



“Eagle Nest” at Helmcken Rd & Burnside Rd

Parking Study

Prepared for: Invictus Commercial Investment

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Our File: 2496

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1.0 INTRODUCTION

Watt Consulting Group (“WATT”) was retained by Invictus Commercial Investment to conduct a parking study for the proposed development (“Eagle Nest”) at the Northwest corner of Burnside Road / Helmcken Road in the Town of View Royal. The purpose of this study is to assess the adequacy of the proposed parking supply by considering parking demand at representative multi-family apartment rental buildings, primary research on vehicle ownership and parking demand adjustment factors. The study also explores parking management approaches.

1.1 SUBJECT SITE

The subject site is located at the Northwest corner of Burnside Road / Helmcken Road in the Town of View Royal. See **Figure 1**.

FIGURE 1. SUBJECT SITE



1.2 SITE CHARACTERISTICS

The following describes transportation options and services in proximity to the site.



SERVICES

The site is located at the eastern boundary of the Town of View Royal on the edge of the District of Saanich and benefits from immediate access to a variety of commercial and retail amenities. Within 400m (about a 5-minute walk) of the site, residents can access a number of amenities and services including a grocery store, pharmacy, liquor store, medical services, office buildings, and restaurants. Within 600m (about a 7-minute walk) of the site, residents can access the Victoria General Hospital.



TRANSIT

There are two bus stops—located at the intersection of Helmcken Road and Burnside Road and adjacent to the intersection of Watkiss Way and Helmcken Road—within a 5-minute walk of the subject site. The bus stops are served by a combined three bus routes (#22 – Vic General / Hillside Mall, #39 – Royal Roads / Camosun / Royal Oak / UVic, #14 – Vic General / UVic) that provide service to key employment hubs and destinations within the region including Victoria General Hospital, downtown Victoria, Royal Jubilee Hospital, the University of Victoria, the Hillside Mall, Langford Lake and other parts of Victoria, Saanich, and Oak Bay. With access to a multiplicity of bus routes servicing a variety of destinations, future residents can reliably use transit for both commuting and non-work trips.

The Victoria Region Transit Future Plan¹ provides guidance on future transit networks in the Victoria Region. The subject site benefits from access to a number of bus routes that use Highway 1, which is identified as an exclusive corridor on the Rapid Transit Network (RTN). The RTN is intended to move high volumes of passengers between major regional destinations along key transportation corridors. The RTN will provide service frequency of 15 minutes or better between 7:00am to 10:00pm, 7 days a week. Moreover, to improve travel time and reliability, the RTN will have its own right-of-way to eliminate or significantly reduce the impact of general traffic on transit vehicles.² As the RTN becomes fully realized, residents of the subject site will benefit from improved and more reliable transit service.

¹ BC Transit. (2011). Transit Future Plan Victoria Region. Executive Summary. Available online at: <https://www.bctransit.com/documents/1507213421003>

² Ibid.



WALKING

The subject site can be described as car-dependent with a walk score of 46, suggesting that most daily errands require a vehicle.³ A sidewalk is available on the Northwest side of the intersection of Burnside Rd W and Helmcken Rd, immediately in front of the subject site, which would directly serve residents walking to and from the bus stops and the local stores (e.g., Eagle Creek Village – shopping mall). An enhanced marked crosswalk (e.g., zebra crossing) facilitates safe crossings at the intersection of Burnside Rd W and Helmcken Rd.

The proponent is planning to provide sidewalk upgrades along Burnside Rd W and Helmcken Rd. The planned improvements include sidewalks of 2 metres in width and a 2 metre boulevard, similar to the existing boulevard that is located on Helmcken Rd.



CYCLING

There are dedicated bike lanes on both sides of Helmcken Rd. In View Royal's 2008 Transportation Master Plan (TMP), both Helmcken Rd and Burnside Rd W are part of the proposed bicycle network. The TMP mentions that the District of Saanich has plans to reconstruct the portion of Burnside Rd W bordering with the Town of View Royal. The Town of View Royal has endeavoured to maintain a cross-section on this portion of the road that is consistent with the proposed cross-section for the District of Saanich section.⁴ Both routes are part of the commuter route as designated in the bicycle network and provide connections to the Galloping Goose Regional Trail.⁵

1.3 CURRENT LAND USE

The site currently contains a multi-unit apartment building and is zoned RM1, Ground-Oriented Multiple-Unit Residential.

