



CITY OF VANCOUVER

**Supports Item No. 3
T&T Committee Agenda
April 26, 2005**

**Policy Report
Urban Structure**

Report Date: April 13, 2005
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TO: Standing Committee on Transportation and Traffic

FROM: General Manager of Engineering Services in consultation with the Director of City Plans, Director of Development Services, Director of Legal Services, and Chief Building Official

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; and

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

Relevant Council policy is contained within the Parking By-law.

PURPOSE

This report recommends changes to the Parking By-law to reduce parking requirements for multiple dwellings in large portions of the city.

SUMMARY

City policies to provide alternatives to the automobile are showing success. Through detailed surveys and analysis staff has found that parking requirements for new multiple dwelling developments can be reduced in areas where transit service is high. Staff also recommends a reduction in required parking applied city-wide where co-operative vehicles are provided. Appendix A details the changes to the Parking By-law.

BACKGROUND

Parking plays an important role in the overall transportation planning for Vancouver. The City seeks reduced residential parking standards where warranted to support a shift from auto reliance to walking, cycling, and using transit.

The City's efforts to encourage alternatives to driving are yielding results. New transit services, 160 kilometres of bike routes, and pedestrian enhancements are resulting in a lower share of automobile use. For example, vehicular traffic volumes into and out of the Downtown on weekdays have stabilized since adoption of the City Transportation Plan in 1997; and, year-over-year vehicle registrations in the city actually went down for the first time in 2004, by over 1300 vehicles, despite an increase of over 5000 new residents. As more Transportation Plan policies are implemented, conditions that support these preferable modes are steadily improving. Staff surveys indicate that parking requirements need updating to reflect reduced vehicle ownership and use in areas where transit improvements have been concentrated. Minimum necessary parking standards support the City's sustainability goals, assist housing affordability and provide flexibility for property owners.

Parking requirements for residential developments are contained in Section 4 of the Parking By-law. There are differing standards for residential uses, depending on location (zoning district), housing type or tenure (e.g. market, non-market), and heritage considerations.

For market housing, staff have found that automobile ownership can be affected by location, income, unit size, and availability of transit service. Locations with a high level of transit service have a correspondingly lower level of car ownership. This is particularly evident where rapid transit is available. The other major factor that influences parking demand is dwelling unit size. Staff analysis has found that larger units have more occupants and occupants with higher income levels. These factors tend to increase vehicle ownership.

Parking standards in Vancouver have evolved over time, based on numerous studies and stakeholder consultations, and are more refined than in most other jurisdictions. A fine grain is necessary if the standards are to accurately reflect the actual demand for parking. It is important that residential parking be provided on-site. Supplying too little parking affects livability for building residents through reduced convenience and safety, and for those nearby through spillover and noise. At the same time, parking requirements must not be too high as this affects affordability and the environment would suffer as excess parking encourages additional car ownership and use.

DISCUSSION

This report focuses on parking requirements for multiple dwellings containing market housing in specific commercial and residential zones outside the downtown area where heritage is not a consideration. Areas most needing updating are those where housing affordability is a dominant factor and/or where rapid transit service is available or planned. As well, some requirements are unsuitable for units of a particular size, and can result in excessive parking provision. In addition, parking requirements must be responsive to the problems on small sites, where providing parking is particularly challenging. City-wide, there is also a need to encourage co-operative vehicles as part of the City's general parking requirements.

Parking requirements for multiple dwellings have been the subject of ongoing study in Vancouver. Over the last several years there have been parking studies of multiple housing in neighbourhoods near SkyTrain stations, beyond walking distance of SkyTrain, surrounding Southeast False Creek, Central Broadway, Fraser Lands, and Marpole. The studies examined vehicle ownership of recently built projects, and consistently found a clear relationship between the size of a dwelling unit and the number of vehicles owned. A fuller description of the studies appears in Appendix B. It has been demonstrated through these studies that:

- current standards in effect for SkyTrain catchment areas and in Marpole can be reduced;
- there is a slight reduction in vehicle ownership near rapid transit stations; and
- adjustments are needed to better scale parking requirements to unit size.

