



CITY OF VANCOUVER

ADMINISTRATIVE REPORT

Report Date: April 18, 2007
Author: Paul Pinsker
Phone No.: 604.873.7917
RTS No.: 06487
VanRIMS No.: 13-5500-20
Meeting Date: May 3, 2007

TO: Standing Committee on City Services and Budgets
FROM: General Manager of Engineering Services
SUBJECT: Parking Requirement Standards for Multiple Residential Use

RECOMMENDATION

THAT the Parking By-law be amended to reduce parking requirements for multiple dwellings generally as contained in Appendix A;

FURTHER THAT the Director of Legal Services be instructed to prepare and bring forward the necessary amending by-law for enactment generally in accordance with Appendix A.

GENERAL MANAGER'S COMMENTS

The General Manager of Engineering Services RECOMMENDS approval of the foregoing.

COUNCIL POLICY

Council approves all changes to the Parking By-law to keep it up to date.

The Vancouver Transportation Plan calls for reducing residential parking standards as warranted.

PURPOSE AND SUMMARY

City policies to provide alternatives to the automobile are showing success. Vehicle ownership rates have diminished over the past ten years, and trips by walking, biking, and transit have increased substantially. Parking studies for multiple dwellings in all areas of the city outside the Downtown Peninsula have now been concluded and this report recommends that parking requirements be lowered and made more consistent throughout the city. In addition, two housekeeping changes are recommended to correct inconsistencies in the Broadway Station Precinct and in portions of the West End. Changes to the Parking By-law appear in Appendix A.

BACKGROUND

In 1988 the assessment of vehicle ownership of residents within key areas of the west side such as Kitsilano and Fairview Heights resulted in Council's approving the RM-4 parking standard, which is 1.1 space per dwelling unit plus one space per 200 m² gross floor area (gfa). With arrival of the Expo Line, vehicle ownership studies focused near transit stations. In 1997, the parking requirements for Collingwood Village were lowered, and in 2001 reduced parking requirements for several uses, including multiple residential use, were approved by Council in the Broadway/Commercial SkyTrain Station Precinct. Following further vehicle ownership studies, in 2005 Council approved a reduced minimum parking requirement (0.25 space per dwelling unit plus one space per 120 m² gfa) for multiple residential uses covering the Canada Line Corridor east to Boundary Road, the entire Central Broadway District, and the multiple residential portions of Marpole, but excluding Southeast False Creek and East Fraser Lands. Council also approved new co-op vehicle requirements and parking policies to encourage car sharing throughout the entire city.

As part of the EcoDensity initiative currently underway, staff have been tasked with looking at ideas to add density to the city in ways that help lower our ecological footprint. Ideas for further exploration will be reported to Council later this year, including the role that transportation plays in complementing any new housing initiatives and the need to provide access and mobility for people with alternatives to the private automobile. This includes exploration of parking strategies for both destinations as well as within neighbourhoods. The new city-wide parking standard being recommended in this report is consistent with the direction of these initiatives.

DISCUSSION

Multiple Dwellings West of the Canada Line Corridor

Following the changes of 2005, staff surveyed vehicle ownership in recently built multiple dwellings across Vancouver west of the Canada Line corridor. Some 160 households in 26 locations responded to the survey. Location details are shown in Figure B1 of Appendix B.

The survey found car ownership, or "observed demand", to be about 0.4 space less per dwelling unit in comparison with the existing RM-4 standard (see Figures 1 and 2). The relationship between observed demand and the parking standard in the C/RM-3 zoning district varies. They are comparable for smaller units, but as unit size increases, the C/RM-3 standard requires more parking than the observed demand. Much of the reason for this lower

observed parking demand in the RM-4 and C/RM-3 areas is attributable to a trend of reduced vehicle ownership. It is expected that vehicle ownership will continue trending gradually downward.

Based on the observed demand and expected trends it is recommended that the new parking requirement be set at 0.6 space per dwelling unit plus one space per 200 m² gfa, which is about 9% less than observed demand. It is also recommended that the presence of on-street parking spaces now be considered when determining off-street parking requirements to allow for this 9% difference. This new, recommended standard results in parking requirements that are about 30% reduced from the RM-4 standard, with small variation through the range of dwelling unit sizes (see Table 1).

The proposed new standard is also supported because while it fosters sustainability in lowering parking below what is currently observed, it requires enough parking such that when taken together with the on-street parking supply it does not result in a significant compromise to liveability (see Table 2). Staff recognize that adopting a parking standard that may be below the present demand level could have some short-term impacts on some city neighbourhoods, especially those that already feel that the available parking in their areas is at a premium. Over time, as the trend towards diminishing vehicle ownership continues, these shortfalls should be overcome.

The recent survey results were very similar to those found in previous studies that led up to the 2005 changes, such that all the data could be combined (see Figure 1). Because the new recommended standard also fits well with the 2005 results, it is recommended that it be adopted for the whole city, apart from the Downtown Peninsula, Fraser Lands, and False Creek neighbourhoods (see page 2 of Appendix A).

Additional adjustments to the standard are recommended at the upper and lower ends of the dwelling unit size range to address particular needs. At the upper end, it is necessary to avoid excessive parking requirements that would be calculated without a reasonable cap. In the past, the minimum required parking has been capped at 2.0 or 2.2 spaces per unit. Given the trend to reduced ownership, as evidenced in recent surveys, it is recommended that no more than 1.5 spaces per dwelling unit be required for even the largest of units. At the lower end, it has been found that as units drop in size below 50 square metres vehicle ownership diminishes more rapidly than within the range of mid-sized units. Also, for residents of the smallest units affordability is a major factor; reducing the parking may lower housing cost. Thus, it is recommended for dwelling units less than 50 m² gfa that only 0.5 space per unit be required.

