



Best Practices & Recommendations on Parking Management at the City of Vancouver

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July, 2021

This report was produced as part of the Greenest City or Healthy City Scholars Program, a partnership between the City of Vancouver and the University of British Columbia, in support of the Greenest City Action Plan and the Healthy City Strategy.

This project was conducted under the mentorship of City staff. The opinions and recommendations in this report, and any errors, are those of the author, and do not necessarily reflect the views of the City of Vancouver or The University of British Columbia.

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Acknowledgements

I would like to acknowledge the City of Vancouver's Parking Management Department and the Greenest City Scholars Program for assisting me in the completion of this project. Specifically, I would like to extend my gratitude to Billy Dong for his time, feedback, and continued guidance as my direct supervisor; Sarah Labahn for her thoughtful and detailed review of my report; Karen Taylor for her utmost support throughout the course of the program; and many others who have reached out to me to offer their insights and opinions. This project would not come to life without their valuable inputs.

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Introduction

For a long time, parking has become a stressful daily experience for most road users across cities around the world. Results from 21 studies in 13 cities across the world show that on average, 34% of traffic on underpriced and overcrowded streets is made up of vehicles cruising for free parking spaces (Shoup, 2018). This parking problem – where road users have to spend excessive time and drive additional distances to find storage for their vehicles between trips – was thought to be a direct consequence of a parking shortage. As curb spaces are generally limited for on-street parking¹, policies were put in place to ensure an overabundant supply of off-street parking², particularly during the bloom of the automobile industry. However, studies in recent decade have demonstrated that the issues associated with parking are not a consequence of a parking shortage as often perceived. On the contrary, excessive provision of off-street parking spaces comes with many direct and indirect consequences that affect both city dwellers and road users, including congestion, air pollution, and negative impacts on housing affordability (Shoup, 2014). Most importantly, an overabundance of free or cheap off-street parking spaces encourages further car ownership, which in turn exacerbates the existing parking problem. Cities around the world have identified this issue and are rectifying the problem by tackling the true causes of the parking problem.

The causes of the parking problem are many, among which are the inefficient use of existing parking capacity and inadequate accessibility to information on parking prices and availability. While the latter depends largely on technological advancement and adoption, the former relies on an efficient parking management strategy, which is the focus of this study. A classic example of inefficient use of existing parking capacity is when off-street parking spaces are not fully utilized while on-street parking spaces in the same area are at capacity due to the convenience of parking on the street, or a large difference between parking prices that deters drivers from parking off-street. This issue is commonly referred to as parking spillover. As policies are adopted to mitigate the excess supply of off-street parking, the issue of parking spillover onto on-street spaces is anticipated. An integrated approach to tackle both issues concurrently is required and will be the overarching focus of this study. Specifically, this report examines best practices for both on-street and off-street parking policies, including their effectiveness and potential implementation challenges given the context of the City of Vancouver.

The following section provides evidence of the parking oversupply in Metro Vancouver and its potential impacts on congestion, pollution and housing affordability. Section 3 explores current parking management practices in Vancouver. Section 4 provides a literature review of recommended policy tools for the parking and parking spillover problems. Section 5 examines residential parking permit programs in detail by presenting a comparative study of eight cities around the world, including Vancouver, Calgary, Toronto, Montreal, Santa Monica, Amsterdam, Stockholm and Riga. The report ends with recommendations of best

¹ On-street parking refers to parking that is on or along street curbs.

² Off-street parking refers to parking that is NOT on or along street curbs.

parking practices, that take into consideration the City of Vancouver's sustainability goals, equity issues, implementation challenges, and potential spillover effects of the recommended policies on housing affordability.

Background

Evidence of Parking Oversupply in City of Vancouver and Other Cities in the World

The City of Vancouver and many other cities are striving to strike an appropriate balance between providing just enough parking for the existing traffic while reducing the need of city dwellers to own a vehicle.

Vancouver, like many other cities, faces a dilemma of oversupplying off-street parking spaces. In the past, off-street parking space had been generously supplied by developers under the enforcement of planning policies to allow easy and free access to vehicle storage and prevent congestion. Consequently, parking infrastructure became one of the largest allocations of urban land use that often go underutilized (Shoup, 2014). A 2018 Metro Vancouver ³Regional Parking Study found that off-street parking supply exceeds demand across the region for both market rental and strata buildings, with only 35-65% occupancy rate after 11 PM on weekdays.

Similarly, independent surveys on peak-period occupancy across North American cities from 1995 to 2000 consistently revealed that the occupancy rates during peak period were less than 85% in all parking lots sampled – some went as low as 37% (Willson, 1995; Shaw, 1997; City of Seattle, 2000). Even in a densely populated European city such as Copenhagen with only 22% of households owning a car, there are approximately 3 parking spaces per vehicle, similar to that of the Los Angeles County. These parking spaces add up to 3.7% of total land use in Copenhagen (Colville-Andersen, M., 2018). Figure 1 overlays the area of all parking spots in Copenhagen and Frederiksberg, showing that if every parking space in the region were put together into a single surface parking lot it would completely obliterate the city center.

These studies, among many others, suggest that there is an oversupply of parking spaces in many major cities around the world, and one way forward is not to build more parking, but to implement more efficient parking management policies.

³ Metro Vancouver is a metropolitan area with its major urban centre being the city of Vancouver.



Figure 1. The approximate total parking spaces in Copenhagen City projected onto its administrative areas. Parking spaces account for 3.7% of the Copenhagen's total area. Retrieved from <http://www.copenhagenize.com/2015/12/arrogance-of-parking-space-copenhagen.html>.

Impacts of Parking Oversupply & Undersupply

An oversupply of underpriced parking spaces may be just as problematic as a shortage of parking spaces, as:

- The availability and convenience of parking, coupled with low parking fees allow city dwellers to rely on cars as the predominant mode of transportation. High car ownership and car usage result in further traffic congestion, parking congestion, urban sprawl, pollution, and associated health problems (Shoup, 2014).
- The availability of off-street parking typically contributes costs and affordability of a home. Parking is often advertised as a “free amenity” that comes with purchasing or renting a home. However, the construction cost of a parking space – which typically ranges from \$40,000 to \$50,000 – is often bundled with the cost of housing, which translates into an additional \$200 to \$250 in monthly mortgage payments at the 2012 rates in Metro Vancouver (Transportation 2040, 2012). Building occupants bear the cost of the parking space whether or not they own a vehicle.
- Parking spaces have negative impacts on the quality of life in urban areas as they have been linked to the loss of ecosystem services, increased levels of runoff and pollutants (Davis et al., 2010), and the formation of urban heat islands (Onishi et al., 2010).

Conversely, if the needs for off-street parking spaces in new developments are not met, car owners will park on the street, causing a spillover of the parking problem onto valuable curb space which can impact essential service providers, and visitors in the area. This issue is otherwise known as the ‘parking spillover’ problem.

Parking spillover occurs when there is an overutilization of on-street parking and underutilization of off-street parking in the same area. This could be the case when off-street parking is not an option, or when visitors choose to park on the streets in the adjacent residential areas out of convenience instead of parking in the designated off-street parking spaces intended for their trip destinations. This is often due to expensive off-street parking or scarce on-street parking options designated for shops, restaurants and other popular amenities such as hospitals, schools, public parks, etc. Parking spillover takes away parking spaces from residents, businesses and delivery vehicles and can take up valuable curb space that can be repurposed for activities such as cycling or walking. It also increases traffic as drivers cruise the streets of residential areas searching for parking.

Traditionally, parking spillover is addressed by residential parking permit programs which grant exclusive parking rights to residents or place bans or restrictions on visitor parking. However, permit systems that are not priced appropriately have proven to be inefficient as they do not assure that on-street parking space, which is often scarce, is allocated to those who value it the most highly. Another common policy to curb spillover parking is imposing a minimum requirement for parking spaces provided by new developments in anticipation of the influx of new residents in the area. Over time, this approach has also been criticized for being the driver of excessive parking, high housing costs and increasing vehicle ownership (Weinberger, 2012).

Given that both under- and over-provision of parking spaces are problematic, the core of parking management is providing just enough off-street parking spaces for the existing demand while offering enticing alternative travel options to disincentivize future car ownership. As such, the design and implementation of off-street and on-street parking policies need to be integrated to effectively mitigate the existing parking and parking spillover problems, thus improving the performance of the parking system and increasing the sustainability of the urban spaces as a whole.

A Review of Parking Management Practices in Vancouver

Since the 1980s, the City of Vancouver has been outlining strategies to maximize the use of existing parking structures without encouraging further car ownership in an effort to promote the development of compact, mixed use, and highly walkable neighborhoods. Following the 1991 Central Area Plan which outlined strategic vision to reduce of the number of work trips to the Downtown area, the 1997 Transportation Plan maintained maximum standards on commuter parking and imposed a parking ceiling that was consistent with the 34,000 vehicles accessing Downtown in peak periods. Since then, various adjustments and new sustainability targets have been added to the long-term plan, and many successes have been achieved across all fronts of transportation, from improving and increasing transit services, to collaborating with ride-hailing companies to encouraging ride sharing in the city.

In 2012, the City of Vancouver approved the Transportation 2040 Plan, a long-term strategy document to transition the city into a more inclusive and sustainable future. To achieve this, the plan set ambitious and specific goals that by 2030:

- Two-third of all trips in the city will be made on foot, bike or transit
- 50% of the kilometers driven on Vancouver’s roads will be by zero emissions vehicles

In 2020, the Vancouver City Council approved the Climate Emergency Action Plan (CEAP) 2020-2025 which outlined specific actions to achieve the City’s long-term sustainable goals. The plan provides a comprehensive approach to sustainable transportation that entails a large portion of parking management practices. Particularly, it strives to strike an appropriate balance between providing just enough parking for the existing traffic while reducing the need of city dwellers to own a vehicle by mandating that:

- **Off-street parking:** Elimination of minimum off-street parking requirements city-wide and implementation of modest parking maximums in new developments.
- **On-street parking:** Establishment of on-street parking permit system city-wide and introduce carbon pollution surcharges for vehicles.

The section below briefly describes the five successfully implemented parking programs in Vancouver, including off-street parking space requirements, payment-in-lieu parking, residential parking permit program, shared district parking and a parking strategy specifically designed for city of Vancouver’s Central Business District – the West End parking strategy.

1. Off-street Parking Space Requirement

Historically, Vancouver addressed the potential undue parking overspill from development to street parking by imposing minimum parking requirements on new developments. These requirements vary by building types and land uses, and generally take the form of spaces per dwelling unit (e.g., a minimum of one space for every dwelling unit) or spaces per floor area (e.g., a minimum of one space for each 70 m² of gross floor area). As parking availability encourages vehicle ownership and defeats the purpose of the city to promote

sustainable and alternative modes of transportation, the City makes deliberate considerations to set parking requirements that match parking supply with the observed demand in any new residential developments. As such, parking standards for residential and commercial developments are actively under review and the minimum parking standards have been consistently reduced over the year. Currently, various building classifications are also subjected to a maximum parking requirement in addition to the reduced minimum parking. In some parts of downtown, minimum parking requirement is completely lifted for residential buildings; and a maximum of one parking space for each 115 m² of gross floor area is strictly applied to non-residential buildings across downtown areas (Section 4 – Vancouver Parking By-law).

2. Payment-in-lieu

Payment-in-lieu relief allows a scenario where parking spaces need not be located in the same building as their development. Specifically, property developers have the option to opt out of the minimum off-street parking required for their developments provided that they pay the city a cost which would be used to fund public parking. The program started in 1986 with the original payment-in-lieu amount of \$10,500 per space. In December 2017, this amount increased to \$24,700 to reflect the increase in construction costs at the time, and changes in the forecast of the city's future parking construction. To put this in perspective, the construction cost of a private parking space in Metro Vancouver is estimated at \$40,000 to \$50,000, not accounting for maintenance costs (Transportation 2040). In other words, the program incentivizes developers to support public shared parking and disincentivizes the construction of single-destination parking facilities.

3. Residential Parking Permit

To further tackle the potential impacts of residential parking overspill from low residential parking standards, the City offers two types of residential parking zones to manage residential parking pressure on streets, namely the Resident Parking Only (RPO) zones, which started in 1966, and the Resident Permit Parking (RPP), which started later in 1980. RPO zones are parking zones strictly designated for the residents of a certain address with no permit application required. The RPP areas, on the other hand, allow parking by both residents and visitors at a cost. Residents living in the RPP zones are required to apply for the residential parking permit in order to be exempted from the posted time restrictions and other regulations subjected to non-permit parking. However, RPP privilege can be extended temporarily at the request of permit holders to non-residents, including out-of-town visitors, house sitters, home medical care providers, and contractors. Due to the permit requirement, the RPP system is easier to enforce by City staff as permit holders have to display a valid area permit in their designated RPP zones. The City of Vancouver currently no longer establishes any new RPO zones and is currently in the process of expanding the RPP system city-wide.

4. Shared District Parking

Shared district parking approaches parking spaces in individual buildings as a shared community resource that can be accessed by non-occupants or the general public - as is being practiced in some heritage properties in Vancouver. This model is beneficial for developers, drivers and cities as a whole. It enables higher utilization of unused existing parking spaces by allowing adjacent developments with time-staggered parking demand to utilize the same parking spaces rather than providing each of their own, and/or the uptake of underused parking spaces by new developments. By consolidating parking into fewer lots, construction and operations costs are reduced for developers and drivers can visit multiple sites within the district without having to find new parking. At the same time, parking districts allow cities to repurpose their underused parking lots into other land uses or act as a buffer to complement on-street parking policies. Finally, it solves the issue of unbundling parking cost from housing cost as homeowners could rent parking spaces from other developments if owning a vehicle is a possibility in the future. Overall, shared district parking improves land use efficiency, reduces costs for developers and homeowners, and creates a more convenient parking experience for road users.

5. West End Parking Strategy

West End refers to a residential neighborhood situated next to the downtown core business and financial districts of the City of Vancouver. Due to the dense population and the prime location of the area, traffic volume is particularly high and parking problems are often amplified in this area. It is reported that during peak periods, residents take about 5 minutes and over 1 km of extra driving to find parking, while visitors take about 10 minutes and almost 3 km of extra driving for the same task. The City of Vancouver therefore implements various parking strategies that respond specifically to the unique needs of this area, some of them are elaborated below.

Parking Fee Management

Market-based rate for Residential Parking Permit

Current on-street permits are almost ten times cheaper than the market-based rate, which reflects the rates of off-street parking (\$45.45 and \$401.13, respectively). Raising the fee of on-street parking permits to closely match the rates of off-street parking discourages people with access to off-street parking spaces from using on-street parking spaces, thus opening up spaces for others and reducing parking congestion. At the same time, renewing permit holders (who purchased their first permit before September 1, 2017) and future low-income households continue to pay non-market-based rates to address concerns about affordability.

West End Participatory Budgeting

This pilot program runs in tandem with the market-based residential parking permit system. The incremental permit revenue generated from market rate permit sales will be re-invested in the West End to help deliver community-identified needs, which can be transportation or other public space improvements, through a democratic process involving the participating community members. While benefiting the

community as a whole, this program incentivizes the implementation and uptake of parking market-based rates in the communities.

