# City of Bellevue

# CURB MANAGEMENT PLAN

**Appendix D: State of the Curb** 

2023







# **Contents**

EXECUTIVE SUMMARY	2
What is the Curb Management Plan?	
Key Findings	
What Comes Next	3
1. WHAT IS THE CURB, AND WHY IS IT SO IMPORTANT?	4
How is Bellevue Growing?	4
How is Travel Behavior in Bellevue Changing?	6
How Can Curb Management Support Growth and Address Change?	8
2. HOW IS THE CURB USED TODAY?	
Curb Inventory: How is the Curb Allocated Today?	12
Curb Demand: Who Uses the Curb, and How Much?	17
What is the Curb Experience?	17
How Do Transportation Networks and Land Use Shape the Curb?	21
Who Are the Curb Stakeholders?	
Curb Pilot Performance: What New Strategies Have Been Tested?	32
3. WHAT PLANS AND POLICIES ARE IN PLACE TODAY?	37
On-Street Parking	37
Loading Zones	39
Multimodal Access	41
Growth and Development	
Sustainability and Livability	
4. WHAT SYSTEMS, ORGANIZATIONS, AND PROCESSES SUPPORT THE CURB?	
Staffing, administrative functions, and organizational structure	
Technology and Data	
Land Use Code	
5. GAPS AND OPPORTUNITIES	50



City of Bellevue | Curb Management Plan

# **EXECUTIVE SUMMARY**

## What is the Curb Management Plan?

With a growth trajectory outpacing most mid-sized cities, Bellevue is at a mobility crossroads. Booming growth, ongoing transit investments, new mobility options, and COVID-responsive demands have placed tremendous pressure on Bellevue's already over-burdened curb spaces.

The Curb Management Plan (CMP) is a vital resource to think differently about how curb space is utilized and how it reflects the City's growth aspirations and community goals. The plan aims to thoughtfully manage competing demands in ways that secure Bellevue's growth vision, achieve the mobility and access priorities within the city's unique built environment, and align curb use with new definitions of curb performance and efficiency.

The Curb Management Plan covers some of Bellevue's fastest growing areas with the highest demand for curb space: Downtown, East Main, BelRed, and Wilburton neighborhoods.

The purpose of the plan is to:

- Establish a vision and values framework to root curb decisions and policies
- Establish a contextualized prioritization framework for curb use
- Identify options for managing various curbside demands
- Develop a curbside playbook of tools needed to deliver better curb outcomes
- Build an organizational and staffing framework to implement the Curb Management Plan

The Curb Management Plan will build on many of Bellevue past planning efforts such as the Mobility Implementation Plan (2021) and the Environmental Stewardship Plan (2020). The Plan will also reference existing supportive practices, such as formal on-street parking regulations in downtown, the Residential Permit Parking Zone program, and countywide regulation of Transportation Network Companies (TNCs) like Uber and Lyft.

Policy development in support of curb management, as well as the development of the plan itself, were initiated by City Council in February 2022. The Comprehensive Plan Amendment (CPA) process occurred in 2022 and culminated with policy adoption by City Council in December 2022. The CMP has been under development since late 2021 and is being primarily vetted by the Transportation Commission. Final review from the City Council is anticipated to occur in mid-2023.

# **Key Findings**

This report includes a comprehensive review of data, policy, programs, and practices related to curb use and management in Bellevue. Key takeaways from this analysis include the following:

 Private development design reviews are conducted on a case-by-case basis with no formal quiding curbside policy beyond requirements in the Land Use Code.



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- The public is supportive of programs and policies that expand activated use of right-of-way, such as Al Fresco Dining and allowing food trucks along the curbside.
- Curb use is dynamic, as evidenced by the COVID-19 pandemic, and new approaches and policy should provide structure with the ability to adapt to changes in users and volumes.
- Staff within the Transportation Department work on curb-adjacent issues, but there is no formal structure to address broader policy issues and citywide protocols between working groups.
- Most public parking is concentrated downtown. The vast majority of parking supply in downtown is off-street, rather than on-street along the curbside. There is limited public onor off-street parking in BelRed and Wilburton.
- Today, most curb space within the study area is used as travel lanes or parking lanes, with only a small percent dedicated toward loading or other uses.

#### **What Comes Next**

The State of the Curb assessment serves as one foundation for developing project recommendations. Specifically, this report informs:

<u>The Curb Typology</u>: The typology work identifies permissible uses for curbs to align with existing plans and policies outlined in the Mobility Implementation Plan, Bellevue Comprehensive Plan, and more. The goal of this work is to assign priority use types for each curb including auto movement, transit movement, bicycle movement, access, place, auto storage, and transit storage.

<u>Curbside Playbook</u>: A curbside intervention guide, the Playbook will direct City staff, developers, and private partners to the appropriate curb management tools to better achieve overarching curb outcomes. This will include infrastructure options, curb regulation categories, pricing mechanisms, and more.

<u>Pilot Roadmap</u>: The Bellevue Curb Pilot Roadmap is a tool to further the vision of the curb as a platform for innovation and cooperation where the City can test and refine new strategies to support the public good. It articulates curb user and management problem areas and profiles priority pilots to test new approaches to curb management, operations, experiences, information, safety, permitting, and processes.



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# 1. WHAT IS THE CURB, AND WHY IS IT SO IMPORTANT?

The curb is a critical public asset that supports a wide range of needs and activities every day. Historically in Bellevue, the curb has been indirectly managed through independent policies, processes, and initiatives. However, two key factors underscore the need for a new approach:

- 2. **Bellevue is growing rapidly.** Recent years have seen the arrival of many new residents and jobs, and this growth is expected to continue. As the city grows, the pressures on the curb increase. A new framework is needed that will maximize the productivity and public benefits of the curb.
- 3. Travel behavior in Bellevue is changing. As the city has grown, demand for different types of activities and mobility services has evolved. New types of businesses have brought workforces with different commuting needs and preferences. The transportation network has changed, with expanded transit service and the imminent opening of East Link Light Rail service creating new travel options and patterns. Demand has increased for new services, including freight, delivery, and app-based rideshare services. The curb—and the approach to managing it—needs to evolve to meet these new and changing demands.

# How is Bellevue Growing?

Bellevue is a dynamic, diverse city that is home to a range of housing types, communities, industries, and attractions—and it is growing rapidly. Between 2017 and 2022, Bellevue's population grew by nearly 10%. New residents arriving from across the region, country, and world are drawn to Bellevue's vibrant economy, livability, diverse culture, and proximity to natural beauty. Bellevue is also a growing regional employment hub, with several major corporations moving to or expanding their presence in Bellevue in recent years. Between 2017 and 2022, the number of jobs in Bellevue increased by 20%, twice the rate of population growth. In Downtown and BelRed, there are over 50 major commercial and residential development projects in various stages of design, review, and construction as of December 2022.

In the years ahead, the pace of growth will continue. In alignment with recommendations made by the Puget Sound Regional Council, Bellevue has committed to adding 70,000 new jobs and 35,000 new homes in the coming years. To support recent and future growth, the City will need a new approach that maximizes the productivity of our transportation network—including access to the curb.



# State of the Curb City of Bellevue | Curb Management Plan





Development projects, such as these in Bel Red and Downtown, are putting more pressure on curb areas.

#### **Growing Mobility Needs and Network**

To meet the growing mobility needs of its residents and workforce, Bellevue has expanded and diversified its transportation network. The East Link Extension of Sound Transit's Link Light Rail, which is expected to open within the next 1-2 years, is projected to serve up to 52,000 daily riders by 2026¹. The bike network in Bellevue is also expanding. Eastrail is a 42-mile, multi-use trail that runs through Bellevue and connects to adjacent communities to the north and south. The Eastrail alignment goes through the BelRed and Wilburton neighborhoods and features a direct connection to the future Wilburton Link Station. With support from King County and contributions from private partners, the Wilburton and Wilburton Trestle segments of Eastrail will be completed in 2024. As identified in the 2009 Pedestrian and Bicycle Transportation Plan, Eastrail is one of four bicycle priority corridors (the others are the Lake Washington Loop Trail, Enatai-Northtowne Connection and Downtown-Overlake Connection) that will serve the project study area.

#### Growth in the Urban Core

Much of the recent job and population growth in Bellevue has been concentrated in the central neighborhoods of Downtown, BelRed, and Wilburton/East Main, which constitute the City's urban core. The Mobility Implementation Plan (MIP) establishes a roadmap for identifying, prioritizing, and implementing multimodal transportation projects in the urban core where the land use density is highest, the expected rate of growth is fastest, and the anticipated changes to transportation options are greatest.

In the dense, fast-growing neighborhoods of the urban core, the curb serves many essential functions and supports the needs of thousands of residents, workers, businesses, and visitors every day. The CMP will focus primarily on the four neighborhoods shown in the project study area (Figure 1). This study area is the same geography as the Type 1 performance management area (PMA) established in the MIP. The Type 1 PMA represents the densest part of the city where the majority of future growth—and curb demand—is expected to occur.

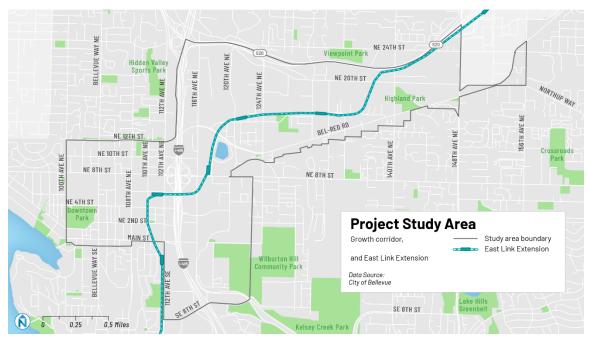
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<sup>&</sup>lt;sup>1</sup> East Link Extension Project Map and Summary, 2022



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Figure 1 Project Study Area



# How is Travel Behavior in Bellevue Changing?

Bellevue is growing, and the way its residents, workers, and visitors travel is evolving. New transportation options, commuting patterns, technologies, and lifestyle preferences are all impacting how people get around the City every day.

