

March 21<sup>st</sup>, 2019



**Castleglenn  
Consultants**

Engineers, Project Managers & Planners

**To: Ms. Rosanna Baggs**

Project Manager – Infrastructure Approvals

City of Ottawa

110 Laurier Avenue

Ottawa, Ontario K1P 1J1

**Re: Access Impact Assessment:**

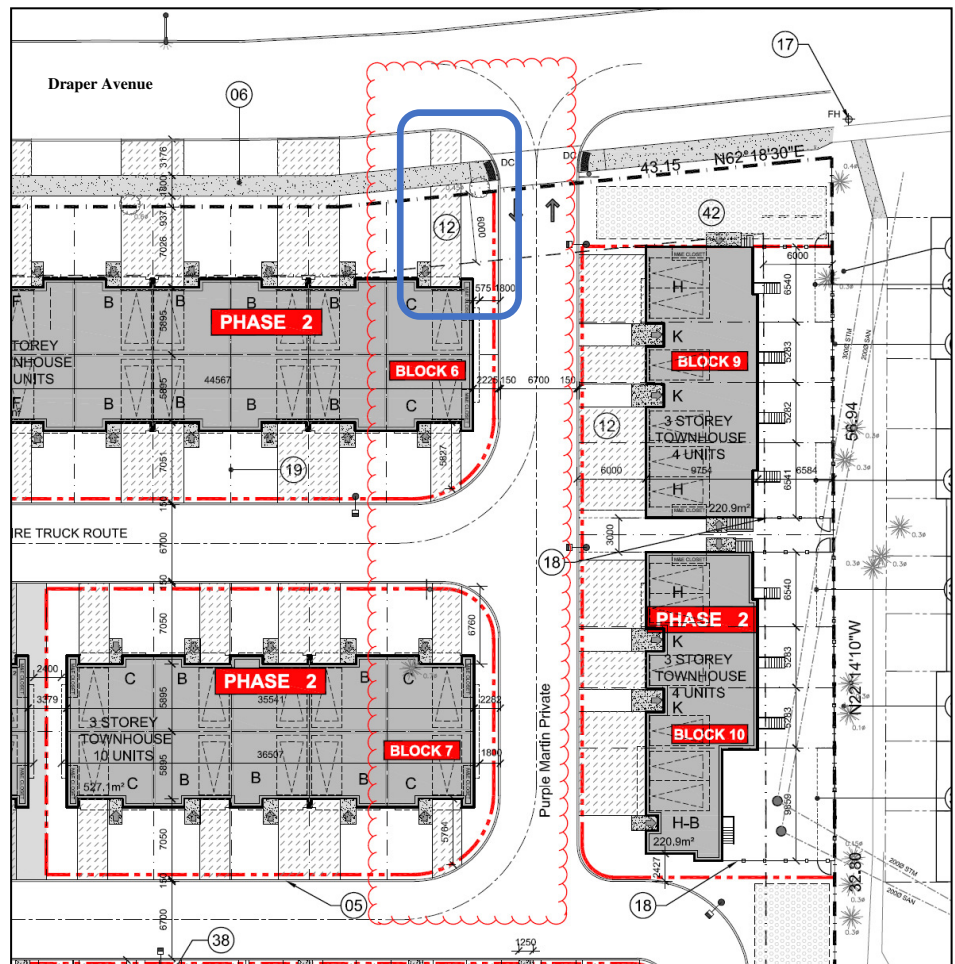
**2710 Draper Avenue, Ottawa, Ontario: Fresh Town Phase 3-2 Development**

A site plan control application was submitted to the City of Ottawa in regards to Phase 3-2 of the proposed Fresh Towns development. On February 14<sup>th</sup>, 2019, City staff provided comments, one of which raised concern with the planned driveway and private approach spacing along Purple Martin Private. The comment was:

*“Block 6 and 7, all units along Purple Martin Pvt., Flip the units so that the driveways are as far away from the intersection/curb radii.”*

Castleglenn was retained to provide an Access Impact Assessment (AIA) that would serve to expand upon the effect that the proposed access arrangement would have upon the transportation network and on public safety.