Parking Supply Management

Unlock Underutilized Off-street Parking Spaces

There are 1.5 residential parking spaces for every car registered in the West End permit area. To free up space on the street and make better use of underutilized off-street parking spaces, the City of Vancouver is encouraging buildings with excess parking to rent spaces to other West End residents while ensuring building security remains a high priority.

Visitor Parking Consideration

Parking is proportionately more difficult for visitors than for residents. There are fewer than 2 visitor parking spaces for every 100 households in the West End. As a result, it can take visitors about 10 minutes and almost 3 km of extra driving to find parking during busy periods.

- Visitors and service providers are allowed to park in residential spaces for a fee during off-peak periods.
- pay stations are installed at existing visitor parking spaces to increase visitor parking turn over.
- After other actions reduce demand for on-street residential spaces, some residential parking spaces will be considered to convert into visitor parking.

Parking Policies not yet implemented in Vancouver

Many policy tools have been developed and tested by cities around the world to address the issue of parking spillover in residential streets. In general, these regulatory practices could be grouped into four major categories, which are parking supply, parking pricing, parking time controls, and the provision of parking information. Study suggests that rather than looking at regulations individually, an integrated approach to complementary policies is necessary to mitigate parking spillover effects (Guo and Ren, 2013). The table below summarizes policy tools that have not been considered in Vancouver but are recommended in the literature. The next two subsections will explore these policies in detail.

Table 1. Summary of Parking Policies not yet Implemented in Vancouver.

POLICY AREAS	OFF-STREET PARKING POLICIES	ON-STREET PARKING POLICIES	
Parking Supply	Elimination of minimum parking requirements in future developments	City-wide Residential Parking Programs	City-wide fixed household permit limits
	Introduction of maximum parking requirements in future developments		Performance-based permit limits
	Exclusion of future development from accessing on-street parking permit zones		Pay-per-use principle
Parking Pricing	Not applicable	Market-priced parking	
		Carbon surcharge	

A Literature Review of Recommended Parking Policy Tools

This section will discuss the following parking policy tools to regulate off-street and on-street and describe the rationale, potential concerns, and implementation challenges for each.

Off-street:

- Elimination of minimum parking requirements in future developments
- Introduction of maximum parking requirements in future developments
- Car-free development: Exclusion of future development from accessing on-street parking permit zones

On-street:

- City-wide Residential Parking Program
- Market-priced parking
- Carbon Surcharge

Off-street Parking Policy Tools

Elimination of minimum parking requirements in future developments

Rationale

Minimum parking requirements refer to the standards for the minimum levels of off-street parking spaces per unit of surface area or employee forecasted in a new development. For many years, the minimum parking standards have been enforced on new developments to ensure there was enough parking for the incoming influx of new road users in the area, thus eliminating the potential for spillover parking into the surrounding neighborhoods. This policy remedies off-street deficiencies, rather than tapping into existing resources in nearby parking facilities (Litman, 2006). Thus, the minimum parking standards have proven to be inefficient not only in the long run, by generating additional demand for automobiles and contributing to increasing traffic congestion and urban sprawl, but also in the short run, by generating vacant spaces and wasting resources (Cutter and Franco, 2012; Manville et al., 2013; Brueckner and Franco, 2017). Sometimes used as a “free amenity” to attract occupants, parking spaces or an excess of them add into the hidden costs of housing. Weinberger et al. (2009) coined this cost as “a prepayment towards car ownership”, as access to reserved parking space at home triples the likelihood of car ownership (Christiansen et al., 2017). Overall, elimination of minimum parking requirements will be beneficial for urban development by ending the vicious cycle caused by excess parking.

Potential Concerns & Implementation Challenges

As attitudinal and preference surveys suggest that parking can be an important factor in property values and shoppers’ destination choices, elimination of minimum parking requirements might cause shortage in off-street parking and impact consumers’ decision to purchase and rent units in new developments. However, there is little empirical evidence on how developers and investors react to parking restraints

(Marsden, 2006). The concern over elimination of minimum parking requirements seems to be based more on perceptions than on evidence (Stubbs, 2002).

If the market value added by parking exceeds its construction and land costs, developers would have an incentive to build homes with more parking. Consequently, restrictive parking policies might reduce the expected profits and thus discourage development. If, on the contrary, the cost of parking exceeds its value, such as in the Los Angeles area (Cutter and Franco, 2012), then minimum parking standards might become an unworthy burden for developers (Shoup, 2014). Manville et al. (2013) shows that minimum parking requirements have likely hindered the redevelopment of downtown historic buildings due to the unrealistic costs, indicating that high levels of parking provision could be not only unprofitable, but economically infeasible in city centers.

Introduction of maximum parking requirements in future developments

Rationale

Maximum parking requirements set upper limits to the quantity of off-street parking provided off-street by developers. Many cities use the same method for the calculation of minimum parking standards to calculate the new maximum parking standards. This emerging policy tool ensures no excess provision of parking spaces, thus correcting the inefficiencies of minimum parking requirements (Li, 2018). This is especially important in promoting alternative travel modes and sustainability as studies have demonstrated that accessibility to off-street residential parking spaces place a much larger influence on car ownership than household income, demographic characteristics, or even accessibility to on-street parking spaces (Guo, 2013).

Potential Concerns & Implementation Challenges

Local governments and housing developers alike often see parking as an essential amenity to maintain competitiveness and help attract business and investment. In other words, there is always a certain demographic that see parking spaces as a benefit and is inelastic to the costs (e.g., Luxury units). Restrictive parking policy, therefore, could place the pursuit of alternative travel modes at the expense of urban vitality and development (Barter, 2010; Davidson and Dolnick, 2002). For the case of the Netherlands, this was true before the 2009 financial crisis. The dramatic drop in property values during the crisis accentuated the high construction and maintenance costs for parking spaces, which made many development projects impossible to complete in the Netherlands (van der Steen, 2010). It is therefore essential to realize that though parking does bring a competitive edge to housing projects, it comes with a high cost to both developers and future house owners.

Many cities across the world have adopted some forms of parking maximums in certain areas and/or for certain land uses, including major US cities such as Boston (MA), Chicago (IL), New York City (NY), Portland (OR), Salt Lake City (UT), San Antonio (TX), San Francisco (CA), and Seattle (WA) (Davidson and Dolnick 2002; Mukhija and Shoup, 2006). Restrictive parking maximums are associated with fewer multifamily housing developments in outer London but more developments in inner London, most of the latter being car-free

developments. These results suggest that the effectiveness of parking maximums on encouraging the development of car-free multifamily homes depends largely on population density and accessibility to public transit. When car dependence is taken into account, it is clear that communities with higher car ownership and usage levels are more sensitive to parking restraints on new housing.

Finally, parking maximums need to be binding for at least some new developments to have an impact. If the maximums are set so high that no developer would have provided that much parking anyway, they are not restrictive and hence inconsequential. Therefore, it is the restrictiveness – not the existence – of parking maximums that may affect housing supply. Two measures can be used to assess the restrictiveness of parking maximums in a local authority: the percentage of developments capped by parking maximums, and an overall parking-to-standard ratio (Li, 2018).

Car-free development: Exclusion of future developments from accessing on-street parking permit zones

Rationale

Elimination of off-street minimum parking requirements and introduction of maximum parking standards for new developments are usually coupled with the restriction placed on the new users of the development (e.g., inhabitants or employees) from obtaining on-street parking permits. This policy mitigates the typical parking spillover caused by car owners that are not allowed or able to park within the new development. Moreover, literature shows that not having a dedicated parking space at home is one of the main factors that reduce the likelihood of using a car. Studies from car-free developments discovered that car ownership stayed the same for the majority of residents before and after moving to the case study area. However, about 20 percent use public transport more and walk more often than before the move. Study in a particular car-free development in the Netherlands showed that while around half of the residents did not change their driving habits, one quarter drives a car less frequently and one fifth of the new residents have access to fewer cars since the move, which they attributed to the restriction from on-street parking. Overall, this policy has proven to be highly effective in reducing automobile use and encouraging alternative modes of sustainable transportation.

Potential Concerns & Implementation Challenges

This principle works relatively well when the new development is located in central urban areas, usually easily accessible by other modes of transport and where a system of on-street parking pricing is active. However, this might not work in more peripheral areas or areas in smaller towns, which might be less accessible and without paid parking. This suggests that the location of the new development is key to deciding whether or not to apply lower off-street minimum parking requirements.

This policy carries some implications on equity as access to street parking is discriminated between long-term residents and new residents, and prohibitive against disabled individuals. This might be quite controversial, not only from a societal point of view but also from a legal perspective. It begs the question

of whether the local authority can make such a discrimination among citizens. Exclusion of future developments from accessing on-street parking permit zones is however, still considered as a highly progressive policy in the sustainability front and is practiced in Amsterdam and Camden borough in Centre London. To mitigate some of the equity issues, allowances are made, particularly for people with disabilities. The option of metered and off-street parking is still made available, in the case of London, at prohibitively high cost.

On-street Parking Policy Tools

City-wide Residential Parking Program

An integrated approach to urban planning, zoning, development and parking management is required to avoid major parking spillover problems, as suggested by Antonson et al. (2017), Fearnley et al. (2017), Guo (2013), Guo & Ren (2013), and Van de Coevering & Snellen (2008). Currently, many city streets are not under the City's residential parking permit program, allowing free, unregulated, and convenient on-street parking space to residents and visitors alike. However, as Vancouver moves forwards with various rezoning and development projects to address the housing crisis, the City needs to be prepared for the incoming flux of residents with parking needs in the City. Given adequate provision of off-street parking spaces, studies in the Netherlands and Spain have independently demonstrated that road users still prefer on-street parking to off-street parking as they are willing to pay a premium for street parking (Kobus et al., 2013; Gragera and Albalade, 2016). Thus, a properly priced city-wide residential parking program is necessary to address future parking and spillover issues in anticipation of our growing city.

In addition, study shows that parking permit fees and the inconvenience of permit application could produce friction to discourage people from obtaining the parking permit and thus disincentivize future car ownership (Dümmler and Hahn, 2011 as cited in Kirschner and Lanzendorf, 2020). It is expected that a city-wide parking permit program will therefore provide better parking management and contribute to a reduction in transportation pollution. Currently, Amsterdam of the Netherlands and Riga of Latvia have both successfully implemented a city-wide residential permit program for each respective city (Table 1). In the subsections below, we will explore three management practices under the residential parking program, namely the fixed household permit limits, the performance-based permit limits, and the pay-per-use principle.

Fixed household permit limits

This policy tool puts a maximum limit on the number of permit eligible to apply for per household or address. Unlike off-street parking spaces that can be added over time with the opportunity of new development, on-street parking is restricted by curb space. Therefore, fixed household permit limits are necessary to ensure there are reasonable on-street parking spaces for all households, and the opportunity for on-street parking is spread out equally. At the same time, this objective fails in case there are multiple tenants or families residing in the same address. The City of Vancouver is currently capping its limit at two residential parking permits per household in selected RPP blocks.

Performance-based permit limits

Performance-based permit limits put a cap on the quota of permits given out per permit zone to ensure an ideal rate – 85%, as recommended by Shoup (2014) – of parking occupancy. Currently there are no performance-based permit limits in Vancouver, thus obtaining a residential parking permit does not guarantee a parking space close by the registered address because there are more permits issued than there is available parking space. Though the inconvenience of parking acts as a possible deterrence of future car ownership, a survey of parking permit holders in Greece reveals that time spent searching for parking significantly influences one's willingness to pay for the permit, thus carrying implications on future parking policy implementation regarding price regulation (Mintsis et al., 2016). A performance-based permit limit will ensure parking space is always available thus increasing permit holders' willingness to accept future changes in parking price regulation.

At the same time, the implementation of a performance-based permit limits implies an application waitlist. It has been shown that an additional year of waiting for a parking permit significantly and effectively reduced car ownership in Amsterdam city center (Groote et. al., 2016). This policy tool is being practiced in Montreal and certain permit zones in Toronto.

Pay-per-use principle

Pay-per-use principle refers to an increase in permit fee with an additional permit applied by a household. Study demonstrates that the pay-per-use principle spreads awareness of the actual costs of parking space and correctly reflects the increasing opportunity costs (or losses of benefits) to others when one applies for an additional parking space (Van de Coevering and Snellen, 2008). Similar to fixed household permit limits, this policy will fail when there are multi-tenant or multi-family households. Toronto, Calgary, Santa Monica are some of the many cities that adopt pay-per-use principle. This list does not include the City of Vancouver, as its parking permit fees only vary by permit zones.

Market-priced parking

Rationale

Market-priced parking refers to a parking system with pricing regulation reflecting the true market value of a parking space. Often time, this is achieved by equalizing on-street and off-street parking rates. For most cities, however, on-street parking is normally subsidized at much cheaper price than private off-street parking. Not only does this induce a large welfare loss to society (Groote et. al., 2016), but it also unintentionally promotes cruising as drivers look for cheap on-street parking (Jakob and Menendez, 2019). Alternatively, in Netherlands where a market-priced on-street parking system is in place, analysis of over 10,000 observations reveals that only about 30% of trips involved some cruising, and the average cruising time was just 36 seconds (Van Ommeren, Wentink and Rietveld, 2012). Even if the parking supply is not optimal, it is possible to regulate on-street parking fee to eliminate cruising, while maximizing the utilization of existing parking spaces (Arnott and Inci, 2006). Interestingly, it has been argued that equalization of on-street and off-street parking prices is not enough. To accurately reflect market value, on-street fees must be greater than off-street prices to account for drivers' preferences for on-street parking to off-street

parking, which is reflected from their willingness to pay a premium for street parking (Kobus et al., 2013; Gragera and Albalate, 2016).

Potential Concerns & Implementation Challenges

The implementation of market-based rates would likely face a fierce opposition from many stakeholders, including drivers who are directly affected by the steep price increase and local retailers that perceive the risk of reduced footfall. Opposition to higher parking fee may also stem from the potential impact on the housing market (De Borger and Russo, 2018). In Vancouver, market-based rate is implemented in the central business district, at approximately 500% value of a non-market rate elsewhere in the city.

Carbon surcharge

Rationale

The parking carbon surcharge imposes higher parking rate for new, higher-priced internal combustion engine (ICE) vehicles that burn gas and diesel. The policy aims to discourage the uptake of ICE vehicles while incentivizing the adoption of zero-emissions vehicles. Montreal is implementing similar policy where residential parking permit fees vary vastly by vehicle types (fully electric, hybrid, or ICE vehicle), and engine sizes. In general, parking permit fee for a fully electric vehicle is approximately half that of a high-displacement engine ICE vehicle.

Potential Concerns & Implementation Challenges

Similar to the market-priced parking policy tool, the implementation of a carbon-surcharge would likely face a fierce opposition from stakeholders.

Summary

The table below provides a summary of the potential impacts six parking policies discussed in the subsections above would have on car owners, transportation management, housing development and equity in the context of the City of Vancouver.