#### Companies are moving to and expanding in Bellevue.

Continued job growth in Bellevue is bringing new commuters and residents to the city. As of Fall 2021, more than 4.6 million square feet of new office space was under construction in Bellevue. <sup>2</sup> The city's location, resources, and regional transportation connections are one of many factors attracting companies to Bellevue, but the growing population of residents and workers increases the pressure on the City's streets, transit system, and curb space.

#### Travel patterns and transportation options in Bellevue are changing

People who work in Bellevue—including 40% of employed Bellevue residents—have experienced an increase in commute times by 17% in the past five years, and the share of households in Bellevue that do not own vehicles has increased from 6.9% to 7.4%. The commute mode share in Bellevue became more diversified during the same period. The drive-alone rate decreased from 65.6% to 61.3%, and the share of people who carpooled, walked, biked, or took the transit to work increased from 26.6% to 28.9%. The significant shift towards teleworking during the COVID-19 pandemic is

<sup>&</sup>lt;sup>2</sup> Peterson, Blake, Reports show commercial real estate is on the rise on the Eastside: 425Business, 2022



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beginning to moderate – this shift in travel behavior has meant that the needs, pressures, and performance of the curb have also changed.

Commute Mode Share, 2014 - 2019 7% 9% **5**% 6% ■ Worked At Home 12% 12% 9% Other Means 10% ■ Walked ■ Bicycle ■ Public Transportation 66% 61% Carpooled ■ Drove Alone 2014 2019

Figure 2 Bellevue Commute Mode Share in 2014 and 2019

Source: City of Bellevue analysis of US Census data and King County Assessor's Office data.

# The use of delivery services, including commercial freight, parcel delivery, and restaurant delivery, has exploded.

The COVID-19 pandemic accelerated the growth and widespread adoption of delivery-based e-commerce platforms and services. As a result, there are many more delivery trucks and other commercial vehicles on the street today than there were five years ago. Nationwide e-commerce sales increased from 13.6% in 2019 to 18% in 2020<sup>3</sup>. Although Bellevue's Land Use Code requires developments to place accommodative loading areas on-site, many smaller freight operators rely on and use accessible curb space to make short-term stops for loading and unloading goods.

# People have more options for shared mobility services, including car share, bike share, and app-based ride hailing companies.

The 2018 Bikeshare Pilot Program deployed 100 Lime electric dockless bikes in downtown Bellevue and other parts of the Urban Core. Rideshare services such as Uber and Lyft have become more common, with the share of Americans who have ever used a ride haling service increasing from 15%

<sup>&</sup>lt;sup>3</sup> Sawant, Vishal, At 9.29% CAGR, Last-mile delivery Market size is Expected to reach USD 200.42 Bn in 2027: Brandessence Market Research, 2021



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in 2015 to 36% in 2018<sup>4</sup>. While these services have increased mobility options of people who live and work in Bellevue, they have also increased the competition for safe access to space along the curb. The companies that operate these shared mobility services depend on the City to manage the curb effectively.

# Walkable, inclusive, people-first streets continue to be central to Bellevue's vision—now more than ever.

The Bellevue Healthy Streets Pilot Program, which began as an emergency response during the COVID-19 pandemic, prompted many Bellevue residents to rethink how streets are designed and used. During the pilot, pedestrian and bicycle volumes increased and vehicle volumes dropped on designated healthy streets. In a post-pilot survey, more than half of respondents said they would like to see the city expand the Healthy Streets program. The highest level of support was observed among younger respondents and people who identified as female. In 2021, the City built on the success of the Healthy Streets program by installing the city's first bicycle greenway in East Bellevue.

Another successful and innovative initiative that emerged from the pandemic was the AI Fresco onstreet dining program, which allowed local restaurants and retail businesses to set up outdoor space to give patrons enough space to shop and dine safely. A 2021 survey on the program's impact along Main Street showed that 85% of respondents were more likely to visit the area again because of the outdoor and on-street dining space.

As more people see the street and the curb as a place for people, the tools and policies used to manage these public spaces need to adapt to support this vision. In the future, even more changes will impact how the curb is used.

In the coming years, new technologies, service models, and economic forces will likely impact the way the curb is used in Bellevue. Examples include increased electric vehicle adoption and charging, continued trends toward on-demand and just-in-time delivery systems, pedestrianization of streets (permanent or temporary), automated delivery vehicles (including drones), and climate change driven planting and storm water management mandates.

While it is impossible to say exactly how these future variables will impact the curb, Bellevue needs to have a proactive set of management tools available to ensure that the changes align with the city's core values and support its goals. To accommodate changing pressures, the Curb Management Plan will need to be adaptable but anchored on stable policy goals.

# How Can Curb Management Support Growth and Address Change?

As demand for curb access grows and travel behavior in Bellevue continues to shift, the City has identified the need for a comprehensive management framework that strategically, sustainably, and equitably balances curb uses. An effective curb management framework for Bellevue can:

- Ensure safe and inclusive curb access for everyone
- Maximize the benefits of the curb as a public resource

<sup>&</sup>lt;sup>4</sup> Jiang, JingJing, More Americans are using ride-hailing apps: Pew Research Center, 2019



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- Prioritize curb use in alignment with citywide policies and plans
- Provide a unified curb policy approach that is comprehensive, consistent, and flexible
- Improve coordination between City staff and curb stakeholders, including residents, workers, visitors, businesses, and public agencies
- Deliver data and information to help the City evaluate performance, address challenges, and make decisions

To utilize this potential, the Curb Management Plan starts with a guiding vision for the curb as well as a set of values and principles for curb management and evaluation. Public engagement efforts – including a public questionnaire, user focus groups, a Curb Summit public and practitioner event, engagement of Transportation Commission, Planning Commission, and City Council bodies, oversight by broad range of internal City stakeholders, and discussions with specific organizations engaging in the project – helped inform the vision. A great deal of curb policy direction also has been previously established or directed by existing policy and planning documents. The vision and values align with those established in Bellevue's Comprehensive Plan and Mobility Implementation Plan and will provide a foundation for all curb policy and planning recommendations.

#### Bellevue's Vision for the Curb

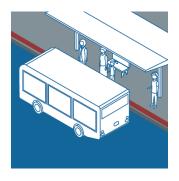
Bellevue envisions a curb that is a vibrant public space where residents, workers, visitors, businesses, and public agencies seamlessly interact. The curb experience is safe, user-friendly, inclusive, and reflects the needs of the community it serves. The curb is a flexible, dynamic place that can be adapted to changing needs, pressures, and preferences. The curb is a platform for innovation and cooperation where the City can test and refine new strategies to support the public good.



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#### **Curb Values**

Curb values will help the City set priorities at the curb. They reflect principles established in Bellevue's other citywide plans and policies (such as the Comprehensive Plan and Mobility Implementation Plan) and extend them to the curb.

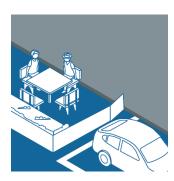


# The curb is a connector,

where people change their transportation mode, and it is where variety of services that rely on transportation use share.



The curb is a major asset, that the city owns as a public resource. It is a place with the most state of changes throughout the day.



# The curb is multipurpose,

where it
accommodates
many types of
uses beyond
vehicle
movement and
storage
purposes.



The curb is a means to Bellevue goals, where it can be used as a tool to achieve environmental stewardship, land use, transportation, and other city goals.



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#### **Curb Principles**

Principles established for the curb are tied to values and will help the City make data-driven decisions about how the curb is functioning and how it should be managed. These principles will be reflected in other policies and frameworks developed over the course of the CMP process.



**Equity:** The curb is a public asset and a limited resource. The CMP will manage shared access to the curb to ensure it supports and benefits those who need it most.



**Efficiency and Effectiveness:** There are many demands at the curb, especially in the downtown core. To meet all these competing demands, Bellevue will seek to ensure that the performance and benefit of the curb achieves City goals.



**User-Friendly:** The curb is a place for people. The CMP will help Bellevue guide the curb to be a safe, enjoyable, inclusive, and easy-to-navigate space.



**Decision-Making Clarity:** Achieving Bellevue's vision for the curb will rely on a clear understanding of what is working—and what is not working—at the curb. The CMP will help deliver curb data and on-the-ground information to support decision makers.



**Adaptability and Resilience:** Bellevue will continue to grow and change. The CMP will deliver flexible, forward-looking policies and tools that will help the City adapt to new challenges, opportunities, and technologies. Curb priorities will reflect the City's commitment to environmental sustainability.



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# 2. HOW IS THE CURB USED TODAY?

Understanding how the curb functions today is a critical first step in improving curb management policies and practices. The current inventory of regulated curb space and usage of that curb space paints a picture of how efficiently public space is used and where there is room for improvement.

# **Curb Inventory: How is the Curb Allocated Today?**

#### **Parking Allocation and Occupancy**

Parking is a significant presence on Bellevue streets within the study area. While much of the downtown network reserves the entire on-street lane for traffic movement, parking takes up the biggest share of more static curb uses by a significant margin. The data also show that a proportionately small amount of curb space is currently dedicated to goods and passenger loading (Figure 3, Figure 4). Old Bellevue contains more than a quarter of the on-street parking in the study area (Figure 5). Parking inventory zones were also established during utilization studies in 2022 (Figure 6).

