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Mélanie Gervais MCIP, RPP Planner / Urbaniste  
Development Review /  
Examen des demandes d'aménagement  
Planning, Infrastructure and Economic Development Department /  
Services de la planification, de l'infrastructure et du développement économique  
City of / Ville d'Ottawa  
110, avenue Laurier Avenue West / Ouest,  
4th Floor / 4<sup>ième</sup> étage  
Ottawa, ON K1P 1J1

Attn: Mélanie Gervais

Dear Melanie,

**Re: Density Analysis**  
**Official Plan Amendment Application: Heron Gate**  
**Your File No.: D01-01-19-0010**

## 1.0 Introduction

The following report has been prepared by DIALOG for Mustang Equities & TC Core LP in support of an Official Plan Amendment application for the lands legally known as Blocks C, E & G and part of blocks A & D, Registered Plan 796, in the City of Ottawa, located in the Ledbury-Heron Gate-Ridgemont-Elmwood neighbourhood of Ottawa. The site is bounded by Heron Road to the north, Walkley Road to the south, Heron-Walkley Park to the west, Sandalwood Park and the Heron Gate Mall to the east, and is bisected by Sandalwood Drive, Baycrest Drive, and Cedarwood Drive. The site is 20.41 hectares in size (exclusive of public roads)

This Analysis has been prepared in response to Technical Circulation Comments of August 27, 2019 issued by the City of Ottawa. The purpose of this Analysis is to review the proposed density of the subject development, along with a comparative assessment of the existing (historic) density of the site, and the density achievable as-of-right. As requested by the City, this Analysis includes reference to the MTO's Transit Supportive Guidelines to quantify the analysis.

### Density Definition

Density for the purposes of this analysis has been derived from the City of Ottawa Official Plan's application of "jobs and people per gross hectare" (S. 2.2.2.5 *Minimum density targets...*). For the purposes of this analysis, jobs and people has been replaced with units per gross hectare.<sup>1</sup>

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<sup>1</sup> It is noted that based on the 2016 census, Ottawa had an average household size of 2.5 people per unit (PPU) across all dwelling types. Given an anticipated significant percentage of planned units as 0, 1, and 2 bedroom units, compared with only 35% across Ottawa for the same unit categories, applying the average household size would likely result in a significant overcount of the anticipated post-development population. Accordingly, units per gross hectare has been used.

For the purposes of calculation, gross hectares include all land within the planning area (proposed and existing public roads, private roads, open space – POPS, private amenity, landscaped areas, etc., and proposed park land).

## 2.0 Proposed Development

The development proposes to redevelop the existing site through a phased process of intensification across the site. A first phase, HG7, has previously been approved, and is under construction at the time of this Report.

The proposal is for 65 buildings, providing a mix of low-rise townhouses (1-4 storeys), mid-rise (5-9 storeys), and High-rise (10+ storeys). A total of 6,400 units is proposed, with a total approximate GFA of 538,000 sq. m.

15,913 sq. m (1.59 ha) has been allocated for a proposed future park, which is to be conveyed to the City as public park land at the time of development.

In addition, new public roads would connect east-west from Baycrest Dr. to Sandalwood Dr. through Blocks 2 & 3, and form an extension of Sandalwood Dr. west of Baycrest Dr., terminating at Cedarwood Dr. The lands for these new public roads would be conveyed to the City as new municipal roads at the time of development.

**Table 1: Site Statistics**

Site Statistics	
Total Site Area (gross)	229,231 sq. m (22.92 ha.)
Park Land (proposed)	15,913 sq. m
Open Space (proposed + existing)	21,388 sq. m
Public Roads (existing)	25,000 sq. m
Public Roads (proposed)	10,335 sq. m
<b>Total Developable Area (net)</b>	<b>156,595 sq. m</b>

### Proposed Density

With a gross site area of 229,231 sq. m (22.92 ha.) (inclusive of public roads, private roads, open spaces, park space) and 6,400 units (total proposed and existing) the plan achieves an approximate post-development density of 279 units per gross hectare at full build-out.

#### Assumptions:

To arrive at unit counts, a unit size based on building typologies and assumed distributions have been applied. These are rough approximations based on experience with similar buildings typologies and floor plates, and include space that would be assigned to circulation, mechanical areas, amenities, and other

non-residential space within the building, but exclude areas for parking. A ratio of 80/20 is assumed for net residential space to non-residential (mechanical, circulation, etc.).

