

**UBC Parking
Review**

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1. Summary

The objective of the UBC Parking Review was to collect data regarding residential parking ratios and policies on-campus, and to provide a comparison with those used in other municipalities and at other post-secondary educational institutions.

Organized below by the section in which they appear in this report are the key conclusions of the UBC Parking Review:

Existing Conditions

- The average ratio of parking for UBC managed student residences is 0.32 stalls per bed. Existing parking ratios for residences range from a low of 0.16 stalls per bed for Totem Park / Ritsumeikan-UBC House to a high of 0.88 stalls per bed for the Thunderbird Residence. This amounts to a difference of 5 times the amount of parking supplied. Excluding the Thunderbird Residence, the average is significantly lower at 0.24 stalls per bed.
- A ratio of 1.1 parking stalls per dwelling unit (1.25 including visitor parking) was observed for the Acadia Park and University Apartments development. One parking space is provided for each dwelling unit as part of the rental agreement for these units. Tenants also have the choice to rent an additional space for a second car.
- Existing parking ratios also vary among the three theological college residences. Parking ratios for these residences range from 0.30 stalls per bed (Vancouver School of Theology) to 1.0 stalls per bed (Carey Hall).
- A total of 1,621 parking stalls are provided for 773 dwelling units in the Hampton Place market housing development. The resulting average parking ratio of 2.1 stalls per dwelling unit (including visitor parking) is two-thirds higher than for Acadia Park and University Apartments. Parking ratios for these developments range from 1.45 stalls per unit to 2.45 stalls per unit.

- If the City of Vancouver's parking requirements for comparable housing (i.e. Kerrisdale and Kitsilano multi-family developments) were applied to Hampton Place, 271 to 337 less spaces would be required.
- Prices for student housing parking at UBC range from \$32 to \$42 per month, and \$256 to \$657 per term.

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Table 1: Comparison of Parking Ratios

	Student Housing		Market Housing		Social Housing
	Single (per bed)	Family (per dwell.unit)	Per dwell. unit	Per bedroom	
UBC	0.32 (0.16-0.88) *0.25 excluding Thunderbird Residence	1.25 (1.1+0.15 v)	2.1 (1.85+0.25 v)	1 bedroom – 1.45 to 2.05 2 bedroom – 0.93 to 1.13 3 bedroom – 0.82	n/a
Vancouver	0.5 (rooming house)	n/a	1.1-2.2	n/a	Social = 0.5 Senior = 0.16
Burnaby	0.5 (rooming house)	n/a	1.0-2.0	n/a	1.0-1.75
New Westminster	n/a	n/a	1.0-2.0	1 bedroom – 1.0-1.2 2 bedroom – 0.75 3+ bedroom – 1.0	0.2-0.4
SFU	0.33-0.5	n/a	n/a	n/a	n/a
BCIT	0.35	n/a	n/a	n/a	n/a
UVic	n/a	1.5 (1.0+0.5 v)	n/a	n/a	n/a

* Note: v = visitor parking

Parking Survey

A survey was undertaken of residents in the Acadia Park and University Apartments complexes, to determine parking usage. A total of 214 parking questionnaires were returned out of a possible 900

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questionnaires distributed, equivalent to a rate of return of 24%. The key results and findings of the Parking survey are as follows:

- Over 90% of households surveyed had at least one motor vehicle.
- 98% of surveyed households had use of at least one assigned parking space. Of these households, 95% actually used the assigned space for their own vehicle.
- 40% of respondents indicated that the primary use of their motor vehicle was "shopping." "Work" was the second most frequently identified use at 37%.
- In 83% of surveyed households, there is at least one bicycle.
- 22% of households indicated that they would reduce the number of vehicles in their household if they were offered a reduced price transit pass.

Policies and Practices Elsewhere

Parking ratios and policies for comparable housing were reviewed in Vancouver, Burnaby, and New Westminster. Parking conditions at other post-secondary institutions were also reviewed. Additionally, parking policies and practices in other municipalities were included. The key findings are as follows:

- Parking requirements for multi-family developments in Vancouver, Burnaby and New Westminster vary not only by housing type and function, but also by zoning classification and geographic location in some cases.
- Generally, municipalities do not allow reductions in parking requirements for residential uses.
- Reductions have been allowed in exceptional circumstances for heritage restoration projects, seniors housing, low-income family housing and multi-family housing where the developer has demonstrated that the current parking standard provides more parking than is necessary, such as the case with Collingwood Village in Vancouver.

- Similar to UBC, other post-secondary educational institutions in BC have not yet developed comprehensive parking requirements for housing development on campus.
- Prices for parkades in downtown Vancouver range from \$5 - \$10 per day, and \$55 to \$225 per month.

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2. Existing Conditions

This section describes how residential parking – for both student and market housing on campus – is currently supplied and managed at UBC. Student housing – for both single students and students with families – is reviewed, as is market housing at Hampton Place.

2.1 Parking Supply

Information regarding the supply of residential parking on campus is presented in a format that identifies individual housing developments and the associated parking facilities. Table 2.1 identifies the number of parking stalls associated with each residence. Note that the Acadia Park and University Apartments developments – student and staff/faculty "family" housing – have been separated from the rest of the residences in the calculation of an overall ratio because of the family-oriented nature of this housing. Because it is not possible to determine how many sleeping units are actually being used by persons of driving age, the ratio is expressed in terms of parking stalls per dwelling unit, rather than beds, as for student housing.