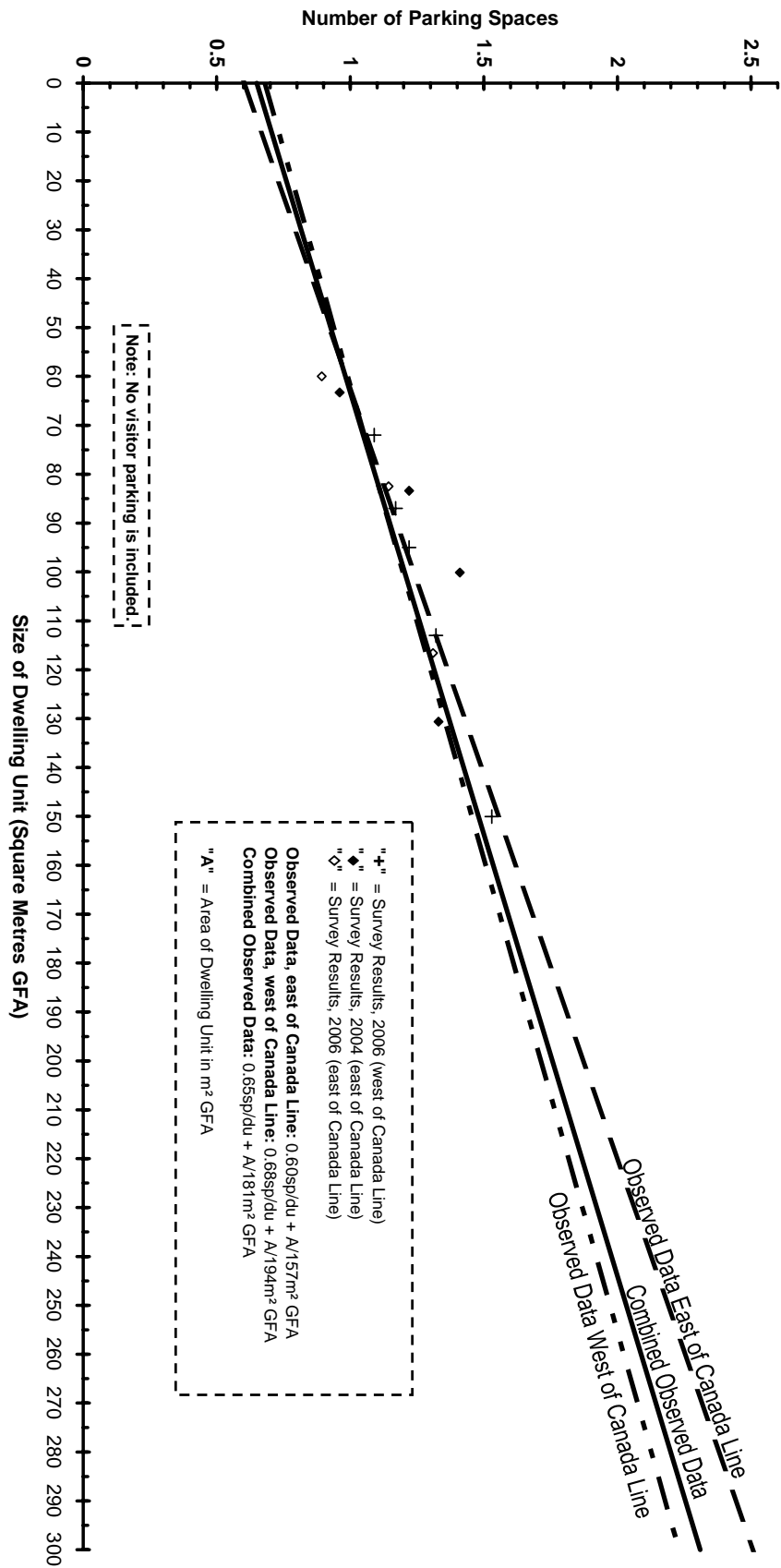


Figure 1 - Observed Demand for Multiple Residences, 2004 & 2006 Studies

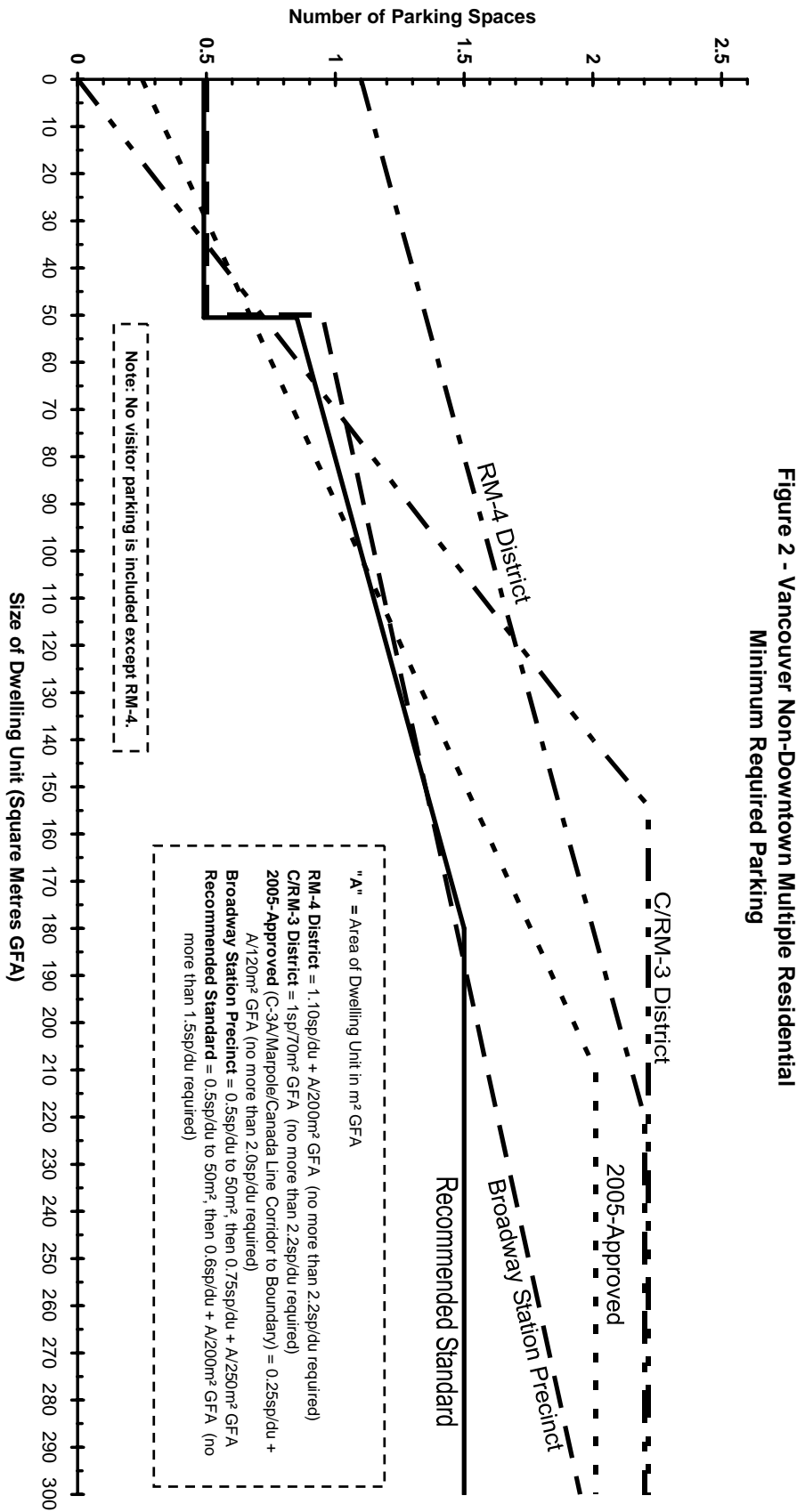


Table 1 - Parking Spaces Required for Dwelling Units, Existing vs. Proposed

District/Standard	Dwelling Unit Size (Square Metres GFA)						
	50	70	90	110	130	150	170
Existing:							
C/RM-3 1 sp/70 m ² gfa	0.71	1.00	1.29	1.57	1.86	2.14	2.20
RM-4 1.1 sp/du + 1 sp/200 m ² gfa	1.35	1.45	1.55	1.65	1.75	1.85	1.95
2005 Multiple Dwelling Standard 0.25 sp/du + 1 sp/120 m ² gfa	0.67	0.83	1.00	1.17	1.33	1.50	1.67
Observed Vehicle Ownership:							
0.65 sp/du + 1 sp/181 m ² gfa	0.93	1.04	1.15	1.26	1.37	1.48	1.59
New Recommended Standard:							
0.6 sp/du + 1 sp/200 m ² gfa	0.85	0.95	1.05	1.15	1.25	1.35	1.45
Change from RM-4	-37%	-34%	-32%	-30%	-29%	-27%	-26%
Change from Observed Demand	-9%	-9%	-9%	-9%	-9%	-9%	-9%
<p>Note: The 2005 Standard allows the minimum to be 1 space per dwelling unit for sites below 500 m² or density up to 1.0 FSR. The Recommended Standard continues with these provisions; furthermore, the most that could be required per dwelling unit would be lowered from 2 spaces to 1.5 spaces.</p>							

In addition to determining observed parking demand, the survey gathered additional information. A summary of the entire survey findings appears in Appendix C. These findings include:

- Some 12% of households did not own a vehicle (overall average was 1.17 vehicle per household);
- More than 90% of households intended to maintain the same number of vehicles;
- Nearly 4% of households indicated they are or plan to become members of the Cooperative Auto Network;
- Over 60% of respondents indicated that parking for multiple dwellings should be determined at the level of observed demand;
- Significant levels of transit use were encountered, with 16% of all residents owning monthly passes among the 43% overall who use transit at least on a weekly basis; and