³ More information about walk score is available online at: <https://www.walkscore.com/score/3-helmcken-rd-victoria-bc-canada>

⁴ Town of View Royal. (2008). 6. Recommended improvements in *Transportation Master Plan* (pp.6.1-6.34). Available online at: <http://www.viewroyal.ca/assets/Town-Hall/Documents-and-Forms/Engineering-Documents-and-Forms/TMP%20Chapter%206.pdf>

⁵ Town of View Royal. (2008). 4. Existing Conditions in *Transportation Master Plan* (pp.4.1-4.25). Available online at: <http://www.viewroyal.ca/assets/Town-Hall/Documents-and-Forms/Engineering-Documents-and-Forms/TMP%20Chapter%204.pdf>

2.0 PROPOSED DEVELOPMENT

2.1 LAND USE

The proposed development includes a 260-unit multi-family apartment development with a mix of one-, two-, and three-bedroom units. The proposed development will provide 81 one-bedroom units, 163 two-bedroom units, and 16 three-bedroom units.

2.2 PARKING SUPPLY

The proposed parking supply includes 366 off-street parking spaces, about 1.41 spaces per unit. The proposal also includes one long-term bicycle space per unit, plus four 6-space racks for visitors, consistent with the Town’s parking requirements (see Section 3.0).

3.0 PARKING REQUIREMENT

The Town of View Royal Zoning Bylaw No. 900 determines the minimum parking supply requirement. Per the Bylaw, the required parking supply for this site (residential, apartment) is 1 space per one-bedroom unit, 1.5 spaces per two-bedroom unit, and 2 spaces per three-bedroom unit, resulting in a total requirement of 358 parking spaces. The proposed parking supply (366) meets the minimum parking supply requirement. The Bylaw does not require visitor parking for apartments. See **Table 1**.

TABLE 1. MINIMUM PARKING SUPPLY REQUIREMENT

Type of use	Number of Parking Spaces Required
One-bedroom	1 per dwelling unit
Two-bedroom	1.5 per dwelling unit
Three-bedroom	2 per dwelling unit

The Town also requires 1 long-term (i.e., Class 1) bicycle parking space per unit and a 6-space bicycle parking rack (i.e., Class 2) intended for visitors. See **Table 2**. This results in 260 bicycle parking spaces in a secure, weather-protected bicycle parking facility and four 6-space bicycle parking racks, one at each entrance of the four apartment buildings. The proposed development is meeting these requirements.

TABLE 2. MINIMUM BICYCLE SUPPLY REQUIREMENT

Type of use	Bicycle Spaces Required (minimum of 6)	Type and Number of Bicycle Spaces
Apartment	1 per dwelling unit, plus a 6-space rack at each entrance of an apartment	Class 1 – 100% Class 2 – six space rack

Further, the Town requires for every multiple unit residential development that requires more than 100 parking spaces, that an electric vehicle charging station is provided on the lot, which can be accessible to the residents.

4.0 EXPECTED PARKING DEMAND

Expected parking demand for the site is estimated in the following sections to determine if the proposed supply will adequately accommodate demand. Expected parking demand is based on [a] observations from representative multi-family apartment building sites in the Town of View Royal and the Township of Esquimalt, [b] research from past parking studies, and [c] relevant findings from the literature.

4.1 RESIDENT PARKING DEMAND

4.1.1 OBSERVATIONS

Observations were conducted at 10 representative multi-family apartment rental buildings in the Town of View Royal and the Township of Esquimalt. The representative sites combine for a total of 536 units. The sites were selected based on three criteria:

1. Walk Score. Sites needed to have comparable Walk Score to the subject site with a minimum score of 46 and a maximum score of 69, which are considered “car-dependent” to “somewhat walkable”.⁶ An additional site with a Walk Score of 83 was included to represent the potential Walk Score the subject site could achieve in the future, based on its proximity to a mixed used development (Eagle Creek) and once the transit future network is realized.
2. Countable parking spaces. The sites needed to have parking spaces that were visible and therefore countable. Newer multi-family apartment buildings in View Royal and the region typically have enclosed garages or gated underground parking, making counting difficult.
3. Housing Tenure. Only apartment (market rental) multi-family buildings were selected, in order to match the proposed development’s type of tenure. This criterion was used to better represent parking demand as it varies based on type of ownership (i.e., higher parking demand for condominium units than apartment units).⁷

Observations were conducted on Wednesday September 5th and Tuesday September 6th from 9:00pm to 10:00pm (representing the peak period for residential land uses). Results indicate an average parking demand of 0.75 vehicles per unit and range from 0.47 to 1.17 vehicles per unit. See **Table 3**.

