matter and should not be interpreted as consideration of the proposed signalized intersection.

Section 5.9.1 of the *Highway Design Manual* states, "...when a project includes reconstructing or constructing new intersections, a roundabout alternative is to be analyzed to determine if it is a feasible solution based on site constraints, including ROW, environmental factors, and other design constraints." No such analysis was submitted with the signal warrant analysis.

The installation of a traffic control signal is an effective means of assigning right of way to traffic on at-grade intersections. However, many have the misconception that traffic control signal installations provide the solution to all traffic problems. This is not true. Traffic control signal installations typically reduce the overall capacity of the intersection, delay motorists, and often increase the frequency of rear-end accidents.

The traffic signal warrants published in the *Manual on Uniform Traffic Control Devices (MUTCD)* should be used as guidelines and do not represent requirements that traffic control signals be installed. Rather, they "outline minimum conditions under which a traffic control signal may be justified." Engineering judgment must enter into any decision on whether or not a traffic control signal should be installed. Trial of other remedial measures which cause less delay and inconvenience to traffic should precede installation of traffic control signals.

Section 2 of the Signal Warrant Justification submitted by JMT indicates the trip generation volumes for the peak hour were "distributed" over the peak period (weekday 11AM-7PM). Interpolating the peak hour volumes and distributing the resulting volumes over non-

peak hours for the purpose of meeting traffic signal warrants #1 (Eight-Hour Volume) and #2 (Four-Hour Volume) is inconsistent with sound engineering judgement and will not be accepted by the Department.

There was no reduction in the Eight-Hour and Four-Hour volumes exiting Gabriel Terrace to account for the vehicles that would make a right-on red (see paragraph #8 in Section 4C.01 of the *MUTCD*). Also, the Eight-Hour and Four-Hour warrant analyses used 1 lane on the minor approach, which would likely not be the case if a traffic signal were to be constructed at this location. The analyses should use a minor approach with "2 or more" lanes.

The most important warrant for a traffic signal is #7 Crash Experience, as a new traffic signal often increases the frequency of rear-end collisions because vehicles on the major road will have to stop when they did not have to previously. JMT's analysis concluded the Crash Experience warrant is not satisfied and we concur.

Level-of-service (LOS) is not included in the MUTCD as a warrant for traffic signals and will not be considered as such.

A traffic signal at the intersection of Route 20 and Gabriel Terrace would only benefit the patrons of the proposed development while causing unnecessary additional delay and a reduction in safety to the motorists using Route 20. The project has a significant number of alternate access points to the State highway system that can adequately handle the volume of additional vehicles generated.

Highway Work Permit Engineer Ken Davis will continue to be your point of contact regarding this project and can be reached at (518) 457-5691 or kenneth.davis@dot.ny.gov.

Sincerely,



Mark Pyskadlo, PE, PTOE
Regional Traffic Engineer

cc: K. Davis, Highway Work Permit Engineer, Region One
K. Kovalchick, Town of Guilderland