



## **Technical Memorandum**

То:	Kamran Rzayev – 1000679027 Ontario Inc Moe Sajadi – 1000679027 Ontario Inc	Date:	April 29, 2025
Cc:	Amin Sarang – Devnex		
From:	Sam King – CGH Transportation Allie Chen-Der – CGH Transportation Mark Crockford – CGH Transportation	Project Number:	2025-019

## Re: 161 Heathwood Heights Drive, Town of Aurora – Trip Generation Memorandum

Dear Kamran and Moe,

CGH Transportation has been retained by 1000679027 Ontario Inc. to provide transportation services related to the proposed 161 Heathwood Heights Drive residential development in the Town of Aurora. Based on our review of the anticipated trip generation and the York Region Transportation Mobility Plan Guidelines, it is recommended that traffic analysis be limited to a Trip Generation Memo, and that no Transportation Impact Study is required to support the proposed development.

The site is located at the southeast corner of the unsignalized intersection of Heathwood Heights Drive and Tilston Grove. The lot is currently occupied by one detached single-family dwelling. Based on the current site plan, the proposed development will subdivide the lot into five parcels, each with its own detached single-family residential dwelling. The site is currently zoned R1 (Residential Detached Single-Family) and is proposed to be rezoned to R3 (Residential Detached on Smaller Lots). This technical memorandum has been prepared to summarize the trip generation resulting from the proposed development. The site plan is provided in Attachment 1.

To understand the impact of the proposed development on the study area road network, the site's trip generation was determined using the 11<sup>th</sup> Edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. The land use code (LUC) for the proposed development is Single-Family Detached Housing (LUC 210). For the purposes of this assessment, a 100% auto driver mode share has been assumed. Trip generation using the average rates and the fitted curve equations was compared. The fitted curve equations resulted in higher trip generation and were carried forward in the analysis to ensure a conservative result. Table 1 shows the average rates and fitted curve equations for Single-Family Detached Housing. Table 2 shows the projected trip generation for the existing conditions and the proposed development.

Table 1: ITE Vehicle Trip Generation Rates and Equations by Peak Period

Land Use	ITE Land Use Code	Peak Period	Avg. Rate / Dwelling Unit	Fitted Curve Equation	In%	Out%
Single-Family	210	AM	0.70	Ln(T) = 0.91Ln(X) + 0.12	25%	75%
Detached Housing		PM	0.94	Ln(T) = 0.94Ln(X) + 0.27	63%	37%

Table 2: Total Net Vehicular Trip Generation by Peak Period

Eviating/Duamagad	Unit Count	AM Peak Period			PM Peak Period		
Existing/Proposed		In	Out	Total	In	Out	Total
Existing	1	0	-1	-1	-1	0	-1
Proposed	5	1	4	5	4	2	6
Net New Trip Generation	-	1	3	4	3	2	5

As shown above, the proposed development is expected to generate a total of five bi-directional trips during the AM peak hour, and six bi-directional trips during the PM peak hour. This represents an increase of four bi-directional vehicle trips in the AM peak hour, and five bi-directional vehicle trips in the PM peak hour. Based on the low trip generation, the impact of the proposed development on the adjacent road network is expected to be negligible. Thus, a full Transportation Impact Study is not required.

The daylighting triangle requirements for the intersection adjacent to the site were reviewed according to the Town of Aurora *Design Criteria Manual for Engineering Plans*. Per Section B4.05, intersections where one of the roads is a local road must have a minimum daylighting triangle of 5.0 metres on all quadrants. Therefore, a five metre by five metre daylighting triangle is required at the intersection of Heathwood Heights Drive and Tilston Grove on the quadrant adjacent to the site.

The Town of Aurora Zoning By-law #6000-17 specifies detached dwelling units must provide 2.0 spaces per dwelling unit. The site contains five detached dwellings, therefore ten parking spaces are required for the site. The proposed development driveways provide space for two parking spaces per unit and additional parking space is anticipated to be provided in the garage of each dwelling. Therefore, the proposed development will meet or exceed the parking requirements from the Town of Aurora Zoning By-law.

In conclusion, this memorandum has shown the following:

- i. Given the low trip generation, the impact of the proposed development on the road network is expected to be negligible. Therefore, a full Transportation Impact Study is not required.
- ii. A five metre by five metre daylighting triangle is required on the southeast quadrant of the Heathwood Heights Drive and Tilston Grove intersection adjacent to the site.
- iii. The parking provided for the proposed development will meet or exceed the Zoning By-law parking requirements.

If you have any comments or questions regarding the findings of this trip generation memorandum, please do not hesitate to contact the undersigned.