- The total number of bicycles owned (170) almost equalled the total number of cars (187), with an average of 1.13 bicycles per dwelling unit.

Multiple Dwellings in the Broadway/Commercial Station Precinct

In 2001 Council approved reduced parking requirements for multiple residential (and other) uses in the Broadway/Commercial SkyTrain Station Precinct (see Figure B2 in Appendix B).

While the Station Precinct standard remains a reasonable one, the now recommended standard requires less parking for units less than 150 m² gfa. For consistency, the Broadway/Commercial Station Precinct should be changed to the new recommended standard. Appendix A includes a text amendment to change the multiple dwelling standard for the Station Precinct.

Multiple Dwellings in West End Commercial Precincts

The parking standard for multiple dwellings, or multiple conversions of three or more units, in the West End's RM-5, RM-5A, RM-5B, RM-5C, and RM-6 districts, is one space per 80 square metres of gross floor area. An anomaly exists in that there are commercial portions of the West End, the C-5 and C-6 Districts along Denman, Robson, and Davie Streets, which have a higher parking requirement for multiple dwellings at one space per 70 square metres gfa. Parking relaxations have recently been supported for multiple dwelling development applications within the commercial strips of the West End because these are closer to transit services and, therefore, should not be required to provide greater parking than multiple residences further away from transit. In the interim, until a comprehensive review of the West End's parking requirements occurs, it is recommended that the lower "one-per-80" standard replace the "one-per-70" standard in the commercial areas of the West End; a text amendment in Appendix A is included to effect this adjustment.

