




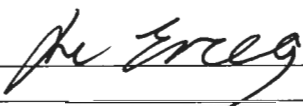
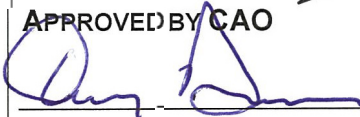
To: Public Works and Transportation Committee **Date:** May 10, 2019
From: Lloyd Bie, P.Eng.
 Director, Transportation **File:** 01-0157-01/2019-Vol 01
Re: **TransLink-Metro Vancouver 2018 Regional Parking Study – Key Findings**

Staff Recommendation

That the staff report titled “TransLink-Metro Vancouver 2018 Regional Parking Study – Key Findings” dated May 10, 2019, from the Director, Transportation, regarding vehicle parking supply and demand at residential and mixed use developments across the region, be received for information.


 Lloyd Bie, P.Eng.
 Director, Transportation
 (604-276-4131)

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Policy Planning	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS:	APPROVED BY CAO
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Staff Report

Origin

In July 2017, staff presented a report for information to the Public Works and Transportation Committee regarding the initiation by TransLink and Metro Vancouver of a Regional Parking Study (the Study) to gather updated evidence on automobile parking supply and demand. This report presents the key findings of the Study and next steps for Richmond.

Findings of Fact

Policy Context

Metro Vancouver's *Regional Growth Strategy* and TransLink's *Regional Transportation Strategy – Strategic Framework* both include policies to encourage vehicle parking requirements for residential and commercial developments that are not excessive and reflect the available choice of other travel modes (e.g., walking, cycling, transit, car-share), local demographics and housing tenure, especially in Urban Centres and areas with Frequent Transit Network (FTN) service.

To improve the understanding of parking supply and demand, particularly near transit infrastructure, Metro Vancouver and TransLink have undertaken regular studies and background research related to vehicle parking and demand over the past several years.¹

2018 Regional Parking Study

The 2018 Regional Parking Study is an update to the 2012 Apartment Parking Study, which was the first regional study of apartment parking supply and demand in Metro Vancouver. The 2018 Study collected data on 73 apartment sites across the region (see map in Attachment 1), including seven in Richmond, during Fall/Winter 2017 and comprises three components: Parking Facility Survey, Street Parking Survey and Household Survey.

- *Parking Facility Survey*: captured data regarding on-site parking utilization at peak times in a selection of apartment sites throughout the region. Counts were completed generally after 11:00 pm on weeknights (i.e., Monday-Thursday) to ensure that the highest parking utilization was being captured. Data was also collected on: the number of residential and visitor parking stalls in the building; the numbers of parked vehicles and vacant spaces; the presence of secured bicycle parking; and the presence of dedicated plug-in electric vehicle chargers.
- *Street Parking Survey*: captured parking utilization on the streets within walking distance (~200 m) of the surveyed apartment sites. Surveys were undertaken on weekday evenings after 6:30 pm.
- *Household Survey*: additional contextual information about the residents who live in the participating apartment buildings, such as: vehicle ownership; whether they own or rent their dwelling unit and parking stall(s); visitor parking patterns (e.g., do visitors typically park on-

¹ Past Metro Vancouver Regional Parking Studies: <http://www.metrovancouver.org/services/regional-planning/transportation/regional-parking-studies/Pages/default.aspx>.

site or on-street); bicycle parking conditions; interest in purchasing plug-in electric vehicles; willingness to forgo a parking stall; and basic demographic information.

Analysis

Key Findings

The key findings of the 2018 Regional Parking Study are consistent with those in the 2012 study, with some new insights about street parking. The key regional findings are summarized below.