Figure 3 Downtown Curb Inventory and Allocation

Regulated use (Downtown)	Linear Feet	% of Total Linear Curb
Bus Stop/Parking	242	0.2%
Loading Zone	798	0.8%
Passenger Pickup/Dropoff	121	0.1%
Regulated (Time-Limited) Parking	7,753	7.4%
No Parking	61,924	59.3%
Transit	1,965	1.9%
Other (includes driveways, crosswalks, and unassigned regulations)	31,693	30.3%



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Figure 4 Downtown Curb Inventory Map

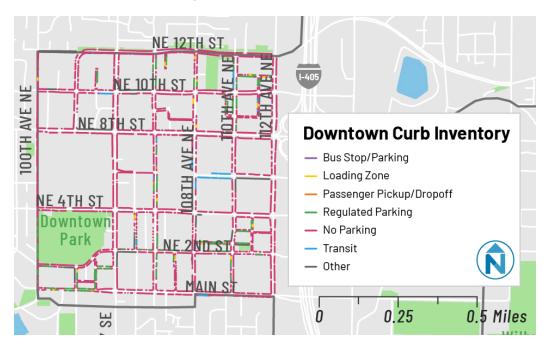


Figure 5 Parking Inventory Table

Zone	Estimated On-Street Parking Spaces	Percent of Total On-Street Spaces	Off-Street Parking Spaces
Old Bellevue	156	26%	32,142
Bellevue Downtown: Southwest	64	11%	
Bellevue Downtown: Northwest	55	9%	
Bellevue Downtown: Southeast	82	14%	
Bellevue Downtown: Northeast	82	14%	
Spring District	98	16%	22,960
Greater BelRed	60	10%	



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Figure 6 Parking Inventory Zones

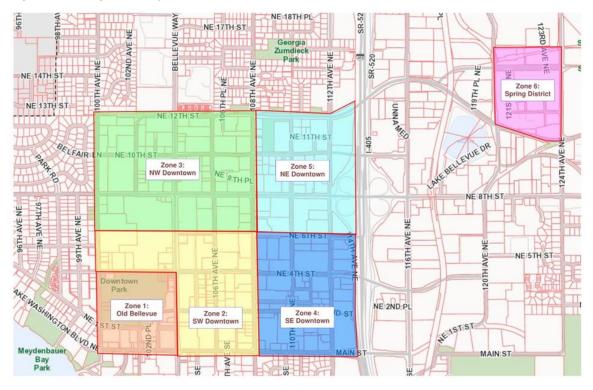


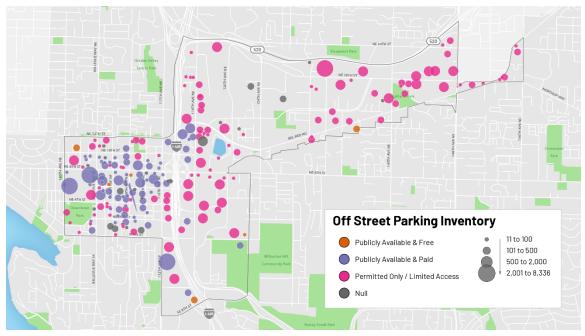
Figure 7 Weekday Off-Street Parking Inventory Map shows the off-street parking inventory in the study area symbolized by parking capacity and parking regulation type. This figure was derived from a data source by INRIX, a traffic data and software solutions company. The downtown Bellevue area has a mix of publicly available paid and permitted/limited access parking. A number of the locations identified as "publicly available & paid" are validation-based areas that require a purchase of goods from or visitation to associated retail destinations. Notably, the overwhelming majority of off-street parking in Wilburton and BelRed is limited access and/or permit parking only.

Figure 8 Parking Occupancy Map shows on-street parking occupancy on certain blocks of the study area. The map shows the percentage of time between 7 a.m. and 8 p.m. that occupancy was above 80%. This threshold of 80% indicates a heavily utilized and potentially overburdened curbside environment. Areas with particularly high occupancy were Old Bellevue, Northeast Downtown, and the Spring District & BelRed areas. It is important to note that many of the blocks in the data collection have on-street parking that regularly see occupancy above 80%.



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Figure 7 Weekday Off-Street Parking Inventory Map



Source: INRIX, 2022

Figure 8 Parking Occupancy Map



Source: IDAX, 2022



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#### **Loading Violations**

Many curbside lanes in downtown Bellevue are reserved for vehicular travel only. Despite this, curbside travel lanes are frequently obstructed by passenger and commercial vehicles loading and unloading people and goods. Data collected in November 2022 and depicted in Figures 9 and 10 shows that travel lane obstructions are caused by both commercial and passenger vehicles that drop off and pick up passengers or goods. Most of these stops are very short, with an average duration of less than a minute. Still, unauthorized stops at the curb on the studied blocks averaged to be nearly 20% of the study timeframe. This can greatly exacerbate traffic congestion and is generally unsafe for both pedestrians and drivers. Currently, funding resources are insufficient to allow for active enforcement of these violation events.

Figure 9 Travel Lane Obstructions

Site	Day	Date	Data Collection Span	Total Unauthorized Dwell Time	Percent of Time Blocked
102 <sup>nd</sup> Ave NE from NE 1 <sup>st</sup> to Main St	Thurs	11/10/2022	13:09:35	2:49:42	21%
110 <sup>th</sup> Ave NE from NE 4 <sup>th</sup> St to NE 6 <sup>th</sup> St	Thurs	11/10/2022	13:23:18	2:20:17	17%
Bellevue Way NE from NE 4 <sup>th</sup> St to NE 6 <sup>th</sup> St	Thurs	11/10/2022	12:51:44	0:57:25	7%
Bellevue Way NE from NE 8 <sup>th</sup> St to NE 10 <sup>th</sup> St	Wed	11/9/2022	13:00:39	3:13:54	25%
		Average	13:06:19	2:20:19	18%
	13:05:07	2:35:00	19%		

Source: IDAX, 2022

Figure 10 Travel Lane Obstructions Purpose, Percentage and Dwell Time

Site	Date	Freight Delivery	Pick Up	Drop Off	Driver Entry/ Exit	Waiting for Parking	No Activity
102 <sup>nd</sup> Ave NE from NE 1 <sup>st</sup> to Main St	11/10/2022	6%	27%	44%	14%	6%	14%
110 <sup>th</sup> Ave NE from NE 4 <sup>th</sup> St to NE 6 <sup>th</sup> St	11/10/2022		32%	57%	4%		5%
Bellevue Way NE from NE 4 <sup>th</sup> St to NE 6 <sup>th</sup> St	11/10/2022		38%	50%	3%		10%
Bellevue Way NE from NE 8 <sup>th</sup> St to NE 10 <sup>th</sup> St	11/9/2022	19%	11%	52%	15%	4%	
Average Dwell Time		0:26:28	0:00:32	0:00:26	0:05:12	0:00:59	0:10:55
Median Dwell Time		0:08:44	0:00:24	0:00:17	0:02:22	0:00:57	0:01:41

Source: IDAX. 2022



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## **Curb Demand: Who Uses the Curb, and How Much?**

Bellevue's curbs are used by a wide variety of people, pressures, and infrastructure, including:

- Freight/deliveries (commercial loading zone)
- Dedicated bike lanes
- On-street Parking (unregulated, time-limited)
- Bikes, scooter racks (private and shared)
- Private employer shuttle stops
- Curbside activation (e.g., on-street dining, parklets)
- School pick-up and drop-off (PUDO) zones

- TNCs and taxis (passenger loading zones)
- Bus stops, dedicated bus lanes
- Greenery
- Utilities (e.g., hydrants)
- Construction activity
- Electric vehicle charging spaces
- Residential permit parking

## What is the Curb Experience?

#### The factors that shape curb experience go beyond the curb itself.

The curb is experienced as part of a broader public realm that is defined by elements within both private property and public right of way. These elements include building facades, streetscape design, as well as curbside uses. Within this larger curb experience, there are three generalized zones:

- 1. **Curb zone:** this includes the curb itself, as well as immediate front of curb uses like travel lanes, parking, or loading zones.
- 2. **Furnishing zone:** this area often forms a buffer between the roadway and pedestrians. Common elements include planting strips, trees, lighting, bicycle racks, as well as street furniture such as seating.
- 3. **Sidewalk zone:** also known as the pedestrian zone, this is the area that includes a clear zone for walking and sometimes includes additional elements to support adjacent building frontages.

Different stakeholders will have different needs for each of these zones, which makes it important to recognize there isn't a single optimal configuration for curb experience. Most of the recommendations and attention within the CMP is focused on the curb zone, with secondary attention paid to the furnishing and sidewalk zones.

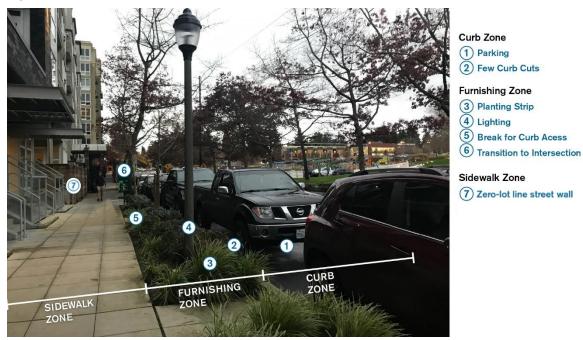
#### Today, the curb experience varies significantly across Bellevue.

Within the study area, the curb experience often mirrors the urban design character of each subarea. Traditional retail streets like Main Street include café seating and pedestrian oriented brick paving, while large scale office blocks often use the furnishing zone to buffer pedestrians from fast-moving traffic. Examples of current conditions for each curb experience zone are shown below in Figures 11 to 15.



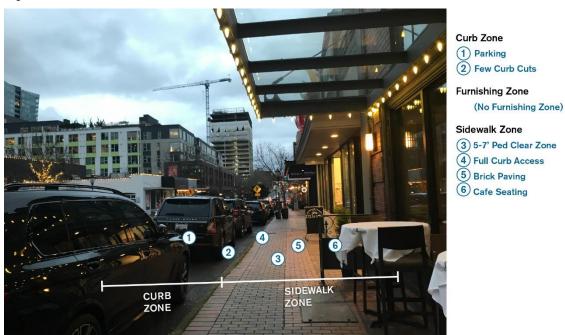
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Figure 11 Residential Mixed Use: NE 1st Street



This residential mixed-use streetscape, with its planting strip and on-street parking, reflects the curb experience of many new development sites in downtown Bellevue as well as areas like the Spring District.

Figure 12 Traditional Retail: Main Street



Traditional main streets were developed before widespread use of the automobile, and this is still reflected in many elements of the curb experience such as quick transitions from curb to sidewalk zone, active frontages that engage with the street, and few to no curb cuts for driveways or garage entrances.



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Figure 13 Internal Street: NE 6<sup>th</sup> Street



Curb Zone

- 1 Travel Lane Slow Speed
- 2 No Parking Zone

#### Furnishing Zone

- (3) Hardscape Brick
- 4 Tree Grates & Lighting

#### Sidewalk Zone

- 5 10' Ped Clear Zone
- 6 Matching Brick paving
- 7 Zero-lot line active uses

Within the arterial road network, downtown Bellevue has several smaller internal streets. These often have decorative paving across the roadway and sidewalk to emphasize the pedestrian experience. Parking and loading are sometimes prohibited on these streets.

