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9 July 2021
Project: 210169

Grand Ridge Estates Limited
c/o Brandon Flewwelling
GSP Group
72 Victoria Street South
Kitchener ON N2G 4Y9

Dear Mr. Flewwelling:

**RE: 215 BLENHEIM ROAD, CAMBRIDGE
TRANSPORTATION IMPACT BRIEF**

Paradigm Transportation Solutions Limited conducted a Transportation Impact Study (TIS) for the Cambridge West Community in July 2019, which included the property owned by Freure Homes Limited currently located at 215 Blenheim Road. At the time of that TIS, an assumed level of development for 215 Blenheim Road was made, which included 150 townhouse units. The development plan for 215 Blenheim Road has been updated to reflect the actual available developable acreage, and now includes 164 townhouse units. This letter outlines the changes in traffic forecasts and the potential impact on the recommendations of the July 2019 TIS.

July 2019 TIS

Trip Generation

The July 2019 TIS for the Cambridge West Community included an assumption of 150 townhouse units at 215 Blenheim Road. The trip generation forecasts for townhouse units were taken from the ITE Trip Generation Manual, 10th Edition and used Land Use Code 220 (Multifamily Housing (Low-Rise)), which uses regression equations to determine the number of expected trips based on the number of units.

The TIS considered all townhouse units for the Cambridge West Community when applying the regression equations. In total, there were 707 townhouse units assumed in the Cambridge West TIS, which calculated 275 trips in the AM peak hour (63 in and 212 out) and 303 trips in the PM peak hour (191 in and 112 out), after the trip reductions used in the TIS were applied.

Overall, the Cambridge West Community was forecast to generate 878 trips in the AM peak hour and 1020 trips in the PM peak hour.

As 215 Blenheim Road is located at the south end of the Cambridge West Community, the trip assignment for these units used the realigned Blenheim Road.

Recommendations

The recommendations for Blenheim Road in the July 2019 TIS were as follows:

- ▶ The intersection of Blenheim Road and Bismark Drive is planned to be controlled by a roundabout with the construction to be implemented in conjunction with the development.
- ▶ A westbound left-turn lane with 25 metres of storage was forecast to be warranted on Blenheim Road at Street G (new road to the east of Bismark Drive).

Updated Development Plan

The updated development plan for 215 Blenheim Road is for 164 townhouse units, 14 more than what was anticipated in the July 2019 TIS.

Trip Generation

With an increase of 14 townhouse units, the number of townhouse units in the Cambridge West Community Plan increases to 721 from 707. Using the same methodology for trip generation as the July 2019 TIS, the number of trip generated by the overall site is forecast to be 281 trips in the AM peak hour (65 in and 216 out) and 309 trips in the PM peak hour (195 in and 114 out) after the same trip reductions for mode share were applied.

The change in development plan increases the trip generation calculations by 6 trips in both the AM and PM peak hours. This represents a relative increase of 0.7% and 0.6% trips overall for the AM and PM peak hours, respectively.



Impact on TIS Recommendations

The increase of trips is not a significant number to impact the recommendations of the July 2019 TIS.

- ▶ The planned roundabout at Blenheim Road and Bismark Drive will not be impacted by the increase in units; and
- ▶ The westbound left-turn lane on Blenheim Road at Street G is still forecast to warrant a storage length of 25 metres.

Yours very truly,

PARADIGM TRANSPORTATION SOLUTIONS LIMITED



Matt Brouwer

P.Eng.

Senior Project Manager