Comparison with Other Cities

It is useful to compare our city's parking requirements with those of other cities. Vancouver is advanced in our use of dwelling unit size to assess required parking. Most other cities base their parking requirements either on the number of bedrooms in a unit or simply on the number of units. However, we have found that the use of dwelling unit size more accurately represents actual parking demands. Appendix D compares the requirements of other cities in Canada and along the west coast of the United States.

The proposed requirements for Vancouver outside the Downtown Peninsula are lower than those of any other city in the Region and Victoria. They are largely comparable with the requirements of the other major cities listed; however, the recommended standard requires less parking as dwelling units get smaller. While some cities have explicit visitor parking requirements, these are not found in Vancouver, except in very few locations (i.e. Coal Harbour/Bayshore, SEFC, and some artist live-work sites). No provision for visitors is included in the new recommended standard in the interests of lowering housing costs, simplifying security, and making use of on-street parking resources.

ALTERNATIVES/OPTIONS

Staff also reviewed a lower standard than that proposed to explore if the minimum parking requirement could be further lowered below the observed demand. In so doing, staff investigated the impacts of lowering the minimum requirement by 16% rather than 9% below observed demand. Assumptions were made for a prototypical "RM-4 - style" development of 1.45 floor space ratio extending one full block length. Such a project would have approximately 7,275 square metres of gross floor area and comprise from 50 to 121 dwelling units, depending on the unit size distribution. A visitors' parking demand of 1 space per 10

units, and the availability of 15 on-street parking spaces were assumed for all comparisons (see Table 2).

Table 2 - Comparison of Parking Supply vs. Demand for Alternate Minimum Parking Standards

Development Type Unit Size (# units)	Parking Demand	Recommended Standard (9% < Observed)		Alternative Standard (16% < Observed)		2005-Approved Standard	
		Supply	Net	Supply	Net	Supply	Net
Small (121 d.u.)	131	124	-7	112	-19	106	-25
Medium (81 d.u.)	101	100	-1	92	-9	96	-5
Large (50 d.u.)	77	81	+4	76	-1	88	+11
Mixed (76 d.u.)	98	97	-1	90	-8	95	-3

Basis: Site 450' x 120' at RM-4 density (1.45 fsr)
 Unit Sizes: Small 60m² gfa; Medium 90m² gfa; Large 120m² (60%) & 180m² (40%); Mixed 25% Sm/50% Med/25% Lg
 Parking Demand: Per studies, including 0.1 space per d.u. for visitors
 Parking Supply: Per standard's minimum requirement plus 15 on-street spaces

It can be seen from Table 2 that with the proposed recommended standard (9% below the observed demand) a development of small or average-sized units would incur a modest shortfall of parking relative to the combined on- and off-street parking supply. A project of mixed or large-sized units would be in balance or perhaps have a small surplus of parking. In the "Alternate Standard" (16% less than observed demand) shortfalls in parking would prevail through all unit size combinations and impose a severe shortage for a project comprised wholly or largely of smaller-sized units. If residents also have higher than average car ownership, then significant parking shortfalls would also occur in a development comprised of large unit sizes only. Included in Table 2 are values per the existing 2005-approved standard generally applicable in more easterly parts of the city. The same concern for projects with primarily small units is evident with that standard as well.

Abandoning minimum requirements altogether is not recommended at this time because it could lead to severe parking shortfalls and impacts for both residents and neighbours. The development community is accustomed to being guided by the City's requirements on parking provision because they are based on surveys of recent developments. This has generally led to the provision of parking at or only marginally above the minimum requirement in most instances. Without the guidance of any minimum standard the provision of parking may be based on unrealistic market perceptions that could result in either excessive or inadequate parking provision.

From the detailed analysis of parking supply vs. demand, staff conclude that, on balance, reducing parking requirements to a level 9% below observed demand would be the best means of achieving sustainable and affordable parking levels. It provides a lower parking standard without unduly impacting the existing neighbourhood.

ENVIRONMENTAL AND SOCIAL IMPLICATIONS

Reducing parking requirements to the lowest level supportable without incurring large negative impacts to day-to-day liveability is consistent with the City's sustainability

objectives in fostering greater use of transport modes that do not involve automobiles. Reduced automobile reliance is positive for the environment by curtailing various pollutants, including those leading to smog and global warming.

Reducing parking requirements is just one of the efforts being employed to achieve the City's multi-faceted strategy in fostering sustainability, as promulgated through the Green Building Strategy, Climate Change Action Plan, and EcoDensity initiatives. Indeed, for many years the City has been employing parking policies to encourage alternatives to automobile use while enabling developments to proceed. These include Parking By-law provisions which:

- Base minimum requirements for residential use on observed demand;
- Base minimum requirements for non-residential use on mode split objectives;
- Include maximum permitted parking in areas such as the Downtown and near transit hubs;
- Grant significant discounts in parking required for heritage sites - in many cases no parking is required;
- Allow many relaxations and exemptions, most recently for the provision of car-share vehicles; and
- Include requirements for bicycle end-of-trip facilities.

This year staff are pursuing six initiatives other than the subject of this report to further the sustainability of the City's parking policies. These are:

- Provide additional relaxation for minimum parking requirements [e.g. for a particular applicant making transportation demand management commitments, etc.];
- Review feasibility of unbundling parking requirements, such that a dwelling unit and parking must be sold separately;
- Update requirements for secure bicycle parking and other end-of-trip facilities;
- Expand transportation demand management requirements for new developments;
- Develop requirements for accommodating charging of electric vehicles; and
- Introduce new or revised maximum parking requirements in some zoning districts [linked with the Metro Core Study].

