Toronto City-Wide Strategic Parking Framework

FINAL

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Acknowledgements

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- City Planning
- Corporate Real Estate Management
- CreateTO
- Economic Development & Culture
- Parks, Forestry & Recreation
- Toronto Parking Authority
- Tororonto Police Services
- Transportation Services

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Consultant Team

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- Angus Reid Group
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- LURA Consultants
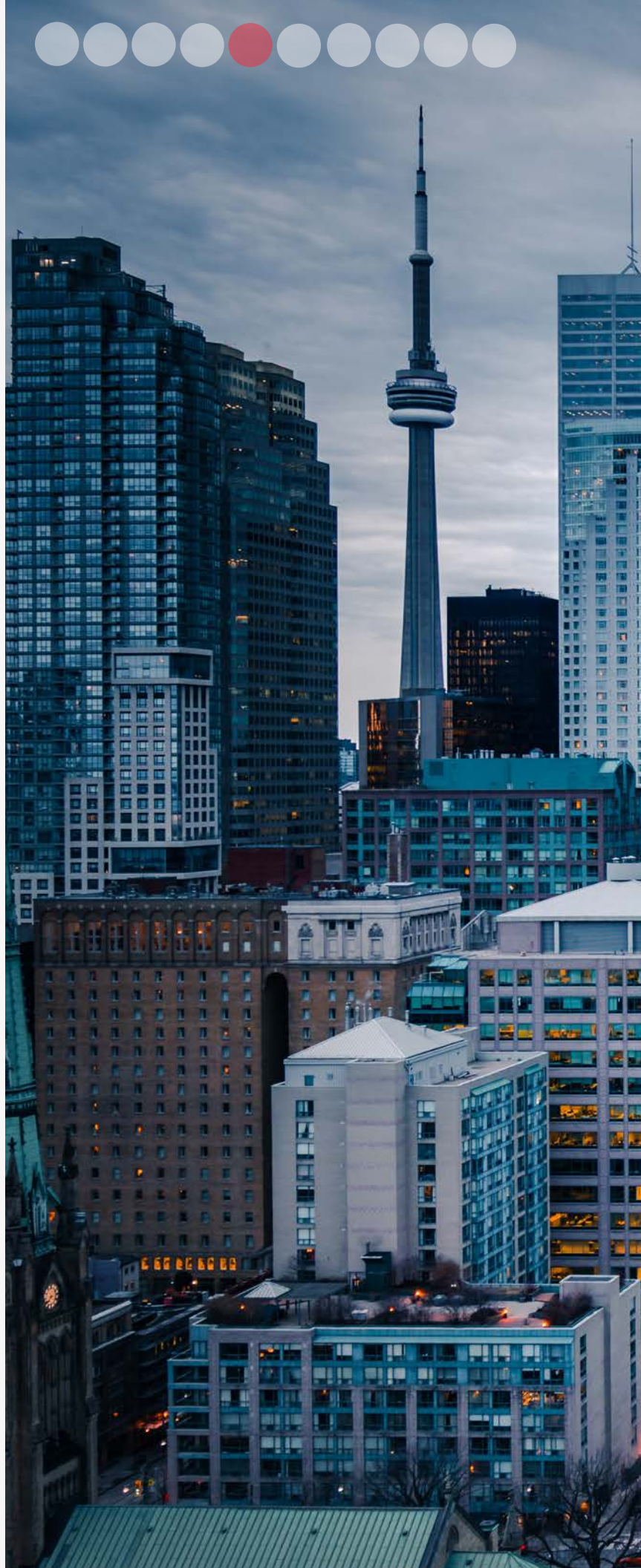- Nelson\Nygaard Consulting Associates
- WSP

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Executive Summary

Introduction

Parking is a critical component of the City's mobility and urban fabric. It supports the movement of goods and people and is also a part of the City's real estate portfolio. Effectively managed, parking can help drive important city-building goals such as the efficient movement of people and goods, increasing housing supply, tackling climate change, and promoting compact development. The City of Toronto is working towards a comprehensive and internally aligned policy basis for parking management that supports its city-building objectives. This report provides a strategic framework and recommended actions to support the City of Toronto in creating a city-wide parking strategy.

The goal of this strategic framework for parking is to guide the City to comprehensively address Toronto's parking challenges with a city-wide lens. By taking a city-wide view, the City can make informed strategic and operational decisions to ensure there is sufficient supply *where needed*, and that the supply is governed and managed efficiently and effectively to support the City in achieving its wider goals.

This strategic parking framework was developed through engagement with the City's Parking Advisory Committee, City departments and agencies, and external parking providers and partners.

Toronto's Parking Challenges Today

Toronto's parking system faces many challenges today, and without intervention, these will continue to grow significantly as the city grows. While solutions to specific issues are being advanced incrementally across a range of City portfolios, the pace of growth along with changing user needs continues to place high demands on public space and city resources.

Major challenges include:

- Increasing pressure on curb space parking.
- Underutilized private parking lots resulting from hybrid work policies.
- Multiple demands on publicly owned parking lots for other uses.
- Use of outdated and inefficient technologies to manage parking.
- Lack of a unified framework to ensure decision makers across City departments, agencies and external parking providers work together.
- Inconsistent customer and community experience.

CafeTO, a popular City program to repurpose curb space for outdoor dinning, approved more than 290 permit applications for the 2024 season

Source: City of Toronto

Benefits of Good Parking Management

Good parking management practices are critical to achieving important city-building goals, such as increasing housing supply, tackling climate change, promoting compact development, affordability, and the efficient movement of people and goods. Too much parking, parking in the wrong places and poor parking management contribute to higher levels of congestion, reduced transit reliability, safety hazards, inefficient use of land and lost opportunities for needed housing development. Efficient parking management results in limited space being used to support the highest and best uses with an eye to future needs.

Strategic Role of Parking

Effective parking and curbside management is a linchpin in city management that can support a multitude of needs beyond car storage. It can improve operations of commercial activities through loading zones, support public transit use through park and ride lots, and act as a strategic hub for mobility services such as car-share. However, too much parking and/or parking in the wrong places creates consequences that negatively impact congestion, environmental well-being, and the vibrancy of city life, which people love about Toronto.

Through engagement with City staff over several months, the key tenets of the value proposition of parking as a crucial city building tool are identified in Figure 1.

Important

- ✔ Provide access to city services in areas where there are limited. alternatives to driving.
- ✔ Support transit access for people from areas with poor transit accessibility.
- ✔ Support specific land-uses that need parking (e.g. childcare, supportive housing).
- ✔ Expand opportunities for car-share, which can encourage a reduction in private vehicle ownership.
- ✔ Improve access to electric vehicles.
- ✔ Support workers who travel from the periphery of the City without access to transit.
- ✔ Provide access to city services for people with mobility needs.
- ✔ Provide a revenue stream for the City.

Most important

- ✔ Encourage travel choices that manage congestion and reduce cruising (e.g. short-term curbside use, long-term off-street lot use).
- ✔ Support local business operations and residents to meet daily needs, where appropriate.
- ✔ Enable sustainable mobility services such as car-share and bike-share.

Figure 1: Value Proposition of Parking

Big Moves

This framework is structured around three overarching goals and six Big Moves (as shown in Figure 2) to advance forward looking approaches to parking policy development, management and decision making, for both on-street and off-street parking, considering all parking in the city - public and private. These Big Moves have been identified because they have the potential to be highly impactful to the goals and are timely to act on now because they would shape initiatives currently planned or underway.

GOALS
for parking management to support city-building objectives

BIG MOVES
system-wide, high impact, timely opportunity areas

Mobility
Supporting the efficient movement of people and goods throughout the City.

Access
Supporting Torontonian's access to businesses, services, and other opportunities across the City.

Economic Sustainability
Supporting the City's economic well-being and the unique function of Toronto's diverse neighbourhoods.

A Plan and Manage Parking on an Area Basis

B Track Parking Data and Leverage as a Resource for All Users

C Price and Reinvest in Sustainable Mobility

D Make Car-share Parking Readily Available

E Modernize Technology for Efficient Parking Management

F Unify Leadership and Decision Making

Figure 2: Big Moves to Support Parking Management Goals

First Implementation Steps

Implementing the full extent of the policies, actions, and ambitions of this parking framework will take many years. With laying the groundword early on, the City will be in strong position to build momentum and support for the range of opportunities identified above.
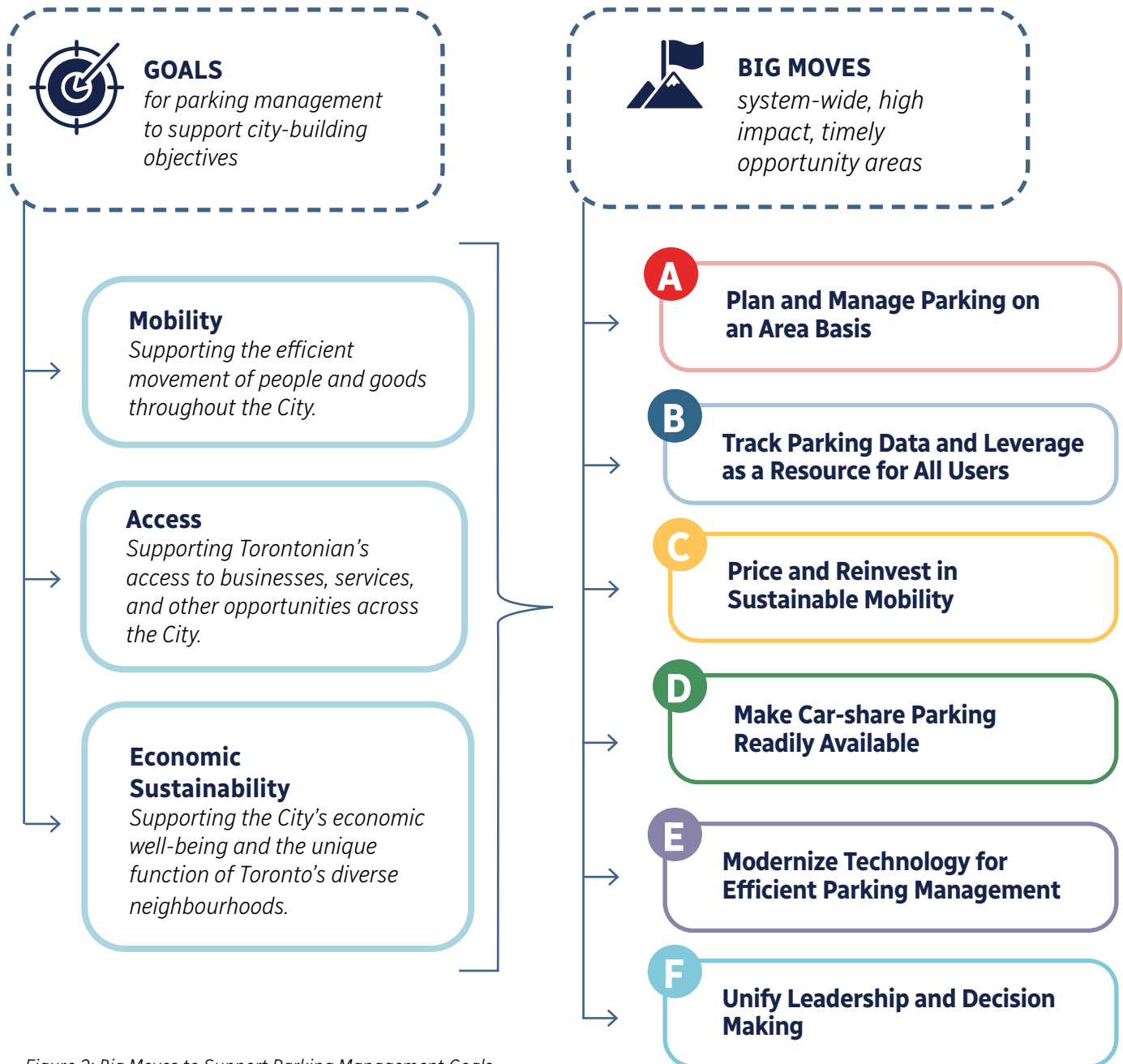
The key first implementation steps that the City can initiate in the first year to have the biggest impact in advancing the strategic objectives include:

- Develop and implement a strategic framework for managing parking supply at an area level.

- Design and develop a regularly updated parking inventory database that includes information on capacity and utilization across the City.

- Phase-in the expansion of free floating car-share parking outside of permit parking areas.

- Investigate opportunities to re-invest some revenue from paid parking and parking infractions to improve sustainable transportation access.

- Initiate public education on to the benefits of improved parking management.

- Undertake an economic impact assessment to understand the value of parking to local main streets communities.

- Develop a performance specification for a modern city-wide parking management system.