Unit Size assumptions:

- Low density (townhouses, stacked towns): 1,400 sq. ft
- Mid density (mid-rise apartments, various unit sizes): 1,150 sq. ft
- High density (high-rise apartments, various unit sizes): 1,000 sq. ft

For comparison, HG7 (under construction as of the time of this report) achieves 348 units, across 6 storeys in 3 buildings, on a site area of 16,433 sq. m, with a total GFA of 30,201 sq. m, and an average of 1,187 sq. ft (87 sq. m) per unit across all types (inclusive of mechanical, circulation, and non-residential space). HG7 was developed largely as-of-right (Site Plan Approval with minor variances), is located outside of the Arterial Mainstreet designated area, and achieves a density of 212 units per hectare.

**Table 2: Proposed Units**

	Proposed GFA (Sq. m.)	Proposed GFA (Sq. Ft.)	Existing Units	Proposed Units			
				Low Rise	Mid-rise	High-rise	Total
<b>Block 1 (HG7) (existing)</b>							
	30,201	325,084			348		348
<b>Block 2 (HG5)</b>							
2.1	36,720	395,254	0	0	202	163	365
2.2	42,720	459,838	0	0	258	163	421
2.3	93,180	1,002,990	333	43	331	562	1269
<b>Block 4</b>							
	45,448	489,202	114	46	100	309	570
<b>Block 5</b>							
	11,300	121,633	510	87	0	0	597
<b>Block 6</b>							
	25,800	277,711	0	0	124	136	259
<b>Block 7</b>							
	61,356	660,436	0	0	272	347	620
<b>Block 8</b>							
8.1	55,080	592,881	0	0	185	380	565
8.2	68,000	731,952	0	0	283	407	690
<b>Block 9</b>							
	68,800	740,563	0	0	290	407	697
<b>Total</b>	<b>538,605</b>	<b>5,797,544</b>	<b>957</b>	<b>176</b>	<b>2,393</b>	<b>2,874</b>	<b>6,400</b>

## 3.0 Policy Framework

### City of Ottawa Official Plan

We have reviewed the Official Plan density targets for the planning area, including the Walkley Road Arterial Mainstreet target density of 120 people and jobs per hectare. We interpret this target as a minimum density to be achieved, as noted under S.2.2.2.5: “*Minimum density targets*, expressed in jobs and people per gross hectare, are set out in Figure 2.3...” (emphasis added). No maximum density limit is provided.

The Official Plan does not appear to provide target density figures (minimums or maximums) for areas designated Urban Area.

For further comment on the City of Ottawa Official Plan policies and analysis, please see the Planning Justification Report, April 2019, prepared by DIALOG.

### Zoning By-law 2008-250

The Zoning By-law does not provide density minimums or maximums. In effect however, the Zoning By-law informs achievable maximum densities through development permissions regulating building typology, height, setbacks, and other requirements. The as-of-right density permissions are reviewed in detail below, under 5.0 As-of-Right Density Permissions

### Analysis

The policies of the Official Plan and Zoning By-law do not provide maximum limits for permitted densities for the subject site, however effective limits are informed by other development regulations. The Official Plan does, however, provide some minimum density targets, and calls for intensification and greater densities – to be achieved through various forms – across the City.

## 4.0 MTO Transit Supportive Guidelines

The Ontario Ministry of Transportation’s Transit Supportive Guidelines provide guidance around the planning and development of communities supportive of transit. The following provides a review of the Guidelines, without limitation, to assess how the proposed density responds to potential transit service levels.

### Transit Service Types

To provide guidance around how varying densities can be supportive of a hierarchy of transit services, the Guidelines provide suggested *minimum density thresholds* for transit service types.

Based on these thresholds, the proposal’s density of 279 units per gross hectare would fall within a suggested minimum density range that the Guidelines recognize as potentially supportive of rapid rail transit service (S 1.1.7). It is noted that as minimum densities, these thresholds provide a “ground floor” level that the Guidelines recommend to be achieved for a given service type to be viable.