Table 2. Summary of Policy Tools Recommended by the Literature

POLICY TOOLS		CAR OWNERS IMPACTS	COMMUNITY IMPACTS (TRANSPORTATION MANAGEMENT, HOUSING DEVELOPMENT & EQUITY)
Elimination of minimum parking requirements in future developments		Incentivizes car owners to give up car ownership and increase uptake of alternative, sustainable modes of transportation.	<p>Transportation Management: Reduces overall parking spaces and traffic congestion</p> <p>Housing Development: No evidence of impacts on how developers and investors would react to parking restraints. For some developers, these policies relieve them from the burdens of building expensive parking spaces.</p> <p>Equity considerations: Exclusion of future development from accessing on-street parking permit zones might discriminate against new residents.</p>
Introduction of maximum parking requirements in future developments		Might affect car owners’ decision to purchase and rent units in new development.	
Exclusion of future development from accessing on-street parking permit zones			
Residential Parking Program	City-wide Program	<p>Disincentivizes car owners across the city from taking up curb spaces unnecessarily, thus allowing more curb space readily available for service providers and visitors. And other transportation initiatives</p> <p>Encourage people to use off-street parking if its available (repurposing curb space)</p>	<p>Transportation Management: Easier for the City to integrate a holistic parking management strategy city-wide.</p> <p>Housing Development: Proactively prepare to mitigate potential parking spillover problem from new housing developments and rezoning projects.</p> <p>Equity considerations: Depending on the proposed permit fees, might affect low-income families. Perception that it’s a cash grab for areas that don’t see any parking issues.</p>
	Fixed household permit limits	<p>Disincentivizes households from owning more cars than necessary.</p> <p>Car owners in the block have more equal access to on-street parking spaces.</p>	

	<p>Performance-based permit limits</p>	<p>Car owners are ensured parking. Time spent cruising for parking will be greatly reduced.</p> <p>Some car owners might have to enter a waitlist for RPP application if spaces are not available.</p>	<p>Transportation Management: Minimizes vehicle cruising and traffic congestion. Reduces parking spillover effects. Difficult to quantify the appropriate parking quotas to ensure 85% occupancy rate as parking occupancy rate fluctuates depending on time of the day and day of the week.</p> <p>Equity considerations: The policy might discriminate between new residents and long-term residents if the policy is restricted to new residents only.</p>
	<p>Pay-per-use Principle</p>	<p>Spreads awareness of the actual costs of parking spaces and correctly reflects the increasing opportunity costs to others when one applies for an additional parking space.</p> <p>Depending on the proposed price differences, might face opposition from stakeholders.</p>	<p>Transportation Management: Disincentivizes unnecessary on-street parking.</p> <p>Equity considerations: The policy accounts for the increasing marginal externality cost to other users when one applies for an additional on-street parking space.</p>
<p>Market-priced parking</p>		<p>Incentivizes car owners to give up car ownership and increase usage of alternative modes of transportation.</p> <p>Likely to face fierce opposition by existing car owners due to the current large gap between off-street and on-street parking.</p>	<p>Transportation Management: Reduces vehicle cruising for parking and overall traffic.</p> <p>Equity considerations: The policy tools might discriminate between new residents and long-term residents if the policy is restricted to new residents only.</p>
<p>Carbon surcharge</p>		<p>Incentives future car owners to adopt zero-emission vehicles.</p> <p>Likely to face some opposition by gas and diesel car owners.</p>	<p>Transportation Management: Increased adoption of zero-emission vehicles, thus reducing greenhouse gas emissions from transportation.</p> <p>Equity considerations: This policy tools might discriminate lower income households who cannot afford the more expensive hybrid or fully electric vehicles.</p> <p>(long term – when EV is cheaper equity will not be a problem)</p>

Residential Parking Permit Program: Best Practices from Canadian Cities & Cities around the World

In support of Vancouver's Climate Emergency Action Plan (CEAP) 2020-2025 to establish a city-wide on-street parking permit system, this section explores the best practices associated with this program across major cities in the world. Specifically, it presents a comparison of eight residential parking permit (RPP) programs across Vancouver, Calgary, Toronto, Montreal, Santa Monica, Amsterdam, Stockholm & Riga.

In summary, RPP holders enjoy similar parking benefits across all programs. The major differences lie in the details of the program coverage, fee system, considerations for visitors and disabled people, and enforcement methods. For example, Amsterdam and Riga are the only two cities that have a city-wide implementation of the residential parking permit program, while Santa Monica is the only one that does not divide their city into permit zones. Most fee system varies either by zone (which accounts for housing density and parking demand) or number of permit (e.g., incremental increase for an additional permit applied). In general, non-market annual parking rates are less than \$100⁴ across cities, while market-based rates range from \$400 to \$2000. Vancouver West End's market-base parking rate is therefore in the lower end of this spectrum.

All RPP programs examined in this section vary greatly in terms of the number of permit eligible to apply for each household or address, ranging from no permit limit at all (Calgary & Toronto) to only one per household (Stockholm & Riga). Meanwhile, Amsterdam presents a special case where permit is strictly withheld from residents of new housing developments, including renovation projects. With a limit of two per household, the permit regulation in Vancouver is moderately restrictive.

All cities provide accessibility parking and allow people with disabilities to be exempted from certain on-street parking regulations or even parking payment. In addition, most cities offer on-street visitor parking permit that extend residents' parking privileges to their guests and workers, with the exception of Stockholm, Riga and 13 out of 19 boroughs in Montreal. Enforcement of the program is carried out by officers on foot across all eight RPP programs. This system is complemented by a license plate recognition (LPR) enforcement technology in the City of Vancouver, Calgary and Amsterdam.

There are additional parking benefits offered to owners of electric vehicles in Amsterdam, Montreal, and Riga. Specifically, priority on the parking permit waiting list is given to owners of electric vehicles in Amsterdam. Meanwhile, parking permit for a fully electric vehicle in Montreal is approximately 20% cheaper than parking for a hybrid car, which is 20% cheaper than that for a gas or diesel vehicle. This permit

⁴ All parking rates in this section are presented in Canadian dollar, using May 2021 exchange rates.

fee is completely lifted for registered electric vehicles in Riga where the annual permit parking fee can reach up to \$1539. City of Vancouver currently offers no additional parking benefits to owners of electric vehicles.

The summary of the eight residential parking permit programs can be found in the table below. More details will be presented in the Appendix.

Table 3. Summary of Residential Parking Permit (RPP) Programs in Vancouver, Calgary, Toronto, Montreal, Santa Monica, Amsterdam, Stockholm & Riga.

CITY	RPP FEE SYSTEM AND PROGRAM COVERAGE	PARKING RIGHTS & RESPONSIBILITIES OF PERMIT HOLDERS	ANNUAL PERMIT COST (IN CAD)	PERMIT LIMITS & ELIGIBILITY BY VEHICLE TYPE	ON-STREET VISITOR PARKING PERMIT(S)	ON-STREET ACCESSIBLE PARKING PERMIT	MANNER IN WHICH PERMITS WILL BE SOLD & ENFORCED
VANCOUVER	<p>Zone-based fee system? Yes</p> <p>City-wide? No</p> <p>Strictly for residents? Depending on zones</p> <p>Application waitlist? No</p>	<p>Allow permit holders to park anywhere in the RPP zones for which they have a permit.</p> <p>Exempted from posted time restrictions in their respective RPP zone.</p> <p>Subjected to temporary closure for construction, filming, and street cleaning.</p>	<p>\$45.45 - \$90.93 (Non-market-based rates, vary by zone)</p> <p>\$401.13 (Market-based rate in West End neighborhood, except for long-term residents and low-income households)</p>	<p>Permit limits: 2 per household</p> <p>Vehicle eligibility: All types are eligible</p>	<p>Visitor Parking Permits for Homecare Providers: Limit of one per resident & transferable between homecare providers' vehicles.</p> <p>Temporary Short-term Permit: Parking fees vary for contractors, out-of-town visitors, house sitters, and new residents from out of province.</p> <p>For both permit types: Must be obtained by RPP holders on behalf of the visitors. Visitors have similar privileges as a RPP holder.</p>	<p>The permit holders are allowed to: Park in designated disabled parking zones & at accessible parking meter spots</p> <p>Park for 3 hours without a residential parking permit at Resident Permit Parking, and Resident Parking Only zones.</p> <p>Park for 30 minutes while actively loading or unloading people or materials in regular loading zones, passenger zones and no parking zones.</p>	<p>Permit Sale Channel: Online, by phone or in person.</p> <p>Enforcement Method: enforcement officers on foot & license plate recognition (LPR) enforcement system</p>
CALGARY	<p>Zone-based fee system? RPP is zone-based but fee system is universal</p> <p>City-wide? No</p> <p>Strictly for residents? No</p> <p>Application waitlist? No</p>	<p>Allow permit holders to park anywhere in the RPP zones for which they have a permit.</p> <p>Exempted from posted time restrictions in their respective RPP zone.</p> <p>Invalid in ParkPlus zones and 1- and 2-minute zones (parking zones for curb side pick-ups, deliveries, and mail pickup)</p>	<p>\$0 (Permit #1, #2)</p> <p>\$106.35 (Permit #3 onwards)</p>	<p>Permit limits: None</p> <p>Vehicle eligibility: All types are eligible</p>	<p>Visitor Parking Permit: Automatically issued for eligible residence when a RPP is approved.</p> <p>Limit of 2 vehicles at a time per address, for a maximum of 2 weeks per vehicle.</p> <p>Visitors can only park within 150m of the registered address.</p> <p>Residential Special Parking Permit:</p>	<p>The permit holders are allowed to: Park in designated disabled parking facilities</p> <p>Disabled non-residents visiting Alberta can use a valid parking placard from their home jurisdiction.</p>	<p>Permit Sale Channel: Online, or by phone.</p> <p>Enforcement Method: ParkPlus automated photo enforcement vehicles, supplemented by enforcement officers on foot</p>

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					Applied by service providers which allow them similar privileges as a RPP holder.		
TORONTO	<p>Zone-based fee system? RPP is zone-based but fee system is universal</p> <p>City-wide? No</p> <p>Strictly for residents: Depending on zones</p> <p>Application waitlist? Yes, on certain streets & areas with no available parking spaces</p>	<p>Allow permit holders to park anywhere in the RPP zones for which they have a permit.</p> <p>Exempted from posted time restrictions in their respective RPP zone.</p> <p>Exempted from metered parking payment where Permit Parking signs and Pay & Display signs co-exist.</p> <p>Prohibited from parking at the same location for more than 7 consecutive days.</p>	<p>\$16.81 (Permit #1, given no access to off-street parking)</p> <p>\$52.21 (Permit #2, given no access to off-street parking)</p> <p>\$73.45 (Any permit, given access to off-street parking)</p>	<p>Permit limits: None</p> <p>Vehicle eligibility: All types are eligible</p>	<p>Temporary resident or visitor permits: May be obtained by RPP holders on behalf of their visitors without limit provided space is available. Registered visitors enjoy similar privileges as a RPP holder.</p>	<p>The permit holders are allowed to: Park up to 24h in signed prohibited parking areas (except for rush hours), signed residential parking permit zones, signed or unsigned parking time restricted zones. Park without pay up to 24h at on-street parking meters.</p> <p>The permit holders are not exempted from general, unsigned prohibitions.</p>	<p>Permit Sale Channel: Mail or in person.</p> <p>Enforcement Method: Enforcement officers on foot</p>
MONTREAL	<p>Zone-based fee system? Yes</p> <p>City-wide? No</p> <p>Strictly for residents? Yes</p> <p>Application waitlist? Yes</p>	<p>Allow permit holders to park anywhere in the RPP zones for which they have a permit.</p>	<p>\$0 - 1972.8 (100% electric vehicles, vary by zone)</p> <p>\$780 - \$2455.92 (hybrid vehicles, vary by zone & cylinder capacity).</p> <p>\$780 - \$3159.48 (gas-powered vehicles, vary by zone & cylinder capacity)</p>	<p>Permit limits: Depending on borough</p> <p>Vehicle eligibility: All types are eligible</p>	<p>Temporary Visitor Parking Sticker: Offered in 6 boroughs and varies in terms and conditions. Obtained by RPP holders for their visitors to enjoy similar privileges to RPP holder.</p> <p>Worker Monthly Parking Sticker: Offered in 3 boroughs at \$100-\$106 per month at first come first serve basis. The permit holders (workers) enjoy similar privileges to a RPP holder.</p>	<p>The permit holders are allowed to: Park at designated 6-metre zone in front of their home if it is not in a residential permit parking area. Park at reduced residential permit parking fee. Stop at disabled passenger drop-off zones.</p>	<p>Permit Sale Channel: Online, by mail, in person or by email.</p> <p>Enforcement Method: No information</p>
SANTA MONICA	<p>Zone-based fee system?</p>	<p>Allow permit holders to park within a two-block</p>	<p>\$24.23 (Permit #1)</p>	<p>Permit limits:</p>	<p>Visitor Parking Permit: Limit of 2 annual permits per address.</p>	<p>No permit is required. Person with a Disabled Person Placard, Disabled</p>	<p>Permit Sale Channel:</p>

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	<p>No. RPP applies to eligible blocks and fee system is universal.</p> <p>City-wide? No</p> <p>Strictly for residents? No</p> <p>Application waitlist? No</p>	<p>radius of the registered address.</p> <p>Exempted from parking restrictions in their respective RPP zone.</p> <p>Not exempted from other parking regulations such as curb markings, parking meters, street sweeping, etc.</p>	<p>\$30.28 (Permit #2)</p> <p>\$48.45 (Permit #3)</p> <p>\$72.68 (Permit #4)</p>	<p>3-4⁵</p> <p>Vehicle eligibility: All types are eligible</p>	<p>Visitors have similar privileges as a RPP holder.</p> <p>Temporary permits: Up to 25 one-day temporary permits per specific date, and up to 300 per permit year.</p> <p>For both permit types: Must be obtained by RPP holders on behalf of the visitors</p>	<p>Person License Plate or Disabled Veteran License Plate or drivers of a person who carries a Disabled Person Placard are allowed to:</p> <p>Park in designated disabled parking zones.</p> <p>Park beyond the indicated time limit in green curb.</p> <p>Park for free beyond the posted time limit in any metered parking space.</p> <p>Park in RPP zones.</p>	<p>Online (new residents only), by mail or in person.</p> <p>Enforcement Method: Enforcement officers on foot</p>
AMSTERDAM	<p>Zone-based fee system? Yes</p> <p>City-wide? Yes</p> <p>Strictly for residents? No</p> <p>Application waitlist? Yes</p>	<p>Allow permit holders to park anywhere in the RPP zones for which they have a permit.</p> <p>Allow permit holders from certain RPP zones to park in other RPP zones.</p> <p>Invalid in 10-cent zones (commercial streets), in areas with a blue zone (accessibility parking), or on reserved parking spaces.</p>	<p>\$47 - \$835 (Permit #1, vary by zone)</p> <p>\$117 - \$1034 (Permit #2, vary by zone)</p>	<p>Permit limits: 0 (new developments), 1-2* (old developments).</p> <p>Vehicle eligibility: Diesel with Emission standard > 4, Internal Combustion Engine with Emission standard > 1, Electric Vehicles.</p>	<p>General Visitor Parking Permit: One permit per address, at 35-65% parking discount within the permit area (except in the Centre District). Subjected to a maximum of 120-180 hours parking per quarter.</p> <p>Visitor's permit for the elderly and disabled: One non-transferable permit per person, at 50-65% parking discount for parking within the permit area. Subjected to a maximum of 120 hours parking per quarter.</p> <p>Informal Homecare Providers Permit:</p>	<p>The permit holders are allowed to: Park on any street in Amsterdam for free.</p> <p>Exempted from time restrictions in 10-cent (commercial) parking zones.</p>	<p>Permit Sale Channel: In person or by mail</p> <p>Enforcement Method: Enforcement officers on foot, vehicle drive-by, and LPR</p>

⁵ The fourth permit can be granted only if residents can prove that to deny additional permits would constitute a hardship.