- Reform the role of the Parking Advisory Committee from advisory to steering.

- Manage all City-owned off-street parking consistently through a single operator (e.g., TPA).

Some areas, like Midtown, are currently experiencing major growth and could benefit from immediate area-based parking planning and management

Source: Toronto Tourism

1- Introduction

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The City of Toronto is working towards a comprehensive and internally-aligned policy basis for parking management that supports its city-building objectives, including affordability, climate resilience, GHG reduction, economic prosperity, and the efficient movement of people and goods.

This report provides a strategic framework and recommended actions to support the City of Toronto in creating a city-wide parking strategy.

The purpose of this report is to:

- Describe the role of parking in the city;
- Explain how parking management can address challenges related to mobility and land use;
- Provide a framework for parking management that supports Toronto's city-building goals;
- Recommended bold Big Moves, policies and actions that will advance an improved parking management system in the city.

*"TransformTO sets a target of **30% of registered vehicles in Toronto being electric**. To facilitate this, there needs to be more public EV charging infrastructure both on- and off-street for personal and delivery vehicles"*

Source: Faizimam (via reddit)

↑ *Recent policy intiatives, like Toronto's Electric Vehicle Strategy (2020), introduce new policy objectives for parking that should be integrated into a cohesive vision for parking in the city,*

This document is organized into several sections:

Section 2	Describes the need for a city-wide framework
Section 3	Outlines the approach taken to develop the framework and recommended actions
Section 4	Describes the 6 Big Moves and their associated policies and actions
Section 5	Provides a list of implementation steps for the near term

This document is paired with the following Appendices:

Appendix I	Implementation steps, tools, and roles and responsibilities for each recommended action
Appendix II	Technical background papers on key topics
Appendix III	Summary of select best practices reviewed from peer jurisdiction
Appendix IV	Detailed summary of the internal and external engagement informing strategy development

2 - Parking Plays a Critical City Shaping Function

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As the City of Toronto looks to a future with more residents, jobs, and visitors as well as higher densities, and a global influx of emerging technologies, it needs new and bold approaches to manage City services to enable a high quality of life for all Torontonians. Toronto is at a critical moment where new strategies are needed to simultaneously advance goals related to affordability, sustainable mode shifts, and supporting the local economy.

Parking is a critical component of the City's mobility and urban fabric. It is integral to the system of infrastructure and policies that support the movement of people and goods, and the management of curb space. Parking is not only part of the City's real estate portfolio, but also a land-use it controls through policies for development and placemaking. How curbside and off-street parking for car drivers and passengers, delivery vehicles, bicycles, car-share, and electric vehicles are managed will be critical to not only shaping how people and goods move and access places in the city, but also how well Toronto prospers into the future. Figure 3 summarizes the role that parking plays in shaping the City. Parking is a source of revenue for the City, but it

also creates infrastructure costs. Parking provision generates travel demand and impacts city expenditure (road and transit state of good repair, operations, expansion), and also has external impacts (emissions, congestion, and their mitigations costs). In general, infrastructure costs are lower in dense areas compared to less compact areas, where the cost of delivering services such as roads, wastewater, and transit is higher by population or area.

While good parking management practices are critical to achieving important city-building goals, such as increasing housing supply, tackling climate change, promoting compact development, affordability, and the efficient movement of people and goods, too much parking, parking in the wrong places and poor parking management contributes to higher levels of congestion, reduced transit reliability, safety hazards, inefficient use of land and lost opportunities for needed affordable housing development.
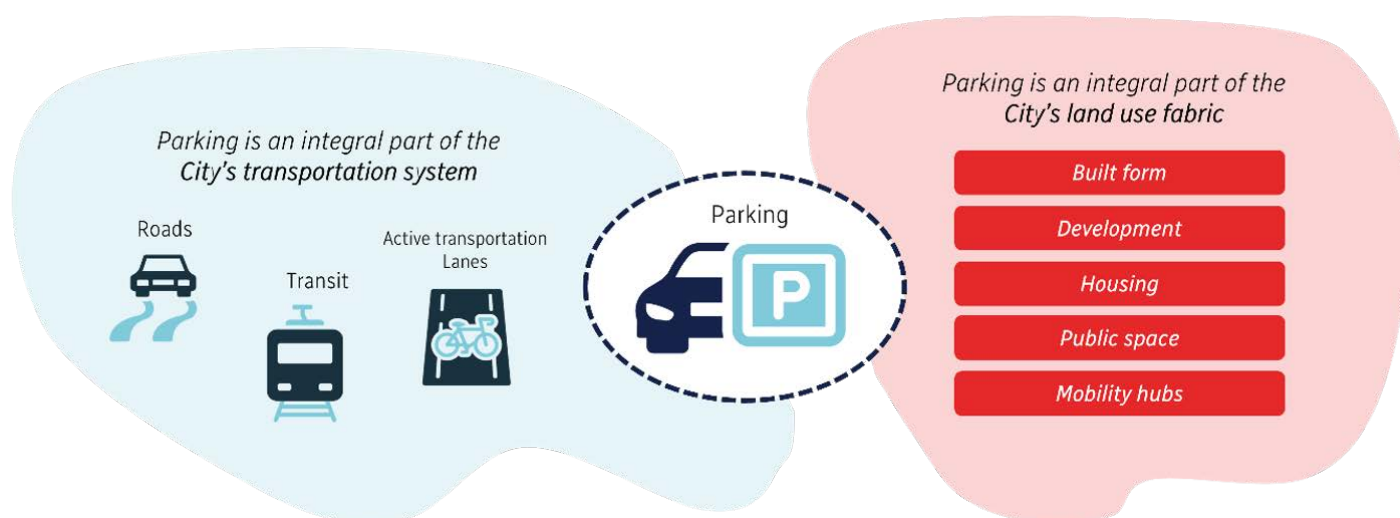

Figure 3: Parking is an Integral Part of the City

Section 2. Parking Plays a Critical City Shaping Function

Across the globe, other dense, fast growing cities including New York, Paris, Melbourne, Seattle, Vancouver and are fundamentally changing how they manage parking to enhance livability, protect local businesses and reduce greenhouse gas emissions. For example, New York City launched local delivery hubs in off-street locations to reduce the number of trucks parking and loading on the curb, and to facilitate last-mile deliveries by cargo bikes or low-emission vehicles. San Francisco introduced increased on-street rates near large events to discourage parking near special events that generated significant short-term increase in demand and crowds. In Toronto, transportation is the source of over one-third of the City's greenhouse gas emissions, 68 per cent of which come from passenger vehicles[1]. New parking strategies worldwide have already established the

direct link between parking management that emphasizes demand management, user information, and highest and best use of land. These strategies also recognize the impact of parking management policies on the decisions people make about the transportation mode, timing and frequency of personal trips.

This Strategic Parking Framework is a call to action for the City to advance policy and operational shifts across a range of responsibilities, and to collaborate with external partners including other private and public parking providers.

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1. *City of Toronto, 2021. 2021 Sector-based emissions inventory. Retrieved August 2, 2024:*
https://www.toronto.ca/wp-content/uploads/2024/01/94a4-CoT-2021-Sector-based-Emissions-InventoryFINAL-AODA.pdf#page=16

Ultimately, the City's Strategic Parking Framework will be a key guiding document that informs a range of statutory, policy, and operational areas, as illustrated in Figure 4.

Strategic Parking Framework

Policies and actions that influence...

| Official Plan | Zoning Bylaw | TransformTO | Transportation Master Plan (future) | Parking Mandates of City Agencies | Operational Policies of City Departments | City Revenue and Funding Policies |

Figure 4: A Strategic Parking Framework to Guide City-wide Polices and Initiatives

2.1 Toronto's Parking Challenges Continue to Grow

Toronto's parking system faces many challenges today, and these will continue to grow as the city grows. While solutions to specific issues are incrementally advancing across a range of City portfolios, the pace of growth along with changing user needs continues to place high demands on public space and City resources. Major challenges are showcased in Figure 5.
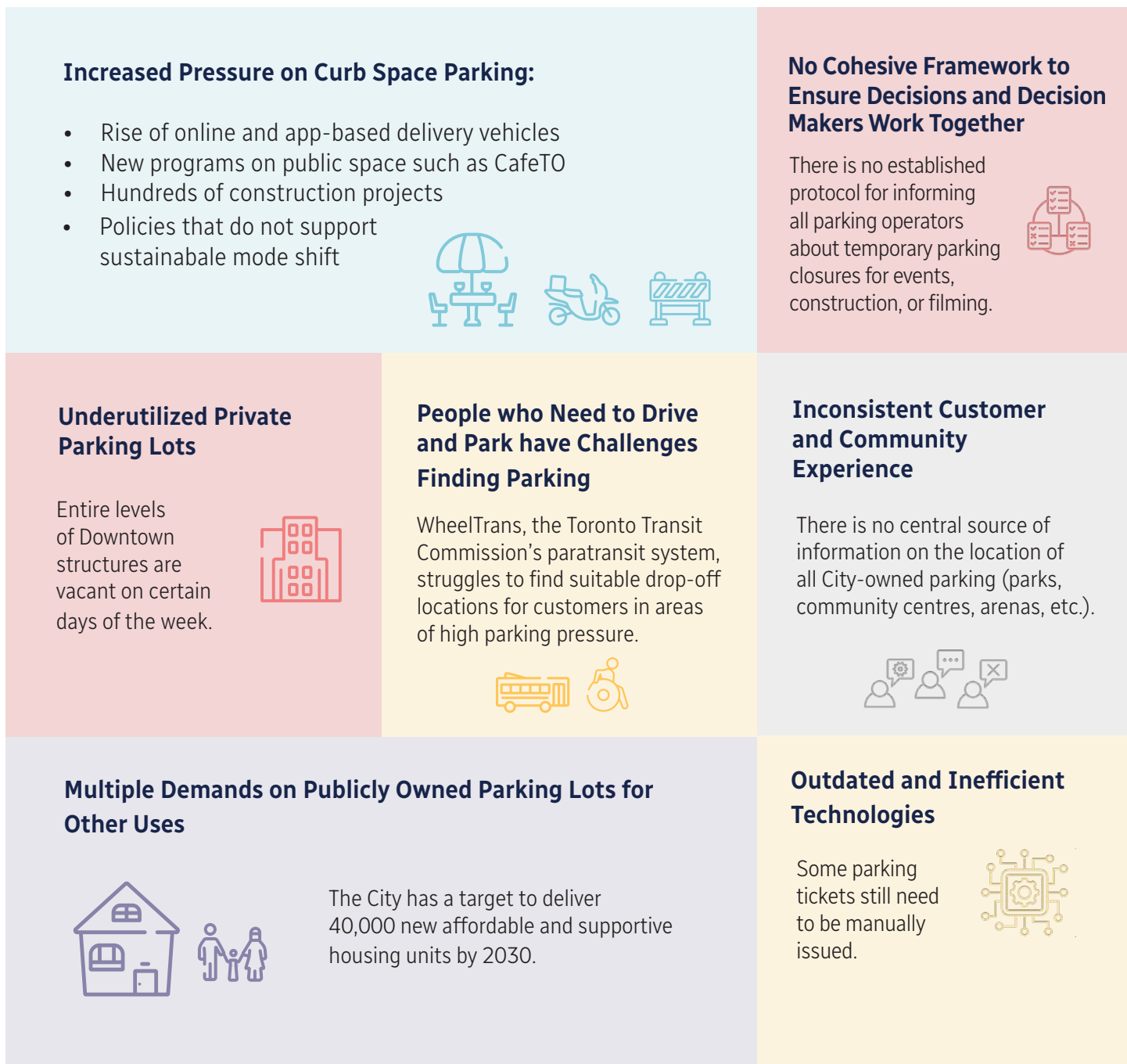
Increased Pressure on Curb Space Parking:

- Rise of online and app-based delivery vehicles
- New programs on public space such as CafeTO
- Hundreds of construction projects
- Policies that do not support sustainabale mode shift

No Cohesive Framework to Ensure Decisions and Decision Makers Work Together

There is no established protocol for informing all parking operators about temporary parking closures for events, construction, or filming.

Underutilized Private Parking Lots

Entire levels of Downtown structures are vacant on certain days of the week.

People who Need to Drive and Park have Challenges Finding Parking

WheelTrans, the Toronto Transit Commission's paratransit system, struggles to find suitable drop-off locations for customers in areas of high parking pressure.

Inconsistent Customer and Community Experience

There is no central source of information on the location of all City-owned parking (parks, community centres, arenas, etc.).

Multiple Demands on Publicly Owned Parking Lots for Other Uses

The City has a target to deliver 40,000 new affordable and supportive housing units by 2030.

Outdated and Inefficient Technologies

Some parking tickets still need to be manually issued.