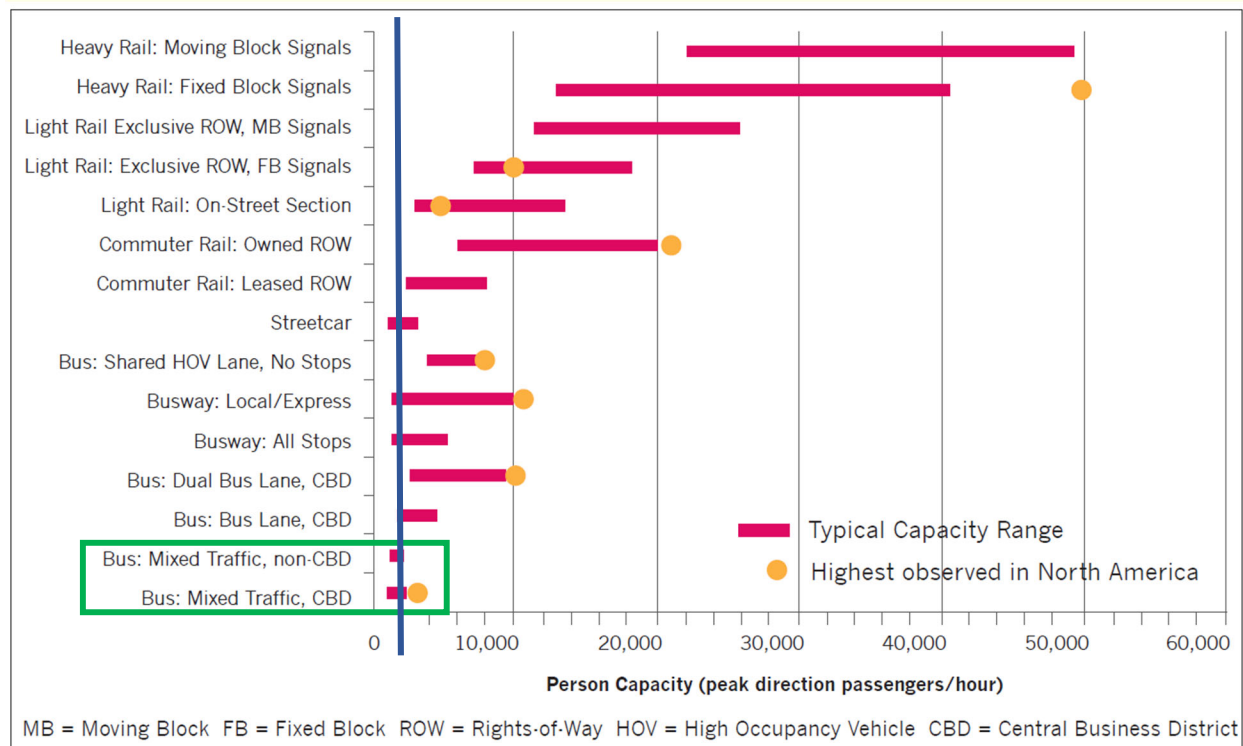
While the Guidelines recommend that transit services should aim to support existing and planned land

use patterns, they do not position transit service types as minimum service levels that should be provided/or required at a given density, and recognize that the viability for increased levels of service and/or higher order rapid transit is affected by a range of criteria in addition to a given residential density.

The Guidelines also note that while higher residential densities in proximity to transit can help to promote ridership, consideration of both densities and mix of uses is required to determine the viability of a transit line or network. This includes factors such as the concentration of jobs and the overall residential/employment balance in an area, which can affect trip destinations and overall ridership (S 1.1.7).

While S 1.1.7 provides transit options that may be viable at a given density, Section 3.1.1 of the Guidelines provides capacity ranges for transit service types to meet a given demand (Table 3). Based on the provided person-capacity ranges, the capacity needed to support the anticipated post development peak transit trips (see supporting Transportation Impact Assessment “TIA”, prepared by CGH Transportation Engineers, for details) would fall within the lowest two person-capacity bands - bus service operating in mixed traffic. Please see the TIA for further analysis of expected transit demand and capacity.

**Table 3: Transit Capacity Ranges**



The chart above identifies a series of person-capacity ranges for various transit modes (adapted from TCRP 100 Transit Capacity and Quality of Service Manual – 2nd Edition, 2003, page 1-21).

*Table 3: Transit Capacity Ranges. The Blue line indicates the anticipated post-development demand for the full-buildout of Heron Gate, as identified in the Transportation Impact Assessment report.*

## Analysis

A review of the Guidelines indicates that with respect to transit viability, the proposed densities are potentially supportive of a variety of transit services, from bus to rail. With respect to meeting post-development capacity, the Guidelines indicate that a variety of transit service types, including Bus/BRT could potentially meet the anticipated demand post-development.

While the proposed densities may be supportive of higher order transit service types, actual ridership and demand is subject to multiple additional criteria, including employment concentration and location in relationship to trip origin and destination. Additional factors that may affect ridership include existing services levels, reliability, quality perception, distance to stops, ease of use, rider facilities, and cost.

As the City has identified the Heron Road corridor for future planned BRT, the proposed development and densities will contribute to the realization of it as a viable transit service, and support the Guidelines recommendations to align transit investments with land use planning the encourages transit supportive development.