⁶ More information about Walk Score’s methodology is available online at: <https://www.walkscore.com/methodology.shtml>

⁷ Watt Consulting Group. (2016). Parking Demand Assessment. Review of Zoning Regulation Bylaw Off-Street Parking Requirements (Schedule C). Available online at: https://www.victoria.ca/assets/Departments/Planning~Development/Community~Planning/Documents/Victoria%20Schedule%20C%20Parking%20Review_Working%20Paper%20no3_FINAL_Sept23-16.pdf

TABLE 3. SUMMARY OF OBSERVATIONS AT REPRESENTATIVE SITES

Location	Walk Score	Number of Units	Wednesday September 5 th 9:30pm		Tuesday September 6 th 9:30pm	
			Vehicles Observed	Demand Rate (vehicles per unit)	Vehicles Observed	Demand Rate (vehicles per unit)
948 Esquimalt Road	66	136	64	0.47	62	0.46
980 Wordsley Street	68	65	44	0.68	57	0.88
899 Craigflower Road	61	50	41	0.84	42	0.86
885 Craigflower Road	63	73	61	0.84	61	0.84
866 Craigflower Road	63	75	44	0.59	47	0.63
843 Craigflower Road ⁸	69	48	20	0.42	29	0.60
830 Craigflower Road	66	32	25	0.78	23	0.72
827 Selkirk Avenue	63	23	13	0.57	12	0.52
3 Helmcken Road	46	12	14	1.17	12	1.00
493 Burnside Road East	83	23	16	0.70	12	0.52
Average				0.70		0.70

4.1.2 ADJUSTMENT FACTORS

Observations are a useful method of assessing parking demand rates; however, there are limitations. One such limitation is the fact that an observation may not “catch” all residents while they are home with their parked car on-site. As shown in **Figure 2**, peak resident parking demand typically reaches 100% at 10:00pm which is the tail end of when the observations were completed for this study. There is some variation between sources as to when the ideal time is to conduct observations. One study using similar methods conducted parking observations between 12am and 5am and reported that resident parking demand may be highest between those hours.⁹ Based on the available research, a conservative 10% adjustment factor is considered appropriate for the observations.

⁸ The parking lot of this site included a number of non-operational vehicles (without license plates) that were not considered as active vehicles and therefore not counted.

⁹ Cervero, R., Adkins, A & Sullivan, C. (2010). *Are Suburban TODs Over-Parked?* Journal of Public Transportation, 13(2), 47-70.

FIGURE 2. RESIDENTIAL PARKING DEMAND BY TIME OF DAY¹⁰

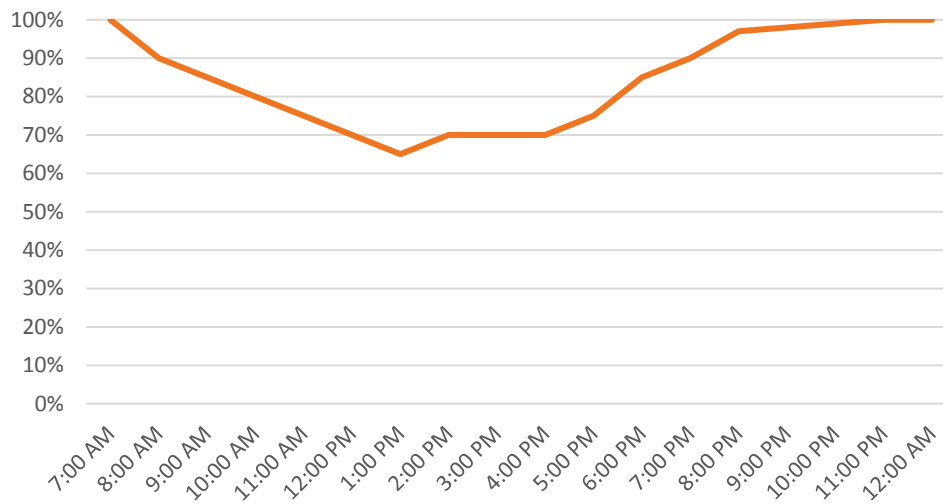


Table 4 shows the difference between the observed parking demand and the adjusted parking demand rate, reflecting the 10% increase for “missed vehicles” and the higher observed count. The average observed demand rate increased from 0.75 to 0.82 vehicles per unit.