Key observations regarding on-campus parking include:

- A total of 2,522 parking stalls are provided for 6,523 beds (i.e. sleeping units) for student housing managed by UBC. This is equivalent to an average ratio of 0.32 parking stalls per bed, or one parking space for every three beds.
- Existing parking ratios vary widely among individual UBC managed residences. Although the average ratio for residences is 0.32 stalls per bed, the parking ratio is as low as 0.16 stalls per bed for Totem Park / Ritsumeikan-UBC House – an undergraduate residence – and

as high as 0.88 stalls per bed for the Thunderbird Residence – which is oriented more towards graduate students. This amounts to a difference of 5 times the amount of parking supplied.

- The ratio of 1.1 parking spaces per dwelling unit (1.25 including visitor parking) for the Acadia Park and University Apartments development is the highest ratio for student housing on campus. One parking space is provided for each dwelling unit as part of the rental agreement for these units. Tenants also have the choice to rent an additional space for a second car.

Table 2.1: UBC Student Housing Parking Inventory

Residence/ Housing	# of Beds	Associated Parking Facility	Number of Parking Stalls	Parking Stalls per Bed ratio
Gage Residence • 5% graduate • 95% undergrad	1,350	• G- Lot (surface and covered) • North Parkade Total	360 50 410	0.30
Totem Park / Ritsumeikan- UBC House • All undergrad	1,353	• T-Lot • West Parkade • L-Lot, A-Lot • On-street parking Total	62 25 115 20 222	0.16
Place Vanier • 50% graduate • 50% undergrad	938	• V-Lot • West Parkade • Fraser River Parkade • L-Lot, A-Lot • On-street parking Total	23 25 75 115 20 258	0.28
Thunderbird Residence • 50% graduate • 50% undergrad	633	• Underground Total	558 558	0.88
Fairview Cres. • 25% graduate • 75% undergrad	774	• Underground Total	174 174	0.23
Total	5,048		1,622	0.32
Acadia Park /	798	• Surface parking	800	

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University Apts. <ul style="list-style-type: none"> 66% student family 34% faculty/staff and family 	units	<ul style="list-style-type: none"> Second car parking and visitor parking 	200	1.25 per dwelling unit
	257-1 bed 449-2 bed 50- 3 bed 42- 4 bed		Total	

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- Staff who work at the Acadia Park and University Apartments residences (i.e. administrative, janitorial, housekeeping, etc.) can purchase a permit to park in the James Mather Medical Clinic lot. This faculty/staff lot has 55 stalls, and serves clinic staff, as well as residence staff. It is administered by UBC Parking, Transportation and Security services. Other parking lots that are not intended for use by residence staff, but are used on a consistent basis by staff because of limited or non-existent enforcement at these sites, include:

- University Hill Secondary School lot* – although this lot is intended to serve parking associated with the school, UBC Housing & Conferences personnel report that residence staff often park in this lot because it is free and not monitored
- Child Care Facility lot* – this lot is rarely monitored by UBC Parking, Transportation and Security services because of its remote location.

Student housing that is not managed by UBC is located within the theological colleges situated in the northwest end of campus. These residences include the Vancouver School of Theology, Carey Hall, and St. Andrew's Hall. Table 2.2 includes a summary of these residences and associated surface parking facilities.

Key findings on the parking supply of the theological colleges include the following:

- A total of 192 parking stalls are provided for 417 sleeping units or beds for student housing associated with the theological colleges. This is equivalent to an average ratio of 0.46 parking stalls per sleeping unit, or one parking space for every 2.2 beds. This average ratio is significantly higher than ratios for UBC managed student housing.
- Existing parking ratios vary widely among the three theological college residences. Parking ratios for these residences range from

0.30 stalls per bed (Vancouver School of Theology) to 1.0 stalls per bed (Carey Hall).

Discussions with theological college administration revealed that not all of the residential parking stalls are rented by tenants. If any surplus parking stalls remain at the beginning of a term, these stalls are rented out non-tenants (primarily commuters who travel to UBC on a daily basis).

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Table 2.2: Theological College Housing Parking Inventory

Residence/ Housing	# of Beds	Associated Parking Facility	Number of Parking Stalls	Parking Stalls per Bed ratio
Vancouver School of Theology • Single students • Families	173	• Surface lot	52	0.30
		Total	52	
Carey Hall • Single students	40	• Surface lot	40	1.0
		Total	40	
St. Andrews Hall • Singles • Couples • Families	204	• Surface lot	100	0.49
		Total	100	
Total	417		192	0.46

Table 2.3 provides a summary of the parking supply characteristics for market housing that has been developed on campus. All of the market housing built to date on UBC lands is contained within the Hampton Place site, located at the northeast corner of 16th Avenue and Wesbrook Mall.

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Table 2.3: UBC Market Housing Parking Inventory

Strata Number and Name	# of Units	Number of Units	Number of Parking Stalls	Parking Stalls per Unit ratio*
1. Sandringham	32	• 9 - 2 bed	20	2.0 + 0.25 = 2.25
		• 23 - 3 bed	57	2.2 + 0.25 = 2.45
		Total	77	
2. West Hampstead	73	• 73 - 2 bed	164	2.0 + 0.25 = 2.25
		Total	164	
3. Thames Court	87	• 1 - 1 bed	2	1.8 + 0.25 = 2.05
		• 49 - 2 bed	110	2.0 + 0.25 = 2.25
		• 37 - 3 bed	91	2.2 + 0.25 = 2.45
		Total	203	
4. St. James House	142	• 50 - 1 bed	73	1.2 + 0.25 = 1.45
		• 92 - 2 bed	170	1.6 + 0.25 = 1.85
		Total	243	
5. The Chatham	97	• 20 - 1 bed	41	1.8 + 0.25 = 2.05
		• 72 - 2 bed	162	2.0 + 0.25 = 2.25
		• 5 - 3 bed	12	2.2 + 0.25 = 2.45
		Total	215	
6. The Bristol	131	• 21 - 1 bed	40	1.6 + 0.29 = 1.89
		• 112 - 2 bed	212	1.6 + 0.29 = 1.89
		Total	252	

