ABAG-MTC Webinar: Developing a Curb Management Strategy

Local Parking Policy Technical Assistance
November 30, 2021

ASSOCIATION OF BAY AREA GOVERNMENTS
METROPOLITAN TRANSPORTATION COMMISSION

NELSON NYGAARD

Impact of Parking on Goals

VMT and Emission Reduction
- Parking increases vehicle miles traveled, resulting in more traffic, more emissions, and reduced safety

Focused Growth and Vibrant Communities
- Parking takes up space that could be used for other purposes

Affordable Housing and Transportation
- Parking increases costs and hinders equitable development and access

Regional & Local Policies and Priorities

- VMT mitigation (SB 743, TDM Ordinances, PDAs and transit-oriented developments)

- GHG mitigation (Plan Bay Area 2050, Climate Action Plans)

- Health and safety (Vision Zero, AB 617 and air quality improvement)

- Mobility and activation improvements (Complete Streets, Slow Streets, multimodal and emerging mobility planning)

- Housing planning and development (PDA, RHNA, General Plan and Housing Element)

- Equity goals (affordability, transportation accessibility, Environmental Justice)

Local Parking Policy Technical Assistance

Focus on identifying needs and developing resources to support parking policy implementation

- **Bay Area Parking Policy Database**

- **Parking Policy Playbook**

- **Webinar Series**

- **Office Hours**

Parking Policy Resources

Playbook

Reduced Parking Minimums	Parking Maximums	Reduced Parking for Affordable Housing
Reduced Parking for Transit Proximity	Shared Parking	Unbundled Parking
Parking In-Lieu Fees	Priced Parking	Demand-Responsive Pricing
Parking Benefit Districts	Curb Strategy	TDM Policy for New Development

Parking Policy Resources

POLICY #1
Reduced Parking Minimums

Used For

- Reducing systematic overbuilding of parking.
- Avoiding unnecessary cost barriers to development, and the inflationary impacts of excess parking construction on housing and commercial-lease costs.
- Encouraging more sustainable growth and more walkable and multimodal urban design patterns.
- Supporting infill development, particularly in dense, urban areas with constrained space.

Policy Overview

Many cities require new developments to build a minimum number of parking spaces, regardless of whether they are needed or desired. Parking requirements tend to overstate demand, lead to an excessive supply of parking, increase development and housing costs, and contribute to sprawl. Eliminating minimum parking requirements does not mean that no new parking will be constructed, but rather developers will determine the appropriate level of supply based upon market demand.

Benefits

- Provides developers with flexibility to right-size parking supplies according to their own demand projections and other factors.
- Removes a key contributor to excess parking supplies, particularly in areas where walking and multimodal mobility are most viable as alternatives to driving.
- Facilitates change-of-use projects that might otherwise trigger increased parking requirements that can be difficult to meet.
- Facilitates infill projects.

Level of Difficulty: ● ● ●

Impact: ● ● ●

Implementation Steps

1. Articulate impacts of current parking standards. Lead process with solid data, including cost of unnecessary parking and data on how much less is provided when minimums are removed.

2. Communicate the true cost and negative outcomes of parking minimums (e.g., increased housing costs, sprawl) and identify specific opportunities that are hindered by parking requirements (e.g., a developer who wants to reuse a historic building, businesses that cannot expand).

3. Build community support by establishing partnerships and communicating shared goals with stakeholders.

4. If removal is not citywide, conduct a parking analysis to determine the geographic areas, land uses, and development scales that will not be subject to parking minimums.

5. Work through the draft policymaking and approval process in close concert with liaisons to elected officials to craft messaging to gain support when put forward for adoption.

6. Communicate the change and new policy to stakeholders clearly.

Key Features

- **Universal application.** Policy should be broadly implemented with exceptions where needed. Other policy features can help to reinforce effectiveness of elimination of parking minimums.
- **Parking occupancy.** Parking counts post-implementation can assuage community concerns of a lack of parking and on-street parking spillover.
- **Track results.** Documenting new development that otherwise would not have been occurred due to restrictive parking requirements helps communicate the value of further removing minimums. Developers need evidence on past successful projects with lower ratios.
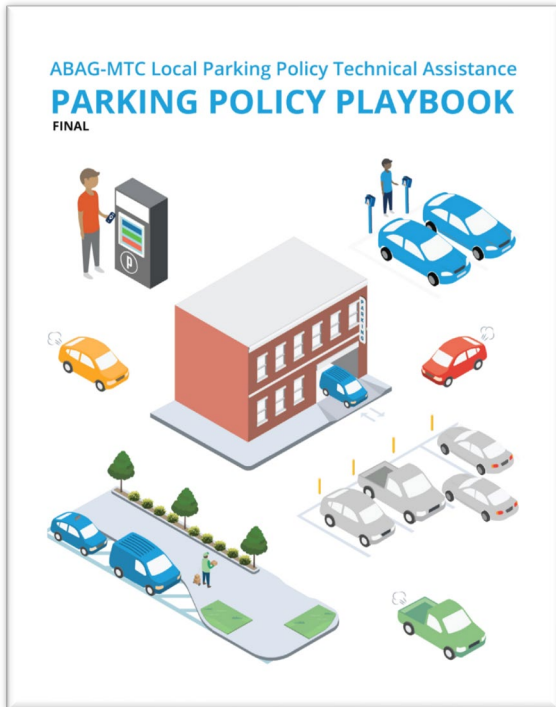
Pro Tips