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					6-month permit at a discounted rate for parking within the permit area. For all permit types: Must be obtained and paid by the RPP holders on behalf of the visitors. Permit application is free.		
STOCKHOLM	<p>Zone-based fee system? Yes</p> <p>City-wide? No</p> <p>Strictly for residents? No</p> <p>Application waitlist? No</p>	<p>Allow permit holders to park anywhere in the RPP zones for which they have a permit. Subjected to closure on service nights or service days.</p>	<p>\$540 - \$1992 (Permit #1, vary by zone)</p>	<p>Permit limits: 1</p> <p>Vehicle eligibility: All types are eligible</p>	<p>Visitor Parking Permit: Not Available.</p> <p>Service Providers Parking Permit: No information.</p>	<p>The permit holders are allowed to: Park in designated disabled parking spaces. Parking for up to three hours in prohibited parking areas, time restricted parking of less than 3 hours, or pedestrian precincts. Parking for up to 24 hours in time restricted parking of 3 to 24 hours. Not park in reserved parking spaces for a specific purpose or vehicle type.</p>	<p>Permit Sale Channel: Online</p> <p>Enforcement Method: Enforcement officers on foot</p>
RIGA	<p>Zone-based fee system? Yes</p> <p>City-wide? Yes</p> <p>Strictly for residents? No</p> <p>Application waitlist? No</p>	<p>Allow permit holders to park within the red lines of the street section in their permit areas.</p>	<p>\$453 - \$1539 (Permit #1, vary by zone)</p> <p>Free (Registered electric vehicles)</p>	<p>Permit limits: 1</p> <p>Vehicle eligibility: All types are eligible</p>	<p>Visitor Parking Permit: Not Available.</p> <p>Service Providers Parking Permit: No information.</p>	<p>The permit holders are allowed to: Park at no cost in parking spaces marked with the traffic sign no. 537 "Parking" and no. 844 "Disabled parking". Park at the posted rate in parking spaces with the traffic sign no. 942 designated for accessible parking.</p>	<p>Permit Sale Channel: Bank transfer</p> <p>Enforcement Method: Enforcement officers on foot</p>

Parking Policy Recommendations

The design and implementation of off-street and on-street parking policies need to be integrated to effectively mitigate the existing parking and parking spillover problems, thus improving the performance of the parking system and increasing the sustainability of the urban spaces as a whole.

This report has examined best practices for both on-street and off-street parking policies, including their effectiveness and potential implementation challenges given the context of the City of Vancouver. Based on the analysis of impacts to car owners, transportation management, housing development, and equity considerations, as well as the current legal and contextual framework of the City of Vancouver, this section provides policy recommendations to regulate the City's off-street and on-street parking. Specifically, these recommendations take an integrated approach to tackle the under- and over-supply of parking issues in Vancouver to support the City of Vancouver's targets in Transportation 2040 and Climate Emergency Action Plan.

Off-street:

- Elimination of minimum parking requirements in future developments: **RECOMMENDED**
- Introduction of maximum parking requirements in future developments: **RECOMMENDED**
- Car-free development: Exclusion of future development from accessing on-street parking permit zones: **RECOMMENDED**

On-street:

- Residential Parking Program
 - City-wide implementation: **RECOMMENDED**
 - Fixed household permit limits: **RECOMMENDED** with conditions
 - Performance-based permit limits: **NOT RECOMMENDED**
 - Pay-per-use Principle: **NOT RECOMMENDED**
- Market-priced parking: **RECOMMENDED**
- Carbon Surcharge: **RECOMMENDED**

Table 4 below provides relevant legal framework associated with each policy in Vancouver, the detailed recommendations, as well as the rationale for each recommendation, including factors to consider for successful implementation if recommended.

Table 4. Parking Policy Tools, Current Legal Framework and Recommendations for the City of Vancouver.

PARKING POLICY TOOLS		CURRENT LEGAL FRAMEWORK IN VANCOUVER	RECOMMENDATION	RATIONALE/ CONSIDERATIONS FOR SUCCESSFUL IMPLEMENTATION
Elimination of minimum parking requirements in future developments		<p>Downtown Vancouver:</p> <p><u>Residential building:</u> No maximum parking requirement. Minimum parking requirement is lifted with some exceptions.</p> <p><u>Non-residential building:</u> A maximum parking requirement is in force. Minimum parking requirement is lifted.</p> <p>Rest of Vancouver: Minimum standards or a combination of minimum and maximum parking standards.</p>	<p>Recommended.</p> <p><u>Minimum parking requirements:</u> Eliminate the minimum parking requirements for all new developments</p> <p><u>Maximum parking requirements:</u> Introduce maximum parking requirements for non-residential buildings across Vancouver</p>	<p>There is consistent evidence of minimum parking requirement being wasteful, inefficient, and contributing to increasing car ownership. At the same time, there is little evidence of this policy negatively affecting developers and investors. The elimination of the minimum parking requirements is no doubt a necessary step towards a more sustainable and efficient parking management. Meanwhile, the implementation of the maximum parking requirements is recommended, but slightly more complicated. Study has found that the policy encourages development in densely populated area with good access to transits, but not elsewhere. It is also tricky to implement a meaningful upper limit as a maximum standard. Introducing maximum parking requirements in non-residential buildings is therefore less consequential than doing so in residential buildings as there is less need for overnight parking. Meanwhile we can observe if there are any unwanted parking spillovers occurring due to the introduction of maximum parking requirements.</p>
		Introduction of maximum parking requirements in future developments		
Exclusion of future development from accessing on-street parking permit zones		Proposed, not currently in force.	<p>Recommended.</p> <p>Pilot project in Downtown Vancouver.</p>	Following the elimination of minimum requirements and introduction of maximum requirements, this policy is a necessary next step to prevent parking spillover from happening. However, as this policy might discriminate against new residents, a soft introduction of the policy is essential to gauge its actual impacts on the affected households.
Residential Parking Program	City-wide Program	Proposed, not currently in force.	<p>Recommended.</p> <p>The residential parking program can be first introduced city-wide under minimal permit fee. However, proof of no access to off-street parking space should be provided to be eligible for RPP.</p>	As Vancouver grows with new housing developments and rezoning projects to tackle the housing crisis, a city-wide residential parking program is necessary to prepare for the influx of residents and their parking needs. This policy would act as a proactive measure against future parking spillover problems.

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	<p>Fixed household permit limits</p>	<p>Limit of 2 per household only applies to 10 out of 24 permit zones. The remaining zones do not have fixed household permit limit.</p>	<p>Recommended. The 2 per household limit should be extended to all RPP zones. Additional permit will require proof that to deny additional permits would constitute a hardship, and that off-street parking is not accessible.</p>	<p>Fixed household permit limit has been implemented successfully in part of Vancouver. The transition towards a city-wide implementation of this policy should not face much public opposition. However, to address concerns over multi-family households, exceptions could be made similarly to the Santa Monica’s RPP. For example, an applicant requesting more than two permits for his or her dwelling unit may be granted additional permits by the City upon showing that there are more than one families registered at the dwelling unit and that to deny additional permits would constitute a hardship, and upon the determination by the City, that sufficient off-street parking is not available to the applicant.</p>
	<p>Performance-based permit limits</p>	<p>There are currently no parking quotas to reflect curb space capacity. Permit holders are not guaranteed street parking. However, there is no application waitlist.</p>	<p>Not recommended.</p>	<p>This policy is hard to implement as parking occupancy rate fluctuates by time of the day and day of the week. Applying parking quotas to permit zones might therefore introduce inefficiency to curb space usage or worse, still does not guarantee street parking while withholding the rights to park from the local residents.</p>
	<p>Pay-per-use Principle</p>	<p>There is currently no difference in permit fee for the first and second permit.</p>	<p>Not recommended.</p>	<p>Many households in Vancouver are rental housing that are made up of people who are not part of a family unit. The incremental increase in fee for an additional permit is only fair in case a household is made up of a family unit who can share one vehicle and might or might not need a second or third vehicle.</p>
<p>Market-priced parking</p>	<p>Vancouver West End: Market-based rate for new residents. Non-market rate for long-term residents and low-income households. Rest of Vancouver: Non-market rate</p>	<p>Recommended. Policy implementation might face long-term opposition and should be carefully and gradually introduced across different permit zones in Vancouver.</p>	<p>A market-based permit fee system such as in Amsterdam or Stockholm is the ideal parking management scenario. However, the transition towards this system would inevitably face strong opposition from all stakeholders, unless there are appropriate incentives being put in place, such as having a highly accessible public transit system, and a participatory budgeting program that re-invests permit revenue generated from the market rate permit sales back into the community.</p>	
<p>Carbon surcharge</p>	<p>Proposed, not currently in force.</p>	<p>Recommended. Policy implementation might face long-term opposition and should be carefully and gradually introduced across Vancouver. A pilot program</p>	<p>The addition of a carbon surcharge to the current rate might seem punitive and thus not welcome by the majority of the public. However, if we implement this policy as a “reward” to adopting electric vehicles, the acceptance rate might slightly increase. For example, there could be a reduction of the current rate for fully electric vehicle, a slight increase for a hybrid vehicle, and a larger increase for a gas/diesel vehicle. Further consideration of engine size could more</p>	

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		could be started in Vancouver West End.	accurately reflect the environmental benefits of an electric vehicle versus a gas/diesel vehicle. The Montreal's permit fee system could be a good reference for a fee breakdown by vehicle type and cylinder capacity.
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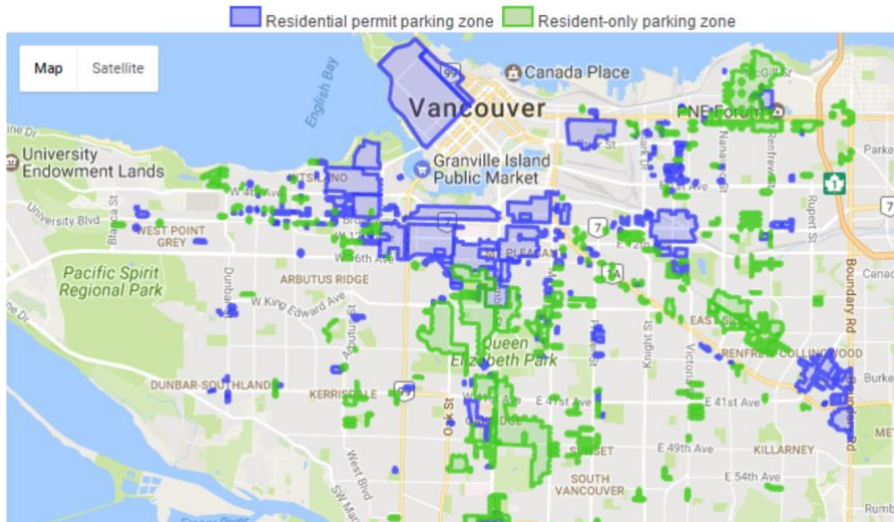
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Appendix A Residential Parking Permit Programs

1. Vancouver

How much of the city is covered by parking permit zones?

Parking permit zones in Vancouver are categorized into the Residential Parking Only (RPO) zone, which designates parking spaces only for its residents, and the Residential Permit Parking (RPP) zone, which combines restricted resident parking with time-limited spaces for visitors. Residents who park vehicles in RPO zones do not need a permit; however, they must reside in the designated RPO blocks. RPP systems are more restrictive than RPO systems because vehicles parking in the permit zones must display a valid area permit to differentiate themselves from visitor parking which is commonly governed by a time limit.



Retrieved from <https://ruthanddavid.com/blog/residential-parking-west-end/>

Eligibility

To apply for a residential permit in Vancouver, one must be:

- Resident of the address where the permit is applied for, and
- Registered owner or lessee of the vehicle, or
- The primary driver of the vehicle, if the vehicle is not under the applicant's name.

Conditions & Exceptions

- Depending on the parking zone, there is a limit of 2 residential parking permits per household.
- Residential parking streets are subjected to temporary closure for construction, filming, and street cleaning. Permit holders are responsible to be aware of these temporary changes and find alternate parking in these instances

How much do permits cost⁶?

Zone and detailed map	Annual fee*	Expires last day of	Household limit
Boundary	\$45.45	September	2
Broadway Station	\$45.45	January	2
Cambie Village	\$45.45	February	–
Commercial Drive	\$45.45	May	2
Fairview Slopes	\$67.12	March	2
Guelph	\$45.45	August	2
Industrial	\$45.45	August	2
Joyce Station	\$45.45	January	2

⁶ 2021 permit fee

King Edward Campus	\$45.45	July	-
Kitsilano North	\$45.45	November	-
Kitsilano South	\$45.45	November	-
Kitsilano Point	\$45.45	March	2
Macdonald	\$45.45	June	-
Marine Drive	\$45.45	October	-
Mount Pleasant	\$45.45	August	2
Oak West	\$67.12	April	-
Oakridge	\$45.45	October	-
PNE	\$45.45	July	-
Robson North	\$90.93	November	-
South Granville	\$45.45	February	-
Strathcona	\$45.45	September	2
Vancouver Resident Permit Parking (block-specific zones)	\$45.45	February	-
VGH	\$67.12	July	-
West End	\$401.13	May	-
West End Low income and long-term residents	\$90.93	May	-

*Includes GST

How will visitors and service providers park?

Temporary short-term and visitor parking permits are purchased in person, up to two weeks in advance, and are available for up to three months (where applicable).

i. Visitor Parking Permits for Homecare Providers

Residents requiring medical care from homecare providers, such as nurses, family members, or friends, can apply for visitor parking permits for the homecare providers. The permit is assigned to the resident's name, with a limit of one permit per applicant. The permit is transferable between homecare providers' vehicles, if the applicant has more than one homecare provider. The application requires:

- The homecare provider's BC vehicle insurance and registration
- Two pieces of ID that show the applicant's address is in the permit zone, with one item dated within the last three months.
- A doctor's letter that states that the applicant requires regular homecare services.
- A credit card, cheque, cash, or debit card.

ii. Temporary Short-term Permit

The city also provides temporary short-term permits for courtesy vehicles, rental vehicles, borrowed vehicles, contractors, out-of-town visitors, house sitters, and new residents from out of province. The parking fees vary depending on whom the permit is for:

Courtesy vehicles	Rental & borrowed vehicles	Contractors	Out-of-town visitors & house sitters	New residents from out of province
Free	Permit can be purchased for up to three months at \$11.36 per week	\$5.69 per day	\$11.36 per week	Available for one month and one time only, at no charge.

How will people with disabilities park?

A SPARC parking permit is required to park in a space reserved for people with disabilities in Vancouver. In addition to the parking options available for everyone, the permit holders are allowed to:

- Park in designated disabled parking zones
- Park at accessible parking meter spots
- Park for 3 hours without a residential parking permit at Resident Permit Parking, and Resident Parking Only zones.
- Park for 30 minutes while actively loading or unloading people or materials in regular loading zones, passenger zones and no parking zones.

Are there parking incentives for electric vehicles?

No

How will permits be sold?