The above initiatives will be followed by more work such as pursuing policies to foster additional use of hybrids and sub-compacts. As the efforts on these initiatives come to fruition, the City's parking policies will become increasingly sustainable and continue to play a leadership role in the Region and Canada.

Reducing parking requirements is also positive socially in that it can lead to reduced housing costs. Currently a below-grade structured parking space costs upwards of \$30,000 to construct. The proposed reduction of half of a space per dwelling unit relative to the current RM-4 requirement could reduce building costs by \$15,000 or more per dwelling unit. It is hoped that this could assist in improving affordability. If parking requirements are reduced too far below observed demand, however, the resulting on-street parking congestion could lead to reduced liveability.

FINANCIAL IMPLICATIONS

There are no financial implications.

PUBLIC INPUT

Consultation with several dozen stakeholders has been undertaken, including two appearances at the Urban Development Institute/City of Vancouver Liaison Committee and distribution to various Vision Area representatives across the city. Comments received to date have been mostly supportive of the recommendations. Correspondents particularly appreciate the efforts to get parking requirements lowered. Suggestions to relate the parking requirements to transit service were received, including that where transit service is not particularly high the recommended parking may not be adequate. TransLink commented that removal of a minimum requirement should be considered in high transit and walking areas, and that maximums and mode-split related parking also be considered. From an architect there was support for unifying and reducing requirements, but also a request to eliminate confusion as to how the City determines the gross floor area of dwelling units.

The Government Relations Committee, on behalf of the Real Estate Board of Greater Vancouver, was concerned that the City would be securing too little parking and reducing the appeal to purchasers. Reduction of required parking below the level of demand observed was opposed, and concern was expressed that neighbourhoods would become less desirable when streets were jammed with cars. This was of concern particularly in areas of the city that are being densified. The Committee recommended at least one parking space per dwelling unit and that further reduction should only be considered where immediate access to public transportation, shops and services already exists. Finally, it was suggested that more focus be given to how cars are stored rather than how much parking could be reduced; thus, a parking structure might be provided to serve several sites, thereby providing the parking more economically.

CONCLUSION

Based on recently completed parking studies in portions of the city west of the Canada Line corridor and on other studies past and present in other parts of the city, a new recommended minimum parking requirement for all multiple dwellings is proposed for areas outside the Downtown Peninsula. The new recommended standard has the following characteristics: It is approximately 9% less than observed demand through the full range of dwelling unit sizes; it introduces a lower cap on parking required for large units (from 2.2 or 2 spaces to 1.5 spaces per dwelling unit); it only requires 0.5 space per dwelling unit for units less than 50 m² gfa; it makes no provision for visitors; it requires no more than one space per dwelling unit where density is no greater than 1.0 fsr or the area of the site is less than 500 square metres; and, it would be made applicable for the Broadway/Commercial SkyTrain Station Precinct.

Staff also recommend that the multiple dwelling parking requirements of the West End be harmonized such that sites along Davie, Denman, and Robson Streets (in C-5 and C-6 Districts) would no longer be required to provide more parking than they would have had they been situated within the adjoining West End District boundaries. Meanwhile, staff will continue reviewing parking requirements in the Downtown Peninsula, to be reported to Council within the year.

* * * * *

APPENDIX A - TEXT AMENDMENTS

The following sections of the Parking By-law are proposed for amendment as described:

Sections 4.2.1.3 and 4.2.1.4

Within Column 1, after "C" insert "(except C-5 and C-6)" and after "RM-6" insert ", C-5, C-6"

Section 4.2.1.13

Within Column 1, the existing text is deleted, to be replaced by the following:

"Despite anything to the contrary in this section 4.2.1, for three or more residential units, or for dwelling units in conjunction with another use: i) In C, RM, or FM located within the area bounded by Burrard Inlet, Boundary Road, Marine Drive, Argyle Street, the Fraser River, City of Vancouver/University Endowment Lands boundary, English Bay, False Creek, Burrard Street, 1st Avenue, Fir Street, 2nd Avenue, Lamey's Mill Road, Alder Crossing, 6th Avenue, 2nd Avenue, Main Street, Prior Street, Gore Avenue, the lane south of Hastings Street, and Heatley Street; or ii) in portions of C-3A not included above"

Within Column 2, the first paragraph is deleted, to be replaced by the following:

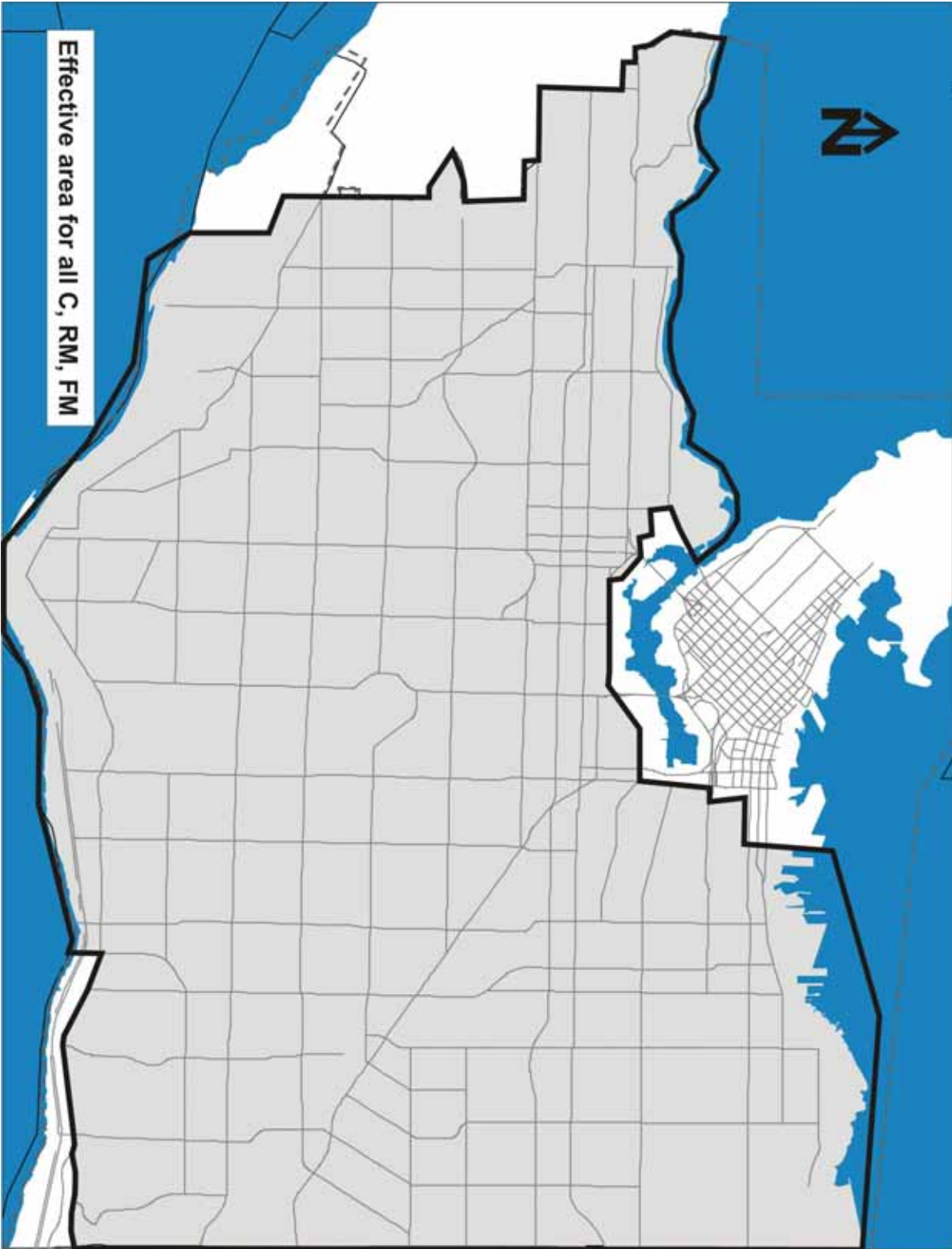
"A minimum of 0.5 space for each dwelling unit that has less than 50 m² of gross floor area; and, for each dwelling unit that has 50 m² or more of gross floor area, a minimum of 0.6 space for every dwelling unit plus one space for each 200 m² of gross floor area, except that no more than 1.5 spaces for every dwelling unit need be provided."

Note: The areas where this section is effective is illustrated in Map 4.2.1.13 for reference.

Section 4.5.1

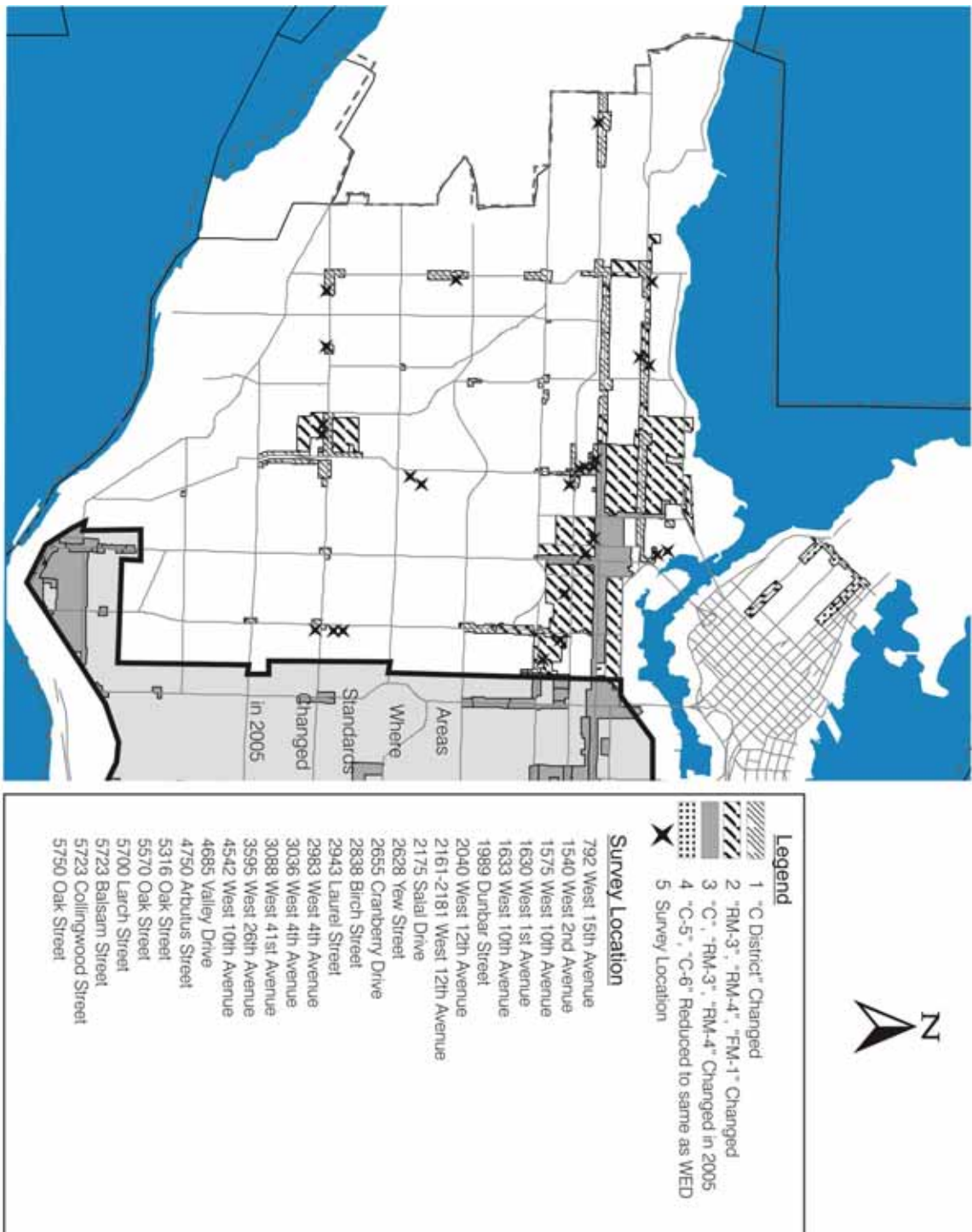
Delete this section and renumber sections 4.5.2, 4.5.3, 4.5.4, and 4.5.5 as appropriate.