Figure 5: Parking Challenges in the City

Section 2. Parking Plays a Critical City Shaping Function

2.2 Why Toronto Needs a Strategic Parking Framework

Management of parking is a complex system with a range of decisions made every day by multiple City business units, City agencies, and the private sector. These decisions require consideration of policy, operational, infrastructure, and financial impacts to arrive at a successful resolution, with all parts of the system working together, as illustrated in Figure 6.

Toronto's land-use context varies considerably across its geography, from the highly dense areas of downtown to the rapidly intensifying major corridors, to the low-rise residential neighbourhoods in the inner suburbs, each with different parking needs and constraints. The parking system is made up of various types of parking spaces, both on-street and off-street, managed by different public and private owners trying to serve the user demands for different types of parking and curbside uses (see Figure 6). To ensure that parking is available for users who need it today and in the future, without conflicting with the City's other key goals, the diversity of parking types need to be managed, priced, and enforced with a holistic approach.

The absence of a holistic approach today limits the City's ability to make informed strategic decisions that ensure parking is available where needed and the system is managed efficiently. A framework is needed to establish a common understanding of the role of parking in this diverse city, and to guide the many business units responsible for aspects of parking management through a common lens.
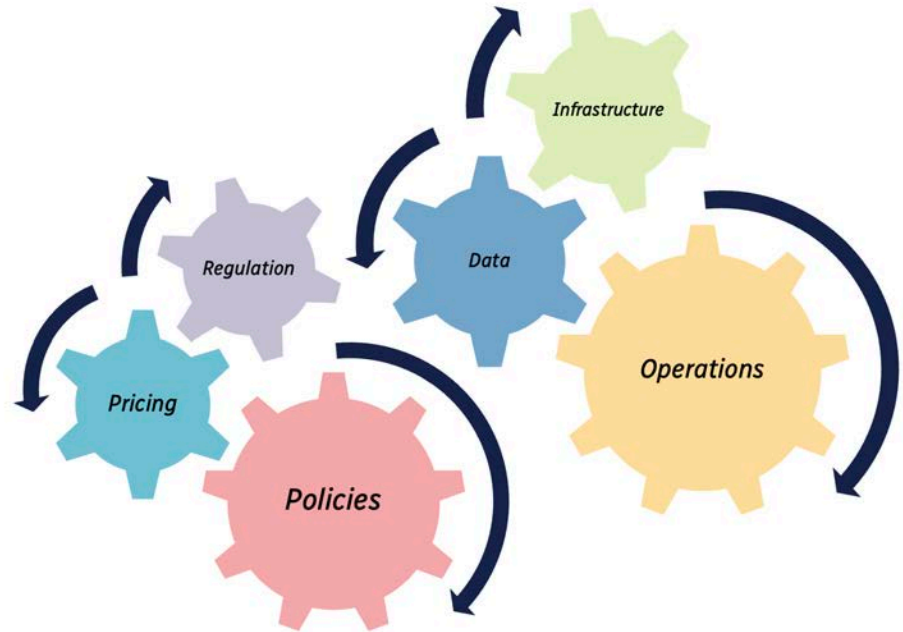
Figure 6: Parking Management is a Complex System

By taking a system wide approach the City will be in a stronger position to use parking policy and management as tools to maximize the use of space to serve various modes of transportation and diverse user needs, increase the value of important public assets beyond their long-standing operating and revenue generating capabilities, and advance city building goals.

Figure 7: Parking has Many Asset Owners and Many User Types
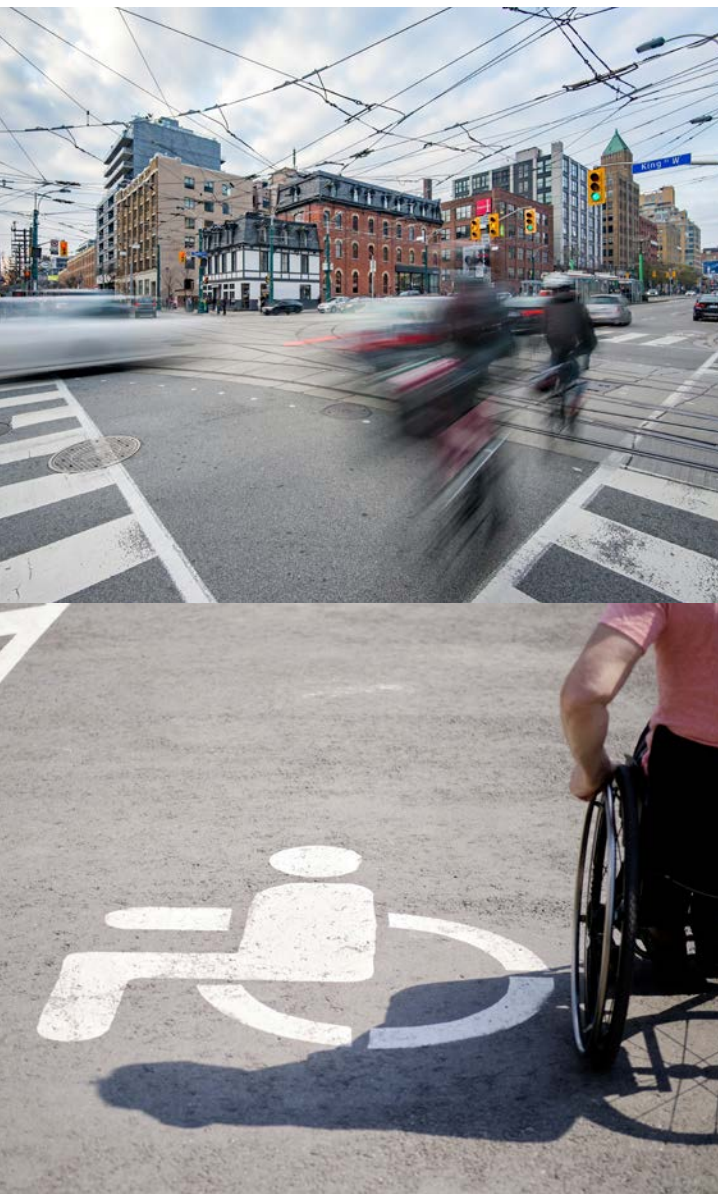
With Better Parking Management:

☑ People and goods move more efficiently.

☑ Some travel and parking demand shifts to more sustainable modes.

☑ People who need to drive can more easily find parking.

☑ Curb space is freed up for those who need to park (e.g., accessible parking permit holders and loading for businesses) to access destinations.

☑ Buses move more reliably during peak times and throughout the day.

☑ Bike lanes are free of cars and hence safer for cyclists.

☑ Underutilized parking properties are transformed for new community building purposes (e.g. housing and public space).

☑ Parking users pay appropriately for parking services and infrastructure.

☑ People in Toronto understand the rationale for City parking policies and rules.

What Happens when Parking is Managed more Efficiently?

Without efficient parking management

1 **On the road:** congestion due to vehicles circling to find on-street parking space

2 **On-street:** parking is nearly always full and vehicles are illegally parked in reserved spaces

3 **Off-street:** parking is underutilized

With efficient parking management

1 **On the road:** circulation is fluid and transit is reliable due to fewer vehicles circling to find on-street parking

2 **On-street:** there is always around 20% of on-street spaces available for short-term parking needs and reserved spaces are available, resulting in more reliable transit, deliveries and pick-up/drop-off activities

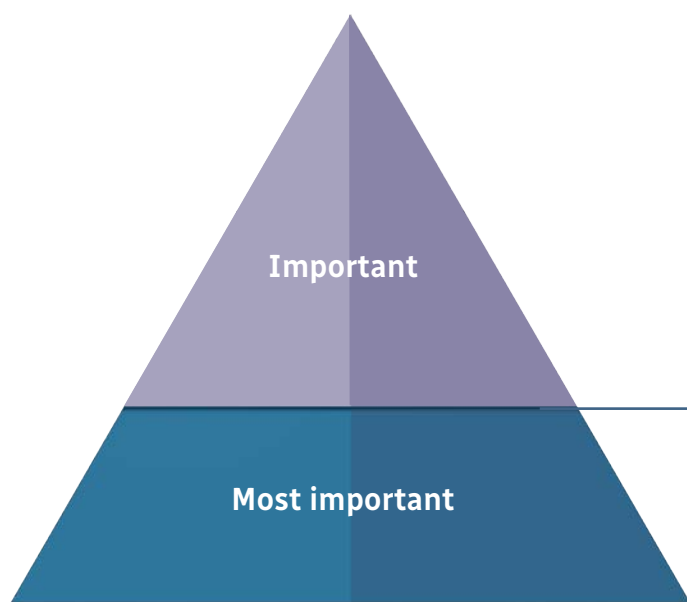**3** **Off-street:** parking is better utilized

Figure 8: With and Without Efficient Parking Management

2.3 Strategic Role of Parking

Effective parking and curbside management is a linchpin in city management that can support a multitude of needs beyond car storage. It can improve operations of commercial activities through loading zones, support public transit use through park and ride lots, and act as a strategic hub for mobility services such as car-share. However, too much parking and/or parking in the wrong places creates consequences that negatively impact congestion, environmental well-being, and the vibrancy of city life that people love about Toronto.

To effectively advance integrated policies and programs for managing parking, the City needs a clear understanding of the value that parking brings, including its contribution to city building objectives and initiatives. Cohesively designed parking solutions that are directed to achieving the value proposition that parking offers will help manage congestion, improve access for Torontonians, and support the economic viability of Toronto into the future.

Through engagement with City staff over several months, the key tenets of the value proposition of parking as a crucial city building tool have been identified as shown in Figure 9.

Important

✔ Provide access to city services in areas where there are limited. alternatives to driving.

✔ Support transit access for people from areas with poor transit accessibility.

✔ Support specific land-uses that need parking (e.g. childcare, supportive housing).

✔ Expand opportunities for car-share, which can encourage a reduction in private vehicle ownership.

✔ Improve access to electric vehicles.

✔ Support workers who travel from the periphery of the City without access to transit.

✔ Provide access to city services for people with mobility needs.

✔ Provide a revenue stream for the City.

Most important

✔ Encourage travel choices that manage congestion and reduce cruising (e.g. short-term curbside use, long-term off-street lot use).

✔ Support local business operations and residents to meet daily needs, where appropriate.

✔ Enable sustainable mobility services such as car-share and bike-share.

Figure 9: Parking is an Integral Part of the City

3- How was this Framework Developed?

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3.1 Parking Strategy Development Principles

A set of key principles have been used to guide the development of the Strategic Parking Framework. Goals, Big Moves, policies, actions, and implementation approaches (outlined below) have been developed in alignment with these principles:

- **System-wide thinking** - Consider parking supply holistically (private, public, on-street and off-street) and manage parking using a range of levers at City's disposal.
- **Policy and program alignment** - Align to Official Plan and other Council-approved policies, plans and initiatives, including Corporate Strategic Plan.
- **Outcomes focused** – Focus on most impactful opportunities to achieve goals.
- **Inclusive and equitable** – Plan parking that allows for choice, ease, and speed among users.
- **Resilient and adaptable** - Maintain a flexible approach that can respond to emerging opportunities and future scenarios.
- **Fiscal forethought** - Take into account lifecycle costs and benefits of parking interventions, including operating, revenue, capital and land value.
- **Integration and efficiency** – Bring together initiatives and decisions from multiple City departments and agencies.

3.2 Foundations

A range of technical background papers, research on peer jurisdiction best practices, and engagement initiatives were undertaken in the initial stages of this work to inform key technical areas and understand the current context for parking management from the perspective of internal and external interested parties.

The list of all foundational pieces for the Strategic Parking Framework is illustrated in Figure 10.

Figure 10: Foundations for the Strategic Parking Framework

Section 3. How was this Framework Developed?

1. Review of Existing Policy Framework and Technical Background papers
This included a review of current policies in place for Toronto as well as technical background papers focusing on key themes such as equity, traffic operations, film industry needs, pricing, parking inventory and governance (as shown in Figure 11). The detailed list can be found in the Appendix II.