Elements of this AIA include, an analysis of generated traffic volumes, pedestrian activity, vehicular movements, queue lengths and times, the size of the access, and the impact upon the adjoining Draper Avenue corridor.



*Exhibit 1: Fresh Towns Development; East Site of Development*

The site plan as presented in Exhibit 1 illustrates the position of the driveways and circulating roadways within the site. The portion of the development surrounded by a red clouded polygon highlights the area in the vicinity of Purple Martin Private.

***Issue 1: Does the Private Approach Bylaw (PAB) apply to Driveways Internal to the Fresh Towns Site?***

The Definitions of ‘private approach’ and “highway” within the Private Approach By-Law No. 2003-447 indicates that:

*"private approach" means an improved surface and where required a culvert within a highway and used by the owner or occupant of private property adjacent to the highway for vehicular access"; and*

*"highway" includes a common and public highway and includes any lane, bridge, trestle, viaduct, or other structure, forming part of the highway, and except as otherwise provided, includes a portion of the highway and the area between the later property lines thereof".*

The driveways connecting to those roadways to the west of Purple Martin Private are not located “adjacent to a public highway” and are located well within the Fresh Towns development and facing private roads (i.e. Cherry Blossom Private and Follage Private).

Therefore, a comment that suggests changes to “*all units along Purple Martin Pvt*” since the driveways do not tie into a City street, may well be considered outside the PAB.

***Issue 2: The Driveways that Connect to Draper Avenue***

At issue is the single end-unit driveway that connects to Draper Avenue located to the west of Purple Martin Private denoted by the blue square on Exhibit 1. The current separation between Purple Martin Pvt. and the end-unit driveway (along Draper Avenue) is 3.5m. The City of Ottawa’s Private Approach By-Law No. 2003-447 requires for multiple residential dwellings that:

*“The distance required between the nearest limits of a private approach intended for two-way vehicular traffic and any other private approach to the same property shall be a minimum of 9 metres measured at the street line, and at the curb line or roadway edge” [Section 25(1)(g)].*

***a) Traffic Operations***

The private end-unit driveway and Purple Martin Pvt. connect to Draper Avenue, which is characterized as a local road with low traffic volumes (90-to-140 vph) during the peak direction of the peak hour. Purple Martin Pvt. is one of the three accesses envisioned to serve the proposed 86 townhomes and the existing 80-unit CCC994 building.

The site traffic volumes exiting Purple Martin Pvt. were estimated to be 20 vph<sup>1</sup> during the peak direction of the peak hour. This translates to an average of a single vehicle every 3 minutes in the peak direction during the peak hour of travel demand. The adjacent end-unit private driveway would likely be frequented by a single vehicle-per-day (resulting in two movements outbound and inbound). Therefore, the probability of a conflict between a vehicle

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<sup>1</sup> “Proposed Residential Development – 2710 Draper Avenue” Traffic Brief August 2018, Appendix B, Exhibit B-5

exiting Purple Martin Pvt. and a vehicle exiting the private driveway at same time is very-low.