7. (1) The Stratford	<i>Not Completed</i>			
7. (2) Wyndham Hall	54	<ul style="list-style-type: none"> • 5 - 1 bed • 49 - 2 bed 	<div style="display: flex; justify-content: space-between;"> 10 110 </div>	<div style="display: flex; justify-content: space-between;"> 1.8 + 0.25 = 2.05 2.0 + 0.25 = 2.25 </div>
		Total	120	
8. The Regency	<i>Not Completed</i>			
9. The Balmoral	85	<ul style="list-style-type: none"> • 81 - 2 bed • 4 - 3 bed 	<div style="display: flex; justify-content: space-between;"> 182 10 </div>	<div style="display: flex; justify-content: space-between;"> 2.0 + 0.25 = 2.25 2.2 + 0.25 = 2.45 </div>
		Total	192	
10. The Pemberley	72	<ul style="list-style-type: none"> • 36 - 1 bed • 36 - 2 bed 	<div style="display: flex; justify-content: space-between;"> 74 81 </div>	<div style="display: flex; justify-content: space-between;"> 1.8 + 0.25 = 2.05 2.0 + 0.25 = 2.25 </div>
		Total	155	
Total	773		1,621	Average = 2.1

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* Note: The indicated parking ratio includes the sum of the number of required parking stalls per dwelling unit, plus the number of visitors stalls required per dwelling unit.

Key features of Table 2.3 include:

- A total of 1,621 parking stalls have been provided for 773 dwelling units. The resulting average parking ratio of 2.1 stalls per dwelling unit is 168% of the average for student housing.
- The parking ratios for the individual strata developments within the Hampton Place lands are relatively consistent, with minor variations for different dwelling types, unlike those observed for individual student housing developments.

2.2 Parking Pricing

Table 2.4 provides a summary of parking rates for students, families, and faculty and staff who live in UBC housing. Key observations regarding parking pricing include:

- For all non-family student housing, the cost for parking is separated from the regular rental charge for accommodations. Thus, tenants have the option of paying the additional cost to rent a parking space.
- For the Acadia Park and University Apartments, a parking space is automatically included in the rental agreement, with the overall cost of parking included in the regular monthly housing rental fee.

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- The cost of parking for residents at off-site facilities, such as parkades, is much higher than the cost of parking facilities on-site, such as underground or adjacent surface spaces.
- Discussions with UBC Housing and Conference staff revealed that some student residents are subletting their parking stalls to other students, typically for a profit. Even though many of these student residents may not own a motor vehicle, they are still obtaining a parking permit for the sole purpose of renting it out to a student with a motor vehicle, whether they are a commuting student or an on-campus resident with a car.

Table 2.4: UBC Student Housing Parking Prices

Residence/ Housing	Associated Parking Facility	Proximity	Cost	
			Per month	Per term
	•			
Gage Residence	<ul style="list-style-type: none"> • G- Lot (surface) • G-Lot (covered) • North Parkade 	<ul style="list-style-type: none"> On-site On-site 50m 	<ul style="list-style-type: none"> \$32 \$42 n/a 	<ul style="list-style-type: none"> \$256 \$336 \$657*
Totem Park / Ritsumeikan- UBC House	<ul style="list-style-type: none"> • T-Lot • West Parkade • L-Lot, A-Lot • On-street parking 	<ul style="list-style-type: none"> On-site 250-350m 150-400m 50m+ 	<ul style="list-style-type: none"> \$32 n/a n/a n/a 	<ul style="list-style-type: none"> \$256 \$657* \$383* \$383*
Place Vanier	<ul style="list-style-type: none"> • V-Lot • West Parkade • Fraser River Parkade • L-Lot, A-Lot • On-street parking 	<ul style="list-style-type: none"> On-site 140-350m 50m-230m 100-270m 640m+ 	<ul style="list-style-type: none"> \$32 n/a n/a n/a n/a 	<ul style="list-style-type: none"> \$256 \$657* \$657* \$383* \$383*
Thunderbird Residence	<ul style="list-style-type: none"> • Underground • On-street parking 	<ul style="list-style-type: none"> On-site 60m+ 	<ul style="list-style-type: none"> \$42 n/a 	<ul style="list-style-type: none"> n/a \$383*
Fairview Cres.	<ul style="list-style-type: none"> • Underground • Motorcycles • On-street parking 	<ul style="list-style-type: none"> On-site On-site 75m+ 	<ul style="list-style-type: none"> \$42 \$22 n/a 	<ul style="list-style-type: none"> \$336 \$176 \$383*
Acadia Park / University Apts.	<ul style="list-style-type: none"> • Surface parking • Second car parking 	<ul style="list-style-type: none"> • On-site 	<ul style="list-style-type: none"> • Included in basic monthly rent • \$25/month for second car 	

• *Note:* Prices include G.S.T. and P.S.T. Sales taxes are not applicable for all other prices.

2.3 Parking Policies and Practices

An overview of UBC's current residential parking policies and practices is provided in this section. These policies and practices govern how parking is currently administered and supplied for residential properties on campus.

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2.3.1 Administration of Residential Parking

Residential parking at UBC is primarily administered by UBC Housing and Conferences, and UBC Parking, Security and Transportation Services as indicated below in Table 2.5. Some key points regarding the administration of residential parking facilities includes:

- UBC Housing and Conferences typically administers parking that is located adjacent to or within the housing development it services.
- UBC Parking, Security and Transportation Services administers all non-housing parking facilities such as parkades, surface lots and on-street spaces.
- The parkades and surface lots administered by UBC Parking, Security and Transportation Services function primarily as shared-use facilities that accommodate student residents, commuters and visitors.