2. Best Practice Research
The challenges faced by Toronto today to manage parking and curbside space are not unique and many cities around the world are working to solve similar issues through holistic and innovative approaches. While the actions and policies in this framework are contextualized to the needs of communities in Toronto, a review of how other cities were approaching different problems was conducted to better understand peer communities' approach around the world. The cities that were part of the case study list included Vancouver BC, Montreal QC, Seattle USA, San Francisco USA, Aukland NZ and Melbourne AU. Summaries can be found in Appendix III.
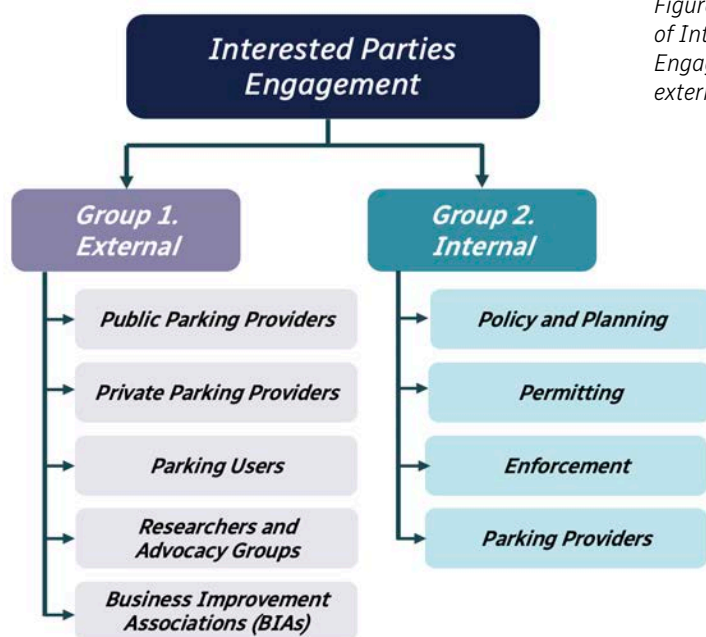

Figure 11: Summary of Interested Parties Engaged (internal and external)

3. Engagement Sessions

There are various interested parties that are part of managing the parking system in the city today. These include internal City departments and agencies, as well as external community and business interested parties directly managing parking, whose customers/members rely on parking, or who are leading innovative research related to parking. Interested parties were engaged through 14 engagement sessions in two phases and included representation from 10 different City departments/agencies and over 45 external groups.

Key topics discussed included:

- Key parking challenges and opportunities;
- On-street parking management;
- Off-street parking management;
- Partnerships;
- Data and technology.

Feedback from engagement sessions informed the refinement of the goals, helped identify the most pressing issues and crucial opportunities, and supported shaping of the strategic directions, policies and actions. An excerpt from the online platform used to engage with interested parties is shown in Figure 12. Detailed summary from the engagements can be found in Appendix IV.
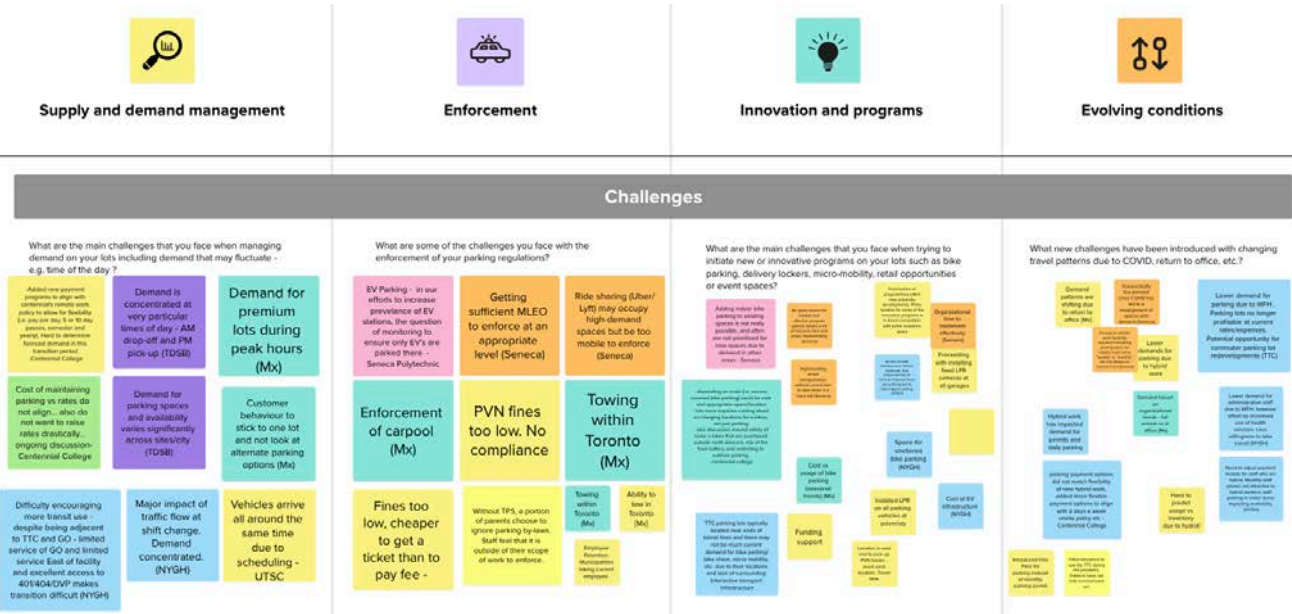

Figure 12: MURAL Online Platform Developed to Engage with Public Parking Providers

4- Goals, Big Moves, Policies and Actions

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The Strategic Parking Framework will guide improvements in management of the parking system in Toronto, including actionable next steps to address the challenges at the system level. This framework sets a direction for parking management through six system-wide Big Moves with policies and actions nested under each.

This document highlights goals, Big Moves, policies and actions; a supplementary appendix identifies supporting tools, proposed implementation timeline, and lead and support roles for implementation for each recommended action (see Appendix I).

4.1 City-wide Goals and Big Moves for Parking Management

The Big Moves, policies and actions aim to support 3 key city building goals:

1.MOBILITY
Supporting the efficient movement of people and goods throughout the city.
Effective parking management systems will reduce cruising for parking, improve user clarity on when and where to use parking, disincentivize unnecessary driving, and facilitate multi modal trips for people driving to transit stations. Parking management can be a tool to relieve pressure on the curb to improve the speed and reliability of surface transit, as well as the safety of cyclists on the road.

2. ACCESS
Supporting Torontonian's access to businesses, services, and other opportunities across the city.
Parking enables (and hinders) access for people travelling by car, bicycle and/or bus. Effective management - how car parking is supplied, priced, operated, and enforced - will improve access to by reducing traffic, improving safety, or increasing space availability for sustainable transportation options (e.g., bike parking, dedicated transit lanes). It can improve the availability of car parking for people who need access critical services, such as people with limited mobility, and people who need to access businesses and destinations where alternatives to driving may be very limited or unfeasible. Access may be improved when parking is replaced with housing near transit stations.

3. ECONOMIC SUSTAINABILITY
Supporting the city's economic well-being and the unique function of Toronto's diverse neighbourhoods and business districts.
Many businesses, commercial operations and major destinations depend on some form of parking in proximity for their operations such as loading and goods delivery. The film industry often requires on-street parking for production vehicles to support on-site filming. Through effective parking management, the City can support local businesses and our film industry, thus supporting the overall economic growth and vibrancy of the city as a key regional and international destination.

Big Moves

This framework is structured around six Big Moves (as shown in Figure 12) to advance forward looking approaches to parking policy development, management, and decision making for both on-street and off-street parking, while considering all parking in the city - public and private. These Big Moves have been identified because they have potential to be highly impactful on the goals and are timely to act on now because they would shape initiatives currently planned or underway.

GOALS
for parking management to support city-building objectives

BIG MOVES
system wide, high impact, timely opportunity areas

Mobility
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Supporting the City's economic well-being and the unique function of Toronto's diverse neighbourhoods.

A Plan and Manage Parking on an Area Basis

B Track Parking Data and Leverage it as a Resource for All Users

C Price and Reinvest in Sustainable Mobility

D Make Car-share Parking Readily Available

E Modernize Technology for Efficient Parking Management

F Unify Leadership and Decision Making

Figure 13: Big Moves to Support Parking Management Goals

BIG MOVES
system wide, high impact, timely opportunity areas

A

Plan and Manage Parking on an Area Basis

Parking supply is planned for and managed by geographic areas to ensure that the mix of on-street and off-street parking is optimized to support neighbourhood patterns and characteristics, and to ensure the efficient use of available parking.

B

Track Parking Data and Leverage it as a Resource for All Users

Parking data is tracked comprehensively, made available to facilitate continuous improvement by internal and external partners, and utilized to improve customer experience.

C

Price and Reinvest in Sustainable Mobility

Parking is priced to distribute demand between on-street and off-street locations, encourage use of other modes, and generate a revenue stream for the City to re-invest in sustainable mobility services.

D

Make Carshare Parking Readily Available

The City will encourage car-share uptake by expanding free-floating car-share parking using a phased approach that builds on neighbourhood needs and conditions, local travel patterns, and local preferences.

E

Modernize Technology for Efficient Parking Management

The City uses modern technology systems to efficiently manage how parking is planned, delivered and operated.

F

Unify Leadership and Decision Making

The City governs parking as a system through stronger inter-departmental/agency collaboration and centralized steering of policy development and implementation.

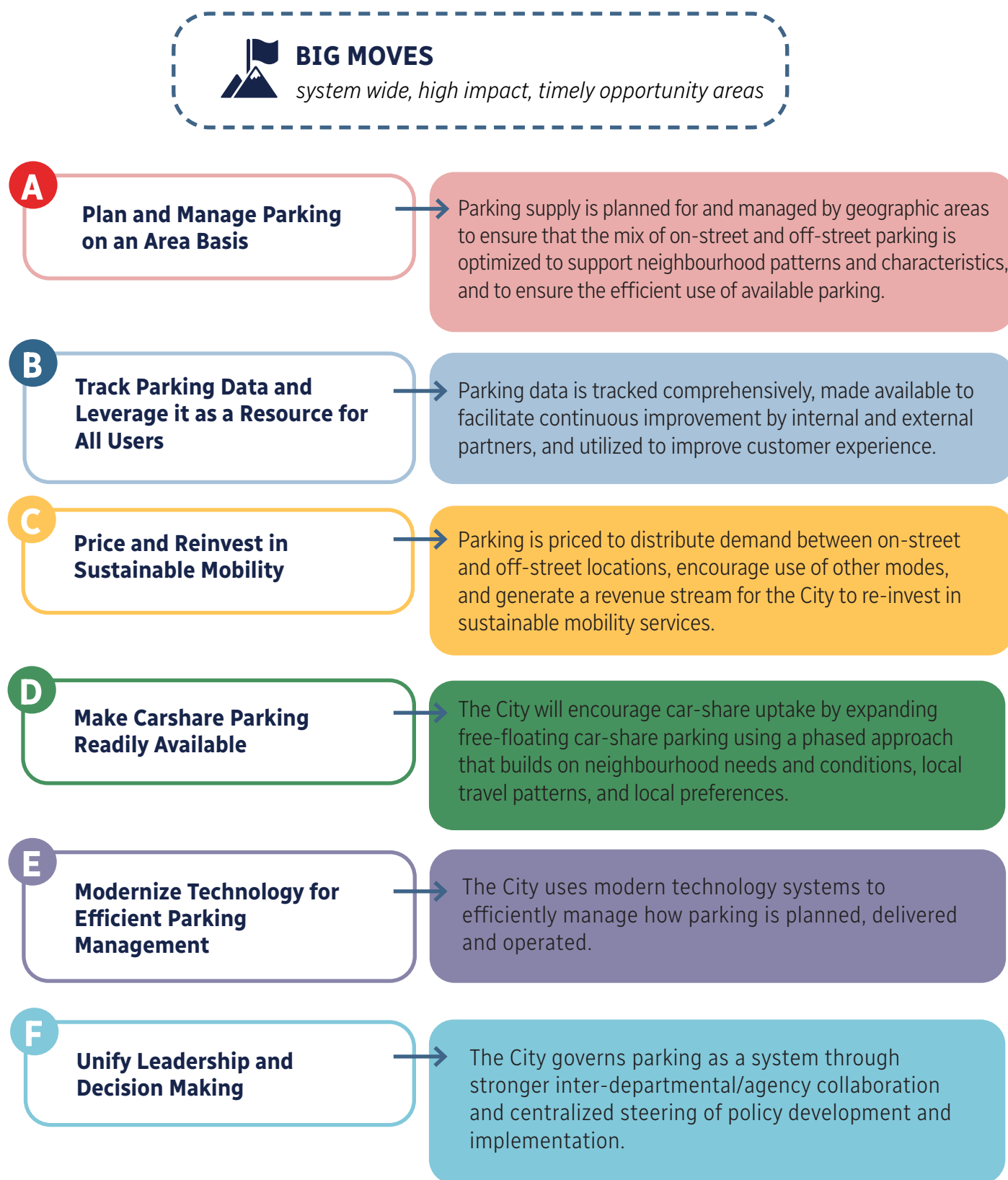*Figure 14: Big Moves Definitions*

Section 4. Goals, Big Moves, Policies and Actions

4.2 Parking Management Tools

Various tools are available to support City departments and agencies in the implementation of the Strategic Parking Framework. These tools are described briefly here and in Appendix I, which identifies the tools that are most applicable to the implementation of each action outlined in this section.