Permits are sold online, by phone or in person. However, the conditions for online and phone purchases are different from those in person.

Online or phone purchases can be made if applicant is:

- Resident of the permit zone.
- Registered owner or lessee of the vehicle.
- Declared principal operator of the vehicle who has valid ICBC insurance showing the current address on both pages 1 and 2 of the insurance documents.
- Having a valid email address and credit card.

In person purchase applies when the applicant is:

- The declared principal operator of the vehicle who has ICBC insurance showing a different mailing address on page 1 from their address in the permit zone on page 2.
- The driver of someone else's vehicle, driver of a company car, dual resident, homecare provider, student from outside of BC, or a new resident from out of province.
- Purchasing a short term or visitor permit.
- Applying for the West End Zone Permit at the non-market rate and aren't enrolled in the Leisure Access Program.
- Paying with cash or debit.

Temporary short-term and visitor parking permits are purchased in person and are available for up to three months (where applicable).

How will permits be enforced?

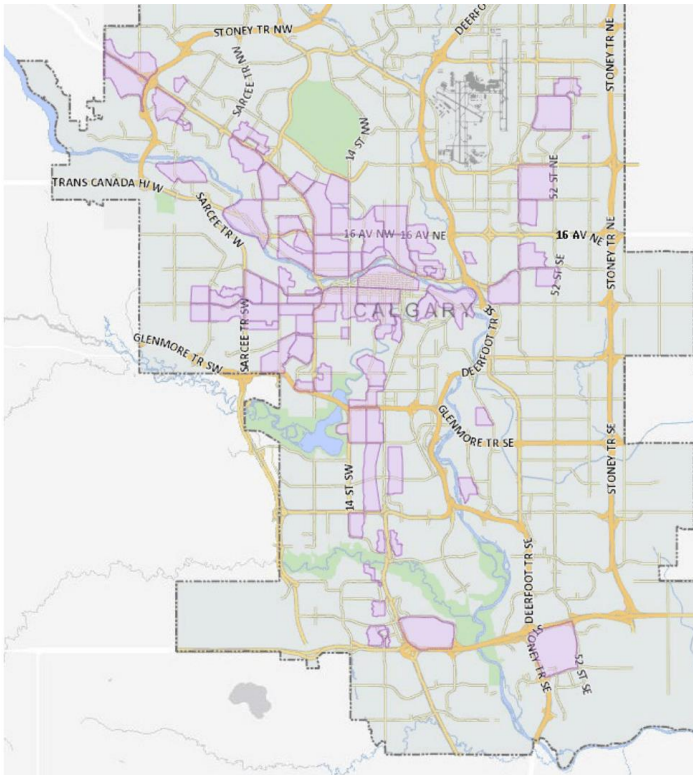
A permit is invalid if:

- The permit holder moves, changes their vehicle, or licence plate
- The decal is altered

2. Calgary

How much of the city is covered by parking permit zones?

The Calgary Parking Authority issues residential parking permits and enforces their restrictions, but The City of Calgary establishes residential parking zones. Not all addresses within the boundary of a zone are eligible for permits.



Retrieved from <https://livewirecalgary.com/2020/10/25/calgary-residential-permit-parking-should-it-be-a-user-pay-system/>

Eligibility

To be eligible for residential parking permit in Calgary, one must have:

- A valid vehicle registration certificate issued by the Province of Alberta
- Matching address on the vehicle registration and where the permit is required within the residential parking zone.

Conditions and Exceptions

- Permits are not transferable and cannot be used in other restricted parking zones
- Residential parking permits allow permit holders to park in residential parking zones and time-restricted parking zones except for ParkPlus zones⁷ and 1 and 2 minute zones which are dedicated parking zones for curb side pick-ups, deliveries, and mail pickup.

How much do permits cost?

The first two Residential Parking Permits are issued at no cost. There is a fee for the third and subsequent permits.

Permit Type	Terms	Cost* (2019)	Cost* (2020)	Cost* (2021)	Cost* (2022)
First two permits per residence	2 years	FOC	FOC	FOC	FOC
Third and each additional permit	2 years	\$102.10	\$104.15	\$106.35	\$108.90
Bridgeland (Zone AAA) and Somerset (Zone YY) Maximum one permit per residence	2 years	\$51.05	\$52.10	\$53.20	\$54.45

⁷ A temporary COVID-19 response to accommodate curb side pick-ups and deliveries that ended on July 2nd, 2021.

Visitor permits	2 years	FOC	FOC	FOC	FOC
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*Excludes GST

How will visitors and service providers park?

1. **Visitor Permits**

If a residence qualifies for a visitor permit, visitor permit will be issued automatically when a residential permit is approved. Residents do not have to complete a separate application for a visitor permit if they are also applying for a residential parking permit. At the same time, they can opt to cancel the visitor permit.

- Residents can manage visitor parking permits (start and stop time) through MyParking app, online, or by phone.
- A maximum of two visitor parking sessions running at the same time per address is allowed.
- The maximum duration for a visitor session is two weeks. A visitor’s parking session will automatically end after two weeks if the permit holder forgets to stop the session.
- Visitor permits are only valid if used within 150 metres of the address to which they are registered.

2. **Residential Special Parking Permits**

Alternatively, service providers could also apply for Residential Special Parking Permits which allow the permit holders to park in Residential Parking Zones in Calgary while on official business and exempt from posted residential zone restrictions.

3. **ParkPlus Zones**

- In ParkPlus Zones, drivers were allowed 15 minutes of free on-street parking. This promotion was part of the COVID-19 response to support local businesses by accommodating expanded curbside pickups and deliveries. Ended on July 2nd, 2021.
- Drivers must use MyParking app, Call to Park, Text to Park, or register at a ParkPlus pay machine in order to park at ParkPlus Zones.
- Residential parking permits were not valid in ParkPlus Zones.

How will people with disabilities park?

Individuals having trouble walking more than 50 meters can apply for a disabled parking placard, which allows them to park in specially designated parking facilities, conditional that they can provide:

- A completed Parking Placards for Persons with Disabilities application. The completed form must be signed by a physician, physiotherapist, or occupational therapist. This states the applicants are entitled to disabled privileges
- One piece of acceptable personal identification or support document
- People who have sensory impairments, such as deafness and blindness, are not eligible for a parking placard.

There are three types of disabled parking placard:

- Blue placards, which can be issued to those with long-term disabilities and are valid for five years
- Blue placards, which can be issued to those with permanent disabilities that can be self-declared every five years without the medical personnel signature
- Red placards, which can be issued to those with disabilities that are temporary in nature, but will affect them for a period of three to twelve months

Disabled non-residents visiting Alberta can use a valid parking placard from their home jurisdiction.

Are there parking incentives for electric vehicles?

There are 42 EV charging stations in three downtown parkades in Calgary. However, there is no on-street charging stations or other parking policies that support electric vehicles.

How will permits be sold & enforced?

- Residential parking permits and visitor parking sessions can be purchased online, or by phone if internet accessibility is an issue.
- Permits are valid for two years and enforcement of residential parking zones is done primarily by photo enforcement and supplemented by mobile enforcement officers.

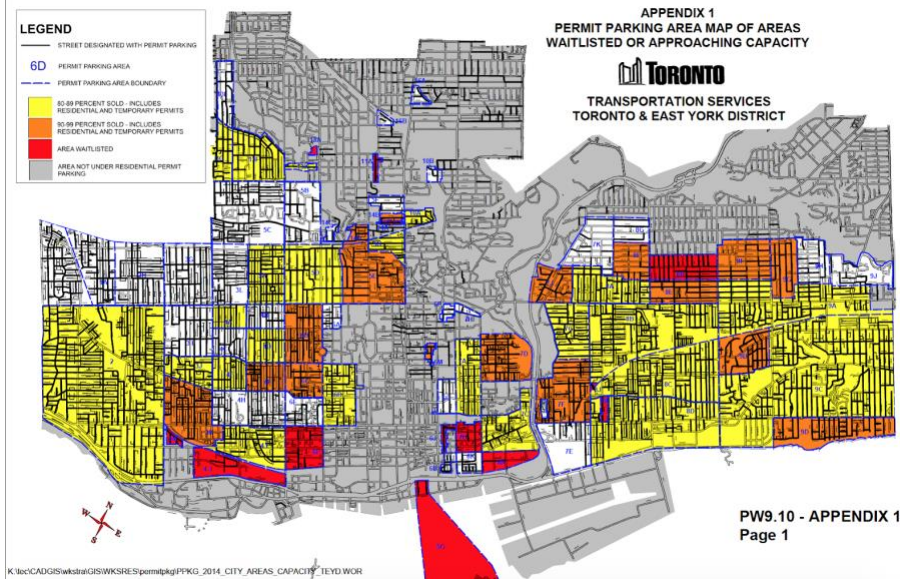
- The fine for parking in a residential parking zone without displaying a valid permit is \$75.

3. Toronto

How much of the city is covered by parking permit zones?

The on-street permit parking program shall only apply to:

- Roads, local streets, collector and minor arterial roads, or parts of them, that are predominantly residential in character where sufficient off-street parking are not available and where the introduction of permit parking will not adversely affect roadway capacity, snow removal operations, or public safety;
- Other roads with permit parking; and
- Other roads determined by the General Manager from time to time.



Retrieved from <https://www.toronto.ca/legdocs/mmis/2015/pw/bgrd/backgroundfile-85333.pdf>

Eligibility

To obtain a residential parking permit in Toronto, one must have:

- Residential address in the designated permit parking zone and parking spaces are available.
- Valid vehicle registration and valid driver's license reflecting applicant's name and address for which the permit is applied.

Conditions and Exceptions

- Certain streets and areas are wait listed if there are no available parking spaces. Application to be on the waitlist is separated from the permit application.
- A permit holder who parks on a street authorized for permit parking must park in a legal space during licensed parking hours shown on the signs on the street. Though subject to other existing traffic regulations, permit holders generally have the privilege of parking their vehicles overnight and are exempt from the 1-, 2-, and 3-hour parking restrictions. Where Permit Parking signs and Pay & Display signs co-exist, a valid permit holder will not be required to pay the meter or parking machine. A vehicle with a valid permit which remains parked in the same location on a street for more than seven consecutive days may be tagged and towed at the owners' expense. Where there is a change in parking from one side of the street to the other side, a permit holder shall be given a grace period to move their vehicle from 9:00 p.m. the previous night to 9:00 a.m. the next morning on changeover days.

How much do permits cost⁸?

Description	Fee Basis	User Fee
No access to off-street parking for resident's first vehicle permit	Per month	\$16.81 + HST

⁸ 2021 permit fee

No access to off-street parking for resident's second and any subsequent vehicle permits	Per month	\$52.21 + HST
Resident does have access to off-street parking (permit is for convenience)	Per month	\$73.45 + HST
Re-Issues	Per re-issue	\$8.15 + HST

How will visitors and service providers park?

Temporary resident or visitor permits may be obtained by residents and their guests to provide 24-hour, 48-hour and weekly on a street or area designated under the permit parking program, provided space is available (this information will be provided during the application process).

- Online purchases can be done 1 week in advance of the date required.
- In-person purchases at the Permit Parking office can be done 2 weeks in advance of the date required.
- In-person application can be issued for up to a maximum of 8 consecutive weeks at a time.

Description	Fee Basis	User Fee
24 hour	Per space	\$14.49 + HST
48 hour	Per space	\$21.74 + HST
7 days	Per space	\$33.51 + HST

How will people with disabilities park?

Accessible parking permits are issued to the individual with the disability, which allows the permit holders or the driver of the permit holders to:

- Park in signed prohibited parking areas, includes time restricted areas between the hours of 10 a.m. to 3 p.m. This does not apply to rush hours between 6 a.m. to 10 a.m. and 3 p.m. to 7 p.m.

- Park in signed on-street permit parking areas without a designated on-street parking permit.
- Park beyond all signed and unsigned time parking limits such as one hour and two-hour maximums.
- Free parking next to parking meters.

These privileges only apply for a maximum of 24 hours.

Are there parking incentives for electric vehicles?

There are 13 residential on-street EV charging stations in Trinity-Spadina (Ward 19), Toronto-Danforth (Ward 30), and Beaches-East York (Ward 32). Charging rate is \$2-per-hour chargers on streets.

How will permits be sold & enforce?

- Permits are issued to residents only on a six months basis, although permits for two consecutive terms are available. Terms are from December 1 to May 31 and from June 1 to November 30. All permits issued during a term will be effective until the end of that term.
- If purchasing in person: cash, credit card (VISA, MasterCard, or American Express), debit card and personal cheque or money order, made payable to "Treasurer, City of Toronto."
- If purchasing by mail: personal cheque or money order, made payable to "Treasurer, City of Toronto."
- The permit parking by-law is enforced by Toronto Police Services, Parking Enforcement Unit. For a permit to remain in effect, the permit must be visible and affixed to the lower windshield on the driver's side, the vehicle registration must remain valid, and the validation sticker must be affixed to your license plate.

4. Montreal

How much of the city is covered by parking permit zones?

Montreal has 19 boroughs, and each has a different system regarding the permit fees, permit conditions, and the permit zones. However, in general, residential parking permit zones are reserved parking areas for residents with residents-only parking stickers. Exemptions are made for car-sharing companies and workers, in certain cases. Montreal does not have a city-wide residential parking program. However, residents can request a new residents-only parking zone by collecting a certain number of signatures (a petition) from residents on their street.



Retrieved from http://ville.montreal.qc.ca/pls/portal/docs/PAGE/ARROND_CDN_FR/MEDIA/DOCUMENTS/SRRR%20CDN-NDG%202017.PDF

Eligibility

To apply for the residential parking permit in Montreal, one must have:

- Proof of ownership of the vehicle:
 - registration certificate in the applicant's name
 - registration certificate and rental contract in the applicant's name
- Proof of insurance:
 - insurance certificate with the applicant's name and address on it
 - excerpt from the insurance contract with the applicant's address on it, designating them as the primary driver
 - letter from the insurance company confirming the applicant's name and address
- Proof of residence (dating back no more than three months):
 - valid driver's licence
 - bill from a public utility showing the applicant's address
 - bill from an educational institution showing the applicant's name and address

Conditions and Exceptions

- Some boroughs allow several stickers at the same address, provided that there is only one sticker per driver and per vehicle.
- In addition to the first sticker granted for the first vehicle, additional stickers can be issued, but at a higher price.

How much do permits cost⁹?

Permit costs vary by borough, time purchased, vehicle type (electric, hybrid or gas-powered), and cylinder capacity. There are generally three periods for purchases, with a few exceptions:

- **Jan 1 - Mar 31:** The sticker is valid until September 30 of the same year
- **April 1 - June 30:** The sticker is valid until September 30 of the same year

⁹ 2021 permit fee

- July 1 - Dec 31:** The sticker is valid until September 30 of the following year.

Permit costs vary by time purchased. In general, permits purchased during the Jan 1 - Mar 31 and July 1 - Dec 31 periods have similar rates. These rates are cut in half if the permits are purchased between April 1 - June 30. The table below shows the rates for the Jan 1 - Mar 31 purchase period. Some boroughs, such as Le Plateau-Mont-Royal, also have discounted rates for people with mobility impairment and/or low-income individuals. These discounted rates do not differentiate between vehicle types.