Table 2.5: Departmental Roles in Parking Administration

Department	Parking Facilities	Associated Housing
Housing and Conferences	<ul style="list-style-type: none"> • G-Lot (surface and covered) • T-Lot • V-Lot (surface) • Underground • Underground • Surface 	<ul style="list-style-type: none"> • Gage • Totem Park/ Ritsumeikan • Place Vanier • Thunderbird • Fairview • Acadia/University Apts.
Parking , Security and Transportation Services	<ul style="list-style-type: none"> • North Parkade • West Parkade • Fraser River Parkade • A- Lot & L-Lot • On-street parking 	<ul style="list-style-type: none"> • Gage • Totem Park & Place Vanier • Place Vanier • Totem Park & Place Vanier • All except Acadia/ University Apts.
Self-Administered	<ul style="list-style-type: none"> • Surface lots adjacent to theology colleges 	<ul style="list-style-type: none"> • Vancouver School of Theology • St. Andrews Hall • Carey Hall

- Enforcement of UBC Housing and Conferences parking facilities is monitored internally and carried out by Drake Towing.
- Surface lots associated with the three theological college residences on campus – Vancouver School of Theology, St. Andrews Hall and Carey Hall – are self-administered by the respective colleges. Enforcement is also handled internally, although discussions with theology college staff reveal that occurrences of parking infractions are infrequent.
- UBC Parking, Security and Transportation Services enforces its own facilities, as well as all fire lanes and roadways around and within individual housing developments.

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2.3.2 Residential Parking Regulations

Provided in Table 2.6 are the parking regulations applied to the recent Hampton Place market housing development on campus. These regulations mirror the ratios provided in Table 2.3. A comprehensive set of parking requirements that applies to individual residential developments on campus does not exist at this time. The parking ratios calculated in Table 2.1 serve as the only information available at present to provide an indication of the relationship between parking and housing for past residential developments.

Table 2.6: Hampton Place Zoning Regulations – Parking

Strata Number and Name	Dwelling Type	Parking Stalls per Dwelling Unit		
		Basic Requirement	Visitor Parking Allowance	Total Requirement
1. Sandringham	• 2 bed	2.0	0.25	2.25
	• 3 bed	2.2		2.45
2. West Hampstead	• 2 bed	2.0	0.25	2.25
3. Thames Court 5. The Chatham	• 1 bed	1.8	0.25	2.05
	• 2 bed	2.0		2.25
	• 3 bed	2.2		2.45
4. St. James House	• 1 bed	1.2	0.25	1.45
	• 2 bed	1.6		1.85
6. The Bristol	• 1 & 2 bed	1.6	0.29	1.89

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7. (1) The Stratford* (2) Wyndham Hall	<ul style="list-style-type: none"> • 1 bed • 2 bed 	1.8 2.0	0.25	2.05 2.25
7. The Regency* 10. The Pemberley	<ul style="list-style-type: none"> • 1 bed • 2 bed 	1.8 2.0	0.25	2.05 2.25
9. The Balmoral	<ul style="list-style-type: none"> • 2 bed • 3 bed 	2.0 2.2	0.25	2.25 2.45
10. The Pemberley	<ul style="list-style-type: none"> • 1 bed • 2 bed 	1.8 2.0	0.25	2.05 2.25

* Note: No building permit issued to date

Table 2.7 provides a comparison of the parking requirements applied to Hampton Place with requirements for similar developments in the City of Vancouver. The total number of spaces that would be provided for Hampton Place under requirements for two City of Vancouver neighbourhoods – Kerrisdale (RM-3) and Kitsilano (RM-4) – are provided in this table. Note that if Vancouver's parking requirements for comparable housing was applied to Hampton Place, 271 to 337 less spaces would be required.

**Table 2.7: Hampton Place Parking Requirements vs.
City of Vancouver Parking Requirements**

Strata Number and Name	Dwelling Type	Required Parking Ratios (including visitor parking)				Total Number of Parking Stalls Required*		
		Hampton Place	City of Vancouver		Hampton Place	City of Vancouver		
			RM-3 (Kerrisdale)	RM-4 (Kitsilano)		RM-3	RM-4	
1 Sandringham	<ul style="list-style-type: none"> • 2 bed • 3 bed 	2.25 2.45			77			
			1 stall per 70 sq.m. GFA, with no more than 2.2 stalls provided per DU	1.1 stall per DU plus 1 stall per 200 sq.m. GFA, with no more than 2.2 stalls provided per DU				

2. West Hampstead	• 2 bed	2.25			164		
3. Thames Court	• 1 bed	2.05			418		
5. The Chatham	• 2 bed • 3 bed	2.25 2.45					
4. St. James House	• 1 bed • 2 bed	1.45 1.85			243		
6. The Bristol	• 1 & 2 bed	1.89			252		
7. (1) The Stratford (2) Wyndham Hall	• 1 bed • 2 bed	2.05 2.25			242		
9. The Balmoral	• 2 bed • 3 bed	2.25 2.45			192		
8. The Regency	• 1 bed	2.05			355		
10. The Pemberley	• 2 bed	2.25					
Total Parking Stalls					1,943	1,672	1,606
Average No. Stalls per Unit					2.1	1.8	1.7

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* Note: Calculations based on a total of 928 units for Hampton Place, and a total gross billable area of 117,065 square meters.