1. Data and Technology

- Data about, for example, the available stock of parking (public and private), any planned supply changes, utilization rates, compliance rates, etc. is essential to making informed decisions about redirecting, repurposing, and optimizing parking use. Good data that is regularly collected and updated is foundational to a successful parking management system.

- A variety of technological innovations exist or are emerging that could support more efficient parking planning, operations and information sharing. The City is advancing or planning for the introduction of license plate recognition (LPR), occupancy sensors, digital signage, apps etc.

2. Partnerships and Collaboration

- There is no single parking manager for the City of Toronto - key decisions take place through multiple City entities. Internal collaboration is needed to avoid siloed approaches, inefficiencies, and actions that work against each other.

- Partnerships with external entities - such as with 3rd party technology services on parking information, academic institutions to conduct research to help understand parking patterns, user behaviours etc., and private property owners in areas where there is need for additional parking - can help the City understand and introduce new innovative ways to tackle parking challenges.

3. Pricing, Regulation and Enforcement

- Parking rates and fines play a crucial role in determining parking behaviours and managing demand. For example, pricing can help increase parking turnover in congested areas. Pricing tools such as dynamic pricing and other performance-based pricing methods, reservation-based delivery systems, and rate assessments overall can help distribute parking demand. As part of establishing a framework for a tool such as dynamic pricing, the City will need to consider what 'dynamic' means for Toronto's parking context. This can include frequency of rate assessment and revisions, geographic areas and any additional overlays (e.g., event locations, construction etc.) for pricing, and specific indicators such as utilization thresholds that will be used to determine rate changes.

Automatic Licence Plate Recognition (ALPR) is a new technology used for enforcement that has been expanding across divisions in charge of parking, like the Toronto Police Service

- Regulation includes approaches such as permitting, permissions, and by-laws that set out the rules around parking management.

- Enforcement is a strong tool to ensure that parking regulations – where and when – are adhered to. Communication and education may help relieve some pressure on enforcement if used to help people understand what is and isn't allowed.

4. Land Use Management

- Land use policies and zoning set out conditions under which parking can be developed, as well as broad transportation policies for the right-of-way that influence how the curb is used for parking, loading zones, deliveries, and pick-up and drop-offs.

- Design guidelines include how space is laid out and built for purposes such as accessible parking, bike parking corrals, EV charging, parking lot flows, etc., as well as how information is communicated through wayfinding and signage.

5. Communication and Engagement

- Parking is a contentious issue impacting every person who lives, works, and plays in Toronto. Through fulsome communication about rules, supply, etc., and education on the role of parking as a city-building tool, the City can bring the public along with its interventions instead of meeting resistance and putting promising interventions at risk.

- Parking management involves actions and decisions by various City departments, City agencies, other providers of public parking (e.g., schools, hospitals etc.), private landowners and managers of parking facilities, and ultimately, parking users. Active engagement of relevant interested parties is an important tool to understand each party's challenges, and to create buy-in for potentially contentious strategies and momentum for collaborative solutions.

Table 1: Examples of Parking Management Tools

Data and Technology	Partnerships and Collaboration	Pricing, Regulation and Enforcement	Land Use Management	Communication and Engagement
Parking inventory	Management steering committee	Rates	Accessible parking	Signage/ wayfinding/ dashboards
Utilization data	Working groups	Fines	Bike parking corrals	Education campaigns
Compliance rates	Other public parking providers	Dynamic pricing	Policies	BIA Engagement
Automated enforcement	Private parking providers	On-street parking permissions	Zoning	Other comunity groups
Digital signage		Car-share permits		
		License plate recognition, etc.		

Section 4. Goals, Big Moves, Policies and Actions

Big Move A
4.3 Plan and Manage Parking on an Area Basis

Parking supply is planned and managed by geographic areas to ensure that the mix of on-street and off-street parking is optimized to support neighbourhood patterns and characteristics, and ensure efficient use of parking supply.

What is the Challenge Today?

Fast-paced growth and the high cost of land is putting pressure on existing parking lots – public and private, and on the public right of way, e.g.:

- Private parking lots are being re-developed into higher value uses.

- The City is considering where its parking can be used for future housing supply.

- There is increasing pressure on limited curb space for non-parking uses such as deliveries, pick-up and drop-off, transit and bike lanes and restaurant patios.

Parking spaces, which are under pressure for other uses, are not always optimally used. While many private lots are underutilized either chronically or at certain times of the day or week, some residents with cars do not have access to a parking space where they live.

Currently, the City is making decisions about parking on a site by site basis, often without consideration of the wider transportation network, neighbourhood supply, and land use context. Typically, policy and operational decisions about off-street vs on-street parking (e.g. supply, pricing, permitting, enforcement, monitoring etc.) occur independently of each other. This creates a risk that one area may have too much or too little parking, or the existing parking is not accessible or available to those who need to park. For example, when new developments are proposed, parking for that development is determined based on the potential parking demand of that individual development. This decision does not consider nearby parking opportunities such as Green P parking, or under-used parking in a neighbouring development.

This can lead to a surplus of parking in an area. The City does not have parking standards such for where, when and how much parking should be supplied in any given area.

Parking is located along many corridors that are prioritized for cycling and transit. This often creates a conflict between competing priorities of providing parking near services and supporting safe, reliable and convenient infrastructure for cycling, walking, and transit. For example, Dufferin Street is identified as a transit priority segment, and both regular and express buses operate on Dufferin Street all day. The reliability and speed of transit on Dufferin Street is compromised by on-street parking and the lack of enforcement during peak periods. There is an opportunity to redirect parking to off-street lots near the corridor to serve businesses, while still prioritizing safe and efficient cycling and transit.

While reducing the total number of cars on the road is the priority, expediting the shift to EV is important for those who need to or choose to drive. The City has set a TransformTO 2030 goal to have EVs represent 30 percent of all registered vehicles in Toronto. Along with the cost of purchasing an EV, access to EV charging is one of the biggest barriers to EV adoption. Although there are over 2,000 publicly accessible EV charging stations in Toronto, most people (76%) are only willing to walk up to 5 minutes from their home to charge their EV . This means there are many areas of the City where EV charging is not close enough to people's homes to be considered a viable charging option. In areas without publicly accessible EV charging, EV ownership may only be viable to people in single family homes with parking, or for people who live in buildings with EV charging infrastructure.

What is the Opportunity?

There is an opportunity for the City to re-orient the scale at which decisions are made about where parking should be supplied and how it is managed – to shift from a predominantly site-based approach to an area-based framework where parking is provided and managed with an understanding of land use, transportation and neighbourhood context.

In the near term, the City is identifying surplus land that could be suitable for affordable housing or parkland. While repurposing City-owned parking lots could be one such opportunity, an area-based assessment of parking needs would provide the opportunity to make decisions about individual sites with a consideration of its neighbourhood value and context for relieving curbside congestion, addressing a local area parking shortage, supporting local businesses, and/or neighbourhood mobility services such as bike share and car-share.

Parking infrastructure for sustainable modes will also influence the shift towards more sustainable modes. There is an opportunity to better accommodate infrastructure for bicycles, car-share, non-motorized delivery vehicles and EVs through area-wide approaches that make use of available off-street parking. For example, framing public EV charging in City-owned parking facilities as a viable alternative can reduce demand for housing that include parking. By planning for anf approving EV charging investments on area wide basis, the City can make EV ownership attainable to more Torontonians that need to drive.

What can be Acheived by Doing Things Differently?

- ✓ Parking supply is 'appropriately scaled' to address and reflect the needs of neighbourhoods and communities, thereby supporting local users, businesses and city-wide objectives.

- ✓ More developments share parking facilities to reduce the cost of parking infrastructure for individual properties, and reduce the space dedicated to parking infrastructure. There is less demand for new parking spaces to be included in new developments.

- ✓ The existing parking supply is used more effectively. Drivers are incentivized to choose off-street parking in areas thereby increasing curbspace available for commercial loading where these functions are a high priority.

- ✓ Drivers cruise less, knowing there is on-street parking available, for a price, or that off-street parking or alternative travel modes are available to access services and amenities.

- ✓ Redirecting people to off-street lots can help manage congestion and can help improve speed and reliability of surface transit.

- ✓ There is a major reduction in drive and park trips under 5 km.

- ✓ More people decide to use EVs because of the availability of either EV infrastructure or an EV car-share fleet near their residences.

- ✓ More people decide to cycle because of the availability of convenient short-term and long-term bicycling parking facilities along major streets and near higher order transit.

- ✓ Parking at or near higher order transit stations increases transit mode share.

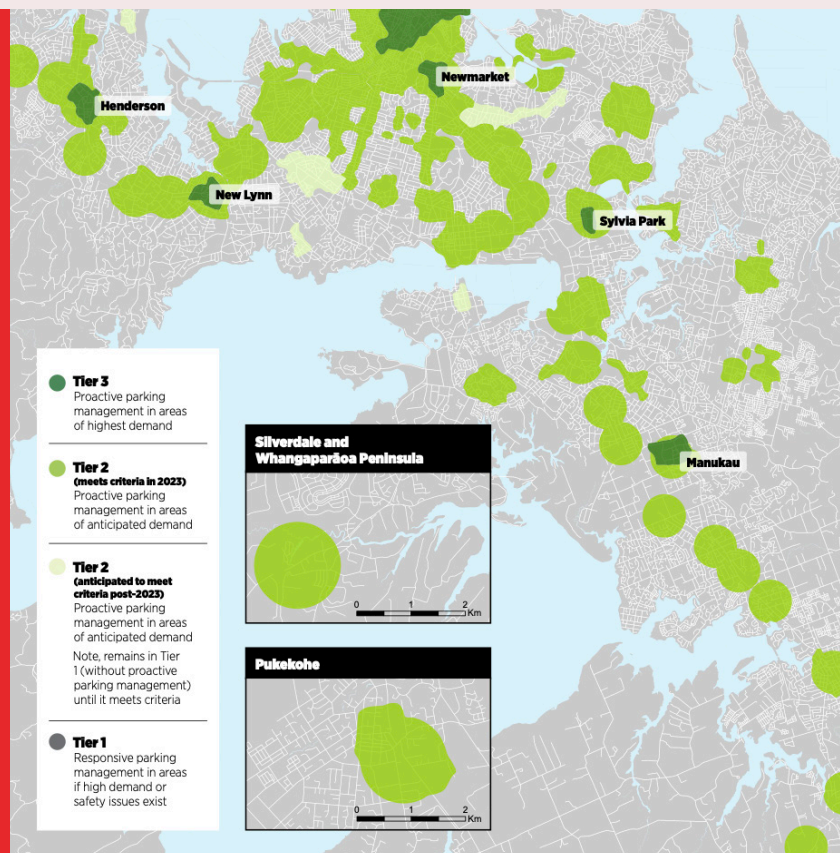- ✓ More local deliveries are made by non-motorized modes of transportation.

Section 4. Goals, Big Moves, Policies and Actions

Best Practice: Parking Management Plans

Cities including Auckland, NZ and South Perth, AU require tailored parking management plans for areas with anticipated parking demand pressures. Their Parking Management Plans are often accompanied by robust processes for collecting data, engaging with the public and monitoring progress and providing recommendations for operational changes. They are developed with a strong strategic lens that links proposed changes to the broader transport and land use systems.

The City of Auckland has implemented a "tiered parking management" approach which categorizes areas into three tiers based on their readiness for change. Areas in Tier 3 are in City Centres or Metro Centres and face the highest parking demand and trigger proactive parking management including development of Comprehensive Parking Management Plans.

Link to education campaign: https://at.govt.nz/about-us/transport-plans-strategies/room-to-move-tamaki-makaurau-aucklands-parking-strategy

Source: City of Auckland

Policies and Actions

Table 2 provides the policies and actions for Big Move A: Plan and Manage Parking on an Area Basis.

Table 2: Big Move A - Policies and Actions

Policy		Actions	
A1	The City will manage parking supply on an area-basis. The City will consider both the off- and on-street public parking supply and how to re-distribute parking demand in a defined area.	**A1.1**	Develop and implement a strategic framework for managing parking supply at an area level. The City will create a framework for defining geographical areas of the City in which to manage supply. The framework will guide where there is a need to preserve parking, where there are shortages and where to invest and divest. Each defined area or zone may have different pricing, enforcement or other operational strategy to ensure a target parking utilization level is met.
		A1.2	Build and maintain a comprehensive data set (public and private) on existing and planned supply (public and private) to support area level decision making for e.g.: • Approving off-street parking in new developments. • Identifying surplus off-street parking and conversion opportunities (e.g., housing).
		A1.3	Support main street BIAs to better understand their customers travel behaviours and develop travel plans in conjunction with area parking management strategies.
		A1.4	Require traffic management plans for construction projects or events to identify parking loss and nearby alternative parking locations.
		A1.5	Create a city-wide framework for managing residential parking supply (current and future) on an area-wide basis.

