607 Dynes Rd
CITY OF BURLINGTON

TRAFFIC BRIEF

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Burlington, ON  L7L 5R2

February 2016
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1.0 INTRODUCTION

DiCarlo Custom Homes (DiCarlo) is proposing to develop a 0.54 ha property located within the Dynes area of the City of Burlington. The property is located at the North end of Maplehill Dr just east of Dynes Road as shown on Figure 1.

Metropolitan Consulting Incorporated (MCI) has been retained by DiCarlo Custom Homes to provide a traffic brief for the proposed condominium development at 607 Dynes Road in the City of Burlington. The land is currently occupied by an elementary school which will be removed.

The City of Burlington has requested a traffic brief be submitted to support an application for a Zoning By-Law amendment. The scope of the traffic brief will be to identify the number of trips in the AM & PM peaks from the site for the proposed residential use. Estimates of the traffic generated by the development as opposed to a school, an analysis of the impact of the traffic and recommendations to accommodate the traffic in a satisfactory manner will be provided.
2.0 EXISTING CONDITIONS

2.1 EXISTING ROAD NETWORK

The main roads within the study area are as follows:

Maplehill Drive

Access to the proposed Site will be from the cul-de-sac at the north end of Maplehill Drive, a two-lane local road with an urban cross section. Currently access to the existing school on Site is from Dynes Road through the Church property. The lane widths on Maplehill Drive are 4.0m. There are no stop signs at the intersections on Maplehill Drive. The speed limit on Maplehill Drive is unposted and follows the statutory speed limit of 50 km/hr. Development along Maplehill Drive consists mainly of 1 ½ - 2 storey single family homes. There are no pedestrian sidewalks on either side of Maplehill Drive.

Oakhurst Road

Oakhurst Road is a two-lane local road with an urban cross section. The lane widths are 4.0m. There are no stop signs at the intersection of Oakhurst Road and Maplehill Drive. There is a stop sign on Oakhurst Road at the intersection with Dynes Road. The speed limit on Oakhurst Road is unposted and follows the statutory speed limit of 50 km/hr. Development along Oakhurst Road consists mainly of 1 ½ storey single family homes. There are no pedestrian sidewalks on either side of Oakhurst Road.

Willow Lane

Willow Lane is a two-lane local road with an urban cross section. The lane widths are 4.0m. There are no stop signs at the intersection of Willow Lane and Maplehill Drive. There is a stop sign on Willow Lane at the intersection with Dynes Road. The speed limit in the vicinity of the development is unposted and follows the statutory speed limit of 50 km/hr. Development along Willow Lane consists mainly of 1 storey single family homes. There are no pedestrian sidewalks on either side of Willow Lane.
Dynes Road

There is currently a 1600m² private elementary school on the Site which is accessed through the Church property from Dynes Road. Dynes Road is a two-lane collector road with an urban cross section. The lane widths are 4.5m. There is a stop sign on Oakhurst Road at the intersection with Dynes Road. The speed limit on Dynes Road is 50km/hr. In the vicinity of the school entrance between Woodward Avenue and Oakhurst Road it is 40 km/hr. Development along Dynes Road consists of 1 & 2 storey single family homes and a Church which is adjacent to the proposed development. There are pedestrian sidewalks on both sides of Dynes Road.

Woodward Avenue

Woodward Avenue is a two-lane collector road with an urban cross section. The lane widths are 4.0m. There is an all way stop at the intersection of Dynes Road and Woodward Avenue. The speed limit in the vicinity of the development is 40 km/hr. Development along Woodward Avenue consists mainly of 2 storey single family homes. There are pedestrian sidewalks on both sides of the roadway.

Figure 2 shows the existing lane configurations on Maplehill Road, Dynes Road, Oakhurst Road, and Woodward Avenue.
2.2 EXISTING TRANSIT

The site is within walking distance of several bus routes servicing downtown Burlington and the surrounding area. Burlington transit provides bus connections to the GO Station as well as Hamilton and Oakville transit. Bus stops are approximately a 10 minute walk from the site and are located on Cumberland Avenue at Woodward Avenue, Prospect Avenue at Dynes Road, New Street east of Dynes, and Guelph Line at Glencrest.

The site is easily accessible to two multi use paths. One is directly accessible from the proposed site within the Hydro corridor and connects to the Centennial Path to the south which extends across the City of Burlington including downtown.

2.3 EXISTING TRAFFIC VOLUMES

The existing traffic volumes on Guelph Line, Woodward Avenue, and New Street were provided by the City of Burlington. The 2014 average annual daily traffic (AADT) on Guelph Line is 22,188, on New Street is 20,912 and on Woodward Avenue between Dynes Road and Guelph Line is 2,254 as seen on the map in Appendix A. The City of Burlington does not have traffic volumes for Dynes Road.

