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Memorandum

To/Attention John Zaloznik - City of Burlington **Date** May 10, 2017
From Golnaz Ghafghazi - IBI Group **Project No** 105842
cc Peter Richards - IBI Group
 Michael Lipkus - IBI Group
Subject **5209 Stonehaven Drive, Burlington, ON - Traffic Brief**

The City of Burlington has requested the submission of a Traffic Brief for the proposed development at 5209 Stonehaven Drive in Burlington, Ontario. The development would consist of 10 detached lots along Bird Boulevard, which is proposed to be extended into a cul-de-sac, and 8 townhouse lots fronting onto Stonehaven Drive.

This memorandum outlines a Traffic Brief which investigates the trips generated by the subject development, and an assessment of the possible impact of this development on the unsignalized intersection of Pathfinder Drive and Orchard Road, based on these anticipated future site trips.

Trip Generation

The purpose of this section of the memorandum is to illustrate the trips generated by the subject development using rates from the Institute of Transportation Engineers *Trip Generation Manual, 9th Edition*. Detailed site statistics and associated trips generated by the development are presented in **Exhibit 1**.

Exhibit 1 Site Statistics Summary and Trip Generation Comparison

Description	Land Use (ITE Trip Generation Manual 9th Edition Code)	Number of Dwelling Units	AM Peak Hour				PM Peak Hour			
			Rate (trips/number of dwelling units)	Total Trips	Trips Entering (%)	Trips Exiting (%)	Rate (trips/number of dwelling units)	Total Trips	Trips Entering (%)	Trips Exiting (%)
Proposed Detached Lots	Single-Family Detached Housing (ITE 210)	10	0.75	8	2 (25%)	6 (75%)	1.00	10	6 (63%)	4 (37%)
Proposed Townhouse Lots	Residential Condominium/ Townhouse (ITE 230)	8	0.44	4	1 (17%)	3 (83%)	0.52	5	3 (67%)	2 (33%)
Total	-	-	-	12	3	9	-	15	10	5

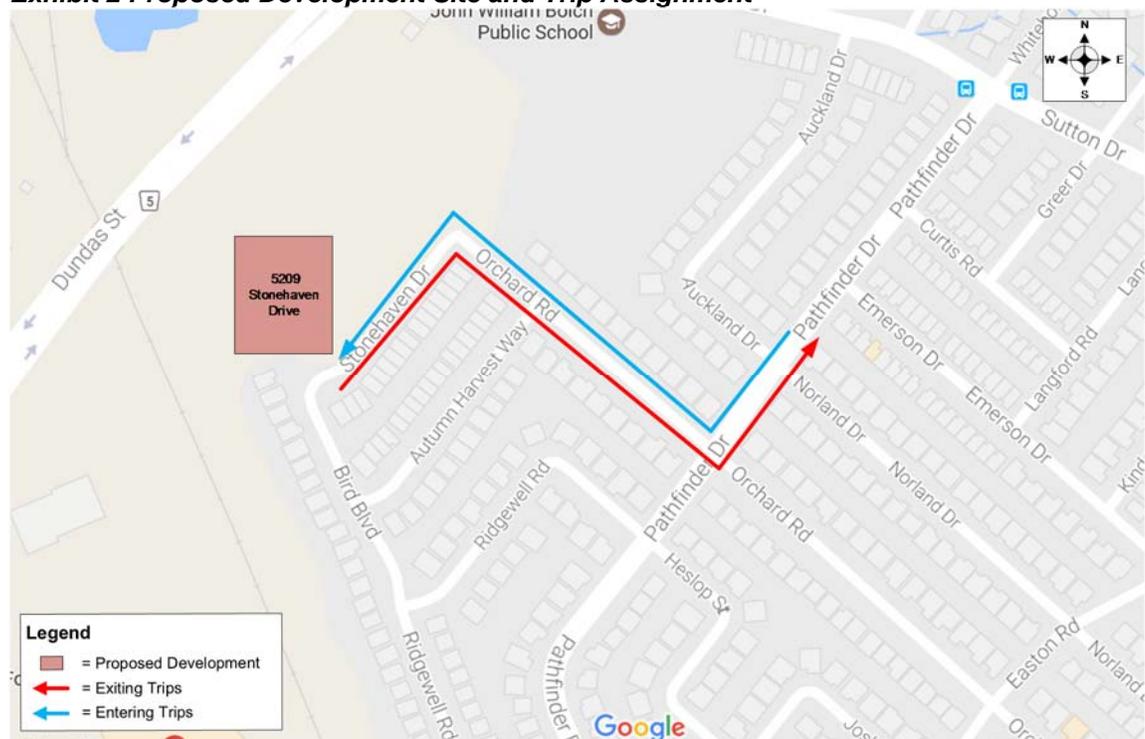
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Based on the trip generation comparison table, the proposed site plan is estimated to generate an additional 12 two-way trips during the AM peak hour, and an additional 15 two-way trips during the PM peak hour. The number of trips is similar to the daily variation experienced at most intersections, and will not be noticeable on the road network.

Trip Assignment

Location of the proposed development and the anticipated travel routes of the trips generated by the subject development are presented in **Exhibit 2**.

Exhibit 2 Proposed Development Site and Trip Assignment



It is expected that the majority of drivers exiting the proposed site will choose to use Orchard Road and turn left onto Pathfinder Drive to access the major arterials. Based on the directional trip distribution, the maximum number of generated trips traveling through the intersection of Pathfinder Drive and Orchard Road to exit the proposed development is estimated to be 9 trips during the AM peak hour. This results in the approximate rate of one vehicle every seven minutes. This would have a negligible impact on traffic operations at this intersection.

Drivers entering the proposed development will likely choose to use Pathfinder Drive to turn right onto Orchard Road. Based on the directional trip distribution, the proposed site is estimated to generate an additional maximum of 10 trips during the PM peak hour entering the proposed development by travelling through the intersection of Pathfinder Drive and Orchard Road. This is equal to the highest rate of one vehicle every six minutes. This would have a negligible impact on traffic operations at this intersection.

As demonstrated on an intersection-level above, the overall trips generated by the site would likely result in a negligible impact to the operations of the road network.

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Furthermore, these site trips are not conflicting movements with one another, thereby lessening any potential impacts.

Conclusions

This memorandum outlines a Traffic Brief for the proposed development at 5209 Stonehaven Drive in Burlington, Ontario. The development would consist of 10 detached lots along Bird Boulevard and 8 townhouse lots fronting onto Stonehaven Drive. The trips generated by the subject development, and an assessment of the possible impact of this development on the unsignalized intersection of Pathfinder Drive and Orchard Road are investigated in this memorandum and summarized below:

- Based on the trips generated by the subject development using rates from the Institute of Transportation Engineers *Trip Generation Manual, 9th Edition*, the proposed site plan is estimated to generate trips that are similar to the daily variation experienced at most intersections, and will likely not be noticeable on the road network.
- It is expected that the majority of drivers exiting and entering the proposed site will choose to travel through the intersection of Pathfinder Drive and Orchard Road. Based on the directional trip distribution, the highest rate of generated trips traveling through this intersection to enter and exit the proposed development is one vehicle every six minutes and one vehicle every seven minutes, respectively. The impact of these directional additional generated trips to the intersection of Pathfinder Drive and Orchard Road would also be negligible.