Table 2: Big Move A - Policies and Actions (continued)

Policy		Actions	
A2	The City will pursue partnerships to track and optimize utilization of existing parking supply - The City will be guided by the total supply of public and private parking in a given area to make decisions about publicly provided parking supply, how to optimize the use of City lots for the broad array of mobility services, and parking considerations for planning applications.	**A2.1**	Collaborate with internal City departments to track and optimize utilization of existing parking supply.
		A2.2	Pursue partnerships with private parking operators to integrate supply side information.
		A2.3	Develop a framework to support the eventual implementation of dynamic pricing and any interim performance based pricing methods that could support optimizing parking utilization on an area-wide basis.
A3	The City will encourage appropriate use of parking facilities (e.g., short-term curbside use, long-term off-street lot use) that reduce congestion and cruising.	**A3.1**	Develop an enforcement strategy that prioritizes transit and cycling corridors, and main streets with time limited parking.
		A3.2	Explore opportunities to convert one on-street parking space per block to parking for bicycles and cargo bikes on cycling and higher order transit corridors.
A4	The City will support parking at major transit stations to achieve network ridership benefits that improve access to higher order transit for people from areas with poor transit accessibility	**A4.1**	Review parking at TTC stations to focus on supporting access to higher order transit for people from areas with poor transit accessibility.
		A4.2	Advance TPA partnerships with Metrolinx for GO stations to incentivize mode shift to transit.
A5	The City will support EV uptake through its parking policies	**A5.1**	Consider opportunities to incentivize parking for EV and low emission vehicles at off-street City properties to encourage their uptake for those who need to drive but do not have access to residential EV charging.

Section 4. Goals, Big Moves, Policies and Actions

Big Move B
4.4 Track Parking Data and Leverage it as a Resouce for All Users

Parking data is tracked comprehensively, made available to be leveraged by internal and external partners, and published to improve customer experience.
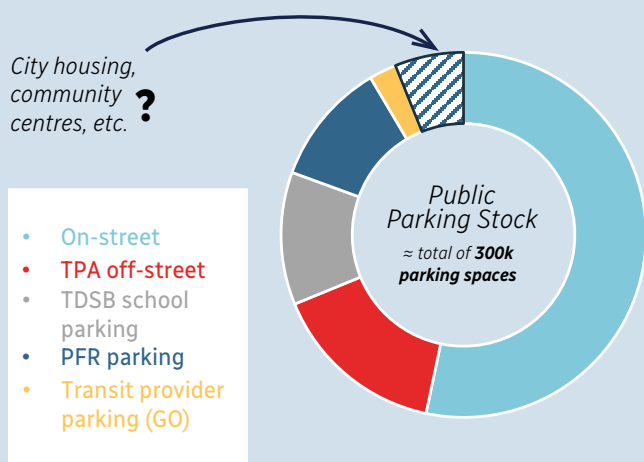
What is the Challenge today?

There is no centralized tracking of all City-owned and private parking, therefore the total supply of public parking is unknown. This poses a significant challenge to effectively manage supply and demand city-wide.

Data on City-owned parking supply is managed by individual City agencies, so there is no regularly updated database with information on all City-owned parking. Transportation Services, Toronto Parking Authority, Corporate Real Estate Management, and Parks, Forestry and Recreation all individually track and collect information on the parking facilities they manage and operate. However, there are many City-owned parking facilities where parking location and capacity are not known. These include long term care homes, police stations, affordable housing, libraries, childcare centres, fire stations, employee service centres, emergency medical services stations, and community houses. There are 3,816 city properties where there is no information on parking capacity.

There is very limited information on the location and amount of parking provided by private operators. The City requires commercial parking providers to register for a permit, but private providers do not need to share information on the size of their parking facility or capacity. Therefore, the total amount of parking in the City, both public and private, is unknown, as shown in Figure 14.

Parking users do not have access to a 'single source of truth' about parking availability, location, rates, etc., resulting in suboptimal choices that may increase congestion, cruising, and unnecessary driving. The Green P app provides information on hours of operation and pricing for public off-street facilities. However, there are many City-owned off-street parking lots that are not included in this app (e.g., off-street lots associated with libraries, community recreation centres, arenas, parks, and some TTC commuter parking). There is also no online information available about paid on-street parking.

*Total **Public** Parking Stock*

- On-street
- TPA off-street
- TDSB school parking
- PFR parking
- Transit provider parking (GO)

Public Parking Stock
≈ total of **300k parking spaces**

City housing, community centres, etc. **?**

*Total **Overall** Parking Stock*

Limited understanding of total commercial spaces

Private parking stock total?

Private parking stock total?

Private parking stock total?

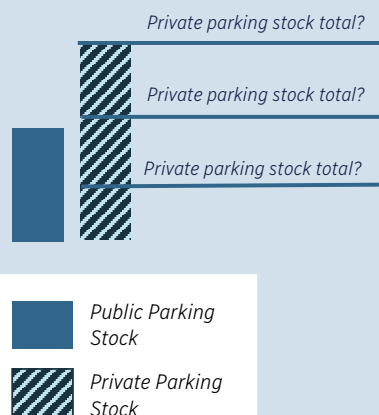Public Parking Stock

Private Parking Stock

Figure 15: Parking Supply in Toronto Today

Drivers need to search for paid on-street parking and decipher parking regulations on signage to understand when and where they can park. This can result in unintentional parking infractions from misinterpreting signage, unnecessary cruising, and suboptimal decision-making from lack of awareness of available parking choices.

What is the Opportunity?

Centralizing information on City-owned parking facilities can help the City make more informed decisions about their property assets. In areas where Green P parking lots are at capacity, for example, there may be an opportunity to provide more public paid parking at other nearby City-owned parking lots. Knowing how much parking the City provides can help with decisions around pricing, identifying surplus land, and identifying City-owned land that could be used for introducing mobility hubs with other services like bike share and car-share.

Having information on private parking supply can create a more comprehensive picture of the City's parking supply. City staff could consider area-wide parking supply when reviewing development applications and determine whether nearby supply (private or public) could meet the needs of a future development. This can support the City's ability to right-size parking supply and plan and manage parking at an area scale, rather than at the scale of individual sites.

Further, collecting information about users, where possible, can help understand how parking is utilized and find opportunities to optimize parking utilization. For example, retail or medical users could use parking during the day, and hospitality workers could use the same private parking at night, if the lot is underutilized. This insight could provide a better understanding of parking needs and how to optimize the use of existing parking assets, both public and private.

Articulating the goals of each City department related to technology investment can help determine what investments need to be prioritized and how the needs of different departments can be better aligned. For example, it can be overwhelming to consider all the different information that could be collected on parking operations. If each City department could identify their data needs, there could be a more systematic approach to a data collection program.

There is an opportunity for the City to better guide drivers in Toronto on existing parking locations, regulations, and rates. Steps that give people better information improve customer experience of parking for people who need to drive and park.

Misleading signage may result in unintentional parking infractions and unecessary circling

Section 4. Goals, Big Moves, Policies and Actions

What can be Achieved by Doing Things Differently?

☑ City staff can make more informed decisions about parking provisions in new developments based on an understanding of existing area parking supply.

☑ More developments could share parking facilities by knowing the parking capacity in the area.

☑ City staff can make informed decisions about parking rates in areas to influence utilization and travel behaviour.

☑ Customers can plan where to park before reaching their destination by using an app or City website to identify where nearby parking is available.

Smart signage on an area-based can improve efficiency of parking management

Source: Transport for NSW

Best Practice: Area-based Parking Communications and Education

Area-based parking communications and education ensures that parking information is easily accessible and consistent within an area with many different types of parking services that are not well coordinated. The aim is to enhance the overall customer experience by providing drivers with essential information to make informed and preferred decisions about where to park (such as directing drivers from on-street to off-street). Cities that have adopted this method (e.g., Cologne, Germany; Redwood City, California) employ various communication strategies, including overhead sensors, real-time on-street parking availability data, and city-wide turn-by-turn guidance. These efforts can be complemented by educational campaigns and mobile app resources. Area-wide parking programs have reported positive outcomes, such as reduced search times and increased parking space occupancy in desired locations.

Best Practice: Census of Land Use and Employment

Updating the inventory of parking assets periodically is vital to deploying effective parking management strategies. Some jurisdictions, like the City of Melbourne have bundled off-street parking spaces count within their recurring business survey.

Melbourne's Census of Land Use and Employment (CLUE) offers insight into economic activity, land use and parking space distribution. The dataset is accessible via the City's open data portal and can serve as a resource for researchers and third-party app developers.

Link to the Census of Land Use and Employment (CLUE): https://www.melbourne.vic.gov.au/census-land-use-and-employment-clue

Policies & Actions

Table 3 provides the policies and actions for Big Move B: Track Parking Data and Leverage as a Resource for All Users.

Table 3: Big Move B - Policies and Actions

Policy		Actions	
B1	The City will bring together and use information on supply and utilization to comprehensively manage on and off-street parking.	**B1.1**	Develop and manage a regularly updated parking inventory database that includes data on capacity and utilization across the City.
		B1.2	Undertake an economic impact assessment of parking lots in BIAs to understand impact on local business communities.
		B1.3	Use one common platform (app, website) to share information about temporary reconfigurations.
		B1.4	Integrate information on area parking supply into the development review process for parking approvals in new developments.
		B1.5	Share data via the Open Data Toronto portal to facilitate research and third-party applications that support improved parking services.
B2	Parking information systems will support consistent and comprehensive customer experience of parking wayfinding and information.	**B2.1**	Develop a consistent wayfinding and information system for parking users that can be applied to both private and public parking. This could include, but is not limited to, digital signage.
		B2.2	In the short term, make information on all City parking locations, price and hours of operation publicly available for transparency and better customer experience (e.g. via the Green P Mobility website and app).
		B2.3	Communicate temporary parking loss and parking alternatives via City website and Green P app.
		B2.4	Review signage and online information about parking regulations to increase legibility and predictability for users.

Section 4. Goals, Big Moves, Policies and Actions

Big Move C

4.5 Price and Reinvest in Sustainable Mobility

Parking is priced to distribute demand between on-street and off-street locations, encourage the use of other travel modes, and generate a revenue stream for the City to re-invest in sustainable mobility services.

What is the Challenge Today?

Current parking rates, rate setting rules, and enforcement practices do not sufficiently encourage or discourage desired parking behaviours, for example:

- Encouraging curbside for short-term parking, and off-street for longer term: changes to on-street parking rates require bylaw amendments that can take a long time to implement. This can lead to lower on-street parking rates compared to off-street parking rates, which can create higher demand for on-street parking. This leads to increased cruising to search for on-street parking spaces, increased congestion, and insufficient on-street parking availability for users.

- Fines from parking infractions are either too low to act as a deterrent or the probability of receiving a parking ticket is not enough of a deterrent. For example, until recently, the fine for parking on-street near Exhibition Place without paying was less than paying for parking in the Exhibition Place off-street lot. In this scenario, people may have risked receiving a fine, because they either wouldn't pay anything because they weren't caught, or they would pay the fine which was less than paying the actual parking rate. This situation continues to exist for couriers' vehicles who often see the cost of a ticket as part of their cost of doing business.

- Not all City-owned public parking facilities charge for parking, which not only limits revenue generation opportunities from parking, but may disincentivize sustainable travel. Free parking to support City services such as the libraries, arenas, parks, and recreation centres may be encouraging unnecessary driving because they don't require any form of payment, and they may be used by drivers who take advantage of free parking in proximity to other destinations. There are a handful of off-street lots that are not managed by Toronto Parking Authority (TPA) and have a permit pricing structure that is different than TPA's pricing. This creates an inconsistent message to users about the value of parking and the role of pricing in parking management.

Parking revenues could be reinvested into sustainable mobility services such as priority transit routes (image: King Street Priority Transit Corridor)

Parking revenues are not optimally used to support parking policy objectives. Any revenues from paid parking or from parking infractions go towards a general fund to support city-wide services and improvements. Further, there is no clear link between paying for parking or paying for a parking ticket and investments in mobility services. This can decrease public support for rate increases, or the implementation of other parking management measures to maximize use of the existing parking supply. As parking policies are intended to support broader city-wide policies, revenues and fines from parking could, over time, be dedicated to transit, climate initiatives, and/or other city-building initiatives. There is an opportunity to bring greater consistency in how the City prices parking rates and infractions to better support how it manages parking use for city building objectives.

What is the Opportunity?