- (1) Apartment parking supply exceeds use across the region for both rental and strata buildings
 - For strata apartment buildings, 42% of parking spaces were vacant
 - For market rental apartment buildings, 35% of parking spaces were vacant
 - For mixed tenure (strata and rental) and mixed rental (market and non-market) apartment buildings, 41% of parking spaces were vacant
 - Small strata or market rental units (studio or 1 bedroom units or unit less than 800 ft²) tend to have at most 1 parked vehicle per unit
- (2) Apartment parking supply and use is lower for buildings closer to frequent transit
 - For strata apartment buildings, parking use near frequent transit (bus or SkyTrain) ranges 0.86-0.97 vehicles per unit, compared to 1.09 for buildings further away
 - For market rental sites, parking use near frequent transit ranges 0.35-0.72 vehicles per unit, compared to 0.99 for sites further away from the FTN
- (3) Transit use is generally higher where apartment parking use is lower, especially for rental buildings
 - Transit boardings (bus boardings within 400 m and SkyTrain/SeaBus boardings within 800 m of the apartments) are higher when apartment residential parking use is lower
 - The relationship is stronger for rental apartment sites, than for strata sites
- (4) Street parking is complex in mixed-use neighbourhoods. The surveys did not present any clear patterns between street parking utilization and apartment parking utilization and further research is warranted. Some of the factors contributing to street parking use include:
 - Visitors to non-residential land uses in the evenings
 - Apartment visitors on weekends, holidays, and special occasions
 - Some apartment residents parking on a nearby street
- (5) The design and capacity of bicycle parking facilities in apartment buildings appear to discourage use by many residents
 - About one-third of bicycle-owning households do not use their building's secured bicycle parking facility
 - The most frequently cited concerns were risk of damage to or loss of the bicycles, crowded facilities, and adverse perceptions of safety and convenience

Key Findings Specific to Richmond

Tables 1 and 2 illustrate that residential parking supply and use for the selected sites in Richmond are consistent with the Study’s regional findings.

Table 1: Residential Parking Supply and Use across Region

Sub-region	Strata Sites				Rental Sites			
	# Sites	Parking Supply (Stalls/DU)	Parking Use (Veh/DU)	Parking Oversupply Estimate	# Sites	Parking Supply (Stalls/DU)	Parking Use (Veh/DU)	Parking Oversupply Estimate
Burnaby/NW	10	1.18	0.82	+45%	-	-	-	-
North Shore	6	1.28	0.97	+32%	2	0.87	0.70	+24%
Northeast Sector	13	1.33	0.98	+36%	1	1.47	1.12	+30%
Richmond	5	1.29	0.82	+58%	2	1.07	0.77	+39%
South of Fraser	14	1.46	1.00	+45%	5	1.51	1.10	+38%
Vancouver/UBC	2	1.15	0.83	+40%	13	0.85	0.59	+44%

Table 2: Residential Parking Supply and Use at Selected Sites in Richmond

Building Name	Tenure	Parking Supply (Stalls per DU)	Parking Use (Vehicles per DU)	Parking Oversupply Estimate
Azalea at the Gardens	Strata	1.41	0.82	+72%
Camellia at the Gardens	Market Rental	1.05	0.74	+42%
Magnolia at the Gardens	Strata	1.45	0.88	+65%
Circa Residences	Market Rental	1.28	0.85	+51%
Modena	Strata	1.29	0.75	+72%
Parc Riviera	Strata	1.70	1.10	+55%
Quintet Towers	Strata	1.16	0.69	+68%

With respect to street parking, data was collected on 65 street networks associated with the surveyed apartment sites. The vast majority of street networks experienced less than 85% utilization.² Seven street networks exceeded 85% utilization on two of the three surveyed periods including one location in Richmond (i.e., Quintet on Ackroyd Road and Firbridge Way). This result is attributed to on-site pay parking for non-residential uses and the availability of free street parking nearby. Table 3 provides a breakdown of street parking utilization around the seven apartment sites in Richmond.