- Combine with parking maximums (Policy #2) where developers are likely to continue to oversupply projects.

- It is acceptable to begin with incremental changes to parking requirements – remove or reduce them in certain areas or for certain uses. For example, some cities start with eliminating requirements for affordable housing (Policy #3) or near transit-rich areas (Policy #4) before eventually moving on to citywide elimination. Eliminating minimums may be applied citywide but will provide the most significant benefits in areas that combine walkable densities and use mixes with robust multimodal networks.

- Combine with unbundling requirements (Policy #6) to further discourage parking oversupply at new developments.

- Negates the need for parking in-lieu fees (Policy #7).

- Complement with a comprehensive curbside management plan (Policy #11), including strategies for commercial, residential, and transitional streets, to address concerns about impact on nearby streets (spillover) should new development create more parking demand than it can accommodate on-site.

- Complement with TDM requirements (Policy #12) to further reduce on-site parking.

- Address the impact of previous minimums via code updates that allow off-site shared parking spaces to be used to help meet requirements.

- Work with the City Attorney's Office early on.

- If information is lacking, conduct an on- and off-street parking occupancy study to confirm the typical oversupply of parking and impacts on land use.

- As with many parking changes, a strong and dedicated champion has been behind most successful parking minimum removals.

- One recent Southern California policy leader found it helpful to complete a peer city evaluation to benchmark parking requirements against aspirational cities.

- A reduction in minimum parking requirements encourages affordable housing developments. While it is a concern that introducing a complete removal of minimum parking may undermine and weaken existing incentive levers for developers to build more affordable housing, there is no empirical evidence to support this trade-off.[1]

Parking Policy Resources

ABAG-MTC Local Parking Policy Technical Assistance
PARKING POLICY PLAYBOOK
FINAL

Appendix

Sample Policy Code Language	Sample Staff Reports & Council Resolutions	Parking Policy Cut Sheet	Parking Policy Database
A	**B**	**C**	**D**

Parking Policy Resources

Playbook

Appendix A: Sample Code Language

Parking Policy Resources

Appendix B: Sample Staff Reports & Council Resolutions (Berkeley)

An example staff report to the City of Berkeley City Council for ordinance amendments to parking requirements.

- Berkeley
- Redwood City
- San Mateo

Appendix B: Sample Staff Reports & Council Resolutions (Santa Rosa Resolution)

An example of a City of Santa Rosa council resolution authorizing parking user fees.
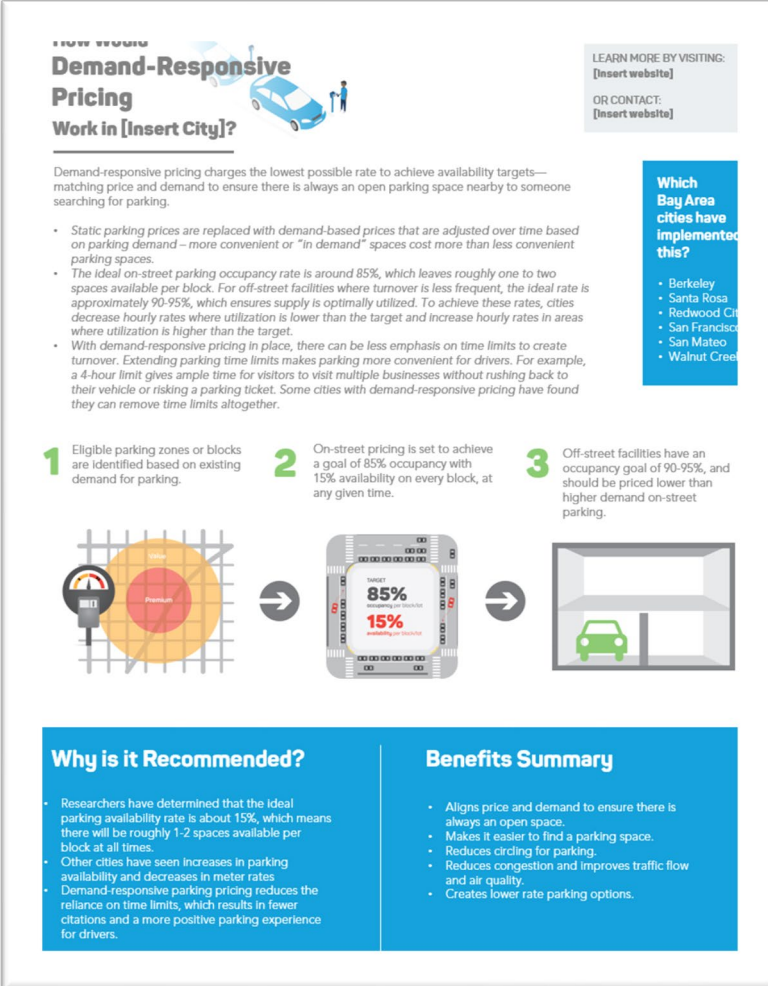
Appendix B: Sample Staff Reports & Council Resolutions (Santa Rosa Staff Report)