Figure 14 Temporary Curb Use: Main Street



**Curb Zone** 

- 1 Visual Screening
- 2 Temporary Cafe Seating

#### **Furnishing Zone**

3 Temporary Barriers

#### Sidewalk Zone

- 4 5-7' Ped Clear Zone
- (5) Brick Paving
- 6 Cafe Seating

In response to a greater desire for outdoor space, many curbs have started to include café seating, small parklets, and other public realm uses.



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Figure 15 Main Street



Pedestrian-supportive curb treatments along Main Street

#### Across this diversity of curb experiences, there are recurring themes.

- Curbside uses such as parking and loading zones are not always supported by furnishing zone design. Linear elements like planting strips, large objects like planters or receptacles, and seating help create a buffer between the sidewalk zone and curb zone. In many cases, this creates a valuable sense of safety for pedestrians, especially along major arterials with curbside travel lanes. However, in some cases these linear elements can make it more difficult for parked cars or loading vehicles to access the sidewalk and building frontages.
- Retail and other active uses need significant attention to how the curb experience is
  managed. The public realm has always been critical to the success of pedestrian oriented
  active uses, even prior to the recent demand for additional outdoor uses. In many cases,
  temporary curbside seating areas and permanent seating, signage, and other frontage uses
  of the sidewalk zone can co-exist. As seen in the previous figures, this can have the effect
  of creating a narrower clear zone for pedestrians with seating on both sides. Supporting
  these emerging needs for the curb while maintaining core functions for the public realm will
  be important.
- Curb flexibility is uneven across Bellevue. Given the diverse requirements of different
  users, curb design and management should be flexible enough to anticipate changing
  needs. However, many sites across the study area have elements, particularly in the
  furnishing zone, which make adaptation difficult. Linking regulatory requirements and
  guidelines to the potential future needs of curbside uses will help to "futureproof" the curb
  experience.



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# How Do Transportation Networks and Land Use Shape the Curb?

Curb use is shaped by a multitude of land use and transportation network factors, both within the curb area itself as well as in adjacent buildings and parcels. Some of these factors are localized—for example, the interface between a local shop and the sidewalk along the storefront. Others are networks which extend beyond a single block or curb face—for example, the speed and reliability of a bus route. A range of different potential curb configurations and management strategies may be needed to address and balance the competing needs of these adjacent uses and networks.

#### **Land Use**

Figure 16 shows zoning designations in Bellevue today. Most commercial land uses in Bellevue are concentrated within the study area, as is higher-density multifamily housing. These land uses demand multifunctional curbs that function as a public space and can support a range of travel modes and activities including daily commutes, customer access, and recreational uses. The curb in these areas should also reflect and support the City's commute mode share goals.

#### **New development**

Curb design and management should reflect not only where the City is today but also where it is headed. New developments (Figure 17) present an opportunity to advance and implement both localized and network-level improvements at the curb. Some parts of Bellevue that have been historically auto-centric are being re-envisioned as walkable, multimodal environments—the curb must evolve as well to support these changes.



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Figure 16 Study Area Zoning Designations





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NE 24TH ST BELLEVUE WAY BEL-RED RD NE 12TH S **Planned Projects** New projects in various Study area boundary stages of planning, approval, East Link Extension and construction as of Planned residential January 2023 Planned office Planned mixed use Planned hotel Data Source: City of Bellevue Planned other 0.25 0.5 Miles

Figure 17 Major Projects within study area (January 2023)

## **Transportation Network**

Major transportation networks in the study area include the road network, public transit network, and the bicycle network. For each of these networks, the curb plays a pivotal role in supporting both throughput along the curb as well as access at the curb.

#### Road network

Although typical roadways within the study area have some elements of travel and curbside access (Figure 18), the study area includes corridors that vary from narrow, pedestrian-oriented streets to multi-lane auto-centric arterials (Figure 19). As discussed earlier in this chapter, treatments along the curb can act as a buffer between vehicles and pedestrian areas. In some cases, this is desirable; it the curb space safer and more enjoyable for pedestrians. In other cases, it can make the sidewalk less accessible for people walking to and from cars, transit, or other mobility options. Curb management is especially important in areas with high levels of modal mixing – when pedestrians, cars, transit, and micromobility devices all share the same space. Curb management can help by allocating space to the different modes and making sure users have safe access to their destinations.



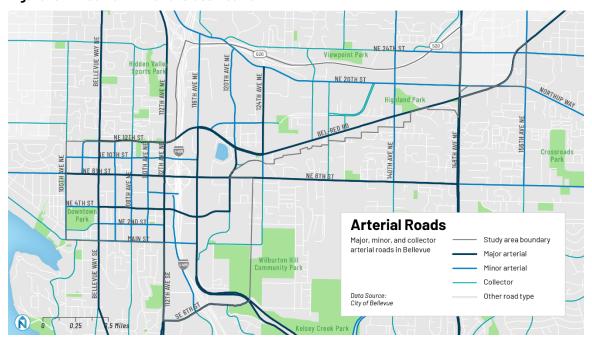
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Figure 18 110<sup>th</sup> Ave NE



A typical road configuration in Downtown along 110th Avenue NE

Figure 19 Current Arterial Classification



#### Public transit network

The study area includes elements of modern transit infrastructure (Figure 20) and is served by frequent bus service today (Figure 21). In the coming years, the opening of light rail service and



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additional supportive King County Metro service will further improve access to reliable, high-speed transit (Figure 22). The space along the curb is essential for supporting transit—it provides space for people to wait at transit stops, it supports safe and accessible boarding and alighting, and it is the site for most first-mile/last-mile transit connections by foot, bike, and micromobility devices, such as shared e-bikes and scooters. Successful transit-oriented development also depends on vibrant, walkable street life, which the curb plays a critical role in fostering and supporting transit-supportive communities.

Figure 20 152<sup>nd</sup> Ave NE (Redmond)



Transit and pedestrian access are prioritized at a RapidRide station on 152<sup>nd</sup> Avenue NE in Redmond

BELLEVUE WAY NE 20TH ST BEL-RED RD IE 4TH ST NE 2ND ST **Existing Transit Network** MAIN ST Existing transit routes with Study area boundary peak headways of 30 15 Minutes or less Wilburton Hill ommunity Park minutes or less 15-30 Minutes Data Source Sound Transit and King County Metro 0.25

Figure 21 Existing Transit Network

Note: route alignments to be updated after East Link Light Rail is operational, refer to Figure 23



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Figure 22 Planned Transit Network Corridors



Note: final alignment for the K Line RapidRide is not yet determined.

Figure 23 King County Metro East Link Connections



Figure 23 shows anticipated new bus routes as part of the East Link Connections effort. This effort will update bus route alignments in conjunction with the opening of East Link Light Rail.



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#### **Bicycle Network**

In most cities, bicycle facilities oftentimes exist along the curbside, taking the form of a bike lane, protected bike lane, or cycletrack. The curb also plays the beginning and ending of bicycle rides, sometimes hosting bike racks or secure lockers. Creating a safe bicycle network that is accessible to people of all ages and abilities (Figure 24) requires a combination of infrastructure design, support facilities, curb organization and prioritization, and supporting policies.

Figure 24 Spring District



Protected bike lane along NE Spring Blvd provides safe and reliable route for cyclists

Today, Bellevue's bicycle network consists of a mix of protected bikeways, dedicated lanes, and shared bicycle routes (Figure 25). While some parts of the study area today have access to bicycle facilities that meet level-of-traffic stress performance targets, there are considerable gaps in the network. Some bicycle network corridors, such as Bel-Red Road, are arterials that are currently identified by the City as caution areas for bicyclists.

Bellevue has taken novel approaches to implementing bicycle infrastructure. In 2018, the city completed the Downtown Demonstration Bikeway project along 108<sup>th</sup> Avenue NE. This demonstration approach allowed the City to test and refine bicycle facilities and priority treatments while gaining ongoing public feedback about route performance. The Bicycle Network Vision presented out in the MIP lays out Bellevue's ideal network that expands cycle access to people of all ages and abilities across the study area (Figure 26).

Completing a safe, well-connected bicycle network will require developing strategies and policies that allow the city to apply citywide plans and policy goals to the curb.



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Figure 25 Existing Bicycle Facilities



Figure 26 Bicycle Network LTS Vision



#### Freight and loading

Freight movement is essential to ensure that people and businesses have the goods they need to keep Bellevue's economy running smoothly. Freight relies heavily on curbside space to load and unload goods from trucks of all sizes. However, this demand is not evenly distributed across the city;



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it is concentrated in business districts and along major arterials. Figure 27 shows the designated truck routes in Bellevue, established via City Ordinance 3692. These routes allow large vehicles to travel efficiently to their destinations, prevent traffic congestion on smaller neighborhood roads, and ensure that the road infrastructure is substantial enough to withstand truck weights.

Truck Route

City Limits

Figure 27 Truck Routes from Bellevue Comprehensive Plan

Figure 28 shows total number of parked events for aggregated commercial freight activity. Data was collected in March and October 2019 from Populus<sup>5</sup> by referencing anonymized geospatial data tied to commercial freight activity. Data show activity in both public and private rights-of-way.

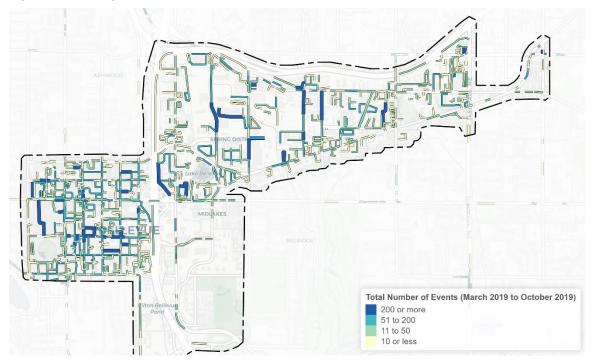
Parked events are a good indicator of the number of vehicles that stop to load or unload for any length of time over the data collection period. Streets in the study area with heavy loading traffic include NE 4<sup>th</sup> St and NE 8<sup>th</sup> St in Downtown, 120<sup>th</sup> Avenue NE north of the Spring District, and 124<sup>th</sup> Ave NE, 130<sup>th</sup> Ave NE, and 132<sup>nd</sup> Ave NE in BelRed.