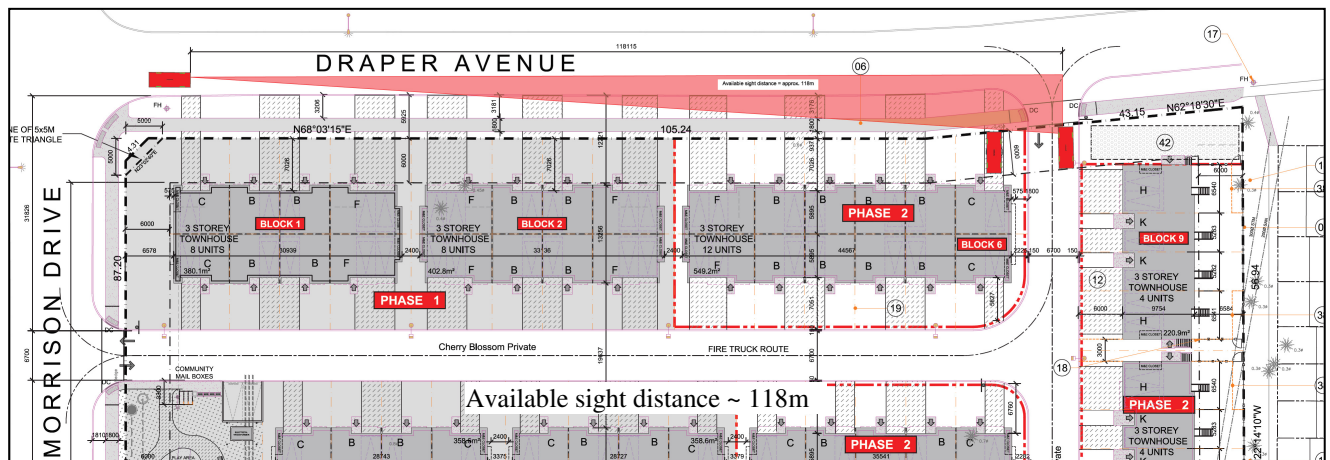
Queue length were found to be inconsequential in that the queue extending from Purple Martin Pvt. is anticipated to be a maximum of a single vehicle in length and internal to the site. The queue lengths along Draper Avenue requiring entry to the site are also anticipated to be inconsequential.

### ***b) Sight Lines***

Despite this extremely low probability, should a vehicle be in the process of exiting the private driveway, a vehicle approaching Purple Martin Pvt. would have sufficient sightlines to allow the vehicle to complete the maneuver prior to making the turn onto Draper Avenue.

Exhibit 2 illustrates the results of a sightline analysis that was undertaken to ensure that a vehicle parked at the end-unit driveway (along Draper Avenue) does not impede the sightlines of a vehicle making a turn onto Draper Avenue from Purple Martin Pvt.

In addition, the vast majority of vehicle movements at the accesses would be undertaken by residents, which would be habitual users of the roadway network and be more aware and familiar with the surrounding roadway network.



***Exhibit 2 Sightline Assessment Along Draper Avenue***

Based on the above:

- the current proposed location of the end-unit private driveway (3.5m from Purple Martin Pvt.) is deemed acceptable and is not anticipated to result in traffic operational concerns; and
- There is sufficient sightline for a vehicle at Purple Martin Pvt. to observe vehicles all the way to the Morrison Drive/Draper Avenue intersection.

### ***c) Concerns with the Requested 9m Separation***

It is Castleglenn's opinion that the PAB may incorrectly apply its provisions equivalently to both "private approaches" and "driveways". Having a 9m minimum separation between two private approaches makes eminent sense in that the higher vehicle traffic streams from two private approaches (which could well be two lanes wide each) require this separation such that both vehicle streams are sufficiently separated. However, in the case

of a single driveway and a private approach a 9m separation without any amenities within this separation such as a parallel sidewalk or pathway within the separation is unnecessary.

### ***Conclusion***

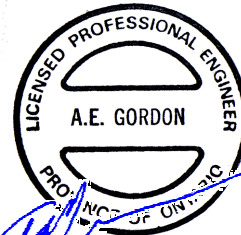
- The driveways internal to the site (i.e. having access onto Cherry Blossom Private and Follage Private) should not be subject to a suggested 9m separation as these driveways connect to a private road and not a public highway.
- The proposed location of the end-unit private driveway (3.5m from Purple Martin Pvt.) is NOT anticipated to result in any traffic operation concerns. There is no operational, sightline nor queuing rationale as regards the suggested 9m separation between the single driveway and the private approach into the Fresh Town site. The proposed 3.5m separation was found to be acceptable.
- The City of Ottawa is encouraged to consider appropriate conditions related to maintenance that would ensure sightlines are not impeded.

Yours truly,



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Arthur Gordon, P.Eng.