## 5.0 As-of-Right Density Permissions

The following provides an analysis of the existing density permissions on the site, and what potentially could be achieved under the as-of-right zoning.

This is provided as a comparison with the proposed, to demonstrate the incremental density being requested.

### Zoning Categories

The site is currently divided into two zoning categories. The northern portion, running south from Heron Road is designated R5B, or Residential 5-B, while the southern portion, extending north from Walkley Road is designated AM-10, or Arterial Mainstreet 10.

### R5 Zone

This zone permits a range of dwelling types, including apartment buildings and town houses. Permitted uses include residential, a range of community facilities and institutional uses, with very limited permissions for commercial uses, restricted to secondary uses within residential buildings. The maximum permitted height is 18 m, or approximately 6 storeys, assuming 3 m floor heights.

### Arterial Mainstreet

This zone permits a mix of uses, including residential, commercial, and a range of community facilities and other uses. The maximum permitted height is 30 m, or approximately 9 storeys, assuming 3 m residential floor heights, and 4-5 m high first floors, to accommodate the possibility of mixed-use buildings with commercial uses at-grade.

### As-of-Right Permissions

Applying the as-of-right zoning (including setbacks and a 50% lot coverage) and Official Plan land use permissions, with a universal mid-rise apartment building typology across the site varying from 6 storeys in the R5 zone, to 9 storeys in the Arterial Mainstreet zone, a feasible development scenario could achieve approximately 4,900 new dwelling units. 957 existing units proposed to be retained in buildings 3.13, 3.14, 4.8, 5.4, 5.5 (see Building Identification Diagram) would bring the total units to approximately 5,857 units. This would provide for a density of approximately 255 dwelling units per gross hectare.

**Table 4: As-of-Right Density Review**

Density Review: As-of-Right vs. Proposed		
	As-of-right	Proposed (Jan 2020)
New proposed units	4,900	5,443
Existing units to be retained	957	957
<b>TOTAL</b>	<b>5,857</b>	<b>6,400</b>

### Analysis

The density permitted as-of-right demonstrates the achievable build-out on the site under the current development permissions provided through the in-effect Official Plan and Zoning By-law. This as-of-right achievable density has been compared to the proposed density to be permitted through the OPA/ZBA. The difference between the two represents an increase through the proposal of less than 10%.

## 6.0 Phasing

The proposal is intended to be implemented through a phased process, which is anticipated to be a period of approximately 25+ years. As a result, the proposed density will be gradually introduced to the site, in a staged and orderly manner to not over supply the market, allow for adjustments to service delivery, infrastructure enhancement and refurbishment, and bringing new services and facilities online (e.g. new park development, refurbishment of existing park space, transportation network changes). This will allow for site population growth on a timeline in alignment with broader city growth patterns, and mitigate against overwhelming infrastructure, transit, services, and facilities in the area. Accordingly, we submit that the proposed density is appropriate, and can be demonstrated to be supportable by existing or planned infrastructure and services over the time line for implementation of

the development. Please see the Preliminary Phasing Plan, which provides a proposed site build-out, to be implemented over several stages.

## 7.0 Conclusions

As demonstrated above, the proposed development seeks to achieve densities comparable to that which could be achieved under the existing Official Plan and Zoning permissions and seeks a modest increase in the overall density capacity of the site. The OPA/ZBA amendments seek to provide flexibility in the form of development and support a greater range of unit types, to meet the needs of a diversity of household structures, including family sized units (townhouses, stacked townhouses, 3-bedroom apartments) and create options for affordable units.

The proposal also seeks to intensify the use of existing land, by providing higher densities through a more compact form of development, contributing to an efficient use of land and infrastructure, positively responding to key planning and growth policies of the Official Plan.

In review of the MTO Transit Oriented Guidelines, the proposal provides transit supportive densities, offering potential ridership to support the efficient, cost-effective, and sustainable operation of transit services. The proposed population density will also support future transit service improvements, including the planned BRT service along Walkley Road.

The development is proposed to occur through several phases over multiple decades, providing for a gradual increase in the density of the area, and allowing for the gradual implementation of required infrastructure and services at population milestones.

In summary, the proposed density provides for an intensification of the site that is supported by existing or planned transportation and site servicing infrastructure, will be implemented in a gradual and phased manner, and substantially supports the planning and growth objectives of the City of Ottawa.





# HERON GATE MASTER PLAN

BUILDING IDENTIFICATION  
FEBRUARY 2020

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