<sup>&</sup>lt;sup>5</sup> Populus is a data and information company that specializes in curb management and mobility services.



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Figure 28 Freight Parked Events, March and October 2019



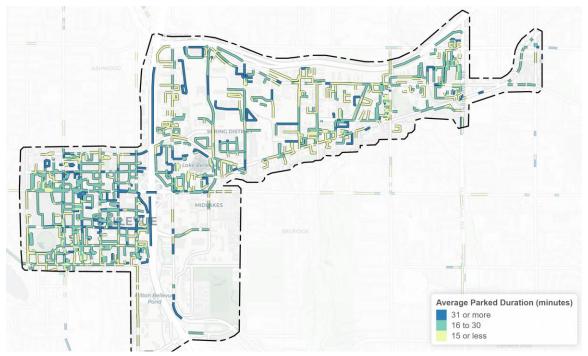
Source: Populus, 2022

Figure 29 shows the average parked duration (in minutes) for freight in March and October 2019. This represents where freight loading and unloading had significant dwell time, and where loading zones were likely being highly utilized. In downtown Bellevue, most of the streets can be seen as long-term freight parking with 15 minutes or more in average duration. In BelRed, most of the long-term freight parking is shown to occur in private streets.



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Figure 29 Freight Average Parked Duration (Minutes), March and October 2019



Source: Populus, 2022

## Who Are the Curb Stakeholders?

Curb stakeholders are people and organizations who use, are impacted by, are invested in, or are responsible for any curb activity. Stakeholders can be categorized based on how they interact with the curb or what their role is in overseeing or implementing curb management efforts. Figure 30 summarizes these stakeholder groups and provides examples of each type of stakeholder.

Figure 30 Curb Stakeholders

Stakeholder Groups	Examples
<b>Decision-makers</b> City leaders who make decisions that guide curb investment and policy development	<ul><li>City Council</li><li>City Manager</li><li>Transportation Department leadership</li></ul>
Implementation Leads City staff who are responsible for directing curb policy implementation in departments	<ul> <li>Department heads and staff</li> </ul>
Guides and Analysts City staff and commission members who direct, inform, and oversee policy development and implementation	<ul><li>Transportation Commission</li><li>Planning Commission</li></ul>
Advocates Community members and organizations who are invested in advancing transportation or curb-related policies and initiatives	<ul><li>Community-Based Organizations (CBOs)</li><li>Disability Rights Advocates</li></ul>



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Stakeholder Groups	Examples
Curb Users Visitors and residents that are making trips to/from jobs, shopping and dining, services, and entertainment and recreation	<ul> <li>People who walk</li> <li>People who bike</li> <li>People who take transit</li> <li>People who use micromobility services</li> <li>People who take shuttles</li> <li>People who use or would like to use car share services</li> <li>People who use rideshare services and taxis</li> <li>People who drive</li> <li>People who park in on-street parking areas</li> <li>People with accessibility challenges</li> <li>People visiting local businesses</li> <li>People who live in or would like to live in the area</li> <li>People and businesses in the area who receive goods</li> </ul>
Mobility Service Operators Public entities and private companies who access, impact, or are impacted by curb activities and uses.  Interests Groups and organizations who have a vested interest in curbside policies and outcomes	<ul> <li>King County Metro and Sound Transit</li> <li>Goods delivery services</li> <li>Shuttle operators</li> <li>Micromobility operators</li> <li>Microtransit and car share users</li> <li>TNCs and taxis</li> <li>Future automated operators (e.g., AV, delivery robots)</li> <li>Employers</li> <li>Businesses</li> <li>Residents (current and aspiring)</li> </ul>
General Public Mobility affects day-to-day lives	<ul> <li>Community groups and organizations</li> </ul>

# **Curb Pilot Performance: What New Strategies Have Been Tested?**

Bellevue has piloted several curb management strategies with the goal of better understanding how the curb is used today and how it is performing. These pilot projects fit into five general categories:

- 1. Pandemic-Related Permitting Changes
- 2. Curbside Video-Based Technology Assessments
- 3. Curbside Data and Asset Management Inventory
- 4. Food Truck Permitting
- 5. Micromobility



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In addition to these pilots, Bellevue contracted with a consulting firm in 2020 to develop a curb inventory in Downtown. All arterials in Downtown Bellevue, related to curb regulations, physical assets such as curbs and driveways, and street furniture, were mapped using the CurbLR specification.

Bellevue's pilot projects have mostly been isolated in nature, with final outcomes failing to become programmatic or operationalized. In the absence of a formal curb management program, the primary outcome of the pilots has been building a snapshot understanding of curb data and information. These projects have provided valuable insight into the existing conditions at the curb and provide insights on areas for improvement, but results are not always broadly applicable when developing citywide policy.

While the pilots have informed the City's perspective on the curb to date, pilots have mainly served as auxiliary projects. Dedicated curb management staff would be better equipped to manage current and future pilot projects, interpret results, and assess feasibility of scaling up pilots to serve other parts the city and contribute to a broader curb management vision.

### **Pandemic-Related Permitting Changes**

In response to impacts related to the COVID-19 pandemic in March 2020, the City of Bellevue quickly implemented several short-term programs aimed at helping customers continue to be able to dine at local restaurants and supporting local businesses through economic uncertainty.

#### **Outdoor dining permits**

Sidewalk cafés have been allowed under the right-of-way code for many years. During the pandemic, a new permitting process was established and fees waived that allowed businesses to expedite establishment of on-street outdoor dining areas along the curb. The issuance of such permits depended on several factors, including the type of street, parking availability, and sightlines.

## Curbside Video-Based Technology Assessment

#### **Smart Cities Collaborative Curb Management Pilot**

Bellevue – along with Boston and Minneapolis – were selected as pilot cities to participate in the 2020 Smart Cities Collaborative. The Collaborative, sponsored by Transportation for America, was originally designed to bring public and private interests together to solve novel transportation issues. Bellevue received support from King County Metro, Bellevue Downtown Association, Bellevue Chamber of Commerce, and others in establishing a curb management pilot to better understand the rapidly evolving uses of the curb.

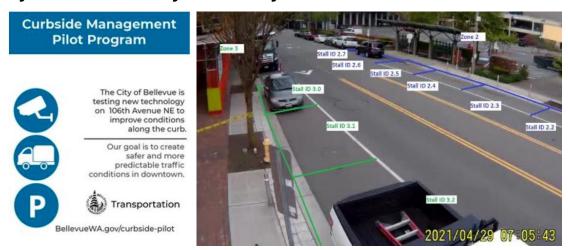
The original intent of the curb pilot was to make operational changes at the curbside with the goal of balancing curbside access among competing uses. When the COVID-19 pandemic disrupted travel patterns, the Collaborative pivoted and became a multiagency brain trust for curb-related rapid-response strategies, such as creating best practices for app-based food delivery curbside pickup zones, on-street dining areas, and "healthy street" networks. In addition to COVID-19-related rapid-response strategies, Bellevue continued to pursue and examine technology solutions with the intention of accurately monitoring curb space utilization (Figure 31). The video-based curb



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monitoring pilot project aligned well with the City's vision to address the emerging challenges associated with growth in curbside activity volumes and complexity.

Figure 31 Curbside Management Pilot Program



#### U.S. Department of Energy Technology Assessment Pilot

Like the large assessment started with Transportation for America, Bellevue also participated in a technology assessment pilot project that was implemented with a range of partners including the University of Washington Urban Freight Lab and funded by a \$1.5M grant from the US Department of Energy. This project tested the ability to accurately predict parking seeking behavior for delivery vehicles and created an app that could predict load zone availability at the curb. The app development is being led by the Pacific Northwest National Laboratory and is still in progress.

### **Curbside Data and Asset Management Inventory**

In 2020, Bellevue staff collected inventory of curb regulations in downtown. This inventory was collected using hand-written notes and translated into a digital format under the CurbLR specification (Figure 32). Future curb inventory efforts will focus on refining curb rules, collecting additional curb regulation data in the BelRed and Wilburton neighborhoods, and converting the digital inventory into the Curb Data Specification (CDS), which is becoming a new standard in the industry.



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Figure 11 Curb Regulations Downtown



## **TNC and Freight Data Collection**

More recently, Bellevue has begun to investigate data techniques that may potentially isolate specific activities such as TNCs and freight. The City worked with SharedStreets – an independent nonprofit that is part of the Open Transport Partnership – to collect data to attempt to identify hot spots for passenger pickup and drop off (Figure 33). Additionally, the City has worked with a range of probe data providers to attempt to identify data mining techniques to isolate freight vehicles.

Figure 33 Pick-up/Drop-off Conditions Downtown





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# 4. Food Truck Permitting

## Food Truck Permitting Pilot (2021)

In 2020, the City of Bellevue developed a pilot program to expand food truck vending in Bellevue by permitting spaces for food trucks within the public right-of-way. This program looked to advance Comprehensive Plans and Policies by:

- 1. Supporting the livability of Downtown Bellevue
- 2. Supporting the creation of an active pedestrian environment
- 3. Creating incentives for "pedestrian-scaled, diverse, and unique urban lifestyle experiences and options" (as described in policy S-DT-54) serving residents and employees living and working within Downtown.

Before the pilot program, food trucks operated on private property locations but were not permitted in the public right-of-way.

The goal of the food truck permitting pilot was to issue permits to one or more qualified food truck management companies and begin with a modest number of food trucks in the study area while managing potential issues and cultivating positive public reception prior to expansion. The pilot generated significant interest. Future potential applicants are awaiting guidance from the City on how to continue this type of arrangement. Potential issues related to traffic and competition with brick-and-mortar restaurants created new challenges for the pilot during the pandemic.