When parking is appropriately priced, the rate of drive-alone trips is reduced, and the share of available parking is increased[1]. On-street parking in commercial areas is intended for short-term use or for business operations, and higher rates could discourage long-term or all-day parking. Pricing can be adjusted to ensure a certain number of parking spaces are available to those who need it. In areas where demand is lower, rates can be lower, but in areas where there is a higher willingness to pay, rates can be higher to maintain a certain number of available parking spaces at any given time. Pricing can also be dynamic and implemented based on time of day, area, or type of street to manage congestion and parking utilization. For example, San Francisco uses a "demand-responsive parking" policy to set parking rates based on demand. Occupancy data is reviewed every quarter to adjust parking rates i.e. for blocks where average occupancy is below 60 percent, prices are lowered, and parking rates are increased where average occupancy is above 80 percent[2].

Setting infraction rates higher and increasing enforcement in areas where illegal parking is common will increase the probability of paying fines and make more parking available to paying users. Higher infraction rates along transit corridors can also benefit transit operations by reducing the number of cars blocking bus stops or parking during prohibited times in transit dedicated lanes. It can also increase revenue generation that can be reinvested in mobility services like EV charging, bike share, and parking system modernization.

The City recognizes the need to manage parking and its impacts through major strategic and regulatory frameworks, including the Corporate Strategic Plan, the Official Plan, TransformTO and many other related strategies, plans and initiatives. By identifying specific mobility investments (e.g., mobility hubs, electrification, bike share, transit, etc.) that can be funded through parking revenues, it can establish clear linkages between the revenue and policy objectives and enhance transparency, communication, and the acceptance of increased parking rates and fines.

What can be Acheived by Doing Thigs Differently?

- ☑ Parking rate policies encourage a higher turnover of on-street parking especially in areas where off-street lots have availability.

- ☑ People who do not need to drive are incentivized to shift to more sustainable modes.

- ☑ There is public support for parking rate increases because people see those revenues support investments in sustainable transportation.

- ☑ Fewer parking violations (resulting from higher fines) make more parking available to paying customers.

- ☑ There is increased public support for regular changes to parking rates and the implementation of other parking management tools.

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1. Mepham, D. (2023). *Rethinking Parking. Taylor & Francis*, 165.
2. *On-Street Parking Pricing Policies, SFMTA (https://www.sfmta.com/sites/default/files/reports-and-documents/2021/02/on-street_parking_pricing_policies_-_feb_2_2021.pdf)*

Section 4. Goals, Big Moves, Policies and Actions

Best Practice: Delivery Hub Programs

Across the globe, the pandemic has led to an increase in online shopping, leading to delivery challenges, particularly in densely populated urban areas. In order to enhance delivery efficiency and reduce curb vehicle emissions, New York City implemented a delivery hub program. These hubs, located in public or private parking lots or in place of curbside parking, enable the transfer of goods to eco-friendly vehicles or human-powered delivery methods, streamlining the final delivery process and supporting the City's e-commerce demands. This pilot program is part of New York City's commitment to creating a more sustainable and efficient delivery system.

Similar initiatives aimed are gaining traction globally with cities like London, Paris, Seattle or Washington D.C. implementing their own version of delivery hub programs.

Source: City of New York

New York City Department of Transportation (NYC DOT) is encouraging the use of cargo bikes as part of its delivery hub program to advance more efficient and sustainable deliveries

Best practice: Parking Benefit Districts

Parking Benefit Districts (PBD) are well-established programs in which the revenue collected from parking fees in a specific area is reinvested back into the community to fund public services such as bike lanes, transit, or improved street design. There are various examples in US cities (e.g., Pasadena, CA; Portland, OR; Pittsburgh, PA). In some cities, the funds are allocated for public space improvements, or reinvested in transit passes for marginalized groups. While typically used on commercial streets, PBDs have also been implemented in dense residential neighbourhoods. Parking Benefit Districts can help make parking price increases more palatable, especially among business owners who directly benefit from parking fees.

Policies & Actions

Table 4 provides the policies and actions for Big Move C: Price and Reinvest in Sutainable Mobility.

Table 4: Big Move C - Policies and Actions

Policy		Actions	
C1	Use dynamic pricing to manage parking utilization.	**C1.1**	Use pricing to manage parking utilization to ensure some spaces are always available.
		C1.2	Use pricing to re-direct on-street long-term parking to off-street lots - higher parking rates for on-street parking can encourage more people to use off-street parking for longer-term parking.
		C1.3	Use pricing to ensure a certain share of on-street parking spaces will be available for business operations (e.g., deliveries, loading, etc.).
		C1.4	Introduce special increased parking rates and discounted transit fares for special events to discourage driving, manage congestion, and free up space for transit.
C2	Generate revenue streams from City parking consistent with shifts to sustainable mobility - the City can leverage revenues from existing and new parking revenues to reinvest in mobility services like cycling, EV charging, and mobility hubs to create a stronger link between parking and the City's multimodal transportation system.	**C2.1**	Introduce rates to all City-owned off-street parking lots that currently provide free parking, including parks, community centres, libraries, and arenas.
		C2.2	Establish paid delivery and loading zones (as recommended in the Curbside Management Strategy).
		C2.3	Re-invest parking revenue from paid parking and fines/penalties to improve sustainable transportation access, whether it is public transit, cycling, or pedestrian infrastructure.

Section 4. Goals, Big Moves, Policies and Actions

Big Move D
4.5 Make Car-share Parking Readily Available

The City will encourage car-share uptake by expanding free-floating car-share parking using a phased approach that builds on neighbourhood needs and conditions, local travel patterns, and local preferences.

What is the Challenge Today?

Currently, permitted areas for free-floating car-share parking are only in the former Toronto and East York, which means that this type of car-share service is unavailable in Etobicoke, North York and Scarborough. Even in former Toronto and East York, there are neighbourhoods that do not have access to free-floating car-share, because it is also prohibited in areas where residential parking permit issuance is at 100% capacity; this policy is not conducive to maximizing the use of residential parking to serve the most people.

An individual car-share company is limited to 1,000 free-floating car-share permits, and there is a cap of 2,000 free-floating car-share permits in total. There is currently only one company that participates in the free-floating car-share program, but policy changes and growing consumer demand could increase participation of others in the future. Demand for free-floating car-share service exceeds the fleet. It is difficult for members to obtain a car on the weekend, and many members keep cars for longer than they need to ensure they have a car over the weekend.

As a result of these limitations, car-share options are not suitable as an alternative to owning a car for many Torontonians who might otherwise opt to share a vehicle.

What is the Opportunity?

Expanding free-floating car-share outside of permit parking areas, and introducing residential overnight parking permits to more areas, can bring car-share closer to home for more Toronto residents. Also increasing the number of car-share permits in the city will encourage car-share companies to grow their fleet to match demand. If members can reliably access car-share when they need it, they will be less likely to keep or purchase a personal vehicle, putting less pressure on parking spaces and land.

What can be Achived by Doing Things Differently?

- ☑ People will be encouraged and drawn to either reduce their car ownership or avoid acquiring a personal vehicle all together.

- ☑ Demand for residential overnight parking permits will be reduced.

- ☑ There will be increased mobility options for people across the city who live or travel to areas where transit services are limited.
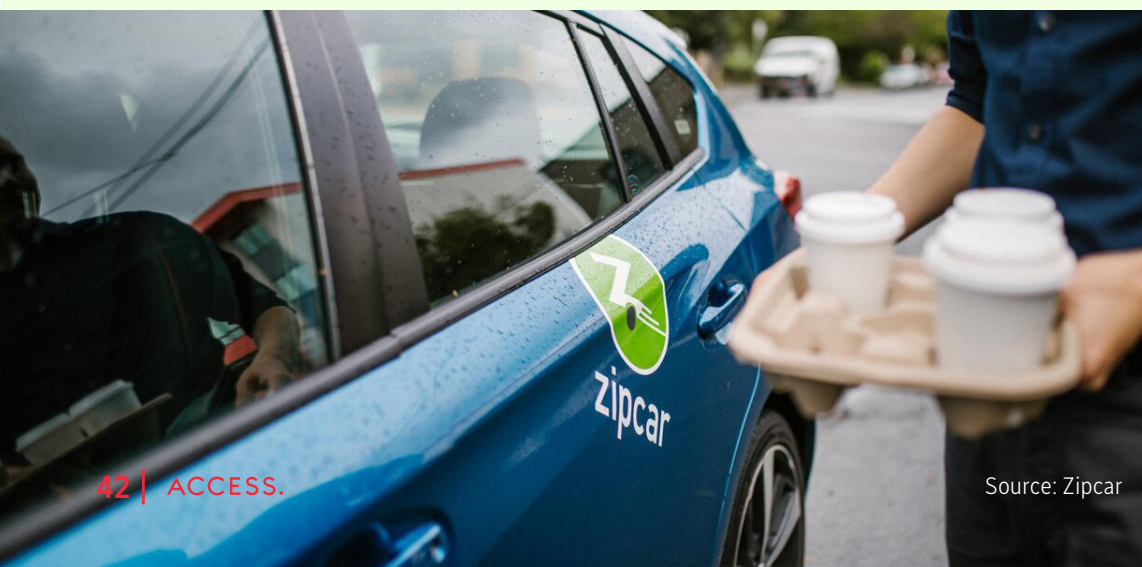
Car-share expansion in the City of Toronto has been limited by the varying permissions accross neighbourhoods

Source: Zipcar

Policies & Actions

Table 5 provides the policies and actions for Big Move D: Make Car-share Parking Readily Available.

Table 5: Big Move D - Policies and Actions

Policy		Actions	
D1	The City will encourage car-share uptake over private vehicle ownership - the City will use parking policies to facilitate the expansion of car-share availability in Toronto.	**D1.1**	Expand on-street free-floating car-share parking outside of permit parking areas through a phased approach based on neighbourhood conditions and demand.
		D1.2	In collaboration with car-share providers, identify initial list of residential areas that should allow permit parking to support the expansion of free-floating car-share.
		D1.3	Provide publicly accessible off-street EV charging infrastructure for car-share to encourage car-share uptake.
		D1.4	Dedicate a share of on-street parking spaces for car-share vehicles, where there is demonstrated demand.
		D1.5	Work with car-share providers to provide more dedicated car-share parking in off-street lots, especially in areas where residential permit parking is at 100% capacity.

Section 4. Goals, Big Moves, Policies and Actions

Big Move E
4.7 Modernize Technology for Efficient Parking Management

The City uses modern technology systems to efficiently manage how parking is planned, delivered, and operated.

What is the Challenge Today?

The City's technology systems for managing parking are not up-to-date to provide efficient management of parking operations and deliver value for customers. For example:

- High quality technology to quickly navigate busy roadways and issue tickets is lacking. This hinders the City's ability to strategically deploy enforcement resources to arterial roads to prevent people from parking illegally in priority transit lanes, bicycle lanes, or at rush hour when parking is not permitted.

- Often technologies only automate or optimize one piece of a process. There are missed opportunities to identify and invest in a collection of technologies that can automate an entire process, like enforcement – automating identification of parking violations, to issuing tickets, to monitoring how curb space is used.

- Technologies do not always align with the highest priority challenges. For example, license plate recognition technology works well in parking lots, but it is less effective navigating busy roads where it's critical to reduce parking violations to improve transit operations and protect cycling facilities.

At the same time, the City's current technological systems (e.g., for enforcement, utilization management, permitting) are not well coordinated. Technologies have generally been selected to address single challenges without considering opportunities to improve the efficiency of other parallel processes.

For example:

- Departments are investing in data collection and inventory monitoring technologies to achieve specific departmental objectives without finding ways to fully coordinate these investments with other internal stakeholders. Ultimately this will not deliver a cost effective and durable comprehensive inventory that informs multiple data needs.

What is the Opportunity?

Effectively coordinating technology investments can help align technology with the City's business goals and objectives. It can allow individual city departments to make better decisions about technology and plan for alignment, bridging the gap between individual business unit aspirations and technology capabilities. Technology investments could proceed more quickly to improve the efficiency of multiple areas of parking management, and support operations for multiple City departments.

Modernizing technology can facilitate more automation in enforcement, allowing enforcement officers to cover a larger area of the City. Investments in technologies to understand parking supply and utilization can be used to optimize day-to-day operations, as well as longer term decisions about area-wide parking supply. By understanding how technologies can support multiple departments, the City could save time and resources to make key decisions around parking.

By prioritizing the curbside for sustainable transportation modes, the City is working to achieve the TransformTO 2030 goal of having 75 percent of short trips (under 5 km) be taken using cycling, walking, or transit. With improved technology, parking enforcement can be efficiently prioritized to major mobility corridors, so that transit operates more reliably, cycling is safer, and more people choose alternatives to driving when they can.

What can be Achieved by Doing Things Differently?