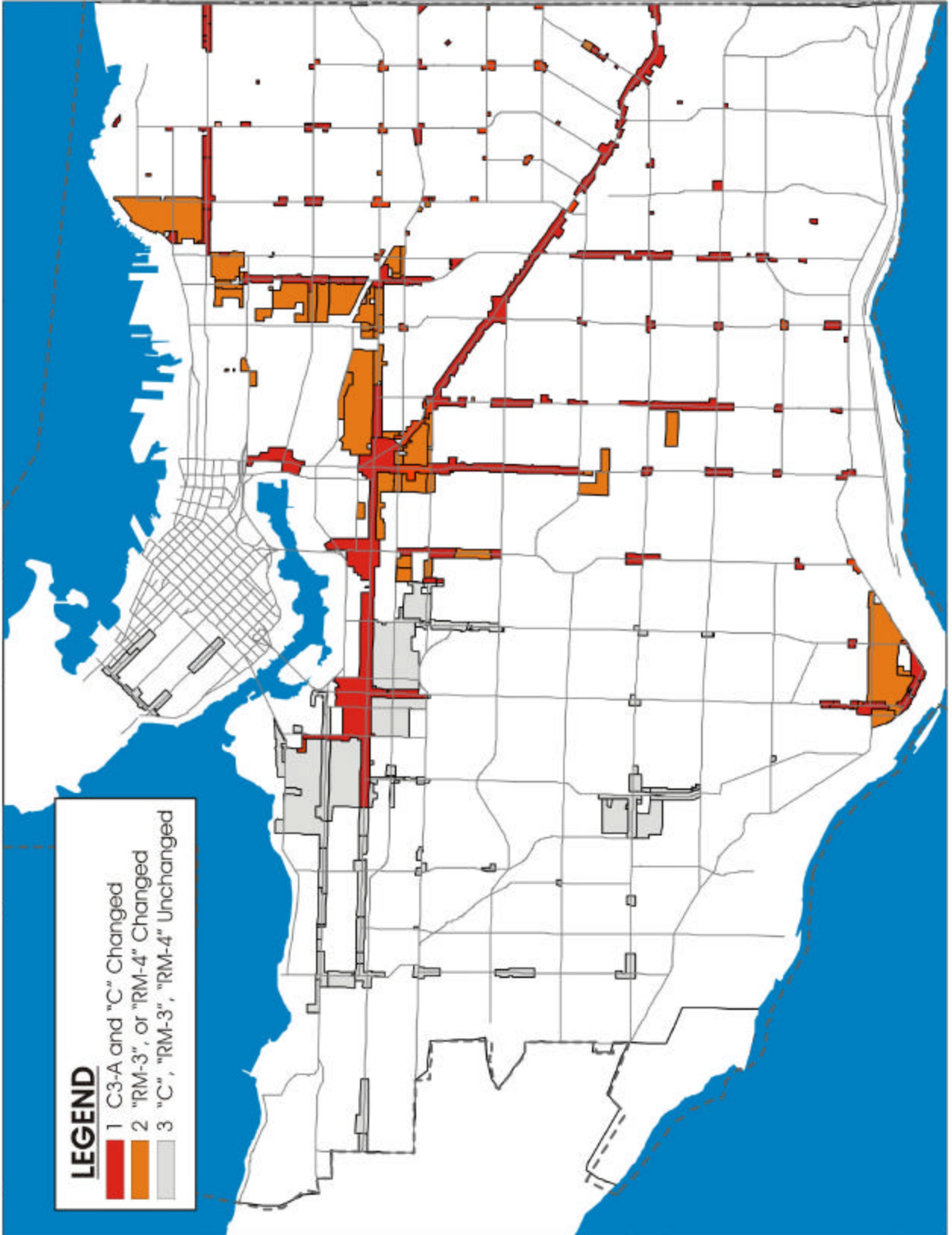
Parking standards must support sustainability initiatives, such as Cool Vancouver, anticipate improvements in transit services such as RAV, and help offset increasing challenges to housing affordability. However, parking must also be responsive to the evidence of public support for requirements that accurately reflect levels of vehicle ownership (see Appendix B). If parking requirements are too low, the building's residents suffer as does the surrounding neighbourhood.