Borough	100% electric vehicle	Hybrid vehicle	Gas-powered vehicle
Ahuntsic-Cartierville Stickers are transferable from one vehicle to another as long as the primary driver remains the same. However, if one is the primary driver of two vehicles over the same period, they can only have one parking sticker during this period.	\$45	Cylinder capacity of less than 3 litres: \$65 Cylinder capacity of 3 litres or more: \$75	Cylinder capacity of less than 2 litres: \$65 Cylinder capacity between 2 litres and 2.9 litres: \$75 Cylinder capacity of 3 litres or more: \$95
Anjou The parking sticker cannot be transferred or assigned, and it is non-refundable. There is a limit of one sticker per person, per vehicle. Several people living at the same address can each hold a sticker for their vehicle.	\$11.50		

Côte-des-Neiges-Notre-Dame-de-Grâce The sticker is refundable under certain conditions (if it has not been used or if it is intact).	\$50	Cylinder capacity of less than 2 litres: \$75 Cylinder capacity between 2,1 and 3 litres: \$90 Cylinder capacity of 3,1 litres or more: \$120	Cylinder capacity of less than 1.6 litres: \$75 Cylinder capacity between 1,7 and 2.2 litres: \$90 Cylinder capacity of 2.3 litres or more: \$120
Lachine There is a limit of two stickers per address. The sticker is non-refundable.	\$21.56		
LaSalle You can submit an application for a maximum of five stickers, for five different vehicles and drivers.	FOC		
Le Plateau-Mont-Royal The parking sticker cannot be transferred or assigned, and it is non-refundable.	\$164.41	Cylinder capacity of less than 2.7 litres: \$164.41 Cylinder capacity more than 2.7 litres: \$204.66	Cylinder capacity of 1.6 litres or less: \$164.41 Cylinder capacity between 1.61 litres and 2.4 litres: \$204.66 Cylinder capacity between 2.41 litres et 3.4 litres: \$234.55 Cylinder capacity of 3.41 litres and more than: \$263.29

<p>Le Sud-Ouest</p> <p>The parking sticker cannot be transferred or assigned, and it is non-refundable.</p>	\$70	<p>cylinder capacity of less than 2 litres: \$100</p> <p>cylinder capacity between 2,1 and 3 litres: \$130</p> <p>cylinder capacity of 3,1 litres or more: \$145</p>	<p>cylinder capacity of less than 1,6 litres: \$100</p> <p>cylinder capacity between 1,61 and 2,4 litres: \$130</p> <p>cylinder capacity of 2,41 and 3,4 litres: \$145</p> <p>cylinder capacity of 3,5 litres or more: \$160</p>
<p>L'Île-Bizard – Sainte-Geneviève</p> <p>You can submit an application for a maximum of two stickers per address, for two vehicles and two separate drivers.</p> <p>Purchased between November 1 and October 31</p> <p>The sticker is valid until October 31 of the following year.</p>	\$120		
<p>Mercier – Hochelaga-Maisonneuve</p> <p>The sticker is refundable under certain conditions (if it has not been used or if it is intact).</p>	\$71.47	<p>cylinder capacity of less than 3 litres: \$106.62</p> <p>cylinder capacity of 3 litres or more: \$140.59</p>	<p>cylinder capacity of less than 2 litres: \$106.62</p> <p>cylinder capacity of 2 litres or more: \$140.59</p>
<p>Montréal-Nord</p>	No residential permit program.		
<p>Outremont</p> <p>The parking permit cannot be transferred or assigned, and it is non-refundable.</p>	\$100	<p>cylinder capacity of less than 3 litres : \$100</p>	<p>cylinder capacity of less than 2 litres: \$100</p>

		<p>cylinder capacity of 3 litres or more: \$120</p>	<p>cylinder capacity between 2 and 3 litres: \$120</p> <p>cylinder capacity of more than 3 litres: \$140</p>
<p>Pierrefonds-Roxboro</p>	<p>The parking permit is free of charge.</p> <p>Employees of the Cheval à Bascule daycare service and École Charles-Perrault must show a letter from their employer or a pay stub to obtain a permit.</p>		
<p>Rivière-des-Prairies – Pointe-aux-Trembles</p>	No residential permit program.		
<p>Rosemont – La Petite-Patrie</p> <p>The parking permit cannot be transferred, and it is non-refundable.</p>	\$64	<p>cylinder capacity of less than 3 litres: \$95</p> <p>cylinder capacity of 3 litres or more: \$125</p>	<p>cylinder capacity of less than 2 litres: \$95</p> <p>cylinder capacity of 2 litres or more: \$125</p>
<p>Saint-Laurent</p> <p>You can submit an application for a maximum of two stickers per address, for two vehicles.</p> <p>The parking sticker cannot be transferred or assigned, and it is non-refundable.</p>	\$60		
<p>Saint-Léonard</p> <p>You can submit an application for a maximum of two stickers per address, for two vehicles and two separate drivers.</p>	The parking sticker is free of charge.		
<p>Verdun</p>	\$82		

<p>Ville-Marie</p> <p>The residents-only street parking sticker cannot be transferred or assigned, and it is non-refundable.</p> <p>You can submit an application for a maximum of two stickers per address, for two vehicles and two separate drivers.</p>	<p>\$100</p>		<p>cylinder capacity of 1.6 litres or less: \$100 cylinder capacity between 1.7 litres and 2.4 litres: \$150 cylinder capacity between 2.5 litres and 3.4 litres: \$200 cylinder capacity of 3.5 litres or more: \$250</p>
<p>Villeray – Saint-Michel – Parc-Extension</p> <p>The residents-only street parking permit cannot be transferred or assigned, and it is non-refundable.</p>			<p>\$52</p>

How will visitors and service providers park?

Temporary visitor parking permit

Only 6 boroughs offer temporary visitor parking permit. Residents of these boroughs can obtain a temporary visitor parking sticker for their visitors to park in their residential parking permit zones.

Borough	100% electric vehicle	Hybrid vehicle	Gas-powered vehicle
<p>Côte-des-Neiges – Notre-Dame-de-Grâce</p>	<p>\$170 (Sticker issued between July 1 and</p>	<p>Cylinder capacity of less than 2 litres: \$195</p>	<p>Cylinder capacity of less than 1.6 litres: \$195</p>

<p>Limit of 1 visitor vehicle per address. Parking is restricted to area 48.</p>	<p>December 31, valid until September 30)</p>	<p>Cylinder capacity of 3 litres or less: \$210 Cylinder capacity of 3 litres or more: \$240</p>	<p>Cylinder capacity between 1.6 litres and 2.2 litres: \$210 Cylinder capacity of 2.2 litres or more: \$240</p>
<p>LaSalle</p>	<p>Limit of 1 visitor vehicle at \$2 per day Visitors enjoy RPP privileges.</p>		
<p>Le Plateau-Mont-Royal</p>	<p>\$6 - \$12 per day depending on the extend of parking area privilege. Visitors enjoy RPP privileges within the applied zones.</p>		
<p>Outremont</p>	<p>Free of charge daily sticker. Visitors enjoy RPP privileges.</p>		
<p>Pierrefonds-Roxboro</p>	<p>Free of charge daily sticker. Visitors enjoy RPP privileges.</p>		
<p>Saint-Léonard</p>	<p>Free of charge daily sticker at a limit of 2 visitor vehicles per address. Visitors enjoy RPP privileges.</p>		

Worker monthly parking permit

Only 3 boroughs offer worker month parking permit with limited quantity at first come first serve basis. Workers can apply for monthly parking stickers to park in the residential parking permit zones of the respective boroughs.

Borough	Monthly Fee
<p>Le Plateau-Mont-Royal</p>	<p>\$102</p>
<p>Le Sud-Ouest</p>	<p>\$106</p>
<p>Outremont</p>	<p>\$100</p>

How will people with disabilities park?

Disabled parking permit is offered at all boroughs except for L'Île-Bizard–Sainte-Geneviève and Pierrefonds-Roxboro.

- Disabled parking is a designated 6-metre zone marked off by signs on a public road. It does not belong to the person who applies for it and may be used by anyone who has a disabled parking permit from the *Société d'assurance automobile du Québec (SAAQ)*. Additional parking space for a disabled person can be applied at the city.
- Holders of a disabled parking permit from the SAAQ get a reduced parking fee.
- Disabled passenger drop-off zones are 2-metre drop-off zones designated for a disabled passenger to get into or out of a vehicle. These zones are strictly not meant for parking.

How will permits be sold & enforced?

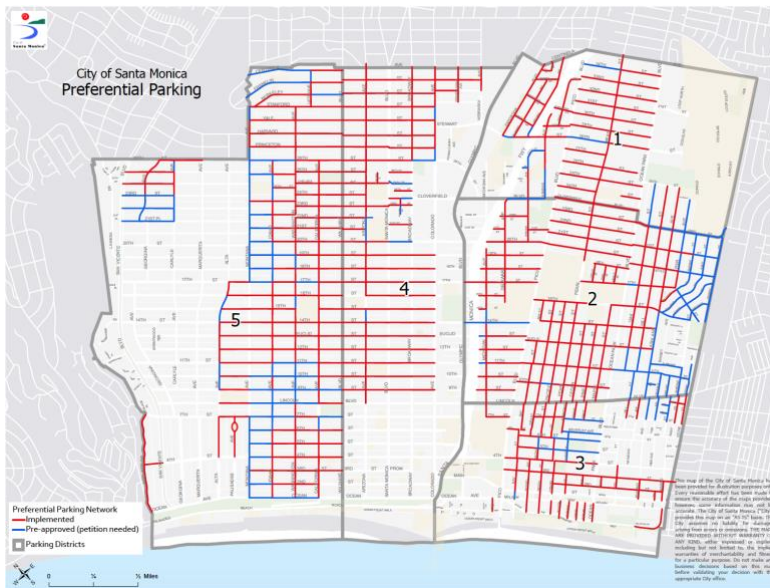
- Application can be submitted online, by mail, in person and occasionally, depending on the borough, by email

5. Santa Monica

How much of the city is covered by parking permit zones?

The city is divided into red blocks - of which a preferential parking permit program is in place; blue blocks - where the City Council has pre-approved restrictions for the preferential parking permit program; however, a petition is required before restrictions will be implemented. For the rest of the city, the preferential parking permit program does not apply and requires the City Council approval in addition to a completed petition.

Only residents who live on a red block with preferential parking restrictions are eligible to purchase a Resident or Visitor permit.



Retrieved from <https://csmqisweb.smgov.net/docs/mapcatalog/prefpark.pdf>

Eligibility

To apply for a residential parking permit in Santa Monica, one must be:

- Residents in the preferential parking zone, with proof of residency, include a utility bill, bank statement, or credit card bill from the last 30 days.
- Driver's licenses, leases, rental agreements, IDs, or vehicle registrations are not required.

Conditions and Exceptions

- No permit will be issued to any applicant until that applicant has paid all of his or her outstanding parking citations, including all civil penalties and related fees.
- Only one account per eligible address is allowed regardless of how many individuals are residing at the same address.
- Each qualified applicant is entitled to purchase one permit per vehicle, up to three permits per year. An applicant requesting more than three permits for his or her dwelling unit may be granted additional permits by the City upon showing that there are more than three vehicles registered at the dwelling unit and that to deny additional permits would constitute a hardship, and upon the determination by the City, that sufficient off-street parking is not available to the applicant.
- Landlords/building managers may not purchase permits on behalf of their tenants. Landlords/building managers are only able to purchase up to two (2) Visitor permits for use when visiting the building/unit regardless of the number of owned/managed units in the building or parcel.
- Parking permits do not transfer when one moves, and cannot be sold or transferred to another party.

How much do permits cost¹⁰?

¹⁰ 2021 permit fee

May 2021 Exchange rate: 1 USD = 1.21 CDN

	First (Vehicle)	Second (Vehicle)	Third (Vehicle)	Fourth (Vehicle)
Resident Permits - annual	\$20	\$25	\$40	\$60
Resident Permits - Issued 6 Months or Less	\$10	\$15	\$25	\$35
Visitor Permits – Annual	\$30	\$30	Not allowed	Not allowed
Visitor Permits - Issued 6 Months or Less	\$15	\$15	Not allowed	Not allowed
Temporary Permits	30-Day Permit (new resident): Free	One-Day Guest, self-print: Free	One-Day Guest, pick up from office: \$2	NA

How will visitors and service providers park?

Preferential parking permit holders can purchase visitor permits and temporary permits for guests, subjected to quantity restrictions.

- **Visitor permit:** can be applied by preferential parking permit holders for a maximum of two visitor permits per eligible address. Visitor permits provide the same parking rights as Resident permits.

- **Temporary permit:** allow 30-day and 1-day parking for guests, subjected to an allowance of maximum 25 temporary permits per event date or maximum 300 total temporary permits per account per year.

Street cleaning services: Residents are encouraged to comply with posted signs for parking prohibitions for street sweeping during the days and times indicated, but only during the first full week of each month.

How will people with disabilities park?

People with disability with a Disabled Person Placard (permanent or temporary), Disabled Person License Plate (DP) or Disabled Veteran License Plate (DV) or drivers of a person who carries a Disabled Person Placard would be able to:

- Park in parking spaces with the International Symbol of Access (wheelchair symbol) either posted on sign or painted on the ground.
- Park next to a blue curb designated for handicap parking.
- Park next to a green curb (indicating time-restricted parking zone) beyond the indicated time limit.
- Park in any metered parking space at no charge and beyond the posted time limit.
- Park in any parking zone conditional on following the time restrictions indicated by the sign.
- Park in RPP zones.
- Park in long-term beach parking lots owned and maintained by the City of Santa Monica during daytime hours at no charge.

Disabled placards, DP and DV plates are not allowed to park next to:

- “No Parking” signs.
- Red curbs, which indicate no parking, stopping or standing; yellow curbs, which are for commercial vehicles to load and unload passengers or freight; and white curbs, which are for loading and unloading passengers or depositing mail in an adjacent mailbox.
- A parking meter that becomes a Valet Zone after a posted time (please read the posted signs), or on the street during posted days and times for street sweeping.

Enforcement is in place to prevent abuse of the disabled parking placards and disabled parking spaces:

- The Santa Monica Police Department's Traffic Section conducts citywide enforcement of disabled parking placard abuse, including lending the placard to another person or using someone else's placard, possessing or displaying counterfeit placards, altering a placard or placard identification card or displaying a cancelled or revoked placard.
- People who abuse the disabled placard are subjected to a fine that ranges from \$250 to \$3,500, or a jail sentence of up to six months.
- Placard abuse can also result in the cancellation and revocation of the placard and loss of the privileges it provides.

Are there parking incentives for electric vehicles?

No.

