CarShare Recommendations and Best Practices Lit. Review (AB)

City of Toronto: Parking Standards Review of Impacts of CarShare Programs on Parking Standards

"Recommends the reduction of residential minimum parking requirements by 5-10% if a car sharing service is adjacent, or reducing 4-8 parking spaces for each car share vehicle in a residential building."

Litman, T. (2007) Parking Management Best Practices, American Planning Association.

"Zipcar in Toronto reports that approximately 40% of members have either given up or foregone purchases of a vehicle after becoming members. Combine this data with reported membership rates of 20 to 25 users per car, each car vehicle in Toronto removes approximately 8 to 10 personal vehicles from the road."

Transportation Research Board of the National Academies, Car Sharing: Where and How It Succeeds. [available online http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_rpt_108.pdf (2005)]

Exhibit 5: Maximum Allowable Reduction in the Minimum Required Parking

SIZE OF DEVELOPMENT (# OF UNITS)	SEATTLE		VANCOUVER		SAN FRANCISCO (REQUIRED CAR SHARE SPACES)	
	MAX # CAR SHARE SPACES	MAX ALLOWABLE REDUCTION	MAX # CAR SHARE SPACES	MAX ALLOWABLE REDUCTION	MAX # CAR SHARE SPACES	MAX ALLOWABLE REDUCTION
10	1	1 1	0	; 0	0	
30	2	5	1	3	0	÷ +
60	4	11	1	3	1	
120	8	23	2	6	1	
250	16	47	4	12	2	
450	28	84	8	24	3	-

IBI Group. (2009). Parking Standards Review: Examination of Potential Options and Impact of Car Share Programs on Parking Standards: Final Report. City of Toronto.

https://www1.toronto.ca/city_of_toronto/city_planning/zoning__environment/files/pdf/car_share_200 9-04-02.pdf

"Since this project, a number of developments have included parking for car share vehicles as part of the site plan application without receiving parking requirement reductions.

Examples include:

48 Abell St.: An 18-storey affordable housing building and 14-storey condominium building with non-residential uses which includes a minimum of 3 car share parking spaces on the lot.

625 Queen St. East: A six-storey mixed-use condominium building which includes 1 space for car sharing secured for a one-year period with a car share provider. In addition, the applicant will cover the one-time membership fee for all first-time residents."

IBI Group. (2009). Parking Standards Review: Examination of Potential Options and Impact of Car Share Programs on Parking Standards: Final Report. City of Toronto.

https://www1.toronto.ca/city of toronto/city planning/zoning environment/files/pdf/car share 200 9-04-02.pdf

"To date, reductions in residential parking requirements have been allowed for developments providing dedicated car share parking under a variety of arrangements.

Examples include:

15 York St.: Includes a 54-storey and a 50-storey residential condominium as well as a nine-storey podium with retail, office, daycare and hotel uses. A ten space reduction for each dedicated car share space was granted and the owner is required to offer residential unit purchasers, who do not purchase a parking space, free membership or initiation fees to the car share organization operating in the building.

1171 and 1171R Queen St. West: A nine-storey mixed-use building and a 19-storey residential building which included parking reductions of five spaces for each dedicated car share space, limited to no higher than

25% of the resident parking requirement. In addition, the site-specific by-law sets restrictions on what happens to the dedicated stalls if the car share operation is not sustainable. After three years, if the car share vehicles are no longer in operation, 51% of the car share spaces shall be converted to visitor parking and 49% of the spaces shall be converted to occupant parking.

150 Sudbury St.: Five space reduction for each dedicated car share space limited to no higher that 12.5% of the resident parking requirement. Similar specifications to 1171 Queen St. are indicated for when and how the dedicated stalls will revert to visitor and occupant parking should the car share service not be sustainable.

50, 60, and 70, Town Centre Crt.: A three-phased development with 1,005 residential units and a small retail component: 80 spaces reduction allowed in residential parking requirement contingent on a number of conditions including: A minimum of three surface parking spaces reserved for car share vehicles with pavement markings and/or signage designating the parking spaces for the exclusive use of the car-share organizations; free car share membership for each unit's initial purchaser(s); free TTC Metro Pass for one year for the initial purchaser(s) of each unit that is purchased without a residential parking space; and secure bicycle parking.

90 Broadview Ave: A 10-storey residential building for which a staff report (October 2008) proposes that one car share space be granted, which will allow for the reduction of up to 10 spaces, provided that the maximum reduction is no more than 25% of the required residential parking requirement. As well, under a Section 37 agreement, the applicant will provide one-year memberships to each first-time resident."