3. Parking Survey

This section provides an overview of the Parking Survey methodology and results. The main objective of the Parking Survey was to determine parking usage by residents in the Acadia Park and University Apartments developments. Additionally, the survey provided some insight into the travel characteristics of tenants.

3.1 Methodology

On May 19, 1998, questionnaires were delivered to each residence in the Acadia Park and University Apartments complexes. A total of 900 questionnaires were distributed. A copy of the questionnaire is provided in **Appendix A** at the end of this report. Residents were asked to return the questionnaire by May 25th. Three options for return of the questionnaire were made available to residents. As an incentive to

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encourage the return of questionnaires, residents were informed that their names would be entered in a draw for a choice of one of three prizes valued at \$50.

A total of 214 parking questionnaires were returned out of a possible 900 questionnaires distributed, equivalent to a rate of return of 24%. This represents a good result for a survey of this type.

3.2 Results

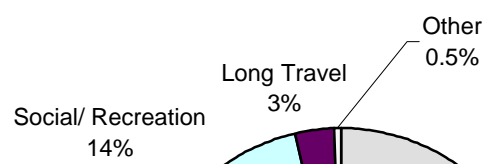
This section provides a summary of the results tabulated from returned parking questionnaires, with only the key findings presented. A complete analysis of the questionnaire is included in **Appendix B**.

The key findings of the survey are as follows:

Vehicle Ownership and Usage

- Over 90% of households surveyed had at least one motor vehicle.
- A total of 214 cars were owned by the 214 responding households, which is equivalent to an average ratio of 1 car per household.
- There is an average of 0.33 cars per tenant in Acadia Park and University Apartments.
- 40% of respondents indicated that the primary use of their motor vehicle was "shopping", as illustrated in Figure 3.1. "Work" was the second most frequently identified use at 37%.
- Over 56% of households with a motor vehicle identified discretionary uses – such as shopping, recreation/social trips and long trips – as their primary uses. Commuter uses – such as work and school trips – were only identified as primary uses by only 43% of households.

Figure 3.1: Primary Use of Motor Vehicle



alternative for them. Another 4% of these respondents indicated that they only had one car, and could not realistically give up that car.

- Of the 42 households (20% of respondents) that indicated they would reduce car ownership, 60% of these households said that they would keep at least one car, but reduce their use of this car and increase their use of transit.

Parking Spaces and Usage

- 98% of surveyed households had use of at least one assigned parking space.
- For surveyed households, a ratio of 1.04 parking spaces per household were provided, on average.
- Of those surveyed households that were assigned a parking space, 95% actually used the space for their vehicle or vehicles.
- Approximately 3% of households indicated that they use their assigned space for visitors – such as friends or relatives. One respondent revealed that they have permission to use their neighbour's unused space for their second car.
- Four respondents (2% of all surveyed households) indicated that more visitor parking was necessary, even though no question was provided on this issue.

Other Characteristics

- On average, there are 3 persons per household in the Acadia Park / University Apartments area.
- In 83% of surveyed households, there are at least one bicycle.
- Respondents identified a total of almost 400 bicycles in surveyed households, which is equivalent to almost 2 bicycles per household. within households with bicycles, average bicycle ownership is 2.2 bikes per household.
- Of the 22 households that did not own a motor vehicle, 60% had the use of at least one bicycle.

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- Two respondents suggested that a car rental system would be a useful alternative for on-campus residents, even though the survey did not include any questions on this issue.

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4. Policies and Practices Elsewhere

This section presents an overview of residential parking policies and practices applied in local municipalities, post-secondary educational institutions and other municipalities in North America. Where available, information was gathered on general parking requirements, reductions to existing parking requirements, and parking pricing. The information provided in this section was obtained through a review of existing parking and zoning by-laws, an examination of existing parking supplies and prices, and discussions with staff from various municipalities and post-secondary educational institutions.

4.1 Municipal

The following local municipal examples provide insight into the way parking requirements have been developed for multi-family residential developments in Greater Vancouver. Also provided are examples where the adopted parking requirement has been relaxed for new developments. In addition, parking pricing information from the City of Vancouver has been provided.

City of Vancouver

Parking Requirements

Parking requirements for multi-family residential developments in the City of Vancouver vary by neighbourhood zone as identified in Table 4.1(a). For example, multi-family residential developments in Kitsilano (RM-4 zone) require that more parking be provided than is required for a similar residential development in Kerrisdale (RM-3 zone). Discussions with City of Vancouver staff reveal that the difference in parking requirements is explained by the difference in the demographic composition of both neighbourhoods. Kitsilano has demonstrated the need for a higher parking requirement because residents tend to be younger and more mobile than their Kerrisdale counterparts, and are more likely to own more than one vehicle. Marpole (RM-3A zone) has a parking requirement equal to Kerrisdale, even though residents tend to be younger. However, Marpole households also tend to be less affluent

than those in Kitsilano, with car ownership levels comparable to Kerrisdale households.

Table 4.1(b) provides an example of Vancouver's parking requirements for various commercial uses.