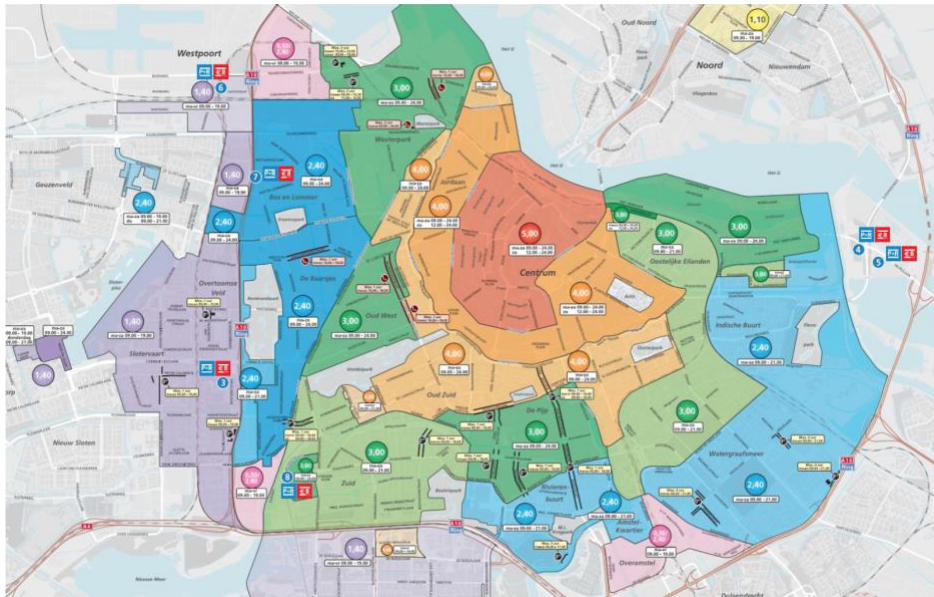
How will permits be sold & enforced

- Permit applications can be submitted online (new residents only), by mail or in person.
- Existing customers can use the Customer Web Portal to renew permits or print One-Day Temporary Parking Permits online. This web site currently does not allow you to make account changes.
- Parking enforcement is carried out in person by the Santa Monica Police Department's Traffic Section.

6. Amsterdam

How much of the city is covered by parking permit zones?

Amsterdam has a city-wide residential parking permit program. Permit holders are allowed to park anywhere within their permit area. Exceptions are when permit holders are allowed to park outside their permit areas, or, not in some streets with time restrictions according to the local street signs. In general, parking permits are not valid in 10-cent zones, in areas with a blue zone or on reserved parking spaces – such as those displaying a sign 'P-Permit holders or licenses'.



Retrieved from <https://www.amsterdamsights.com/amsterdam/maps/parkeertarieven.pdf>

Eligibility

To apply for a residential parking permit in Amsterdam, one must be:

- Registered at the address in the permit zone they are applying for.
- Showing proof of ownership to the vehicle or that they are the only user of the rental or company car for which they are applying for.

Conditions and Exceptions

- Parking permit is not applicable for occupants of new developments (either new construction or renovation projects).
- Residents with available parking space will not be eligible for a parking permit. In the zones where permits for second vehicles are allowed, one's own parking space(s) are deducted from the maximum number of permits they can get.
- One also cannot apply for a parking permit if they have, or have had in the past, the possibility of buying or renting their own parking space.
- Parking permit has environmental standard restrictions:
 - For diesel cars: emission standard 4 or higher
 - For cars running on other fuels: emission standards must be 1 or higher.
 - Parking permits are not available for classic cars.
- Waitlist:
 - Amsterdam sets limits to the number of parked cars on the street. From July 1, 2019 to July 1, 2025, the maximum available number of parking permits will be reduced every six months and thus also the number of parking spaces that are available on the street. Applicants will be put on a waitlist if there are no available parking permits in a permit area. Current wait time ranges from 2 months in Zuid 4.1 to 5.5 years in West 2.
 - Overflow parking permit: People who are on a parking permit waitlist can apply for a temporary parking permit in another permit area. This automatically expires when the person receives a parking permit for their own area.

How much do permits cost¹¹?

Residential parking permit is valid for 6 months. The table below shows the costs per 6 months for each permit area.

Permit area	First permit	Second permit
Central 1 to 3	€283.74	-
Central 4 (Oostelijke Eilanden)	€175.02	-
New-West 1 to 5	€50.91	€127.29
North 1, 2, and 4 to 9	€15.91	€39.78
East 1 to 17	€140.54	€351.36
West 1 to 6	€140.54	€351.36
West 7 to 11	€175.02	-
West 12	€50.91	-
Haven	€126.75	-
South 1, 2.2, 2.3, 2.4,4.1, 4.2, 4.3, 4.4, and 5	€140.54	€351.36
South 3 and 8	€175.02	-
South 6 and 7	€50.91	€127.29
Southeast 1 to 4	€34.48	€86.20

How will visitors and service providers park?

Amsterdam offers 3 types of parking permit for visitors of residential permit holders to park at a discounted rate: the general visitor's permit, the visitor's permit for the elderly and disabled, and the homecare provider's permit. Generally parking rules apply for all three:

- Residential permit holders must apply for and pay for the parking fee of these visitor's permits. Application fee is generally free.
- The parking is paid per minute and a maximum of five cars per permit are permitted to park at the same time.
- Fee can be paid online or by phone.
- The permit is only valid within the residential permit holders' permit zones and is not valid in car parks, 10-cent zones and blue zones.

General visitor's permit: for visitors of RPP holders in certain permit zones.

- Only available to households in District of Centrum 3 and Centrum 4, Nieuw-West, Noord, Oost, West, Zuid, or Zuidoost
- Residential permit holders must apply and pay for the general visitor's permit. There is restriction of one visitor's permit per address in the District of Centrum 3 and Centrum 4, Nieuw-West, Noord, Oost, West, Zuid, or Zuidoost.
- Discount fee: In the District of Nieuw-West, Noord, Oost, West, Zuid, or Zuidoost your visitors can park at a 65% discount within your permit area. In the District of Centrum 3 and Centrum 4 the discount is 35%.
- Hours permitted to purchase:
 - Maximum of 120 hours per quarter: Districts of Centrum, Oost, West, Nieuw-West, Noord, Zuid and Zuidoost
 - Maximum of 180 hours free per quarter: Buitenveldert Noord
 - Maximum of 120 hours free per quarter: Buitenveldert Overig
 - Maximum of 180 hours per quarter: Prinses Irenebuurt neighbourhood

Visitor's permit for the elderly and disabled: for visitors of residents who are 65 years or older, or have a disability

- Limitation of one non-transferable permit per person. Having a general visitor's permit does not inhibit one from applying for a visitor's permit for the elderly and disabled.

¹¹ 2021 permit fee

- Discount fee: Discount of 65% is applied in the permit area (except in the Centrum of which discount is 50%). The residential permit holder who applies for this visitor permit must pay this parking fee.
- Hours permitted to purchase: A maximum of 120 hours per quarter.

Informal homecare provider's permit: for family members and friends of residents that require care at home.

- Eligibility: The permit applicant is registered in Amsterdam, resides in the address registered, requires informal care, and the homecare provider(s) live(s) outside the permit applicant's area or in another municipality.
- The fees for the six-month permit vary by area, range from €7.96 to €141.87
- The parking permit for informal care providers is in the name of the person receiving the care. A maximum of three caregiver registration numbers can be registered on the permit, but only one homecare provider can park at the address at a time.

Temporary non-resident parking options:

- **Park & Ride:** allows visitors to park their vehicles at a discounted rate in the outskirts of Amsterdam then take transit into the city's center. There are 10 park & ride parking lots conveniently located next to large transit stations.
 - Cost: The cost consists of discounted parking fee and transit tickets (for up to 5 people) to the city center.
 - Specifically, it is €8 for the first 24 hours, Monday to Friday before 10.00; and €1 per additional 24 hours up to a maximum of 96 hours. After 96 hours, the cost is no longer discounted.
 - Monday to Friday after 10.00, on the weekends and during official holidays, park & ride rate is €1 per 24 hours.
- **Blue zone, 10-cent zones, & holiday parking:**
 - Blue zones indicate areas where paid parking is not in place. Drivers are permitted to park for a period of time indicated by the road signage. A blue parking disc, which is used to mark the time of arrival and calculate the time left for parking, needs to be on visible display.
 - In some designated shopping streets, drivers can park in 10-cent zones at 10 cents an hour during the time permitted as indicated

on the signage, at a maximum of once a day, for three to four hours. This rate is not transferable to other 10-cent zones.

- Residential parking permit holders are not allowed to park in the 10-cent zone during the hours when this rate applies. This applies to all day, evening, week, month or yearly permits, but it does not apply to permits for disabled drivers (residents and visitors).
- Parking is free on most streets on official public holidays

How will people with disabilities park?

- Person with a European disability parking card or driver of a person with a European disability parking card can apply for a disabled parking permit.
- The permit allows permit holders to park on any street in Amsterdam for free and exempts them from the time restrictions in 10-cent (commercial parking) zones.
- Permit holders cannot park for free in off-street parking.

Are there parking incentives for electric vehicles?

Owners of an electric vehicle (defined as one that can reach at least 75kmph and with a minimum battery capacity for 60km of driving) will be given priority on the waiting list for a parking permit.

How will permits be sold & enforced?

- Residential parking permit application is either in person at the City Office (appointment required) or by mail. Application for general visitor's permit and visitor's permit for the elderly and disabled can be done online or in person. Application for homecare provider's permit can be done online, in person or by mail.
- Parking enforcement is carried out by officers and by cars fitted with cameras to scan the number plates of parked vehicles and send the data to an automated back office processing system. Parking fees are then

cross checked directly with the operator in cooperation with the local authorities (police and city's finance department).

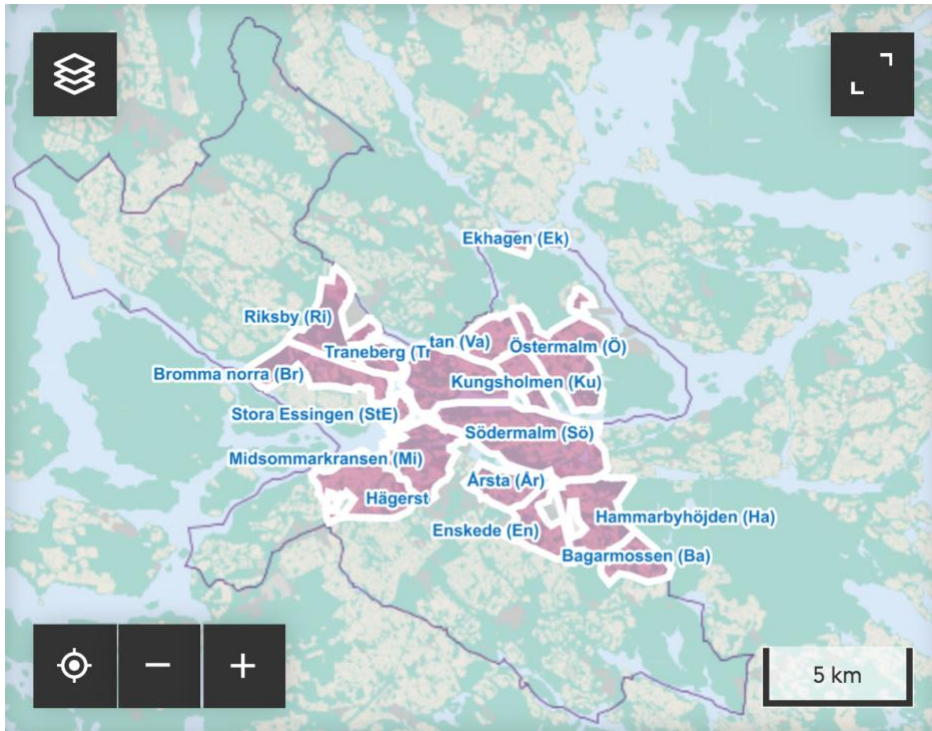
- Insufficient amount for parking or unpaid parking will result in Parking Services Amsterdam leaving a sticker on the vehicle informing of a fine. Incorrectly parked cars that form an obstacle to other traffic will be towed by the City Street Patrol.
- A wheel clamp will be put on a car if there are too many unpaid parking tickets (2-5 tickets depending on your country's agreement with the Netherlands). The clamp will only be removed when all outstanding fines have been paid in full, plus the fee for the wheel clamp (€ 192). The fines must be paid within 24 hours, or the vehicle will be towed away

7. Stockholm

How much of the city is covered by parking permit zones?

There are five different permit zones that cover the central areas of Stockholm.

- Zone 1: Covers a small number of highly attractive streets in the City. The fee applies around the clock and parking may take a maximum of one hour.



Residential Parking Permit map in Stockholm. Retrieved from <https://parkering.stockholm/boendeparkering/>

- Zone 2: Covers City, the Old Town and the most important main streets in the inner city. Fee 24 hours a day, 7 days a week. Possibility of residential parking is available, in some cases only at night
- Zone 3: Covers Vasastan, Kungsholmen, Södermalm, Hammarby Sjöstad, Östermalm and areas around Liljeholmen and Gullmarsplan.
- Zone 4: Covers Ekshagen, Traneberg, Stora Essingen, Midsommarkransen, Årsta, Enskede and Hammarbyhöjden.
- Zone 5: Covers Riksby, Bromma, Hägersten and Bagarmossen.

Additionally, at several centers in the suburbs, a parking disc is used. There you park for free for a limited time, for example two hours. See the site's signage for more information. You can pick up a parking disc in a vending machine within the parking area. Set the arrival time and place the parking disc visible inside the windscreen. Driver must not have several parking discs at the same time inside the windscreen.

Eligibility

To apply for a residential parking permit in Stockholm, one must be:

- Registered at a home within a residential parking area
- Authorized to drive the vehicle for which they are applying the permit for, and
- A registered vehicle owner with the Swedish Transport Agency through its Road Traffic Register system.
- Special cases are also considered for temporary residents, for people who borrow or rent a vehicle, or have private access to a company car, as long as they provide proof as required by the authorities.

Vehicles eligible for residential parking permit are passenger car class I (maximum of eight seats in addition to the driver's seat and is set up mainly for passenger transport, not as a living space), light truck (A truck with a maximum total weight of 3.5 tonnes), light bus (A bus with a maximum total weight of 3.5 tonnes), motorbike, and moped class I (a motor vehicle that does not exceed 45kph).

Conditions and Exceptions

- Permit is limited to one car and/or one moped class I per person, regardless of how many vehicles one owns. However, other people registered at the same address can apply for a parking permit for the second or third vehicle without having to be its registered owner, as long as they have a driving license.
- Permit holders must move the vehicles during the time it is forbidden to park (e.g., street cleaning days, “Städdag”) and parking may not take place longer than a maximum of 7 days. Even if you paid the residential parking fee, you park subject to availability.
- The eligible vehicle must be in traffic and not subjected to driving or use ban.
- Permits are only granted for vehicles intended for private use.

How much do permits cost¹²?

A processing fee of SEK 300 (44.81 CAD) is charged for new applications, vehicle changes and area changes.

There are five different parking zones in the city of Stockholm. The parking fee and the rules for how long you can park differ between the different areas and are shown on street signs.