Table 3: Street Parking Use around Richmond Apartment Sites

Building Name	Estimated Street Parking Spaces ⁽¹⁾	Street Parking Utilization		
		Weekday Evening	Weekday Late Night	Saturday Evening
Azalea at the Gardens	20	0%	0%	10%
Camellia at the Gardens				
Magnolia at the Gardens				
Circa Residences	57	35%	25%	25%
Modena	169	37%	43%	58%
Parc Riviera	59	53%	49%	63%
Quintet Towers	43	100%	77%	98%

(1) As estimated by the 2018 Regional Parking Study.

² An oft-cited threshold for determining whether street parking spaces are being used optimally is 85%. The premise is that parking, like any scarce resource, should be regulated and/or priced to ensure that 15% of the total parking spaces in a given area are available for parking at any given time.

Future Regional Parking Studies

The Study outlines some of the issues, challenges and opportunities associated with parking regulation and management not yet explored. These future considerations include: the implications of ride-hailing on parking requirements and management of the curb-side for pick up and drop off; the opportunities and challenges of shared parking facilities; trends in increasing personal and commercial vehicle sizes; and, accessibility needs with an aging population. These issues and others may be explored during the forthcoming updates to TransLink's *Regional Transportation Strategy* and Metro Vancouver's *Metro 2040*.

Zoning Bylaw 8500 – Review of Parking & Loading Requirements

Section 7 (Parking and Loading) of the City's Zoning Bylaw 8500 identifies the requirements for off-street parking (motor vehicles and bicycles) and loading spaces for residential, commercial and other land uses. The last major amendments to this section were made in 2008. Since these last amendments, significant experience has been gained regarding parking and loading requirements through the on-going processing of development applications, interactions with the development industry, dialogue with and research undertaken by other jurisdictions, and monitoring the supply and demand of other travel options (e.g., car-share, transit). Accordingly, staff have initiated a review of Section 7 of Zoning Bylaw 8500 with the intent of proposing further amendments in order to:

- incorporate the best practices and research of other municipalities and agencies in Metro Vancouver;
- respond to feedback from the development community;
- reflect changing housing market trends including the increasing stock in affordable housing;
- improve the clarity and consistency of language in the interpretation of bylaw parking and loading requirements;
- better align parking and loading requirements with the goals and objectives of the *Official Community Plan* and *Community Energy and Emissions Plan*; and
- ensure the effective use of valuable urban space for living (as opposed to the storage of automobiles).

The results of the Regional Parking Study and staff's review of Section 7 of Zoning Bylaw 8500 will be used to inform staff's development of proposed Zoning Bylaw amendments (and OCP Bylaw amendments as required) regarding parking and loading requirements, which are anticipated to be brought forth for Council consideration in the fourth quarter of 2019.

Financial Impact

None.

Conclusion

Metro Vancouver and TransLink have jointly completed a Regional Parking Study to increase the understanding of local parking demand and supply in residential and mixed use developments across the region. The results yield valuable data that will be useful for staff in the formulation of proposed amendments to on-site parking and loading requirements specified in Zoning Bylaw 8500.