Table 4.1(a): City of Vancouver Residential Parking Requirements

Use	Required Parking Stalls
<i>Multiple Family Dwellings or Infill Multiple Family Dwellings</i>	
<ul style="list-style-type: none"> • Multi-Family and Mixed Use in Kerrisdale, Marpole and Downtown Eastside (RM-3, RM-3A, C, DEOD) • Multi-family in Kitsilano and Fairview Slopes (Sites less than 500 sq.m. in RM-4, RM-4N and FM-1) • Multi-family in Kitsilano (Sites 500 sq.m. or larger in RM-4 and RM-4N) • Multi-family in Fairview Slopes (Sites 500 sq.m. or larger in FM-1) • Multi-family in West End (RM-5, RM-5A, RM-5B, RM-5C, RM-6) 	<ul style="list-style-type: none"> • Minimum of one space for each 70 sq.m. GFA, except that no more than 2.2 stalls for every dwelling unit need be provided • Minimum of one space for every dwelling unit and one additional space for each 200 sq. m. GFA, except that no more than 2.2 stalls for every dwelling unit be provided. • Minimum of 1.1 stalls for every dwelling unit and one additional space for each 200 sq. m. GFA, except that no more than 2.2 stalls for every dwelling unit be provided. • Minimum of 1.2 stalls for every dwelling unit and one additional space for each 200 sq. m. GFA, except that no more than 2.2 stalls for every dwelling unit be provided. • A minimum of one space for each 80 sq.m. GFA, except that no more than 2.2 stalls for every dwelling unit be provided.
<i>Rooming House</i>	0.5 stall / sleeping unit (1 for each 2 sleeping units)
<i>Three or more dwelling units designated solely for senior citizens' housing</i>	Minimum of 0.16 stall / du (one space for every six dwelling units)
<i>Three or more dwelling units designated solely for low income families</i>	Minimum of 0.5 stall / du (one space for every two dwelling units)
<i>Co-op Housing</i>	Minimum of 1.2 stalls / du

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**Table 4.1(b): City of Vancouver Commercial
Parking Requirements**

Use	Required Parking Stalls
<i>Commercial</i>	
Office Uses and Retail Uses, except as noted below: <ul style="list-style-type: none"> • School - Business, or • School - Vocational or Trade 	Minimum of one space for each 100 sq.m. GFA up to 300 sq.m., and one additional space for each additional 50 sq.m. GFA
Office Uses in East False Creek	Minimum of one space for each 70 sq.m. GFA and a maximum of one space for each 46.5 sq.m. GFA
Grocery Store	Minimum of 1 space per 100 sq.m. GFA up to 300 sq.m., one additional space for each additional 20 sq.m. GFA up to 2,300 sq.m., and one additional space for each additional 30 sq.m. GFA over 2,300 sq.m.
Neighbourhood Grocery Store	No requirements
Restaurant or Drive-in Restaurant with less than 250 sq.m. GFA on a site less than 325 sq.m.	Minimum of one space for each 50 sq.m. GFA, except that no more than 2 spaces need be provided.
Restaurant or Drive-in Restaurant in the West End or along the Broadway Street corridor	Minimum of 1 space for the first 100 sq.m. GFA, one additional space for each additional 25 sq.m. GFA up to 500 sq.m., and an additional space for each 50 sq.m. GFA over 500 sq.m.
Restaurant or Drive-in Restaurant, except as otherwise provided for in this By-law	Minimum of 1 space for each 50 sq.m. GFA up to 100 sq.m., one additional space for each additional 10 sq.m. GFA up to 500 sq.m., and an additional space for each 20 sq.m. GFA over 500 sq.m.

Reductions to Parking Requirements

Generally, established parking requirements are not reduced for multi-family residential developments in Vancouver. Some examples where the parking requirement has been reduced, are described below:

- Collingwood Village / Joyce Skytrain Station Area

Greystone Properties, Bunt & Associates consultants, City staff and Joyce Area residents worked together in 1996 to determine an appropriate standard for requiring parking for multi-family residential uses in Collingwood Village and an adjacent site.

Phase one of the four phase Collingwood Village development was constructed with a parking supply that well exceeded demand. The rate used for Phase 1 was taken from a parking standard that had been applied previously in other areas of Vancouver. However, it was determined that demand for parking at this site was less than the demand measured in other areas of the City. In an effort to determine a more appropriate standard for the three remaining phases of the development, Bunt & Associates and City staff undertook a survey of parking demand from 52 recently developed multiple-unit housing sites in east Vancouver and west Burnaby. The survey determined that average vehicle ownership was approximately one vehicle per household. Based on these findings, the recommended parking requirement was as follows:

- 0.75 space per dwelling unit plus one space per 250 sq.m. of gross floor area of residential use.

The above standard represents a modification of the RM-4 standard that had been reduced by 0.1 space per unit for Phase I of the development in recognition of proximity to Skytrain. This requirement represents a 20 to 50% reduction in the amount of residential parking, and resulted in a reduction in parking of approximately 700 stalls for Collingwood Village at build out.

City staff indicated that the study findings from Collingwood Village will be discussed further with the public and revisions to multi-family residential parking standards for other zoning districts may be proposed in the future.

- South Shore False Creek – West of Cambie Bridge

Parking for the initial phases of multi-family residential development in this Comprehensive Development District was provided at a rate considerably lower (one stall per dwelling unit or less) than for comparable housing developments in neighbourhoods such as Kitsilano and Fairview Slopes. In addition, transit service was provided for residents at the outset of occupation. However, many residents

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complained that not enough parking had been provided. The City responded to residents' concerns by constructing additional parking lots throughout the development to accommodate demand. The parking lot constructed under the Laurel Street overpass is an example of the type of additional parking provided for residents. However, City of Vancouver parking staff estimate that the present residential parking supply is still less than what would be provided under the City's current requirements for comparable housing in neighbourhoods such as Kerrisdale or Kitsilano.

- Heritage Restoration Projects

It is common in the City of Vancouver for parking requirements to be reduced for heritage restoration projects. Examples include older apartment buildings that have been restored, but do not conform to existing parking requirements. The City does not require the owner of the building to provide additional parking, recognizing the value of restoring a heritage building in Vancouver.