# 5. Micromobility

## **Bike Share Pilot (2018-2019)**

The City of Bellevue launched a one-year bike share pilot on July 31, 2018 with Lime, a private operator, under a permit issued by the city. Over the course of the pilot, more than 9,000 people took more than 40,000 trips on the company's e-bikes in Bellevue. The permit to use public right-of-way for providing bike share service was subject to specific conditions, including requirements related to safety, parking, operations, and data-sharing. The operator paid a fee to offset costs associated with managing the pilot. However, after extending the permit through November of 2019, the private operator notified Bellevue that it had chosen to end service in the city due to lack of profitability.



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# 3. WHAT PLANS AND POLICIES ARE IN PLACE TODAY?

In Bellevue today, the curb is managed through a collection of city policies and planning documents, including:

- The Comprehensive Plan, Downtown Subarea Plan (updated 2022)
- The Comprehensive Plan, Transportation Element (updated 2022)
- Mobility Implementation Plan (adopted 2021)
- The Environmental Stewardship Plan (adopted 2020)
- Transit Master Plan (adopted 2014)
- The Downtown Transportation Plan (finalized 2013)
- Pedestrian & Bicycle Transportation Plan (adopted 2009)
- City Code guidance, such as Part 20.25A

While these documents provide some of the necessary policy tools for managing the curb effectively, critical gaps remain. The Curb Management Plan will address these policy gaps and establish a comprehensive framework for managing the curb in Bellevue today and into the future. This chapter presents an overview of Bellevue's curb-related plans and policies in place today, summarizes key themes, and identifies gaps or opportunities to be addressed in the Curb Management Plan. Plans and policies are summarized in five categories:

- 1. On-Street Parking
- 2. Loading Zones
- 3. Multimodal Access
- 4. Growth and Development
- 5. Livability and Sustainability

# **On-Street Parking**

In most Bellevue neighborhoods, on-street parking is the most common use of curb space. Adequate parking management strategies—including pricing, time limits, enforcement, and strategic parking ordinances—are key tools for promoting vehicle turnover and ensuring that the curb benefits as many users as possible.

## **Key findings**

- All on-street parking in Bellevue is currently free of charge. Although the Comprehensive Plan identifies priced parking as a potential strategy for managing parking, the City has not yet adopted or amended code to enable priced parking.
- City plans call for more flexible on-street parking approaches. The Downtown Subarea
  Plan in the Comprehensive Plan includes a policy to explore creating off-peak parking in
  curbside travel lanes. The curbside dining program and Healthy Streets program allow onstreet spaces to be shared for other types of uses.



## City of Bellevue | Curb Management Plan

Without a unified policy, parking enforcement is ad-hoc. Enforcement duties are shared between third-party contractors (downtown) and Bellevue Police Department officers (non-downtown). This division of responsibilities makes it difficult to pursue specific enforcement priorities or targets that align with City plans. Funds generated from ticket issuances do not currently cover the cost of enforcement.

Figure 34 On-Street Parking References

Topic	Source	Geography	Details
24-hour time limit	Bellevue City Code BCC 11.23.020	Citywide	<ul> <li>Prohibits vehicles from parking for 24 consecutive hours on the same Bellevue street</li> <li>Vehicles in violation can be impounded</li> </ul>
Residential parking zones (RPZ)	Bellevue City Code BCC 11.23.010	Downtown and Wilburton (RPZ 4, RPZ 7, RPZ 9, RPZ 15, RPZ 16)	<ul> <li>Enables City Council to establish residential permit parking zones (RPZ)</li> </ul>
Growth corridor parking review	Environmental Stewardship Plan M.1.4	Growth Corridor	<ul> <li>Recommends studying the impacts of light rail on parking supply, demand, and requirements near transit stations</li> </ul>

## **On-Street Parking: Time Limits**

Time limits encourage parking turnover and make it easier for drivers to find an available parking space. Currently, the city uses time limits to manage on-street parking primarily on Downtown streets<sup>6</sup>, and in small pockets throughout other neighborhoods like Wilburton and BelRed. Time limits range from 3 minutes to 2 hours, depending on the location and intended use. The city is able to work with developers and businesses to designate time limits. For areas with no time-limit signs, Bellevue's city code prohibits vehicles parking in the same public place for more than 24 hours. The penalty for violating the 24-hour limit is indexed to the regional cost of living—as of January 2023, it is \$47.

## **On-Street Parking: Pricing**

Priced parking can help manage demand and encourage vehicle turnover. In many cities, revenue from priced parking provides dedicated funding for parking enforcement and maintenance. Currently, all curbside parking in Bellevue is free of charge, although pricing was recommended as a potential strategy in both the Downtown Subarea Plan and Downtown Transportation Plan (DTP).

The DTP identifies opportunity areas in Downtown where pricing could make curbs more productive and support current and future land use. However, it does not identify how any future revenue from priced parking revenue should be directed or prioritized.

<sup>&</sup>lt;sup>6</sup> City of Bellevue, Downtown On-Street Parking: City of Bellevue, 2011



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## On-Street Parking: Increasing On-Street Supply in Downtown

After careful evaluation, The DTP identified several blocks in downtown as suitable to accommodate additional on-street parking The report identified capacity for 73 additional spaces in high-opportunity areas and 65-125 additional spaces in moderate opportunity areas. The majority of these spaces would be available for on-street parking during off-peak hours only. The Plan recommends further analysis prior to installation to determine the impact of additional parking on economic vitality, residential access, and levels of traffic.

## **On-Street Parking: Residential Parking Permit Zones**

Section 11.23.010 of Bellevue's City Code allows the City Council to establish Residential Parking Permit Zones (RPZ) to restrict non-residential parking on neighborhood streets. RPZ restrictions can include time limits or time-of-day restrictions for non-permit holders. Residents and their guests are exempt from RPZ restrictions if they are parking legally and displaying an RPZ permit. Establishing an RPZ requires majority support from neighborhood residents, as well as City Council approval. Individuals living within an existing RPZ can request a parking permit from the Bellevue Transportation Department. RPZ permits are currently free of charge for residents within the zone. Each household may receive up to four vehicle permits and 2-4 visitor permits, depending on the zone. Currently, enforcement of RPZ's is complaint-based.

# **Loading Zones**

Loading zones allow for delivery vehicles, rideshares, and individual vehicles to drop off or pick up freight and passengers. These zones mitigate double-parking, provide a safe place for people to get into or out of their vehicles, and prevent vehicles from obstructing bicyclists, pedestrians, and other vehicles. In Bellevue, loading zones can be designated during the development approval process in collaboration with private developers or installed ad-hoc at the request of business and property owners.

## **Key Findings**

- Loading zones exist today, but are limited in quantity and specificity. Bellevue currently has time-limited loading zones with posted time limits of 3 minutes for passenger loading and 15 minutes for general curbside usage. The needs, constraints, operational profiles, and high-demand times of day differ among loading zone types. Long term large-scale freight loading activity is required to occur on-site per the land use code.
- Loading zones are designated in informal coordination with developers. A centralized policy for designating loading zones would provide more consistency in zone designation and design, support more seamless loading and pick-up/drop-off activity, and improve safety for all curb users.
- **Enforcement of loading zones is ad-hoc.** Effective enforcement of freight and passenger loading activity is subject to similar constraints as parking enforcement.
- Loading activity is regulated by a mix of both state and local policies. The City traffic
  engineer designates curb space for general, first-come first-serve loading. Conversely, the
  Right of Way division issues permits for reserved curbside activity (i.e. employer shuttles).



City of Bellevue | Curb Management Plan

Figure 35 Code References for Loading Zones

Topic	Source	Geography	Key Details
Traffic	Bellevue City Code BCC 11.23.025 A	Citywide	No person may park or leave any vehicle upon the travel portion of the roadway in such a manner as to block traffic
Passenger Loading	Bellevue City Code BCC 11.23.026	Citywide	For hire vehicles may only stop, stand, or park in a designated taxicab stand unless actively loading or unloading passengers.
Passenger Loading	Revised Code of Washington RCW 46.61.570	Washington State	Provides detailed regulations on parking, stopping, and standing laws.

## **Loading Zones: Passengers**

Passenger loading zones are reserved for passengers to quickly enter or exit their rideshare vehicle or carpool near a curb. Taxis, rideshare services, and the broader traveling public can benefit from designated passenger loading zones. These zones generally have short time limits and ensure pedestrians and drivers are safe while minimizing traffic disruptions during a stop.

Passenger loading zones are available for any vehicle to use if they are done quickly and not waiting or stalling for passengers (BCC 11.23.026). Vehicles do not need a special permit to use passenger loading zones. Time-limited loading zones can help more effectively manage curb demand without risking pedestrian safety.

Currently in Downtown Bellevue, property developers can create passenger pick-up and drop-off (PUDO) zones through development review. The property developers can propose changes to curb regulations, such as replacing permanent on-street parking with passenger PUDO zones. However, the Development Services and Transportation Departments have final say on whether such plans are approved and can move forward.

The City does have several designated PUDO zones, but installation has been ad-hoc, and there is not currently "best practices" guidance or policy on when and where to appropriately designate passenger PUDO zones. With development review, approval of the passenger PUDO zone is on a case-by-case basis. Alternatively, the city also does not have any taxi queueing zones (taxi stands) on public curb spaces. The DTP notes that temporary taxi stands on public curbs may be desirable during evenings and weekends near entertainment venues.

## Loading Zones: Freight

Freight loading zones are reserved for vehicles with parcels and shipments that require loading and off-loading time at the curb. These parcels and shipments are often delivered to individuals, retail stores, restaurants, and other businesses. These zones typically have longer time limits than Passenger PUDO zones, but shorter time limits in comparison to on-street parking.

The Land Use Code requires that new development provide for large-scale freight loading and unloading on-site rather than on the public right-of-way. Large-scale freight loading differs from



## City of Bellevue | Curb Management Plan

smaller parcel-related loading services like Amazon, FedEx, Instacart, and meal delivery. The requirement to designate on-site loading can help reduce the number of conflicting curb use types, but the ultimate utilization of on-site accommodation is often based on the design of the building and relationship to the surrounding land use.

## **Loading Zones: Curbside Food Pickup**

In March 2020, as a temporary measure to help restaurants operate during business closures due to the COVID-19 pandemic, Bellevue created temporary 3-minute "Curbside Food Pickup" zones to be installed around Downtown<sup>7</sup>. Most locations were removed in 2022 and restored to their original curb regulation (primarily two-hour parking).