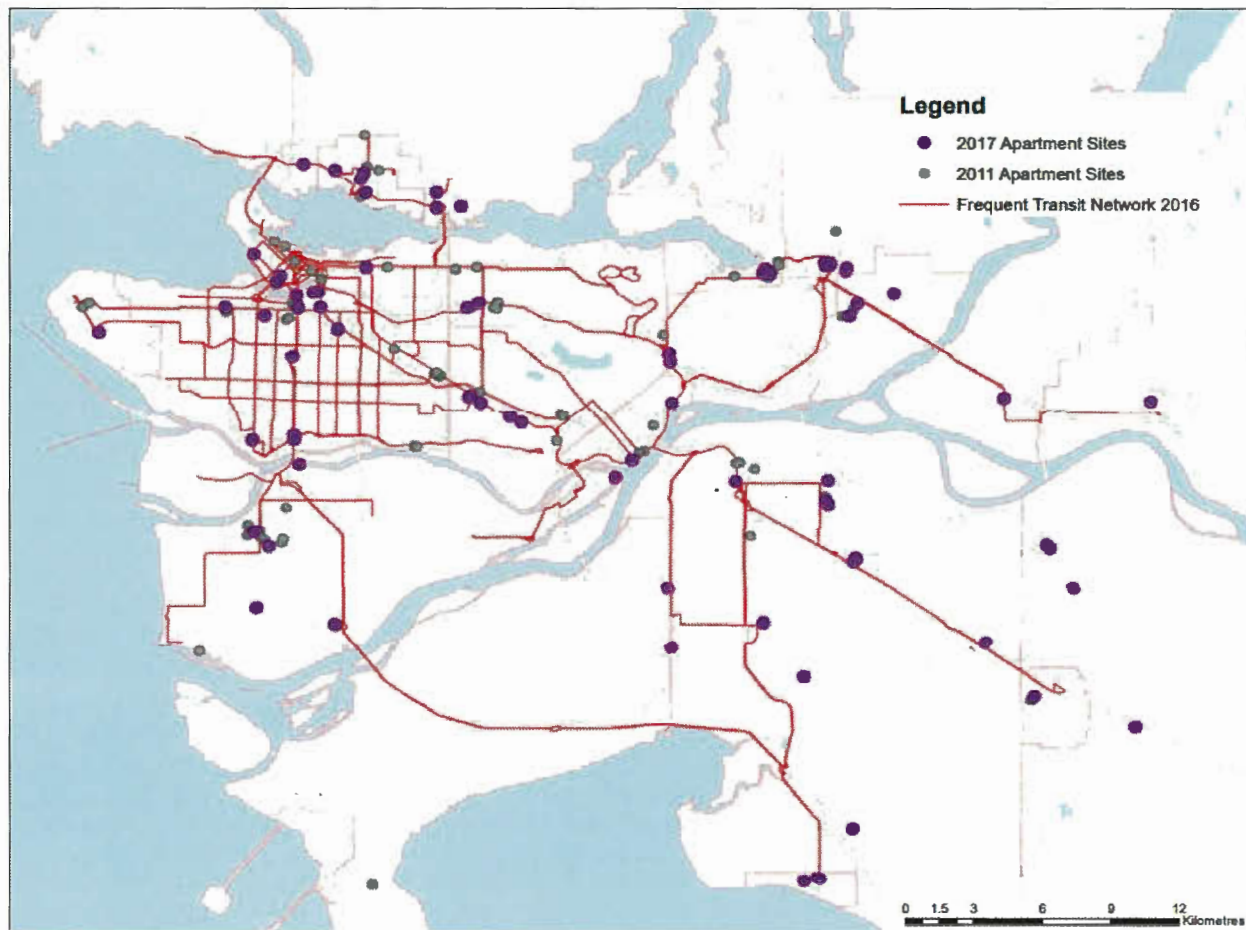
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Sonali Hingorani, P.Eng.
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Att. 1: Surveyed Apartment Sites for 2018 Regional Parking Study