Parking requirements for multiple dwellings in the areas shown in Figure 1 are proposed to be reduced. The recommended standard is 0.25 space per dwelling unit plus one additional space per 120 m² of gross floor area (GFA). This is shown in Figure 2, with existing requirements for comparison, and reflects the level of vehicle ownership observed in recent developments studied. This is similar to the levels observed for multiple dwellings near SkyTrain stations in the city. The proposed standard represents a reduction consistent with the highest level of transit service and the lowest levels of vehicle ownership for market housing. The proposed new standard will ensure that dwelling units from a small one-bedroom apartment to the largest multi-person suite will have a parking requirement that is lower than under the current C and RM formulae.

As a minimum requirement, the proposed standard mandates only a core parking provision for building residents, but leaves open the potential for additional parking at the option of the developer to provide parking for visitors. Unlike current requirements, the proposed standard does not include a visitor component, leaving visitors to find parking on the street. However, this should not be a significant problem, as visitor parking has frequently been converted to more parking for residents anyway, which facilitates higher vehicle ownership. The reductions as shown in Table I typically range from 10 to 40 percent, depending on unit size.

The recommended standards incorporate other changes as well. Responses to surveys (which form the basis for the formula) were given for the dwelling unit area, while standards are calculated on gross floor area. The difference between dwelling unit area and gross floor area ranges from about 7 to 15 percent, as the gross floor area includes, for example, common areas such as hallways and elevators. Staff have applied a 10 percent correction to account for the discrepancy between dwelling unit and gross floor area. This lowers the amount of parking required, and ensures ease and consistency in administration. For small sites, less than 500 m² in area, providing parking even with the reduced standard may be a hardship. Staff recommend the lesser of the proposed new formula, or one space per dwelling unit be applied to these small sites.