# **Multimodal Access**

Multimodal curb uses include public transit stops, curbside transit lanes, bicycle lanes, bicycle parking, dedicated sidewalk space for micromobility parking, shuttle stops, and pedestrian space. Some of these spaces are shared or could be shared between multiple users. The Environmental Stewardship Plan establishes two key goals related to multimodal curb access and prioritization:

- Minimize the environmental impacts of transportation and development in Bellevue by focusing development in existing and future designated growth centers
- Provide all residents with access to a variety of mobility options

## **Key findings**

Bellevue is committed to improving mobility options. Existing plans such as the Pedestrian and Bicycle Transportation Plan, Transit Master Plan, the Downtown Transportation Plan, Transportation Demand Management (TDM) Plan, and the Environmental Stewardship Plan prioritize improving multimodal access in Bellevue's urban core.

Figure 36 Multimodal Access References

Topic	Source	Geography	Key Details
Environmental Impact	Environmental Stewardship Plan	Citywide	Minimize environmental impacts of transportation and development in Bellevue and give people access to variety of mobility options
Travel lanes	Bike Ped Plan (Ordinance No. 5861)	Citywide	Require new development to incorporate physical features designed to promote use of alternatives to single-occupancy vehicles
			Preferential parking for carpools and vanpools
			Special loading and unloading facilities for carpools and vanpools

-

<sup>&</sup>lt;sup>7</sup> https://bellevuewa.gov/city-news/short-term-restaurant-parking



## City of Bellevue | Curb Management Plan

Topic	Source	Geography	Key Details
Land Use	Bellevue City Code BCC 14.30 BCC 20.30	Citywide	Right of Way Use code
Pedestrian and bicycle infrastructure	Comprehensive Plan, Transportation TR-84	Citywide	Secure sidewalk and trail improvements and easements, and on-site bicycle parking and storage consistent with the Pedestrian and Bicycle Transportation Plan through the development review process.
Pedestrian and bicycle access	Comprehensive Plan, Transportation TR-77	Citywide	Consider pedestrians and bicycles along with other travel modes in all aspects of developing the transportation system.
Transit	Bellevue Transit Master Plan	Citywide	The TMP establishes short- and long-term strategies and projects that foster a high-quality transit system that effectively connects residents, employees, and visitors in Bellevue with the places they want to go.
Bike parking	Land Use Code 20. 25D.120.G	Citywide	Office, residential, institutional, retail, and education uses are required to provide bicycle parking, following requirements listed in the code.

# Bicycle Parking and On-Street Bike Corrals

City policies governing on-street bicycle parking identify safe, accessible, operationally efficient places for people to park their personal or shared bicycles. The <u>Bellevue Parking Program</u>, outlines citywide bicycle rack installation guidelines to provide convenient short-term bicycle parking to support surrounding land uses. The installation guidelines gives the following placement considerations:

- Do not create an obstacle or hazard
- Avoid fire hydrants
- Align with other sidewalk features
- Allow two feet of clearance around the rack

The Transportation Department and individual developers are responsible for installing on-street bike racks. Bellevue's <u>existing land use code</u> dictates a ratio for on-site, off-street bicycle parking spaces in office, residential, institutional, retail, and educational spaces. These off-street spaces provide additional support for on-street and curb lane bike use. Currently, this ratio is:

- One bicycle parking space per 10,000 square feet for nonresidential uses greater than 20,000 square feet.
- One bicycle parking space per 10 dwelling units for residential uses.



City of Bellevue | Curb Management Plan

## **Public Transportation**

The Downtown Transportation Plan outlines four policy components for improving transit and meeting the mobility needs of Downtown Bellevue in a corridor context, all of which have implications for curb use and management. The transit coverage component demonstrates that Bellevue's expanding frequent transit network is on track to serve nearly all Downtown residents and workers by 2030. The plan recognizes, however, that achieving transit coverage goals depends on providing and maintaining safe and accessible walking routes to and front transit stops.

The transit capacity component outlines expectations for how transit operations will evolve to continue meeting ridership demand as Downtown continues to grow. Increased transit capacity means higher volumes of buses on the road in Downtown during peak hours. Effectively managing curb access and curb travel lanes will be essential for supporting bus operations and achieving capacity and throughput targets.

Similarly, the transit speed and reliability component recognizes the pivotal role that the City plays in managing the flow of traffic, which has a direct impact on transit operations and performance. Curb management and transit priority infrastructure along the curb are central to a well-performing transit system.

Lastly, the transit passenger comfort, access, and information component highlights the importance of passenger-friendly amenities, resources, and information to make riding transit pleasant, accessible, and attractive. Many key passenger-facing elements, including transit shelters, information and wayfinding features, seating, and lighting, are located along the curb.

While the DTP provides a clear framework for organizing and prioritizing transit-supportive curb management policies and initiatives, this framework has not yet been extended with the same level of detail and analysis to other neighborhoods outside the downtown core.

The Environmental Stewardship Plan identifies strategies for reducing per capita vehicle miles traveled (VMT) by prioritizing non-single-occupancy-vehicles, including public transit. The Bellevue Transit Master Plan, while giving a holistic vision of transportation in the city, does not make specific recommendations about bus stop locations and focuses instead on bus stop amenities, commuter parking, and bus layover needs.

## **Commuter Shuttle Services**

Companies such as Microsoft and Amazon operate commuter shuttles in Bellevue, encouraging employees to commute to the office by means other than personal vehicle. For a company to install a shuttle stop in an area on Bellevue, they must obtain a Type D Long-Term and Permanent Right-of-Way Use permit. Most companies do not publish their shuttle routes to the public – however, operators are required to provide frequencies of shuttle routes the utilize the curbside per the conditions of their Right-of-Way Use Permit. In some cities, these stops are collocated with public transit stops, providing transfers to employees and optimizing curb space.

# **Growth and Development**

The neighborhoods within the study area include most of the current and forecasted growth in Bellevue. As these neighborhoods continue to develop, curb management pressures will shift, and opportunities will arise to implement new strategies and policies that support CMP goals.



City of Bellevue | Curb Management Plan

## **Key findings**

- Developers play a role in informing curb operations today. Collaboration between developers and the City can make curb policy implementation more location-sensitive but also potentially fragmented or piecemeal.
- The transportation impact fee can be a key source of revenue for the city and are tied to impacts associated with development.
- When construction crews use the right-of-way to stage equipment, they require a curbside construction lease to occupy the space.

## Curb management and the development review process

Today, several key curb planning steps occur during the development review process. On one hand, this approach can help leverage private investment to improve the public right-of-way and allows developers to collaborate with the city to meet the specific needs of their project. On the other hand, this can lead to a piecemeal implementation of policies or infrastructure which may be better served with a centralized, coordinated approach.

Developments in Bellevue are required to pay a transportation impact fee. Revenue from these fees is used to add capacity to the transportation system to accommodate travel demand associated with the new development. Eligible projects for transportation impact funds must be included within the capital facilities plan in the City's comprehensive plan.

The Comprehensive Plan include several policies that encourage developers to take initiative to accommodate certain curb uses, including on-street parking, shuttle stops, bicycle parking and lanes, and loading zones. A key opportunity for the CMP will be to provide Bellevue with a standardized framework that allows the city to respond to requests quickly and confidently in alignment with broader planning goals and initiatives.

## Design guidelines

To support the creation of a vibrant, livable streetscape and transportation network, Bellevue maintains a set of design criteria, standards, and guidelines in the Land Use Code. Curb-related design guidelines in the code vary from neighborhood to neighborhood depending on the district. The Land Use Code dictates sidewalk and planter design requirements today and provides a foundation for debate of curb variations. While the CMP will not directly change the Land Use Code, it may contain recommendations for future code updates.

# Sustainability and Livability

In 2020, Bellevue City Council approved the ESP, which aims to drastically reduce the city's environmental impact city-wide and create more livable streetscapes for its residents by 2050. Bellevue hopes to utilize curb space to promote sustainability and livability such as providing onstreet electric vehicle charging stations, creating additional greenery in select curb spaces, and support the local food scene by providing outdoor dining opportunities and food truck permits.



City of Bellevue | Curb Management Plan

Figure 37 Sustainability and Livability References

Торіс	Source	Geography	Key Details
Environmental Impact	Environmental Stewardship Plan	Citywide	<ul> <li>Minimize environmental impacts of transportation and development in Bellevue and give people access to variety of mobility options</li> </ul>
Land Use	Bellevue City Code BCC 14.30.090	Citywide	■ Right of Way Use code
Food safety and restaurant regulations	Bellevue City Code BCC 9.06.020B	Citywide	<ul> <li>Prohibits the preparation of food on a mobile food truck</li> </ul>

## **Environmental Stewardship Plan**

The ESP, adopted in 2020, sets goals related to climate changes, energy, waste, mobility and land use, and natural systems. The CMP will provide opportunities to help Bellevue reach its goal of reducing greenhouse gas emissions by 80% by 2050 (using 2011 as a benchmark). The plan outlines steps to reduce per capita VMT including improving transit access and building infrastructure to support electric vehicles.

- The City aims to have 50% electric vehicles registered in Bellevue by 2050. So far, the City has installed 23 EV charging stations, 15 of which are for public use at city facilities.
- The ESP notes City staff will work to streamline the permitting process and reduce costs to homeowners and businesses for installing charging stations as well as identify the code changes necessary to install these stations.
- Businesses must apply for a Right-of-Way permit to install an EV charging station on the curb adjacent to their business. Due to this permitting process, over 175 public charging stations exist in Bellevue.

## **Outdoor dining**

The COVID-19 pandemic caused many restaurants to temporarily close or shift to a take-out-only model of operation. As throughout many parts of the country, Bellevue allowed businesses to apply for a Street-Use permit to operate food service on the curb using a program known as the <u>Al Fresco on-street dining program</u>. To use curb space as outdoor dining spaces, restaurants follow the Street-Use permit process.

- Restaurant operators must apply for a Street-Use permit by submitting an application with the property owner's authorization, if different from the restaurant owner
- These applications are reviewed and approved by Transportation
- An application fee for this type of permit is \$232

Bellevue residents, in surveys conducted by the City in the summers of 2020 and 2021, showed strong support for the program and responded as willing to reduce the number of on-street parking stalls to continue the AI Fresco program.



