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14 June 2021
Project: 190627

Andrew Head
Dryden, Smith and Head
Planning Consultants Inc.
54 Cedar Street North
Kitchener ON N2H 2X1

Dear Mr. Head:

**RE: 1940 WRIGLEY ROAD TRANSPORTATION IMPACT STUDY
RESPONSE TO TOWNSHIP COMMENTS**

Paradigm conducted the Transportation Impact Study (TIS) for 1940 Wrigley Road in Ayr, report dated January 2020. The Township of North Dumfries provided comments in a Memorandum dated 1 December 2020 on the TIS, the Region of Waterloo's review, and other public comments. This letter summarizes our response to those comments as they pertain to the TIS.

Pedestrian and Cyclists Connectivity

The memorandum discussed the issue with potential connectivity of the subject development to the existing neighbourhoods on the south side of Scott Street. While a TIS does not forecast pedestrian and cycling volumes, we can comment on the potential routes and connectivity to/from the subject development.

Pedestrians and cyclists are expected to access the existing transportation network at the proposed site access opposite of Hilltop Drive. At the intersection of Wrigley Road / Scott Street and Hilltop Drive, a westbound left-turn lane is present on the east leg. The TIS concluded that an eastbound left-turn lane is not forecast to be warranted. However, the area on the west leg currently occupied by the shadow lane opposite of the westbound left-turn lane would be an ideal place to construct a pedestrian refuge island. A pedestrian refuge island would assist pedestrians crossing to the south side of Scott Street, where there is a sidewalk. From there, pedestrians can cross to the east side of Hilltop Drive at the crosswalk to the sidewalk, where the sidewalk on Hilltop Drive exists.

According to Book 15 of the Ontario Traffic Manual¹, the following conditions are typical for consideration of a pedestrian refuge island:

- ▶ Number of lanes: Two-way streets with two or more lanes of moving traffic.
- ▶ Pedestrian activity: A formal warrant for refuge islands currently does not exist. Some authorities look for 100 pedestrians in 8 hours but may consider a lower demand.
- ▶ Speed: Not recommended on arterial roads with posted speed limits in excess of 60 km/h.
- ▶ Connectivity: Pedestrian refuge islands should link pedestrian destinations.
- ▶ Nearby Controlled Crossings: A pedestrian refuge island should not be installed in close proximity (<100 m) to other controlled crossings.
- ▶ Driveway / Intersections: It is not desirable to locate pedestrian refuge islands in close proximity to driveways or intersections with high turning movement volumes.

The proposed pedestrian refuge island meets the above criteria where possible. The number of pedestrians expected to cross Scott Street at this location is not known, as forecasting of pedestrian volumes is not part of the scope of a TIS. However, as there is no formal warrant for pedestrian volumes, this does not rule out the installation of a refuge island.

The timing of the installation of a refuge island is beyond the scope of a TIS. As timing of the buildout of the intersection and the potential reconstruction of Scott Street need to be taken into consideration. The ideal time for construction of the refuge island would be during other construction activities, such as building the access into the subdivision or during a reconstruction of Scott Street.

Yours very truly,

PARADIGM TRANSPORTATION SOLUTIONS LIMITED



Matt Brouwer
P.Eng.
Senior Project Manager

¹ Pedestrian Crossing Facilities, Book 15 – Ontario Traffic Manual, Ministry of Transportation, December 2010.