TABLE 4. ADJUSTED PARKING DEMAND AT REPRESENTATIVE SITES

Address	Walk Score	Number of Units	Parking Demand Rate (vehicles per unit)	Adjusted Parking Demand Rate (vehicles per unit)
948 Esquimalt Road	66	136	0.47	0.52
980 Wordsley Street	68	65	0.88	0.96
899 Craigflower Road	61	50	0.86	0.94
885 Craigflower Road	63	73	0.84	0.92
866 Craigflower Road	63	75	0.63	0.69
843 Craigflower Road	69	48	0.60	0.66
830 Craigflower Road	66	32	0.78	0.86
827 Selkirk Avenue	63	23	0.57	0.62
3 Helmcken Road	46	12	1.17	1.28
493 Burnside Road East	83	23	0.70	0.77
Average			0.75	0.82

¹⁰ Residential Visitor Parking Demand by Time of Day is based on percentages identified in the Urban Land Institute *Shared Parking Manual*, Second Edition.

4.1.3 PARKING DEMAND BY UNIT SIZE

There is a significant amount of research concluding that parking demand varies based on unit size, that is, the greater the number of bedrooms, the higher the parking demand. For each representative site, the total parking demand can be further assessed by unit size (i.e., number of bedrooms).

Parking demand by unit type was calculated using:

1. Adjusted peak parking demand at each site;
2. The breakdown of unit type (i.e., number of bedrooms) at each site¹¹; and
3. The assumed “ratio differences” in parking demand between each unit type based on the King County Metro¹² study, which recommends one-bedroom units have a 20% higher parking demand than bachelor units; two-bedroom units have a 60% higher parking demand than one-bedroom units; and three-bedroom units have a 15% higher parking demand than two-bedroom units.

Table 5 presents the assumed parking demand by unit type applied to the observed parking demand at each representative site. Applying these rates to the proposed development (81 one-bedroom, 163 two-bedroom, and 16 three-bedroom units) indicate that resident parking demand will be 253 vehicles.

¹¹ The unit size breakdown for the representative sites was obtained via email from the Canada Mortgage and Housing Corporation.

¹² King County Metro. (2013). Right Size Parking Model Code. Table 2, page 21. Available online at: <http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/140110-rsp-model-code.pdf>

TABLE 5. PARKING DEMAND AT REPRESENTATIVE SITES, FACTORED FOR UNIT SIZE

Location	Adjusted Parking Demand Rate (vehicles per unit)	Unit Type		
		One-Bedroom	Two-Bedroom	Three-Bedroom
948 Esquimalt Road	0.52	0.46	0.74	0.85
980 Wordsley Street	0.96	0.83	1.33	--
899 Craigflower Road	0.94	0.71	1.14	--
885 Craigflower Road	0.92	0.71	1.14	--
866 Craigflower Road	0.69	0.52	0.84	0.96
843 Craigflower Road	0.66	0.55	0.88	--
830 Craigflower Road	0.86	0.64	1.02	--
827 Selkirk Avenue	0.62	0.62	--	--
3 Helmcken Road	1.28	1.07	1.71	--
493 Burnside Road East	0.77	0.65	1.04	--
Average	0.82	0.68	1.09	-- ¹³

Only two of the representative sites (948 Esquimalt Road & 866 Craigflower Road) had three-bedroom units. There are a total of five units at the two representative sites. However, with only 5 of the 536 representative units being three-bedroom units, the demand rate could not be reliably derived from the data.

To estimate the three-bedroom demand rate, the assumed ratio from the King County Metro study was applied. The study indicates that three-bedroom units have 15% higher parking demand than two-bedrooms. Therefore, a 15% adjustment factor results in a rate of 1.26, or 20 vehicles for the three-bedroom units.

The results of the analysis indicate that average parking demand by unit type is as follows:

- One-bedroom units (81) = 0.68 vehicles per unit, 55 vehicles.
- Two-bedroom units (163) = 1.09 vehicles per unit, 178 vehicles.
- Three-bedroom units (16) = 1.26 vehicles per unit, 20 vehicles.
- **Total Resident Parking Demand = 253 vehicles**

¹³ Due to the lack of representative sites with three-bedroom units, demand rate could not be derived from the data and an assumed ratio was used to calculate the three-bedroom units demand rate.

4.1.4 VEHICLE OWNERSHIP AT REPRESENTATIVE SITE

A multi-family apartment building (23 Helmcken Road) in the vicinity of the proposed development disclosed their most recent vehicle ownership data (August 2018).¹⁴ The parking demand of that site is 0.82 vehicles per unit which is similar to the adjusted average parking demand calculated (0.82 vehicles per unit). The similarity between the calculated demand rate and the vehicle ownership rate indicates that the results presented in this report are an accurate prediction of what vehicle demand will be at the subject site. See **Table 6**.

TABLE 6. VEHICLE OWNERSHIP AT EAGLE CREEK VILLAGE - SUITES

Site	Walk Score	Units	Vehicles	Demand Rate (vehicles / unit)
23 Helmcken Road	43	60	49	0.82

Further, parking demand was identified for each unit type, see **Table 7**. The results of that site were found slightly lower than the parking demand calculated from observations at representative sites (0.68 vehicles per one-bedroom unit and 1.09 vehicles per two-bedroom unit). The results further validate that demand is significantly lower than the proposed parking supply.