- ☑ City departments can share costs to invest in technologies that serve multiple purposes in managing parking and improving operations.
- ☑ Technology investments align with the City's strategic objectives.
- ☑ The City benefits from enhanced efficiency in parking operations.

Policies & Actions

Table 6 provides the policies and actions for Big Move E: Modernize Technology for Efficient Parking Management.

Table 6: Big Move E - Policies and Actions

Policy		Actions	
E1	The City will advance a centralized and modern parking management technology system	**E1.1**	Conduct a needs assessment for each City entity to understand how improved parking related technologies and data could support their work programs.
		E1.2	Develop a performance specification for a modern city-wide parking management system, considering needs related to monitoring supply and utilization, enforcement, price setting, permitting, and customer information (e.g., lowering cost of enforcement, increasing coverage, increasing revenue generation, improving customer experiences, etc.).

Section 4. Goals, Big Moves, Policies and Actions

Big Move F
4.8 Unify Leadership and Decision Making

The City governs parking as a system through stronger inter-departmental/agency collaboration and centralized steering of policy development and implementation.

What is the Challenge Today?

For the City to manage parking efficiently and effectively ensure day-to-day decisions support city-building goals, planning and operational decisions and activities need to be guided by a clear and consistent set of objectives and policies, supported by decision making processes that foster inter-departmental alignment in the direction of the objectives. All parts of the system - policy making, operational, infrastructure and financial dimensions – need to work together.

Currently, there is a lack of clear city-wide parking policy to guide operational and management decisions of individual business units. For example, there are no overarching guidelines to support decisions around supply, investments/divestments in off-street parking lots, or the role of on-street parking in relation to other curbside activities like commercial loading, cycling, transit, or CafeTO patios. This document sets out a guiding framework for the strategic value of parking in the City of Toronto, and a set of actions to advance implementation.

Successful and on-going implementation of the strategic framework, however, requires consistent leadership, management guidance and control, and mechanisms that support inter-departmental collaboration. The City of Toronto is a very large government organization with responsibilities for parking policies and management spread across many departments and agencies – Transportation Services, TPA, TTC, City Planning, CreateTO, Toronto Police Service and others. Each is focused on delivering its own policies and responsibilities. Many do not have an explicit mandate related to city-wide parking objectives. Each department manages parking based on their service mandates, with few checks and balances to ensure operational practices are aligned to deliver shared city-wide outcomes.

Active engagement of the Parking Advisory Committee

Currently, there is a low level of coordination between City entities responsible for related mandates ranging from "providing parking to users of city services" to "generating revenue", e.g., CREM, PFR, TTC, Transportation Services, and TPA are all responsible for operating, managing and [sometimes] collecting fees for parking. As a result, there is no single City entity that has a global view of parking pricing, supply or utilization. The City lacks integrated decision-making structures at the management level to make parking policy decisions comprehensively.

Council decision making authorities for operational decisions such as rate setting and permitting that reflect local preferences may negatively impact equity and fairness across the city. Most decisions related to local parking supply and rate setting are approved at Community Council. Recently, the bylaw amendment for changing hours of operations and rates removed the Ward Councillor approval, which will support the development of consistent rates city-wide. Nonetheless, parking issues are mainly addressed at the local level, which limits opportunities for city-wide coordination on parking management that will support city-building objectives.

Because parking management today is focused on the achievement of individual business unit objectives and ward-based priorities, the City is communicating about parking management in a fragmented way. As a result, people in Toronto do not understand the role of parking management as a city building tool. Residents and decision makers generally view parking policies as punitive measures against drivers, rather than as land use and transportation management tools. As such, there is a risk that as the City implements initiatives to improve parking management consistent with city-building objectives, there will be resistance from the public and decision-makers because people do not understand the benefits for the city as a whole that can come from changing how parking is managed. This resistance could slow down implementation and contribute to inconsistent decisions and directions that hinder progress.

What is the Opportunity?

There is an opportunity to bring greater policy alignment and consistency to how parking is managed across City departments and agencies through organizational changes to roles and responsibilities.

The City has established a Parking Advisory Committee (PAC) that includes key City departments and agencies with roles and responsibilities for parking decisions. The Committee's terms of reference enable it to facilitate coordination between City agencies/divisions, and to define initiatives for inter-departmental policy development. With its current mandate, however, the PAC lacks decision making authorities and tools to:

- Ensure City-wide policies are consistently implemented.

- Address policy trade-offs and conflicts between competing needs.

- Integrate inputs from City departments/agencies before bringing policies to Council.

- Make recommendations to Council on behalf of City departments and agencies.

There is an opportunity to reform the role of PAC into a management steering committee with authority to:

- Make recommendations on city-wide policies and regulations to Council.

- Set standards and frameworks.

- Make recommendations on implementation of major policy initiatives.

- Resolve inter-departmental and inter-agency conflicts.

- Establish operational standards and practices.

Consistency in day-to-day management of all City owned off-street parking can be significantly improved by re-organizing operations through a single City operator. This will improve fairness and access to parking for users across the City and improve efficiency in how services are delivered.

There is an opportunity for the City to more fully communicate the strategic value of parking to garner support for change initiatives and improve public transparency. A communications strategy that outlines the role of parking in city building, as well as the benefits of good parking management, can help create buy-in for new policies related to supply, pricing, and enforcement. It is important to address and acknowledge the public's concerns about new parking policies and demonstrate how parking policies can make it easier and more convenient to park in the City. This can create support and minimize backlash when the City introduces new policies or makes changes to existing ones.

Section 4. Goals, Big Moves, Policies and Actions

What can be Achieved by Doing Things Differently?

☑ There are centralized agreed upon city-wide policies, approaches and tools that guide decision making by all City departments and agencies.

☑ Standards, operational practices impacting customers are harmonized in order to deliver transparent and equitable approaches for the public.

☑ Parking information and implementation successes and challenges are tracked consistently.

☑ Investments in parking technologies are harmonized leading to greater efficiencies and consistent city-wide implementation of policies and strategies.

☑ Council is provided with recommendations for investment in new approaches that align with city-wide objectives related to parking management.

Best Practice: Organizational Structures for Integrated Parking Management

Established in 1968, Geneva's Fondation des Parkings (FdP) is a well-known model for integrated parking management. This autonomous public parking management entity manages a spectrum of parking services, from enforcement to the development of new facilities, including sustainable mobility options like electric charging and car sharing. FdP's comprehensive role is further supported by their fully integrated mobile app, which streamlines car and bike parking locations. Closer to Toronto, the City of Montreal has also made a recent transition to create l'Agence de mobilité durable (AMD) which brought together the City's parking authority, the parking enforcement arm of the police service and Montreal's sustainable mobility incubator into an integrated parking and sustainable mobility agency.
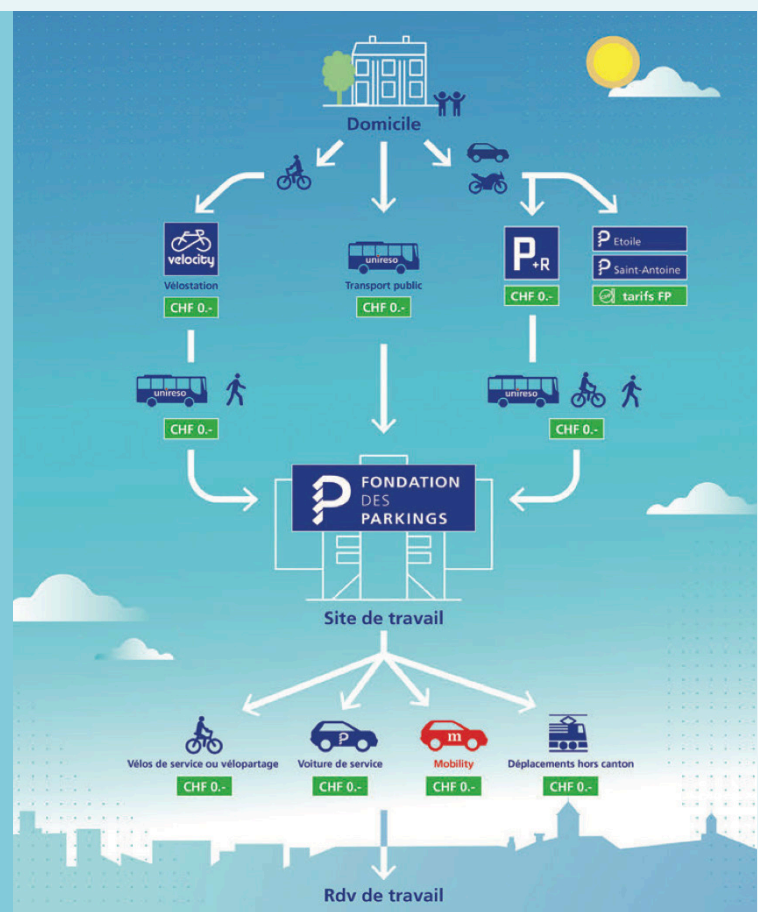
A range of mobility services including electric chargers and car-share are integrated under the FdP brand

Policies & Actions

Table 7 provides the policies and actions for Big Move F: Unify Leadership and Decision Making.

Table 7: Big Move F - Policies and Actions

Policy		Actions	
F1	The City will steer parking management with a system-wide lens	**F1.1**	Reform the role of PAC from advisory to steering - Require PAC input and sign off of parking policies and major initiatives with broad citywide parking implications.
		F1.2	Consider delegation of certain decision-making authorities to PAC.
		F1.3	Develop approaches to include perspectives of private parking providers into policy making - i.e., policy level engagement (in addition to current practice which focuses on initiative related feedback).
		F1.4	Manage all City-owned off-street parking consistently through a single operator (e.g., TPA).
		F1.5	Manage parking enforcement (on-street and off-street) centrally through a single point of contact (e.g., Montreal model).
		F1.6	Initiate a forum for discussion (and/or new innovation challenge) with third party app providers to investigate opportunities for a centralized parking information system for the entire city.
		F1.7	Create a framework (City objectives, cost sharing models, etc.) for partnering with academic institutions focused on strategic parking research.
		F1.8	Initiate public education on opportunities to reform parking management, focusing heavily on how parking management can help the City advance its city building goals.

5- First Implementation Steps

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Implementing the full extent of the policies, actions and ambitions of this parking framework will take many years. With a number of firm foundations initiated early on, the City will be in strong position to build momentum and support for the range of opportunities identified in the previous section.

Below are the key first implementation steps that the City can initiate in the first year to have the biggest impact in advancing the strategic objectives:

Develop and Implement a Strategic Framework for Managing Parking Supply at an Area Level.

- Begin initial internal engagement to develop a strategic framework for defining geographic areas or types of corridors that can be used for area-specific parking management, pricing, and communications.

Design and Develop a Regularly Updated Parking Inventory Database that Includes Data on Capacity and Utilization Across the City.

- Augment the data collected through this study to leverage City wide resources and mechanisms to inventory privately supplied parking and develop a system for on-going tracking of information over time.

Phase-in the Expansion of Free-floating Car-share Parking Outside of Permit Parking Areas.

- Continue on-going work to amend bylaws on car-share service catchment to expand free-floating car-share permits to neighbourhoods with favourable travel patterns and demands to support on-way car-share services. Also engage with car-share partners to understand challenges to expanding car-share services into areas outside of Toronto and East York.

Investigate Opportunities to Re-invest Some Revenue from Paid Parking and Parking Infractions to Improve Transportation Access.

- Through PAC, with involvement of City Finance initiate assessment of the costs, benefits and feasibility of a sustainable transportation fund with earmarked funding from parking revenues.

Initiate Public Education on the Benefits of Improved Parking Management.

- Work with PAC members to develop key messages and a public communications strategy to focused on the role of parking in the city for use by all departments when new and amended parking policies and programs are implemented.

Undertake an Economic Impact Assessment to Understand the Value of Parking to Local Main Streets Communities.

- Issue a study/survey to understand customer travel behaviours and how parking (on-street and off-street) is utilized by customers in main street BIA areas, where curbside parking pressures are greatest and/or publicly available parking in the vicinity is limited.

Develop a Performance Specification for a Modern City-wide Parking Management System.

- Hold 1-1 interviews with all the City departments that may benefit from access to the parking inventory, including Community Planning, Transportation Planning, CreateTO, CREM, traffic operations, and TPA. Collect input on knowledge gaps or hurdles in their work that could be addressed with data or technology.

Reform the Role of the Parking Advisory Committee from Advisory to Steering.

- Update the PAC terms of reference to identify the key parking initiatives and programs that should be presented to PAC for review and guidance before submitting to Council for approval.

Manage all City-owned Off-street Parking Consistently Through a Single Operator (e.g., TPA).

- Engage with both City entities to initiate discussions on centralizing management and operations of public parking lots.