Figure 1 - Zones Having Multiple Dwelling Parking Requirements Reduced



**Figure 2 - Proposed Market Multiple Dwelling Minimum Parking Requirements
 for Zones Illustrated on Figure 1**

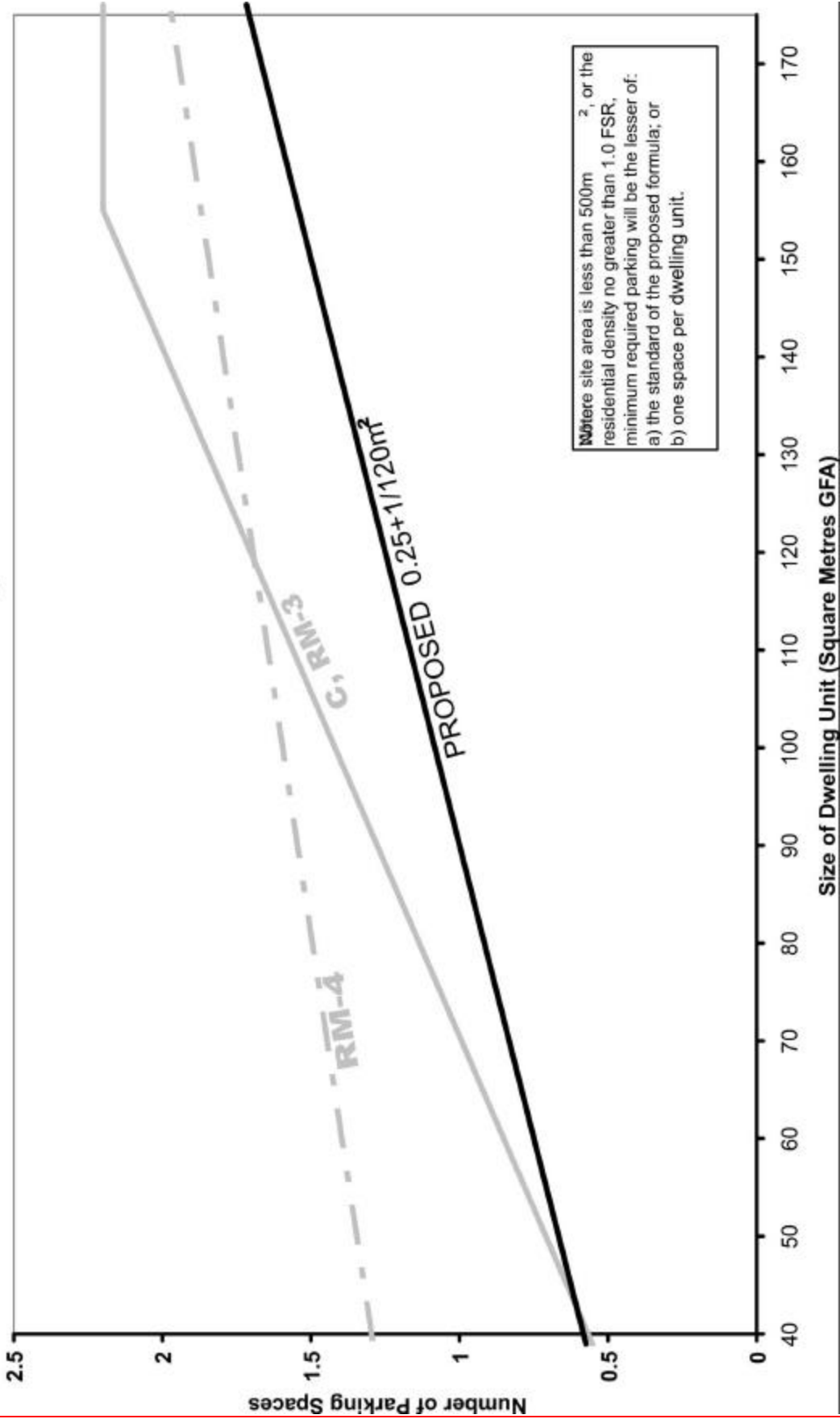


Table I - Parking Spaces Required for Dwelling Units, Existing vs. Proposed

District	Dwelling Unit Size (Square Metres GFA)				
	50	70	90	110	130
Existing:					
C, RM - 3	0.71	1.00	1.29	1.57	1.86
RM - 4	1.35	1.45	1.55	1.65	1.75
Collingwood Village CD-1	0.95	1.03	1.11	1.19	1.27
Proposed:					
	0.67	0.83	1.00	1.17 (1.00*)	1.33 (1.00*)
* 1 space per dwelling unit for sites up to 500 m ² or density up to 1.0 FSR					

Staff considered applying a uniform one-space-per-unit rate, as applicable in single-family and duplex areas. This is workable in lower density neighbourhoods, generally 0.6 FSR or less. In commercial and apartment zones, however, given the number of units per block and the limited amount of curb space for on-street parking, generally this would not be workable where residential densities exceed 1.0 FSR. Staff working on the New Housing Initiative concluded that the maximum density that can support a one-space-per-unit standard and still preserve neighbourhood livability and accessibility is about 1.0 FSR. In addition to the reduced requirements for sites less than 500 m², staff therefore recommend a rate of one space per dwelling for all sites where residential density does not exceed 1.0 FSR.

Co-operative Automobile Parking

Membership in the Co-operative Auto Network (CAN) now approaches two thousand. While many CAN members gain mobility, others rid themselves of their car. The net effect is a reduction in the overall number of vehicles licensed and in need of parking. In response recent residential rezonings have included provisions which allow substitution of co-operative vehicles for required parking.

Staff recommend that the Parking By-law permit multiple dwelling applications, city-wide, to reduce required parking by three spaces in exchange for providing a co-op vehicle and a parking space reserved for the co-op vehicle [i.e. for a net reduction of 2 parking spaces overall]. For each 60 dwelling units, one co-op vehicle and co-op parking space could be provided, as it generally takes this many households to support a co-op vehicle. With rounding of fractions, a project as small as 30 units would be allowed to make this exchange. The By-law should also include provisions to relax the limitation of the number of co-op autos that may be provided, where a greater number of co-op vehicles could be supported on a site (see Appendix A).

PUBLIC INPUT

This report was circulated in draft form to two dozen organizations and individuals concerned with the planning and development of market multiple housing. In addition, it was sent to representatives from Vision Areas that would be affected by the changes to parking standards proposed. As well, the proposals were presented to the UDI Liaison Committee in March.

Reaction has been largely positive; this includes support from local architects, the Co-operative Auto Network, and the GVRD, the latter particularly noting benefits with respect to air quality and greenhouse gas emissions, housing affordability, and transit use and car-sharing. The only concerns raised were from some realtors and two households, one near the Punjabi Market and one near Granville Island, that there would be negative impacts from reducing parking requirements; also, one consulting engineer and a planner from the City of Burnaby cautioned against removing a visitor component from parking requirements as there would be spillover impacts on local streets. Staff conclude that impacts from the recommended standards will be tolerable, and are far outweighed by the benefits of the parking reductions.