TABLE 7. PARKING DEMAND AT EAGLE CREEK VILLAGE - SUITES, FACTORED FOR UNIT TYPE

Site	Parking Demand Rate (vehicles per unit)	Unit Type	
		One-Bedroom	Two-Bedroom
23 Helmcken Road	0.82	0.55	0.89

¹⁴ Email correspondence with Eagle Creek Village Apartments

4.2 VISITOR PARKING DEMAND

Although the Town of View Royal does not require visitor parking, this section summarizes the expected visitor parking demand to help the proponent avoid potential spillover of visitors parking on adjacent streets.

Visitor parking demand rates have been demonstrated in the range of 0.05 to 0.07 vehicles per unit for multi-residential buildings across the Greater Victoria region.¹⁵ More recent research found a visitor parking demand rate of 0.1 across 16 multi-family residential sites in proximity to downtown Victoria.¹⁶ Observations of visitor parking at the representative sites demonstrated an average of 0.08 vehicles per unit, with a range from 0 to 0.19.

If a rate of 0.08 vehicles per unit was applied to this proposed development, it would result in a peak visitor parking demand of 20 vehicles.

4.3 SUMMARY OF EXPECTED PARKING DEMAND

Results from the observations of representative sites indicate that resident parking demand will be approximately 0.68 vehicles per one-bedroom unit, 1.09 vehicles per two-bedroom unit and 1.26 vehicles per three-bedroom unit, which results in 253 vehicles (0.97 per unit). See **Table 8**. The visitor parking demand rate is 0.08 spaces per unit, which results in a peak demand of 20 vehicles. Therefore, a total of 273 vehicles are expected for the subject site, which is 93 less than the proposed parking supply (366 parking spaces).

TABLE 8. SUMMARY OF EXPECTED PARKING DEMAND

Land Use		Quantity	Demand Rate (vehicles per unit)	Expected Parking Demand
Multi-Family Apartment	One-Bedroom Units	81 units	0.68	55
	Two-Bedroom Units	163 units	1.09	178
	Three-Bedroom Units	16 units	1.26	20
	Visitor Parking	260 units	0.08	20
Total Expected Parking Demand				273 vehicles

¹⁵ Based on observations of visitor parking conducted in 2015 for two studies of multi-family residential sites (one adjacent to downtown Victoria, the other in Langford) and findings from the 2012 Metro Vancouver Apartment Parking Study (Table 31, pg50) available at:
www.metrovancouver.org/services/regionalplanning/PlanningPublications/Apartment_Parking_Study_TechnicalReport.pdf

¹⁶ City of Victoria. (2016). Off-Street Parking Requirements (Schedule C) Working Paper No.3. Available online at:
https://www.victoria.ca/assets/Departments/Planning-Development/Community-Planning/Documents/Victoria%20Schedule%20C%20Parking%20Review_Working%20Paper%20no3_FINAL_Sept23-16.pdf

5.0 ON-STREET PARKING

On-street parking observations were completed on Wednesday September 5th at 10:00pm and Thursday September 6th at 10:00pm to determine peak residential parking conditions. Evenings represent peak parking conditions for both residents and visitors alike according to the Urban Land Institute's Shared Parking manual.¹⁷ The observations were completed to determine parking availability nearby the site. It should be noted that there is no provision of on-street parking along Helmcken Road.

Observations were completed on the following street:

- Burnside Road West from Helmcken Road to Little Road

A total of 4 parking spaces were observed. Peak utilization was observed at 0% of all available parking spaces occupied (0 of 4 available spaces). This indicates that there are four available on-street parking spaces available during peak conditions in case of spillover.

6.0 SUMMARY

The proposed development at the Northwest corner of Burnside Road / Helmcken Road in the Town of View Royal is for a 260-unit multi-family rental apartment building with a mix of one-, two- and three-bedroom units. The proposed parking supply is 366 spaces.

Parking demand was estimated for the site based on observations at representative study sites and primary research. The subject site's expected peak parking demand was determined to be 273 vehicles (253 resident, 20 visitor), which is 93 less than what is proposed

6.1 RECOMMENDATION

The proposed parking supply (366 spaces) is supported as appropriate for this site. However, consideration should be given to the findings of this report that indicates significantly lower parking demand (93 less parking spaces).

¹⁷ Smith, M. (2005). Shared Parking, 2nd Edition. The Urban Land Institute.