Map 4.2.1.13



APPENDIX B - DISTRICTS AFFECTED BY CHANGED STANDARDS

Figure B1 - West Side Multiple Dwelling Locations Studied 2006-07



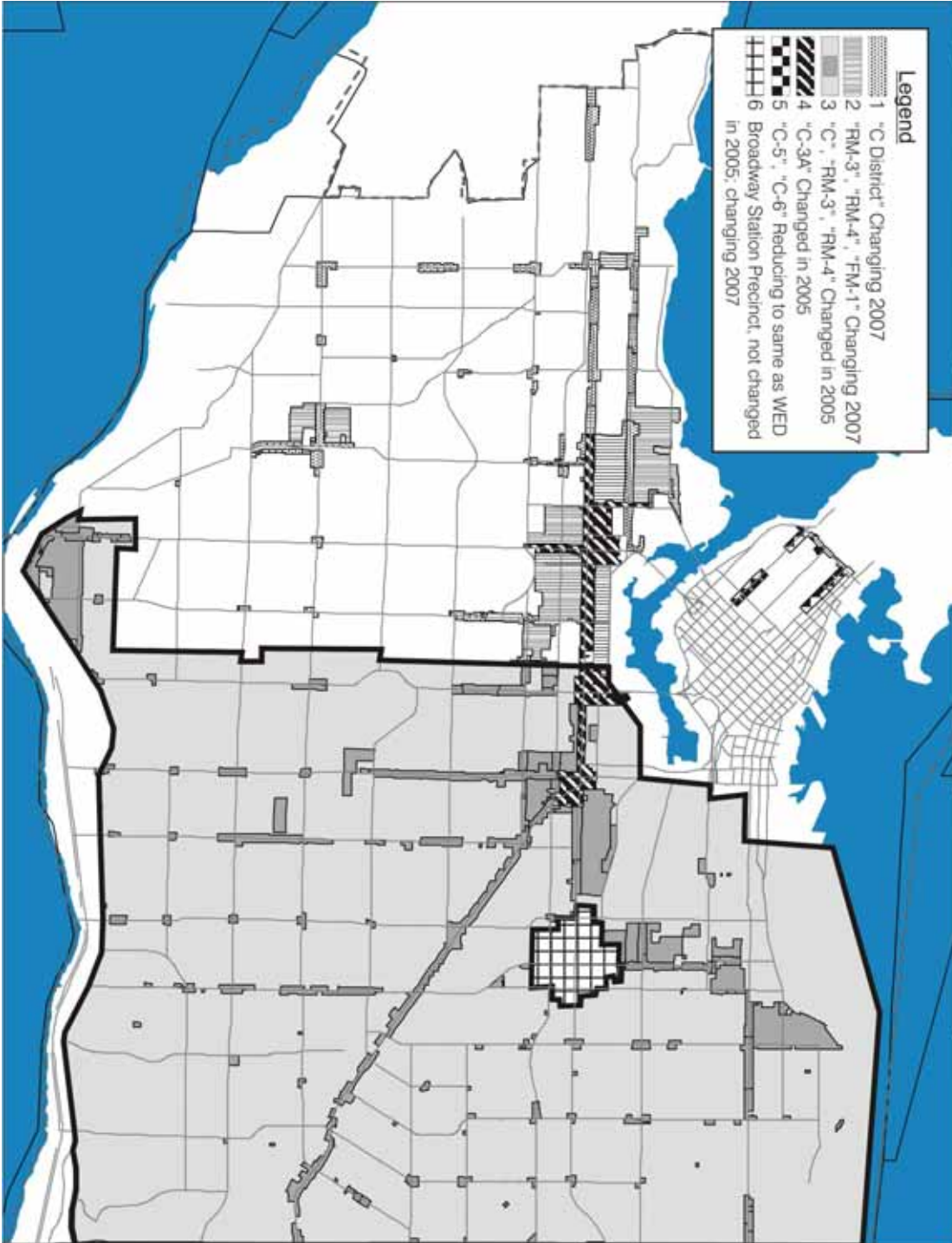


Figure B2 - Zones Having Multiple Dwelling Parking Requirements Changed

APPENDIX C - RESULTS OF 2006 RESIDENTIAL SURVEY



DEAR RESIDENT:

The City of Vancouver is surveying your building to find out about car and bicycle ownership, and related matters. This information will help us to determine parking requirements for new residential developments in your neighbourhood.

By learning about the types of transportation you use to get around, and the parking needs of a building of this size, the City can work on ensuring adequate parking for residents and their visitors. We can also help developers determine how much parking they need in new projects so they won't incur unnecessary expenses that could increase housing prices. The City also wants to ensure that we're helping support the needs of cyclists.