May 2021 Exchange rate: 1 SEK = 0.15 CDN

Permit Zones	Description	Residential parking (SEK)	Visitor parking (SEK)	Motorcycle parking (SEK)
1	Covers a small number of highly attractive streets in the City. The fee applies around the	No places for residential parking.	24 hours a day, 7 days a week: 50/hour	24 hours a day, 7 days a week: 10/hour,

	clock and parking may take a maximum of one hour.			
2	Covers City, the Old Town and the most important main streets in the inner city. Fee 24 hours a day, 7 days a week. Possibility of residential parking is available, in some cases only at night	Car: 1100/month – 75/day Motorbike: 275/month - 75/day	Weekdays, 07:00 - 21:00: 26/hour Day before public holiday and public holiday, 09.00 - 19.00: 26/hour Other time: 15/hour.	Weekdays, 07:00 - 21:00: 6.5/hour Day before public holiday and public holiday, 09.00 - 19.00: 6.5/hour Other time: 4/hour.
3	Covers Vasastan, Kungsholmen, Södermalm, Hammarby Sjöstad, Östermalm and areas around Liljeholmen and Gullmarsplan.	Car: 1100/month – 75/day Motorbike: 275/month - 75/day	Weekdays, 07:00 - 19:00: 15/hour Day before public holiday and public holiday, 11.00 - 17.00: 10/hour Other time: No fee	Weekdays, 07:00 - 19:00: 4/hour Day before public holiday and public holiday, 11.00 - 17.00: 2.5/hour Other time: No fee

¹² 2021 permit fee

4	Covers Ekshagen, Traneberg, Stora Essingen, Midsommarkransen, Årsta, Enskede and Hammarbyhöjden.	<p>Car: 500/month - 35 /day.</p> <p>Motorbike: 125/month - 8.75/day.</p> <p>Exemption: At the center of the suburbs.</p>	<p>Weekdays, 07:00 - 19:00: 10/hour</p> <p>Day before public holiday and public holiday, 11.00 - 17.00: 10/hour</p> <p>Other time: No fee</p>	<p>Weekdays, 07:00 - 19:00: 2.5/hour</p> <p>Day before public holiday and public holiday, 11.00 - 17.00: 2.5/hour</p> <p>Other time: No fee</p>
5	Covers Riksby, Bromma, Hägersten and Bagarmossen.	<p>Car: 300/month – 20/day.</p> <p>Motorcycle: 75/month – 5/day</p> <p>Exemption: At the center of the suburbs</p>	<p>Weekdays, 07:00 - 19:00: 5/hour</p> <p>Other time: No fee</p>	<p>Weekdays, 07:00 - 19:00: 2.5/hour</p> <p>Other time: No fee</p>
Suburb centres	At several centers in the suburbs, parking discs can be picked up from vending machines within the parking area to calculate the amount of free parking time left. It should be set to the arrival time and placed visibly inside the windscreen.			

How will visitors and service providers park?

The city of Stockholm does not offer visitor parking permit. At the same time, residential permit parking zones are available to all road users, with visitors subjected to additional regulations relating to pricing and time. There are 25,000 parking spaces for temporary visitors with options as followed:

1. **Park-and-ride:** There are 25 park-and-ride services outside the inner city that are close to public transport. Parking is less expensive than parking in the inner city.
2. **Entrance parking:** Stockholm provides 40 entrance parking lots and over 4400 parking spaces at a favorable price next to public transport facilities. At selected entrance parking lots, parking is free if the car owners have a SL access card (transportation card in Stockholm) loaded with at least a 30 days subscription at full price. Monthly cards purchased with a reduced price (student and pensioner discount) are not accepted. Some parking lots can be free for the whole 24 hrs, some are free until midnight.
3. **Permanent/hourly garage space:** There are a number of parking companies and garages can be found in all Stockholm neighbourhoods, although are less easy to find in Östermalm. On average a permanent space costs between 1000 kronor and 1500 kronor per month (145.75 CAD to 218.63 CAD). Hourly rates in parking garages are between 60 kronor and 70 kronor per hour (8.75 CAD to 10.20 CAD) Monday to Friday.
4. **Overnight parking:** On-street overnight parking is not allowed for visitors. There are over 3000 parking spaces in the inner city available for evening and overnight parking by overnight visitors. There are 34 parking garages for evening parking. Evening parking means that you can park an entire evening for SEK 50 between 18.00-24.00. In P-hus Gallerian, Konserthusgaraget and in P-hus Medborgarplatsen, evening parking applies until 01.00. The offer is valid every day. There are 35 parking garages for overnight parking. Add SEK 50 to the evening parking and you can also park overnight, usually until 08.00 the next morning. You can pick up your car when the garage opens in the morning. Most garages open Monday-Friday at 06.30, on Saturday-Sunday at 08.00. Stockholm Parkering has also introduced cheap evening and night parking at 7 entrance car parks. SEK 10 for the evening (18.00 to 24.00) and SEK 10 for the night (00.00-07.00).

5. **Event parking:** Stockholm offers event parking in the Globe area with favorable prices. For SEK 130, visitors can park an entire weekday evening in P-hus Parkören (Tax Area 4, bordering 3), from 6 PM to midnight. In Arenagaraget (Tax Area 4, bordering 3), visitors can park until 9 PM. Event parking on a Saturday, Sunday and public holiday in the car park Parkören costs SEK 130 and is valid from 6 AM - 12 AM. In Arenagaraget visitors can park until 9 PM, after which it closes.

How will people with disabilities park?

EU parking card for people with disability:

Other than the designated parking spaces for the disabled, on-street permits for people with reduced mobility are available for application and issued by the Swedish Transport Administration. The parking permit for the disabled allows the permit holders to:

- Park up to three hours in areas where parking is prohibited or permitted for periods shorter than three hours.
- Parking up to 24 hours in areas where parking is permitted for periods of between three hours and 24 hours.
- Park up to three hours in pedestrian precincts.
- Not park in parking spaces reserved for a specific purpose or specific type of vehicle.

Eligibility

1. The disabled person has to drive the car themselves. Otherwise, special reasons are required for a disability permit as a passenger, which may only be used when the disabled person accompanies as a passenger and needs the driver's help to move outside the car.
2. Valid permits need to be original and in good condition and fully readable from the outside. The hologram on the front must be undamaged. The permit should be placed on the right side of the windscreen to make it easier for our parking guards.

3. Permits that were abused can be revoked.

Disability parking fee

- Disability parking permit does not exempt one from parking fee. If there is no sign indicating parking fee, the parking is free. However, anyone with a valid disability parking permit to apply for a reduced parking fee, set at SEK 250/year, which is paid via invoice. The fee gives you, together with the parking permit and registered vehicle, the right to park in paid parking spaces as well as parking spaces that are reserved for the disabled. The fee applies to on-street parking within the city of Stockholm. It does not apply to plots of land or garages.
- The parking guards check that the reduced fee is valid via the car's registration number. Meanwhile, the Sweden Traffic Office allows the application for new parking spaces for the disabled.

Seasonal Parking - Summer Parking

Summer parking is mainly aimed at inner-city residents in Stockholm who usually park along the streets. The concept means that Stockholm Parkering offers affordable parking as an alternative to street parking. The purpose is to free up street space in the inner city, for example for summer pedestrian streets, cyclists and transport.

Summer Parking program runs at 16 parking lots from 1 May - 12 August 2021. Another six parking lots will be running the program from June 15 - August 12. No place guarantee is provided. Summer Parking is available for purchase from April 26, 2021.

No rental agreements or notice periods applied, but those who enter the parking program can park hourly at a favorable price that is cheaper than residential parking in the city centre and cheaper than the normal off-street parking price, without having to move the car due to cleaning days or nights as in residential permit parking.

Are there parking incentives for electric vehicles?

There are 2,100 charging stations (mainly Type 2 Mode 3 with a current of 16 A 1-phase) in parking facilities around Stockholm. 1,400 of these are located in visitor car parks. Visitor parkings do not require extra parking fee for the use of charging stations.

How will permits be sold and enforced?

Permit can be applied at <https://etjanst.stockholm.se/boendeparkering>. On the website, users can register permanent or temporary vehicle changes for the permit; register, extend, or cancel pauses in subscriptions; register a current subscription or 30-day purchase; and end a current subscription. The permit is automatically renewed at the turn of the year if the conditions for housing and vehicles are still met.

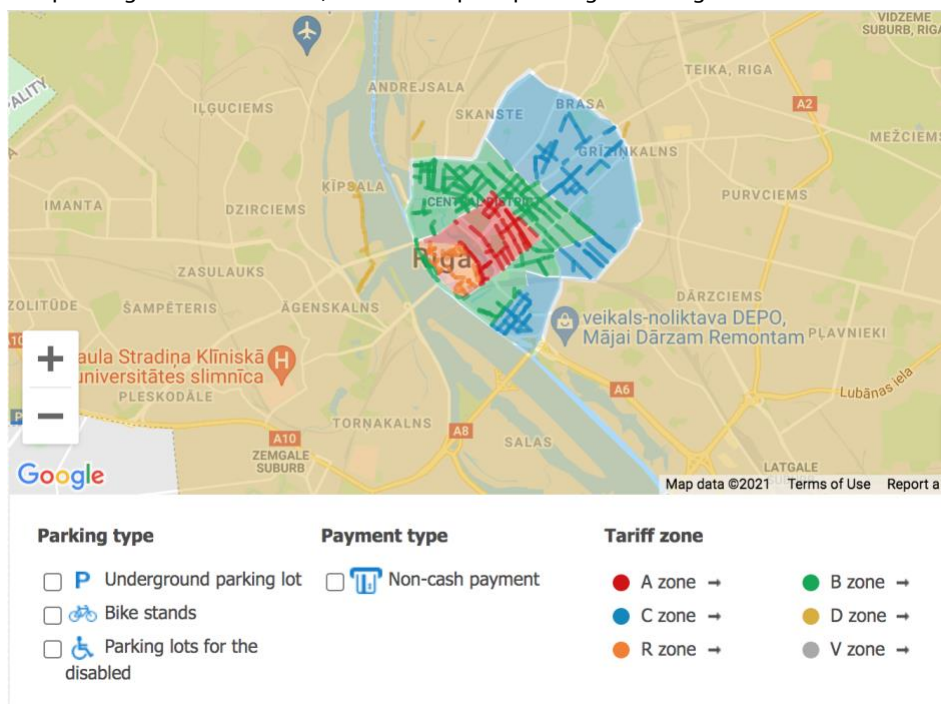
		a valid payment for the vehicle in question.
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Payment Method	Description	Enforcement
Period payment	For residential parking. Option to pay for 30 days or have a regular monthly subscription. Period payment can be activated any time of the month. A subscription runs per calendar month and can be terminated at the end of the month on an e-service website.	The parking attendants search for your vehicle's registration number and can immediately see if the parking fee has been paid. You do not need to use a decal in the car.
Pay P	Digital alternative to paying for parking via a parking machine and can also be used in residential parking areas.	
Parking meter	In 2017 and 2018, all of Stockholm's parking meters were replaced with digital, ticket-free and solar-powered parking meters.	The parking guards check the vehicle's registration number via their PDA and thus receive confirmation of whether there is

8. Riga

How much of the city is covered by parking permit zones?

Riga has a city-wide residential parking permit program for six permit zones. Permit holders can park at the organized parking lots for the section of the street where they reside. Exception is made for residents of Old Riga, who have the right to use this card in the entire area concerned. If there is no parking lot in the street section concerned where the resident's place of residence is located, the card is issued for the section of the street of the same block or the nearest block, within the parking zone concerned, in which a paid parking lot is organized.



Retrieved from <https://www.rigassatiksmelv/en/services/parking-services/parking-services/>

There are three types of permits:

1. Resident card (on-street parking permit for residents): for residents to park within the red lines of the street section where the address indicated on the resident card is located.
2. Monthly subscription (off-street parking permit for visitors): for permit holders to park municipal pay parking lots across all permit zones.
3. User card (off-street parking permit for businesses): for owners and tenants of non-residential premises to use specially reserved parking lots in the section of the street that already has an established paid parking lot.

Eligibility

To apply for a residential parking permit in Stockholm, one must:

1. Reside in the section of the street where the pay parking lot is organized.
2. Be the owner of the vehicle or have the right to use the vehicle.

How much do permits cost¹³?

May 2021 Exchange rate: 1 EUR = 1.47 CDN

Permit Zones	Monthly Subscription (off-street parking)	Residential parking (on-street parking)	Visitor parking	Hour
A	€ 250.00 per month for all permit zones.	€ 70.00 per month	User's card: € 650.50 First hour - € 2.50	Working hours - 8-20 on working days and 9-17 on Saturdays

¹³ 2021 permit fee

			Every next hour - € 3.00 Minimum payment - € 0.60	
B		€ 55.00 per month	User's card: € 540 Basic tariff / with Riga resident's card First hour - € 2.00 / € 1.60 Every next hour - € 2.50 / € 2.00 Minimum payment - € 0.50	Working hours - 8-20 on working days and 9-17 on Saturdays
C		€ 40.00 per month	User's card: € 429.50 Basic tariff / with Riga resident's card First hour - € 1.50 / € 1.20 Every next hour - € 2.00 / € 1.60 Minimum payment - € 0.40	Working hours - 8-20 on working days and 9-17 on Saturdays
D		€ 25.00 per month	User's card: € 319 Basic tariff / with Riga resident's card	Working hours - 8-20 on working days and 9-17 on Saturdays

			First hour - € 1.00 / € 0.80 Every next hour - € 1.50 / € 1.20 Minimum payment - € 0.30 Maximum payment per day - € 5.00 / € 4,00	
R- Old Riga		€ 85.00 per month	User's card: € 1693 First hour - € 5.00 Every next hour - € 8.00 Minimum payment - € 1.30	Working hours - every day 6-24
V- Vecāķi beach		NIL	Payment per day - € 2.00 Minimum payment - € 2.00	Working hours - every day 8-20, from May 1 till September 30

How will visitors and service providers park?

Visitors have four options for parking:

- Monthly subscription: for permit holders to park municipal pay parking lots across all permit zones.
- User card: specific for owners and tenants of non-residential premises to use specially reserved parking lots in the section of the street that already has an established paid parking lot.
- Hourly rate at designated parking lots.
- Underground parking.

How will people with disabilities park?

- A disability parking permit is issued by the Road Traffic Safety Directorate to drivers with mobility impairments, as well as to people with temporary medical indications and disabled children who are transported with someone else's assistance. The disabled parking permit is valid with any vehicle while transporting people with impaired mobility. Disability certificate cannot be used in replacement of the disability parking permit.
- Applications for organizing new parking lots of disabled persons can be submitted to the Riga City Council's Transport Department.
- Parking fee: disability parking permit allows free parking in parking spaces marked with the traffic sign no. 537 "Parking" and an additional traffic sign no. 844 "Disabled parking". Alternatively, parking spaces with the traffic sign no. 942 are designed for parking with a disability parking permit parking fee is applied according to the tariff rate visible on the parking meter.

Are there parking incentives for electric vehicles?

Electric vehicle parking is exempted from parking fee, conditional that the state registration number plate of a special purpose vehicle is installed on the vehicle.

How will permits be sold & enforced

Enforcement:

- The resident's card shall be put in a visible place – on the left side of the vehicle's dashboard so that the parking lot controller could check the document and its content, i.e. could see the user information, the document's validity date, number and safety stickers.
- The second unpaid post-payment notice warns vehicle drivers that next time a wheel-blocking device will be put on the vehicle.
- A wheel-blocking device is put on the vehicle after the third post-payment notice is applied if at least two post-payment notices received after the 1st November 2018 have not been paid or in cases where no registration plate is attached to the vehicle.

Parking fee could be paid using:

- Non-cash parking meters
- "Riga Card" SMS payment system.

Mobile applications, such as Riga Card, which allows users to pay for parking services, look at public transport timetables and schedules, receive current information for car drivers and passengers, and check postpaid bills.