City of Bellevue | Curb Management Plan

## **Parklets**

Parklets are sidewalk extensions, usually installed on parking lanes, which provide space and amenities for people using the street. In Bellevue, aside from a street-use permit, no official process to apply to operate a parklet is outlined by the city.

# 4. WHAT SYSTEMS, ORGANIZATIONS, AND PROCESSES SUPPORT THE CURB?

# Staffing, administrative functions, and organizational structure

Curb management for the City of Bellevue is a shared responsibility across departments and work groups; however, there is no dedicated staff, program, or funding sources to address curb management. Currently, most curb-related work falls to both the Mobility Services and Mobility Operations Divisions. This manifests itself through existing department working groups including Development Review, Right of Way, Traffic Engineering, Smart Mobility / ITS, and Neighborhood Traffic & Safety Services (NTSS).

Figure 38 Curb Management Teams and Responsibilities

Team	Responsibilities	Common Collaborators
Transportation Development Review	Vets public and private parking proposals from private developers Informs curb design and operation	Traffic Engineering, Land Use
Traffic Engineering	Establishes development conditions for private development Oversees and installs signs and markings	Development Review, NTSS
Land Use	Establishes development conditions	Development Review
Right of Way	Reviews and issues permits for ROW usage	Traffic Engineering
Smart Mobility / ITS	Provides technical support on technology evaluations and impacts to traffic signal operations	Traffic Engineering
NTSS	Manages Residential Parking Zone (RPZ) program	Traffic Engineering
Bellevue Police Department	Oversees parking enforcement outside of downtown	Transportation Department

## **Team Size**

Depending on the context, curb decision making can occur ad-hoc among approximately 30 full time positions. Having a manageable number of people involved in day-to-day decisions around curb management can be advantageous through closer coordination. However, with a small staff that is



## City of Bellevue | Curb Management Plan

already significantly burdened with several primary responsibilities, having curb management as a secondary or tertiary responsibility can compromise the consistency, capacity, and specific expertise of the team.

## **Mobility Services**

In addition to parking services as well as the recent pilot programs summarized in Chapter 2, the City provides a myriad of other services through its Mobility Services division that are either directly or indirectly related to curb management:

- Employer Shuttles Permits As part of the City's commute trip reduction program, Bellevue
  permits employer shuttle operators to utilize dedicated curb space for pick-up and drop-off
  activity.
- **Sidewalk Cafe Permits -** The City has a long-standing permitting program for utilizing the public right-of-way for dining on specific sidewalk areas.
- Construction Activity Permits The City permits construction activities such as temporary
  construction leases, roadway closures, and utility maintenance access in the curb lanes
  across the city.
- Special Events Permits The City permits time limited events, such as the annual Snowflake Lane activities, that close or provide limited access to the curb lane or sidewalk areas.
- Move In Move Out Permits The City provides permits for short term curb lane usage for move in and move out activities of residents and businesses.
- Waste Service Permits The City is regularly engaged with residents, business owners, and the City's waste management provider Republic Services related to issues and complaints about obstructions of sidewalks with rolling waste containers.
- Pilot Permits Bellevue has issued permits on a pilot basis for various curb uses. Pilot permit programs include pet waste station permits, food truck permits, and on-street dining permits.

Today, all permits are tied to city's Fee Ordinance, which is adopted by City Council on an annual basis. The Fee Ordinance is led by the city's Development Services Department and also includes permits tied to development activity. Feedback from stakeholders has indicated that this arrangement of Transportation-specific lease fees and permits existing within the Fee Ordinance can be overly cumbersome.

## **Enforcement**

Enforcement of the curbside within Downtown is managed by Bellevue's Transportation Department. The department contracts enforcement services for Downtown. For areas outside of Downtown Bellevue, the Bellevue Police Department utilizes Support Officers to enforce parking violations and issue citations. Bellevue PD resources; however, do not always have the capacity to support parking enforcement as they are often fully utilized for other critical efforts related to public safety. Should Bellevue decide to implement new parking regulations, additional funding and personnel will be required to ensure adequate enforcement.



## City of Bellevue | Curb Management Plan

Currently, the main enforcement activity by the downtown contractor includes issuing warnings, overtime infractions, and safety infractions. In 2021, the city's contracted parking enforcement service resulted in 2,099 warnings, 1,405 overtime infractions, and 2,447 safety infractions.

# **Technology and Data**

In addition to the technologies that have been tested through recent pilot projects described in Chapter 2, Bellevue utilizes several technologies in its daily curb management operations:

- License Plate Readers The City currently owns license plate reader (LPR) technology being utilized by the downtown parking enforcement contractor for monitoring occupancy durations related to enforcement activities.
- ArcGIS The City currently utilizes the Esri ArcGIS suite to map some asset features that
  need additional more descriptive fields such as parking restrictions, curb infrastructure
  (i.e., driveways, curbs), and street furniture (i.e., trees, benches, bike racks).
- AMANDA- The City currently utilizes a custom software called AMANDA for its permitting activities.
- MyBellevue App The City currently uses the MyBellevue App to engage with the public and receive service requests.

# **Land Use Code**

The Bellevue Land Use Code is the primary tool for regulating land development in the city. Although land use focused, the code also has several provisions that affect how the curb is designed and used, and any development impacting the curb must operate within the bounds of the existing code. The code dictates sidewalk and planter design and is also the main driver for approving or denying pullouts and other curb design variations requested by developers like curbside step-offs adjacent to continuous planter strips.

The Land Use Code also provides specific guidance for Downtown and BelRed areas in Ch. 20.25, Special and Overlay Districts. Examples of these elements are covered in the section below. These are intended to be illustrative of the types of regulations found in the Code that affect the curb — not comprehensive.

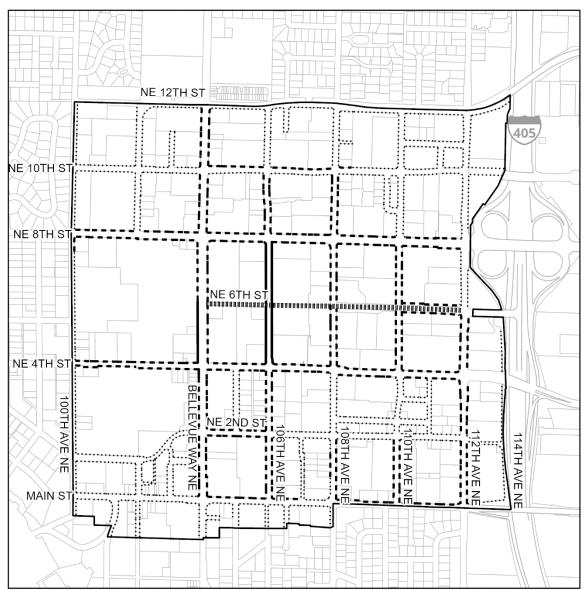
## Ch. 20.25A Downtown

- 20.25A.090, Street and pedestrian circulation standards: This section establishes minimum sidewalk widths, planter requirements, and pedestrian clear zone requirements.
- 20.25A.110, Landscape development: This section specifies tree species, planting strip location and design criteria, and vegetation-based buffer standards, including at the curb edge.
- 20.25A.170, Streetscape and public realm: These design guidelines include recommendations for seating, vegetation, and other public realm elements that affect curb design and management
- 20.25A.160, Site organization: Parking garage entrances, taxi stands, and loading zones are addressed in this section.

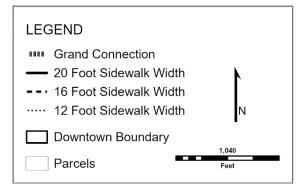


City of Bellevue | Curb Management Plan

Figure 39 Downtown Sidewalk Requirements



DOWNTOWN SIDEWALK DIMENSIONS





City of Bellevue | Curb Management Plan

## Ch. 20.25D BelRed

- 20.25D.110, Landscape Development, Outdoor Storage, Retail Display, and Fence Standards: This section specifies sidewalk width, planting strip dimensions, and tree selection and location.
- 20.25D.150, Design Guidelines: This section includes guidance for sidewalk and frontage design, landscape and furnishing zone elements, and lighting placement.

Although the CMP will not alter the Land Use Code as it exists today, it can provide recommendations for future code updates that better support Bellevue's broader vision for curb management and use.

# **5. GAPS AND OPPORTUNITIES**

Bellevue's curbs are a dynamic asset with high demand and great potential. The existing curb management strategies are a strong foundation on which to build, but there are some gaps and challenges that the CMP can address, such as the following:

- Curb areas are managed on a piecemeal, ad-hoc basis by many different personnel across multiple teams and departments.
- Parking and curbside enforcement is very light and cannot keep up with the demand at current funding levels.
- Decisions about the right-of-way at the curb are oftentimes made in isolation, with no way to ensure consistency of application across the city.
- There is no formal curb operation guidance during development review.
- Curb interventions have been focused on pilot projects, isolated in geographic and temporal scope.

The CMP will highlight and plan for opportunities to improve Bellevue's curb efficiency and operations to better serve all who use it. These include, but are not limited to:

- Setting a coherent curb use priority structure that recognizes trade-offs, competing uses, and emerging new use cases.
- Ensuring curb policy is both durable and flexible, with the ability to anticipate and adapt to future uses, technologies, and development patterns.
- Addressing accessibility challenges, especially in new uses such as outdoor dining areas.
- Support sustainability and livability goals by using curb space strategically to help reduce VMT and GHG emissions and create a more active and connected network for non-SOV travel, electric vehicle charging, and micromobility storage.
- Potential Future Staffing

A core curb management team, led by a program manager, could take responsibility for curbside policies and programs while still interfacing and collaborating regularly with subject matter experts in other workgroups. A team of 2-3 full-time staff could manage multiple curbside programs, such as on-street parking, loading zones, residential



# City of Bellevue | Curb Management Plan

parking program, and street cafes. For example, the staff member responsible for managing the Al Fresco dining program would oversee communication with participants and coordination of details but work closely with Right-of-Way permitting and Traffic Engineering staff to ensure on-street dining infrastructure is safe and does not interrupt traffic operations.