Your answers on the short survey in this brochure will help us improve Vancouver's neighbourhoods for everyone. Individual responses will be kept confidential and anonymous. Please fill in the following questions, seal and send it back (postage is pre-paid). You'll be entered in a prize draw too. (If you would like to be in the prize draw provide us with your name and phone number.)

If desired, you have the option to respond to this survey online at: vancouver.ca/engsvcs/parking/admin/survey.htm

If you have any questions, please call me at 604.873.7917. Thank you for helping.

Paul M. Pinsker, P. Eng
Parking & Development Engineer

Address

Postal Code

Name (optional)

Phone Number (optional)

1. Do you rent or own this dwelling unit?

14 Rent **146** Own Co-op

2. What is the floor area size of your dwelling unit?

500 - 2300 sqft

3a. How many motor vehicles in each of the following categories are owned or leased by residents in your dwelling unit?

89 i) automobiles (small/economy)

98 ii) automobiles (mid-sized or full-sized), vans, or pick-ups

7 iii) motorcycles, motor scooters, or mopeds

2 iv) other (specify: recreational vehicle, etc.)

187 Number of motor vehicles in total

Comments: (e.g. if any of the above are hybrid or alternate fuel vehicles, mini-cars, etc.)

3b. How many of your vehicles are parked:

167 on the property of the residence

17 on the street nearby

3 at a remote location (more than two blocks away)

4. For the upcoming 12 months, which is most likely to apply to your household?

137 Keeping the same number of motor vehicles

8 Increasing the number of motor vehicles

4 Decreasing the number of motor vehicles

12 Don't know

Other:

5a. Is there visitor parking in your building or elsewhere on the property?

120 Yes **36** No **00-24%: 6**

25-49%: 13

5b. Do your visitors who drive have problems finding parking?

50-74%: 22

75-100%: 23

72 Yes **82** No **6** N/A **N/A: 96**

_____ If yes, what percentage of the time?

6. In the future, should the City of Vancouver: (please circle one answer only) **8 N/A**

i) require less parking than the expected demand to discourage car ownership? **14**

ii) require more parking than the expected demand to avoid overspill onto nearby streets? **46**

iii) require parking equal to the level of the expected demand? **92**



7a. Regarding car-sharing, are you a member of the Co-operative Auto Network? **4 N/A**

4 Yes **2** Plan to join

119 No **8** May join sometime

1 Used to be **22** Never heard of it

7b. Regarding public transit, how many residents in your household:

37 Have a monthly transit pass

85 Use public transit less than once a week

33 Use public transit one or two days a week

29 Use public transit more than two days a week

46 Never use public transit

8a. How many bicycles in total are owned by residents in your dwelling unit? **170**

8b. For the upcoming 12 months, does your household plan to increase the number of bicycles you own?

10 Yes **145** No **5 N/A**

8c. Does your household store, or plan to store, its bicycles in the building's bicycle storage area?

76 Yes **66** No **18 N/A**

If No, where are they stored and why are they not stored in the storage area provided?

8c. If no, where are they stored and why are they not stored in the storage area provided?

Most frequent responses:

1. There is no bicycle storage area	11 responses
2. There is no bicycle storage area; stored in our personal locker	4
3. Stored in Condo; don't want them stolen	3
3. On our patio	3
3. In the unit; bikes were stolen from storage before	3
3. Stored in the locker	3
7. There is no storage; it's stored within the unit	1
7. Stored at work	1
7. Some in locker, some in storage; stolen from lockers before	1
7. Self storage by owner	1
7. On tree outside; storage is not safe	1

9. Do you have any other comments?

Most frequent comments:

1. Improve transit	10 comments
1. Provide more parking/acknowledge reality	10
3. Provide better bicycle routes/facilities	8
4. Need parking/passenger drop-off in front of building	7
5. Parking is sufficient/balanced	3
5. Discourage cars	3
5. Reduce traffic/parking congestion	3
8. Improve facilities for pedestrians	2
8. Expand CAN program or workplace car-sharing	2
8. Parking stalls are too narrow	2
8. Garages are less safe than the street for parking	2
Other	7

APPENDIX D – MULTIPLE RESIDENTIAL MINIMUM PARKING REQUIREMENTS COMPARISON

City	General (Non-Downtown) Requirement
Burnaby	1.85 space/dwelling unit*
Richmond	1.7 sp/d.u.*
Surrey	1.5 sp/d.u. 1 bedroom or < 1.7 sp/d.u. 2 bdrm or >
New Westminster	1.0 sp/d.u. bachelor 1.2 sp/d.u. 1 bdrm. 1.5 sp/d.u. 2 bdrm. 2.0 sp/d.u. 3 bdrm.
Coquitlam	1.0 sp/d.u. bachelor 1.3 sp/d.u. 1 bdrm. 1.55 sp/d.u. 2 bdrm. 1.95 sp/d.u. 3 bdrm. or >
North Vancouver City	1.4 sp/d.u. high density* 1.7 sp/d.u. less density*
West Vancouver	Greater of 1 sp/d.u. or 1 space per 900 sq. ft.
Victoria	1.5 sp/d.u.
Edmonton	1.14 sp/d.u. 1 bdrm. or < * 1.64 sp/d.u. 2 bdrm.* 1.89 sp/d.u. 3 bdrm.*
Calgary	0.65 to 1.15 sp/d.u.*
Seattle	0.75 sp/d.u.
Portland	Up to 1 sp/d.u.
San Francisco	1 sp/d.u.**
Vancouver (Proposed)	0.5 sp/d.u. < 50 m ² (bachelor) 0.9 sp/d.u. @ 60 m ² (1 bdrm.) 1.05 sp/d.u. @90 m ² (2 bdrm.) 1.2 sp/d.u. @120 m ² (3 bdrm.)

* Includes Visitor Parking

** Under Review