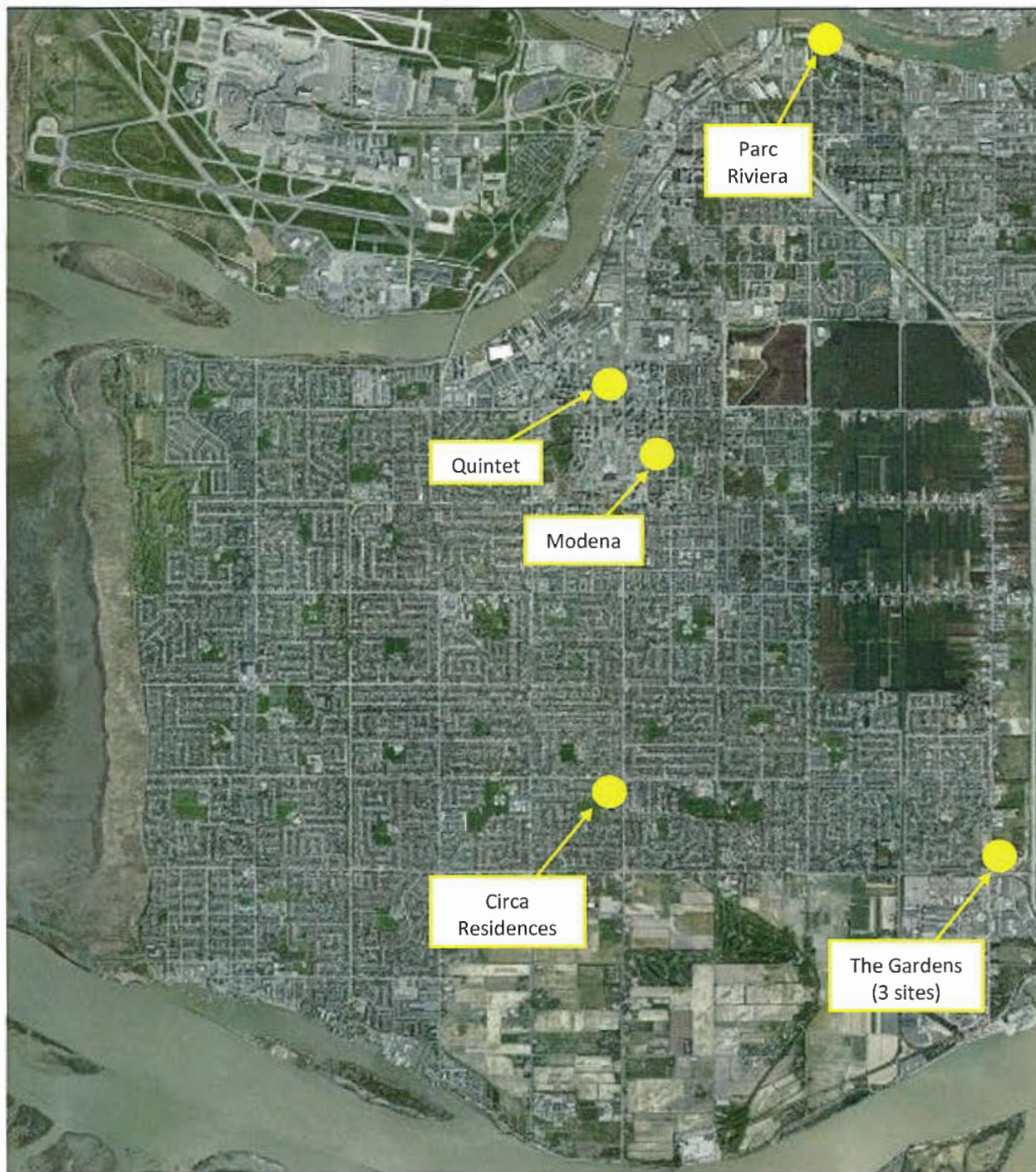
Surveyed Apartment Sites for 2018 Regional Parking Study



Surveyed Apartment Sites in Richmond

Site	Building Name	Address	Tenure
1	Azalea at the Gardens	10880 No. 5 Rd	Strata
2	Camellia at the Gardens	10820 No. 5 Road	Market Rental
3	Magnolia at the Gardens	12339 Steveston Hwy	Strata
4	Circa Residences	10020 Dunoon Dr	Market Rental
5	Modena	6600 Cooney Road	Strata
	Modena	6611 Eckersley Road	
6	Parc Riviera	10033 River Drive	Strata
	Parc Riviera	10155 River Drive	
	Parc Riviera	10119/10133 River Drive	
	Parc Riviera	10011 River Drive	
7	Quintet Tower A	7988 Ackroyd Road	Strata
	Quintet Tower B	7979 Firbridge Way	
	Quintet Tower C	7733 Firbridge Way	
	Quintet Tower D	7788 Ackroyd Road	
	Quintet Tower E	7888 Ackroyd Road	

Surveyed Apartment Sites



Surveyed Apartment Sites in Richmond