From 2006 to 2011 the population in the City of Burlington increased by 6.9% or 1.38% per year (Statistics Canada, 2011 City of Burlington Census of Population). The average annual growth rate (AAGR) of 1.38% will be used to estimate future AADT for Woodward Avenue, Guelph Line and New Street using equation (1) below.

\[ AADT_{2016} = AADT_{2014} \times (1 + AAGR)^n \]

\( n = \) number of years past current growth year
\( AADT = \) Average annual daily traffic
\( AAGR = \) average annual growth rate

**Woodward Avenue**

\[ AADT_{2016} = AADT_{2014} \times (1 + AAGR)^n \]

\[ AADT_{2016} = 2254 \times (1 + 1.38\%)^2 \]

\[ AADT_{2016} = 2317 \]
Guleph Line
AADT_{2014} = AADT_{2011} \times (1+AAGR)^n
AADT_{2014} = 22188 \times (1+1.38\%)^2
AADT_{2014} = 22805

New Street
AADT_{2014} = AADT_{2011} \times (1+AAGR)^n
AADT_{2014} = 20912 \times (1+1.38\%)^2
AADT_{2014} = 21493

The estimated 2016 AADT for Woodward Avenue is 2,317, for Guelph Line is 22,805, and for New Street is 21,493. Woodward Avenue and Dynes Road are both local collectors and it would be expected that Dynes Road would have similar traffic volumes to Woodward Avenue.

3.0 PROPOSED DEVELOPMENT

A 25 unit common element condominium consisting of 23 townhouse units and 2 semi-detached units is proposed to be developed on the property. The townhomes will be comprised of 4 separate sets of townhome blocks and 1 semi-detached block as shown on Figure 3. A two lane entrance on Maplehill Drive will provide access to the site.
4.0  FUTURE TRAFFIC VOLUMES

The site application is for the development of townhouse/condominiums. The peak hour traffic that is expected to be generated by the development was calculated for the AM and PM peak using the Institute of Traffic Engineers (ITE) Trip Generation Manual, 9th Edition. The ITE trip generation rates for low-rise residential condominium/townhouses were used to calculate AM and PM peak hour trips generated by the site.

The AM and PM Peak hour trips are shown in Table 1.

<table>
<thead>
<tr>
<th>USE</th>
<th># of units</th>
<th>A.M. peak (of generator)</th>
<th>P.M. peak (of generator)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-rise residential condominium/townhouse</td>
<td>231</td>
<td>0.18</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>0.82</td>
<td>13.85</td>
</tr>
<tr>
<td>TOTAL TRIPS</td>
<td></td>
<td>16.9</td>
<td>17.2</td>
</tr>
</tbody>
</table>

From Table 1 it can be seen that the development will generate 3 trips in and 13.85 trips out in the AM peak (7-9 AM) and 9.47 trips in and 7.75 trips out in the PM peak (4-6 PM).

5.0  RECOMMENDATIONS AND CONCLUSIONS

The proposed development will increase traffic volumes along Maplehill Drive. The proposed development is estimated to generate an additional 16.9 trips in the AM peak and 17.2 trips in the PM peak onto Maplehill Drive. These trips will be split along Oakhurst and Willow Lane for access to Dynes Road.

The existing traffic on Dynes Road is approximately 2,317 trips per day. The existing traffic volume on Dynes Road will be reduced with the proposed development which generates fewer trips than the existing school on Site which was accessed off of Dynes Road.
The proposed development will not impact traffic on Dynes Road.

The additional traffic generated on Maplehill Drive, Willow Lane and Oakhurst Avenue by the proposed development is not significant (about 17 vehicles in the PMPK Hour or one every 3-4 minutes). No improvements are recommended to accommodate traffic generated from this development.

Prepared By: 
Ashley Walker, M.Sc, P.Eng

Reviewed By: 
Karl Gonnsen, P.Eng., RPP, MCIP, MITE
APPENDIX A: CITY OF BURLINGTON TRAFFIC VOLUMES
Hi Ashley,
The AADT shown are 2014 values. The TMC’s that you will get are also done in 2014.

Please confirm that you are in agreement with the charge of $ 53.00 + HST for each intersection.

Thank you,

Florin Patrau | Traffic Technologist
Transportation Services Department
Development and Infrastructure Division, City of Burlington
Phone: 905-335-7671 x 7838
Florin.Patrau@Burlington.ca

Please take two minutes to complete our survey to tell us how we are doing!
http://www.burlington.ca/trafficservicessurvey

Please consider the environment before printing this email

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Hi Florin,

The AADT calculated from the TMCs will be okay. Can you send that for Dynes at Woodward and Dynes at New Street please.

Also from the map you sent, what year are the AADTs for that are shown on Woodward Avenue and New Street?

Thank you,

Ashley

---

Hello Ashley,
I attached for you a map showing the available traffic data for your study area. Unfortunately we don’t have any 24 hrs study on Dynes Rd, however we can give you an AADT figure calculated out of the 8 hrs TMC’s done at major intersections.

Please let me know if this will work for you.

Regards,

Florin Patrau | Traffic Technologist
Transportation Services Department
Development and Infrastructure Division, City of Burlington
Phone: 905-335-7671 x 7838
Florin.Patrau@Burlington.ca

Please take two minutes to complete our survey to tell us how we are doing!
http://www.burlington.ca/trafficservicesurvey

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From: Ashley Walker [mailto:awalker@metrocon.ca]
Sent: Tuesday, January 26, 2016 11:59 AM
To: Patrau, Florin
Subject: Traffic Count, Dynes Road, D15006

Hi Florin,

I am working on a traffic brief in the Area of Dynes Road in Burlington and would like the existing traffic data available. I am interested in the AADT for Dynes Road in particular and if you have any information on Woodward Avenue, Oakhurst Road, Maplehill Drive, or Willow Lane that would be useful as well.

Thank you,

Ashley Walker, M.Sc, P.Eng

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