IBI Group. (2009). Parking Standards Review: Examination of Potential Options and Impact of Car Share Programs on Parking Standards: Final Report. City of Toronto.

https://www1.toronto.ca/city_of_toronto/city_planning/zoning__environment/files/pdf/car_share_200 9-04-02.pdf

Exhibit 21: Scenarios for Proposed Parking Reduction Ratio

SIZE OF DEVELOPMENT (# OF UNITS)	MAXIMUM ALLOWABLE REDUCTION IN THE MINIMUM REQUIRED PARKING	CAR SHARE SPACES REQUIRED TO ACHIEVE THIS REDUCTION	
Less than 30	1	1	
30 - 44	2	1	
45 – 59	3	1	
60-74	4	1	
75 – 89	5	2	
90 – 104	6	2	
105 – 119	7	2	
120 - 134	8	2	
135	9	3	
195	13	4	
255	17	5	
315	21	6	
375	25	7	

"For any apartment or condominium development, the minimum parking requirement should be reduced by up to 4 parking spaces for each dedicated car share stall. The limit on this parking reduction is calculated as the greater of:

"4 * (Total number of units / 60), rounded down to the nearest whole number; or

• 1 space.

"Where a maximum parking ratio is specified, dedicated car share parking spaces should not count towards the maximum allowable parking supply, up to 10% of the maximum number of parking spaces."

This reduction, existing on a sliding scale, falls within the range of expected impacts of car sharing on auto ownership from existing literature.

IBI Group. (2009). Parking Standards Review: Examination of Potential Options and Impact of Car Share Programs on Parking Standards: Final Report. City of Toronto.

https://www1.toronto.ca/city_of_toronto/city_planning/zoning__environment/files/pdf/car_share_200 9-04-02.pdf

Car-Sharing, Pricing Strategies

Van Ness and Turk Development -- San Francisco, California

This development includes 141 residential units in a dense area of San Francisco, with only 51 parking spaces. The development was granted a substantial reduction in parking requirements—nearly two-thirds—from the city's minimum of 1 space per unit, to 1 space per 2.8 units. The reduction was granted in large part because of the developers' agreement to provide two parking spaces for car-sharing operator City CarShare, accessible to residents and all CarShare members. Strong community and organizational support, as well as proximity to major transit corridors, were also feeters.

If the developers had been required to build the additional 90 spaces required by code, they would have been forced to add either subterranean levels or parking lifts, which save space by stacking vehicles on top of each other. These expensive options would have cost between \$1.35 million for lift technology (estimated at \$15,000 per space) or \$8.1 million for additional below-grade parking levels (estimated at \$60,000 to \$90,000 per space).

The developer also "unbundled," parking costs, so that residents are charged for parking separately from rent. The current market rate for parking is \$280 to \$300 per space per month. By charging separately for parking and incurring lower construction costs, the developer is able to keep apartment rents lower.

Source: Thieophilos Developers, 2002.

DCED. (2006). Parking Space/Community Places: Finding a balance through smart growth solutions. Division of the EPA. Washington DC. Retrieved from:

http://nepis.epa.gov/Exe/ZyPDF.cgi/20017F0I.PDF?Dockey=20017F0I.PDF

Car-Sharing, Parking Maximums

Rich Sorro Commons -- San Francisco, California

Plans for Mission Bay, a 303-acre brownfield redevelopment area in San Francisco, include 6,000 units of housing, office space, university facilities, a hotel, community services, and retail. The city introduced parking maximums in this area to maximize the amount of new housing, make the most of the new Third Street Light Rail line through the neighborhood, and minimize traffic impacts on congested streets and the nearby freeway. Residential parking maximums were set at one space per unit.

One of the first projects completed was Rich Sorro Commons, a mixed-use project with 100 affordable units and approximately 10,000 square feet of ground floor retail. It was constructed with only 85 parking spaces, due to:

- Excellent proximity to light rail, commuter rail, and frequent bus service;
- Provision of two parking spaces for City CarShare; and
- Units below market rate, with tenants who are less likely to own a car.

With fewer parking spaces, Rich Sorro Commons was able to make space available for a childcare center and retail stores at ground level. The 17 would-be parking spaces were converted to retail space that is expected to generate revenues of \$132,000 annually for the project (300 square feet per space at \$25.80 per square foot in rent), making housing more affordable. The two City CarShare vehicles are available to residents, giving them access to a car without the costs of ownership – a particularly important benefit for low-income households.

Source: Kenneth Jones, Developer, 2002.

DCED. (2006). Parking Space/Community Places: Finding a balance through smart growth solutions. Division of the EPA. Washington DC. Retrieved from: http://nepis.epa.gov/Exe/ZyPDF.cgi/20017F0I.PDF?Dockey=20017F0I.PDF