- Seniors Housing Projects

The City is currently examining the possibility of allowing a reduction in the parking requirement for a non-market housing project for seniors. Because the building itself cannot accommodate the existing parking requirement, the City is looking at opportunities for parking in nearby buildings, as well as examining the potential for a car cooperative.

- Low-Income Family Housing

Within the Concord Pacific lands in Downtown Vancouver, the City has established a new rate for subsidized family housing of 1.1 stalls per family dwelling unit.

Parking Pricing

Provided in Table 4.2 is a summary of parking rates for various parkades located within Downtown Vancouver, as obtained from the Parking Corporation of Vancouver. On-street parking meter rates in the City of Vancouver range from 50 cents per hour in areas outside of the downtown, to 75 cents to \$2.50 per hour within the downtown.

Table 4.2: Downtown Vancouver Parkade Rates

Parkade	Price
Vancouver Library	<ul style="list-style-type: none"> • 50 cents / half hour • \$6 / day (weekdays) • \$5 flat rate for evenings, Sundays and holidays • \$80 / month - unreserved • \$110 / month - reserved
Pacific Centre Mall	<ul style="list-style-type: none"> • \$1.10 / half hour weekdays and Saturdays • \$10 / day weekdays • \$8 / day Saturdays • \$3 flat rate for evenings, Sundays and holidays • \$130 / month - unreserved • \$220 / month - reserved
Woodwards (160 Water St.)	<ul style="list-style-type: none"> • \$1.50 / hour • \$5 / day • \$4 / evening • \$6.50 / 24 hour max. • \$90 / month - unreserved • \$110 / month - reserved
Waterfront (Hastings/Cordova)	<ul style="list-style-type: none"> • \$1.50 / half hour • \$9 / day • \$3 / evening or Saturday • \$155/ month - unreserved • \$225 / month - reserved

City of Burnaby

Parking Requirements

Parking requirements for multi-family residential developments in the City of Burnaby are provided in Table 4.3. These requirements vary only by building type, not by neighbourhood zone, as in Vancouver. The only relatively low parking requirements is that provided for family social housing on Hastings Street (RM-6 Districts), and apartments in C8 and C8a Districts, where medium density multi-family apartments are provided above ground-floor retail establishments. Both districts require only one space per dwelling unit.

Reductions to Parking Requirements

The City of Burnaby has allowed no reductions in the parking requirement for residential developments. Reductions have been granted for non-residential uses. For example, the B.C. Hydro

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development near Edmonds Skytrain Station was allowed a 10% reduction in the parking requirement for office and commercial developments based on proximity to transit. A similar transit-related 10% parking reduction was applied to Metrotown. At Middlegate Mall, a 10% reduction in the parking requirement was permitted because shared parking benefits were considered.

Table 4.3: City of Burnaby Parking Requirements

Use	Required Parking Stalls
<p><i>Multiple Family Dwellings</i></p> <ul style="list-style-type: none"> • Townhouses (each unit having direct access to the ground level, either by stairs or at grade) • Townhouses in RM6 Districts (social housing for families - Hastings Street) • Apartments in C8 and C8a Districts (commercial/retail with medium density multi-family dwellings above) • Apartments (common corridor access) • Non-profit housing (receives rent supplement assistance from government) 	<ul style="list-style-type: none"> • 1.75 per dwelling unit, plus a minimum of 0.25 stalls per unit for visitor parking • 1.0 per dwelling unit • 1.0 per dwelling unit • 1.6 per dwelling unit, plus 0.25 stalls per unit for visitor parking • 1.5 per dwelling unit, plus 0.25 stalls per unit for visitor parking
<p><i>Boarding, lodging or rooming houses, fraternity or sorority houses, or other similar uses</i></p>	<p>1 for each 2 sleeping units (0.5 / sleeping unit)</p>
<p>* Visitor Parking – If a building has four storeys or more, at least 35% of visitor parking stalls shall be at surface level.</p>	

Parking Pricing

Meter rates for on-street parking in the Metrotown area are currently set at \$1.00 per hour, with a maximum stay of 3 hours.

City of New Westminster

Parking Requirements

The City of New Westminster's parking requirements – provided in Table 4.4 – have been criticized for requiring more parking than is necessary. However, Planning Department staff maintain that a recent parking study conducted for the City supports the suitability of their

current standards. In some cases – such as with multi-family developments at Westminster Quay – residents have complained that not enough parking has been provided. The first two-thirds of the Quay development was constructed with a parking requirement of 1.2 stalls per dwelling unit.

City staff have noted that many of the problems with parking supply at multi-family developments stem from the way in which parking is administered by condominium boards and strata-councils. In many cases, parking stalls are "hoarded" by residents who do not always have vehicles to occupy them. The result is an inefficient use of parking resources.

Table 4.4: City of New Westminster Parking Requirements

Use	Required Parking Stalls
<i>Townhouses, rowhouses, multiple dwellings in commercial districts, and apartment buildings</i>	<ul style="list-style-type: none"> • 1.0 space per bachelor unit • 1.2 stalls per one-bedroom dwelling unit • 1.5 stalls per two-bedroom dwelling unit • 2.0 stalls per dwelling unit with 3 or more bedrooms
<i>Sleeping units or dormitory units</i>	<ul style="list-style-type: none"> • One space per 350 sq.ft. of floor space
<i>Elderly citizens' homes</i>	<ul style="list-style-type: none"> • One space per 5 bachelor units (0.2 / du) • Two stalls per 5 one-bedroom units (0.4 / du)

Reductions to Parking Requirements

No reductions to multi-family residential developments have been permitted in the City of New Westminster to date. However, City Council is currently reviewing a proposal to relax the parking requirement for the Freemason's Hall Building. A developer plans to restore this heritage building and convert it to a 63 housing unit complex. The current parking standard for such a development would require the developer to provide 95 stalls (or 1.5 stalls per dwelling unit). The developer is proposing to provide only 66 stalls, on the basis that this heritage building is being restored.

