

2024-03-01
Project: (220328)

Trevor Hawkins, M.PL, MCIP, RPP
Partner
MHBC Planning, Urban Design & Landscape Architecture
540 Bingemans Centre Drive, Suite 200
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Dear Mr. Hawkins:

**RE: 400 MILLENNIUM DRIVE, PROPOSED RESIDENTIAL DEVELOPMENT,
RESPONSE TO PUBLIC COMMENT**

Further to your e-mail dated 2023-02-24 and the material contained therein, we have prepared the following response to the community comments provided:

Comment 1: Oak Park/Millennium – *having examined the submission materials, the TIS does not address sightline issues (looking right toward Crossgate) when turning left from Oak Park Dr onto Millennium Blvd. This is already a problematic intersection with the Hydro Pole, Light standards, existing trees (when in full leaf) and parked cars on Millennium (when there is an event at RIM Park) blocking sightlines. With additional traffic flow this will be even more of a problematic intersection. Consider the following solutions:*

- ▶ *a traffic signal at Oak Park/Millennium;*
- ▶ *a traffic circle at Oak Park/Millennium*
- ▶ *install speed bumps in westerly direction along Millennium; and*
- ▶ *ban parking on at least portions of Millennium Blvd to improve sightlines.*

Response 1: This is an existing issue and unrelated to the site development application.

The existing intersection of Oak Park Road and Millennium Boulevard was constructed to City standards for geometric design, including the required sight distance that follow the City's Engineering requirements. Based on our review, there exists at least 180 m sight distance to the roundabout exit at Crossgate Boulevard. According to the requirements published by the Transportation Association of Canada and City practice of designing for 10 km/h over the

posted speed limit, the required sight distance is 130 metres¹. The available sight distance exceeds this requirement.

It is apparent that there is a tree in the boulevard in front of Carriage Crossing with limbs that may extend into the sight distance triangle. It is recommended that all limbs that are below 1.3 metres or extend below 1.3 metres should be removed. This matter should be referred to Public Works and Forestry for additional review.

The presence of poles is not generally a consideration by the City when evaluating adequate sight distance.

With respect to traffic operations, the intersection of Oak Park Road/Street Three and Millennium Boulevard is forecast to operate at LOS A (the best possible rating) with minimal overall delay through 2036 and with full development of the site. The existing northbound approach is forecast to operate at LOS B-C with about 10-16 seconds of delay and 95th percentile queues of 10-16 metres. This is excellent LOS and does not warrant remedial improvements.

To justify traffic signal control the sidestreet approach volumes need to exceed 170 vehicles per hour and the mainline approach volumes need to exceed 720 vehicles per hour for each of the eight busiest hours of the day. The forecast 2036 total traffic peak hour volumes fall well below these threshold values, as do the remaining hours.

The City and Region use a roundabout screening tool to justify the implementation of modern roundabout on City and Regional roads. Since no improvements are justified at the intersection, the location would not pass the screening tool.

The City of Waterloo has a specific process for justifying the implementation of traffic calming measures. Staff did not identify speeding issues on Millennium Boulevard as a concern in the pre-study consultation. It recommended that the resident review the [traffic calming policy](#) and, if desired, initiate a request through that process.

There is no on-street parking permitted on Millennium Boulevard, except adjacent to RIM Park in the designated spaces. This parking is 450 m west of Oak Park Drive and has no impact on sight lines. For the balance of Millennium Boulevard, it is illegal to park in dedicated cycling lanes under by-law 2018-037 and 2018-038. This matter should be referred to by-law enforcement for review.

Comment 2: *Traffic lights are needed at Millennium and University*

¹ Transportation Association of Canada, *Geometric Design Guide for Canadian Roads (2017)*, Chapter 9 – Intersections, Table 9.9.4 (TAC: Ottawa, 2017)



Response 2: Appendix G of the TIA demonstrates the neither the existing traffic volumes, nor the forecast 2036 volumes meet the requirements under the Ontario Traffic Manual² to justify traffic signal control at the intersection of University Avenue and Millennium Boulevard.

Comment 3: *This intersection is already too busy (Millennium and University)*

Response 3: The intersection of Millennium Boulevard and University Avenue currently operates at LOS A during both the AM and PM peak hours. The westbound left-turn operates at LOS B-C and at about 30% of its capacity, with 95th percentile queues of about 10 metres. The intersection is forecast to perform at LOS A to 2036 including consideration for development traffic. While the westbound left-turn is forecast to experience increased delay to 2036 and with development of the site, no remedial changes are justified.

Comment 4: *When there is an event at RIM park the police has to direct traffic (Millennium and University)*

Response 4: Transportation systems are not designed for maximum event conditions as it would result in over-design for the balance of year. The industry uses the 30th highest design hour volume, which is typically equivalent to the PM peak hour volumes. A relatable parallel would be that the parking supply at shopping centres is not designed to accommodate the demand for the afternoon on the Saturday before Christmas.

Comment 5: *With additional res. units and commercial unit proposed a roundabout should be built at University and Millennium to make traffic flow easier.*

Response 5: Appendix G of the TIA demonstrates the neither the existing traffic volumes, nor the forecast 2036 volumes meet the requirements under the Ontario Traffic Manual³ to justify traffic signal control at the intersection of University Avenue and Millennium Boulevard. The City and Region use a roundabout screening tool to justify the implementation of modern roundabout on City and Regional roads. Since no improvements are justified at the intersection, the location would not pass the screening tool.

Yours very truly,

PARADIGM TRANSPORTATION SOLUTIONS LIMITED



Jim Mallett

M.A.Sc., P.Eng., PTOE

President and Chief Executive Officer, Principal

² Ministry of Transportation of Ontario, *Ontario Traffic Manual, Book 12, Traffic Signals* (MTO: Toronto, 2012)

³ Ministry of Transportation of Ontario, *Ontario Traffic Manual, Book 12, Traffic Signals* (MTO: Toronto, 2012)