Sam King, EIT

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## Attachment 1

Proposed Site Plan

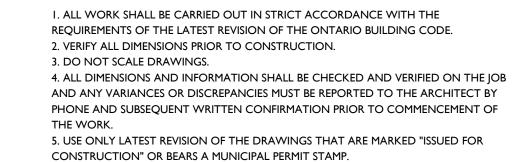


HEATHWOOD HEIGHTS DRIVE CENTRELINE OF ROAD BOUNDARY OF THE CONCRETE CURB HYDRO TRANSFORMER CONCRETE SIDEWALK 49'-2 1/2" 49'-2 1/2" 58'-10 1/2" 49'-2 1/2" CONCRETE SIDEWALK 17.95 N72°35'45"E 18'-8" SIB **5.69** (1059)  $\subseteq$ SIGN PROPOSED PROPOSED PROPOSED PROPOSED DRIVEWAY DRIVEWAY 5'-9 1/4" 1.76 0.4 Dia. BRICK GARAGE 308.41 305.90 307,51 308.60 #167 #165 #163 #161 #169 44.7(P1) PROPOSED PROPOSED

DETACHED DWELLING **PROPOSED** PROPOSED PROPOSED \ 5'-1 1/2" \ 1.56 DETACHED DWELLING DETACHED DWELLING 5'-1 1/2' DETACHED DWELLING **DETACHED DWELLING** 15'-0" 4'-11" 5'-1" 1.50 1.55 No.159 2 STOREY BRICK DWELLING D.S.=310.36 1.55 11.89 4.57 FIN. FIRST FL. : 313.10 FIN. SECOND FL. : <u>312.81</u> FIN. SECOND FL. : 313.60 FIN. SECOND FL. : 314.08 FIN. SECOND FL. : <u>314.50</u> FIN. FIRST FL. : 309.46 FIN. FIRST FL. : <u>310.25</u> SUNKEN ENTRANCE FL. : <u>309.18</u> FIN. FIRST FL. : <u>310.73</u> FIN. FIRST FL. : <u>311.15</u> SUNKEN ENTRANCE FL. : 308.68 SUNKEN ENTRANCE FL. : 308.27 SUNKEN ENTRANCE FL. : 309.66 SUNKEN ENTRANCE FL. : 310.09 T/FDN WALL : SEE GRADING PLAN T/FDN WALL: SEE GRADING PLAN T/FDN WALL : SEE GRADING PLAN T/FDN WALL : SEE GRADING PLAN T/FDN WALL : SEE GRADING PLAN T/BASEMENT SLAB : 306.40 , 306.10 T/BASEMENT\_SŁAB: 306.83 , 306.55 T/BASEMENT SLAB : 306.11 305.55 USF : SEE GRADING PLAN OR T/BASEMENT SLAB : 307.38 , 307.15 T/BASEMENT SLAB : <u>307.65</u> PIN 03628-0119(LT) USF: SEE GRADING PLAN OR NO المريخ : SEE GRADING PLAN OR USF: SEE GRADING PLAN OR USF: SEE GRADING PLAN OR 4' BELOW GRADE 4' BELOW GRADE 4' BELOW GRADE A BELOW GRADE 4' BELOW GRADE 0.3 Dia. WHICHEVER DEEPER HICHEVER DEEPER WHICHEVER DEEPER WHICHEVER DEEPER WHICHEVER DEEPER LINE OF 10m BUFFER 307.70 305.40 305.95 306.25 306.40 307.00 307.50 DECK 306.15 306.75 307.35 0.2 Dia. DECK DECK REGISTERED LINE OF EXISITING DWELLING TO BE DEMOLISHED L 0.2 Dia. 0.2 Lia. 0.2 Dia. 0.2 Dia. PLAN 65M-2258 ENTIRELY SODDED BACKYARD LOT #1 LOT#4 LOT #5 **LOT #3** ENTIRELY SODDED ENTIRELY SODDED 1774

BACKYARD ENTIRELY SODDED ENTIRELY SODDEDFRAME 0.2 Dia. BACKYARD BACKYARD 78.79 (P1&SET) DRIPLINE 0.2 Dia. C.L.F. 0.12N 0.3 Dia. 0.2 Dia. 0.27W (1059) C.L.F. 0.09S N70°49'10"E WO.F. WO.F. 0.31S PIN 03628-0126 0.2 Dia. 0.2 Dia. **LOT #2 LOT #3 LOT #5 LOT #1** 0.2 Dia. **Zoning Data Matrix Proposed Zoning Data Matrix Proposed Zoning Data Matrix Zoning Data Matrix Zoning Data Matrix Proposed Proposed Proposed** PLAN 65M-2258 R3 17.95 m 15 m Lot Frontage Lot Frontage Lot Frontage Lot Frontage Lot Frontage 6436.2 s.f. - 597.94 m2 5356.2 s.f. - 497.61 m2 5281.1 s.f. - 490.63 m2 5206.1 s.f. - 483.66 m2 5279.5 s.f. - 490.48 m2 Lot Area Lot Area Lot Area Lot Area Lot Area 1950.0s.f. -181.16 m2 (30.30%) 1950.0 s.f. -181.16m2 (36.41%) -181.16m2 (37.46%) 1950.0 s.f. -181.16m2 (36.94%) 1950.0 s.f. -181.16m2 (36.92%) Lot Coverage Lot Coverage 1950.0 s.f. Lot Coverage Height Height Height Height Height

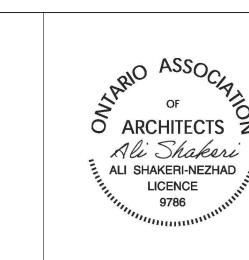




6. ALL STRUCTURAL MEMBERS SHOULD BE REVIEWED AND APPROVED BY CERTIFIED

STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION







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