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Parking reductions have been allowed for commercial developments such as the Royal Bank Building at 643 Sixth Avenue. The City allowed a reduction from 220 stalls to 150 stalls, based on the results of a consultants study that revealed New Westminster's are significantly higher than any of the other municipalities in the region. The Royal Bank also agreed to provide transportation improvements in the vicinity of their building such as signal and crosswalk improvements, other pedestrian amenities and the provision of a trip reduction program for employees.

4.2 Post-Secondary

The information provided in this section identifies the current residential parking characteristics, policies and practices of other B.C. post-secondary educational institutions. In all cases, the parking ratios provided in this review are based on observations of existing parking supplies, and not a set of parking standards developed by each institution.

Simon Fraser University

Similar to the U.B.C, Simon Fraser University is currently in the process of developing comprehensive plans for the campus. These plans include proposals to develop market residential and commercial facilities on University lands. However, these plans have not yet incorporated any detailed requirements for parking.

Provided below is a summary of Simon Fraser University's existing residential parking supply:

- A total of 650 parking stalls are provided for 1300 students in residence, or a ratio of 0.5 stalls for every student resident (equal to the City of Burnaby's requirement for boarding, lodging or rooming houses). The majority of these stalls are provided on surface parking lots.
- In a student housing development of townhouses for single students built almost five years ago, 0.33 stalls per unit were provided.

Housing staff felt that this ratio was overly generous since there has been a surplus of stalls over the last few years.

- Students pay rental fees for parking that are separate from their housing fees. The cost for a reserved parking space is \$65 per semester (4 months).

University of Victoria

The University of Victoria only provides reserved parking stalls for 181 student family housing units. This parking is provided at a ratio of one parking stall per unit, with an additional 90 stalls provided for visitors, or 1.5 stalls per dwelling unit including visitor parking.

The University does not allocate separate parking facilities or stalls for students in residences and other non-family students living on campus. These students can only buy a general parking pass for the student lots which are also used by commuters and visitors. However, campus housing staff estimate that the majority of people using the student lots are on-campus residents. General parking permits cost \$120 for the year, or \$20 per month.

No market housing is currently provided on the University campus.

BCIT

The British Columbia Institute of Technology provides a total of 119 parking stalls to 336 students in single unit housing on campus (a ratio of 0.35 stalls per unit). Housing staff identify the ratio of one parking space per three students as their standard student housing. Any students that do not receive one of these reserved stalls can purchase a parking pass for the general student parking lots or "scramble" lots. Reserved stalls cost \$18 per month, while "scramble" lot passes are \$15 per month.

4.3 Other

Toronto, Ontario

The City of Toronto, Ontario has conducted several studies on parking requirements recently. Some of the City's most significant changes to

residential parking requirements have been in the downtown and on main streets. The City has provided relaxations on parking requirements for low-income housing in inner-city neighbourhoods. However, the greatest relaxations have been applied to multi-family residential developments on main streets. Because these new developments are often provided as infill projects, there are many cases where the City does not require the developer to provide any parking at all.

The only other significant parking reductions that have been allowed for multi-family residential developments in the City are with supportive-care housing projects. In these cases, the housing developments accommodate persons with mental and physical disabilities that require a team of support staff. Thus, only a limited number of parking stalls are required for staff and visitors.

Olympia, Washington

The City of Olympia has taken a proactive approach to identifying opportunities for parking reductions. Although most municipalities have not identified the criteria required for a reduction in parking supply in their parking bylaws, the City of Olympia bylaw identifies clear opportunities and requirements for applicants.

Through a process of Administrative Variance, parking may be reduced by more than 40%. For example, any stalls gained through sharing, combining or on-site park-and-ride can be counted towards total parking needs. Developers wanting to provide parking in excess of the parking standards are also required to follow detailed criteria for the application process. An example of the guidelines for the Administrative Variance are provided in Table 4.5.

The actual process required to reduce or increase parking is as follows:

1. Submit evidence that decreased/increased parking is necessary. This may take the form of a brief report for all decreases and one to twenty percent increases.
2. Describe site characteristics (i.e. site accessibility and proximity to transit, shared-use opportunities, employee density, and adjacent land uses).

3. Determine if additional parking can be provided by shared and combined parking, on-site park-and-ride, and by commute trip reduction measures.
4. If additional parking is desired, applicant may be required to complete a parking cost worksheet.
5. If additional parking is still desired, an administrative variance is required, and the site plan must meet specific design elements.

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Table 4.5: City of Olympia criteria to reduce parking

Decrease of 1% to 20%	Decrease of 21% to 40%
<ul style="list-style-type: none"> • Shared and combined parking opportunities are fully explored • On-site park-and-ride opportunities are fully explored • Compliance with commute trip reduction measures as required by state law • Site is no closer than 300 feet from a single family residential zoned neighbourhood • A report is submitted providing a basis for less parking and mitigation is necessary to off-set any negative effects 	<ul style="list-style-type: none"> • Shared and combined parking opportunities are fully explored • On-site park-and-ride opportunities are fully explored • Compliance with commute trip reduction measures as required by state law • Site is no closer than 300 feet from a single family residential zoned neighbourhood • A report is submitted providing a basis for less parking and mitigation is necessary to off-set any negative effects • The site is served by transit or can be served within 6 months of occupancy (within 3 blocks or 600 feet – whichever is less).

Appendix A

Sample Questionnaire

Appendix B

Questionnaire Results

Appendix C

References

City of Vancouver

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