CONCLUSION

Parking requirements for multiple dwellings have been identified as excessive for areas of the city where transit service is high. Currently staff who process development applications use relaxation provisions in the Parking By-law to address this. Also, recent CD-1 rezonings have incorporated parking standards similar to the new standards recommended in this report. Given these practices, having considered local experiences and study results, and having consulted with the public and various City service groups, the General Manager of Engineering Services recommends the changes to parking requirements as contained herein.

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APPENDIX A - TEXT AMENDMENTS

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

Section 2

New definitions are required for *co-operative vehicle* and *co-operative parking space*. A *co-operative vehicle* is a four-wheeled automobile, van, or pick-up truck, owned and operated by an organization which provides car-sharing services to its members. A *co-operative parking space* is a parking space reserved for the exclusive use of a co-operative vehicle.

Section 3.2

A new section is required to permit relaxation of required parking where co-operative vehicles and co-operative parking are provided, including the provisions governing the number of co-operative parking spaces that may be provided and the number of ordinary parking spaces that co-operative vehicle and co-operative parking provisions may be substituted for. This new section will permit substitution of a *co-operative vehicle* and designated *co-operative parking space*, provided by the applicant, for 3 required parking spaces. For each 60 residential units on a site or co-joined site, in substitute of required parking one co-operative vehicle and co-operative parking space may be provided, the eligibility limit rounded to the nearest whole number. Acceptance of co-operative vehicles and parking would include a requirement that an agreement on title be registered, to the satisfaction of appropriate City authorities. The operating organization must be recognized by the City of Vancouver as qualified to provide such services, and shall include in the rates it charges its members a component for the eventual replacement of its vehicles. This new section shall be applicable city-wide.

New Section 4.2.1.12

For three or more residential units, or for dwelling units in conjunction with another use: i) in C or RM districts located within the area bounded by Burrard Inlet, Boundary Road, Marine Drive, Ash Street, 64th Avenue, Heather Street, Tisdall Street, 46th Avenue, Willow Street, 33rd Avenue, Heather Street, 6th Avenue, 2nd Avenue, Main Street, Prior Street, Gore Avenue, the lane south of Hastings Street, and Heatley Street; ii) in C or RM districts located within the area bounded by Ash Street, Southwest Marine Drive, Hudson Street, the CPR right-of-way, 70th Avenue, Adera Street, 62nd Avenue, French Street, and 64th Avenue; or iii) in portions of G3A not included above, the minimum required parking shall be calculated as follows:

a) Dwelling units shall provide a minimum of 0.25 space per dwelling unit plus one space per 120 square metres gfa, except that no more than 2.0 spaces for every dwelling unit need be provided.

b) For sites smaller than 500 square metres or with a maximum of 1.0 fsr - Parking shall be required according to a) above or one space per dwelling unit, whichever is the lesser.

APPENDIX B - PARKING STUDIES SUMMARY

Earlier Studies

When the Parking By-law was introduced in 1986, the parking standard for multiple residential use in Vancouver outside the Downtown Peninsula, and apart from comprehensive developments, was one space per 70 square metres of gross floor area. This standard still applies in many zones across the city, including all C Districts, RM-2/RM-3 Districts, and the DEOD. In rapidly developing areas of Kitsilano and Fairview Heights (RM-4), and Fairview Slopes (FM-1), serious parking shortfalls were in evidence such that new standards were introduced in the late 1980's. The new standards consisted of a per-unit component as well as a size-related component (e.g. RM-4 illustrated in Figure 2). There was also a provision to require a reduced standard of simply one space per unit on small sites, i.e. less than 500 square metres, due to the hardship of providing underground parking on a small site. In 1988/89, and in absence of any parking studies, RM-3 and RM-3A districts in Grandview-Woodland and Mt. Pleasant were rezoned as RM-4; thus, the parking standard determined for original RM-4 zones in Kitsilano and Fairview Heights came into effect with no consideration relating to the possibility of lower vehicle ownership.

In 1994, staff studied commercial and residential parking requirements in Central Broadway (C-3A District). The study concluded that the existing standard of one space per 70 square metres gfa was appropriate. However, since then the major 99 B-Line service commenced operation, and the rapid transit Millennium Line penetrated the east side as far as Commercial Drive (and soon west of Clark Drive). Continued densification of Central Broadway has created a "linear downtown" roughly from Main Street to Arbutus Street. A few years ago, the restaurant parking standard in this district was reduced in recognition of the interplay between the local use mix. Staff believe it is now appropriate to reduce the residential parking requirements for new developments in C-3A in anticipation of reduced reliance on private automobiles given the marked upgrades in transit service and continuing densification.

When Greystone Properties commissioned Bunt & Associates in 1996 to study the parking needs of newly developing Collingwood Village (and other recent residential projects less than 600 metres from a SkyTrain station), it was suspected that a reduction in the standard was in order on account of the proximity of the SkyTrain at Joyce Station. To determine whether there was a "SkyTrain Effect" on vehicle ownership, City staff surveyed several market multiple housing complexes in SkyTrain catchment areas, but greater than 600 metres removed from any station. It was found that being near a SkyTrain station meant ownership of 0.1 vehicle less per household than for comparably-sized units removed from SkyTrain. Far more significant, however, was the finding that many households in the study area were being provided with more parking than necessary under the RM-3 or RM-4 standards.

Reductions in parking required for many multiple residential developments have been promoted over the last several years. First, the standard for the Collingwood Village Comprehensive Development District was reduced by about 25 percent (see Table I). Then for a number of comprehensive developments in SkyTrain catchment areas, the rates determined in the 1996 study have been prescribed - a recent example of this is the rezoning approved by Council in July 2003 at 1402-1436 Kingsway/4050 Knight. Council introduced a reduced standard to apply to multiple residential applications within a 3-to-4 block radius of Broadway/Commercial Station as part of the Precinct Plan approved in 2001. Finally, for a handful of sites undergoing redevelopment, the minimum parking requirements have been relaxed to these levels.

With applications for multiple dwellings expected to proliferate in most parts of the city, staff believe the highest priority for parking standard change is the multiple residential standard. The areas recommended for adoption of new standards are illustrated in Figure 1. While most affected areas lie along the Cambie corridor or to the east, where lie the SkyTrain catchment areas, it is important that the entire Central Broadway (C-3A) District be included given its higher density and increased level of transit service.

Study in 2004

Further study was undertaken recently. Marpole's multiple dwelling areas had not been studied previously, and were considered candidates for lowered parking requirements. Thus, in August 2004 three newer market sites in Marpole were surveyed to determine vehicle ownership. At the same time seven recently occupied market sites in SkyTrain catchment areas, but more than 600 metres removed from any station, were surveyed to determine whether any changes in ownership patterns were discernible since the studies done for Collingwood Village in 1996. The results, tabulated in Appendix C, found that in both cases, vehicle ownership levels were comparable with those observed in 1996, such that Marpole could and should be included in any new standards. Complete results are available through the office of the General Manager of Engineering Services.

From the results of these surveys, staff performed a linear regression analysis to determine the equation which most nearly fit the relationship between the size of dwelling units and the number of vehicles owned or leased by their occupants. The result was reduced by 10% in anticipation of assessment to be based on gross floor area, rather than the units' floor areas given by occupants. As the result still would have imposed a higher requirement in some cases for small-sized units (i.e. compared with the current C or RM-3 standard), the equation was dipped slightly at the lower end in arriving at the recommended standard. See Table I for a comparison of required numbers of parking spaces for dwelling units of various sizes, under the existing and proposed standards.

- 7) In the future, should the City of Vancouver: (please circle one answer only)
- No Answer **1**
 - Require less parking than the expected demand to discourage car ownership? **6**
 - Require more parking than expected demand to avoid spillover onto nearby streets? **33**
 - Require parking equal to the level of the expected demand? **75**

- 8) (A) Regarding car-sharing, are you a member of the Co-operative Auto Network?
- 3** Yes **87** No **2** Used to be **1** Plan to join **7** May join sometime **12** Never heard of it

(B) Regarding transit, how many residents in your household:

Never use transit:	61 resident(s)
Use transit less than one day per week:	36 resident(s)
Use transit one or two days per week:	29 resident(s)
Use transit more than two days per week:	34 resident(s)
Have a monthly transit pass:	29 resident(s)

- 9) Do you have any other comments? **38** Comments

Top 5:

1. Transit service improvement is needed	9
2. It is not practical or reasonable to reduce parking requirements	6
3. Parking works well as is	4
4. We need "Resident Parking Only"	3
5. Good transit system, approve of more Rapid Transit	3