An example staff report to the City of Santa Rosa City Council for parking rate changes and parking ordinance amendment.

Appendix B: Berkeley Staff Report

Appendix B: Santa Rosa Resolution

Appendix B: Santa Rosa Staff Report

How Would Demand-Responsive Pricing Work in [Insert City]?

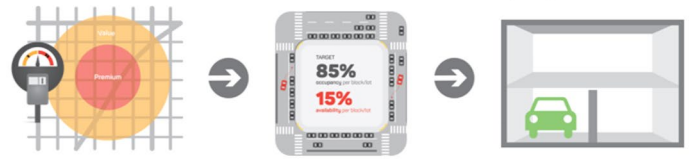LEARN MORE BY VISITING: [Insert website]

OR CONTACT: [Insert website]

Demand-responsive pricing charges the lowest possible rate to achieve availability targets—matching price and demand to ensure there is always an open parking space nearby to someone searching for parking.

- Static parking prices are replaced with demand-based prices that are adjusted over time based on parking demand – more convenient or "in demand" spaces cost more than less convenient parking spaces.
- The ideal on-street parking occupancy rate is around 85%, which leaves roughly one to two spaces available per block. For off-street facilities where turnover is less frequent, the ideal rate is approximately 90-95%, which ensures supply is optimally utilized. To achieve these rates, cities decrease hourly rates where utilization is lower than the target and increase hourly rates in areas where utilization is higher than the target.
- With demand-responsive pricing in place, there can be less emphasis on time limits to create turnover. Extending parking time limits makes parking more convenient for drivers. For example, a 4-hour limit gives ample time for visitors to visit multiple businesses without rushing back to their vehicle or risking a parking ticket. Some cities with demand-responsive pricing have found they can remove time limits altogether.

Which Bay Area cities have implemented this?

- Berkeley
- Santa Rosa
- Redwood City
- San Francisco
- San Mateo
- Walnut Creek

1 Eligible parking zones or blocks are identified based on existing demand for parking.

2 On-street pricing is set to achieve a goal of 85% occupancy with 15% availability on every block, at any given time.

3 Off-street facilities have an occupancy goal of 90-95%, and should be priced lower than higher demand on-street parking.

TARGET 85% occupancy per block/lot
15% availability per block/lot

Why is it Recommended?

- Researchers have determined that the ideal parking availability rate is about 15%, which means there will be roughly 1-2 spaces available per block at all times.
- Other cities have seen increases in parking availability and decreases in meter rates.
- Demand-responsive parking pricing reduces the reliance on time limits, which results in fewer citations and a more positive parking experience for drivers.

Benefits Summary

- Aligns price and demand to ensure there is always an open space.
- Makes it easier to find a parking space.
- Reduces circling for parking.
- Reduces congestion and improves traffic flow and air quality.
- Creates lower rate parking options.

Appendix C: Fact Sheet Template

Parking Policy Resources

Appendix D:
Parking Policy Database

Today's Speakers

Francesca Napolitan
Curb Access
Manager

SFMTA

Amber Evans
Economic Development
Coordinator

City of Emeryville

Someone
OMF

OMF

San Francisco's Curb Management Strategy

Competition for Space

Lack of Loading Impacts

Limitations of Current Approach

- Mismatch between curb allocation and how people get around

- Storage for vehicles – 90% of the curb

- Active uses – 1% of the curb

- Does not align with San Francisco's larger goals

Current Allocation of Curb Space

4% 2% 2% 1% 90%
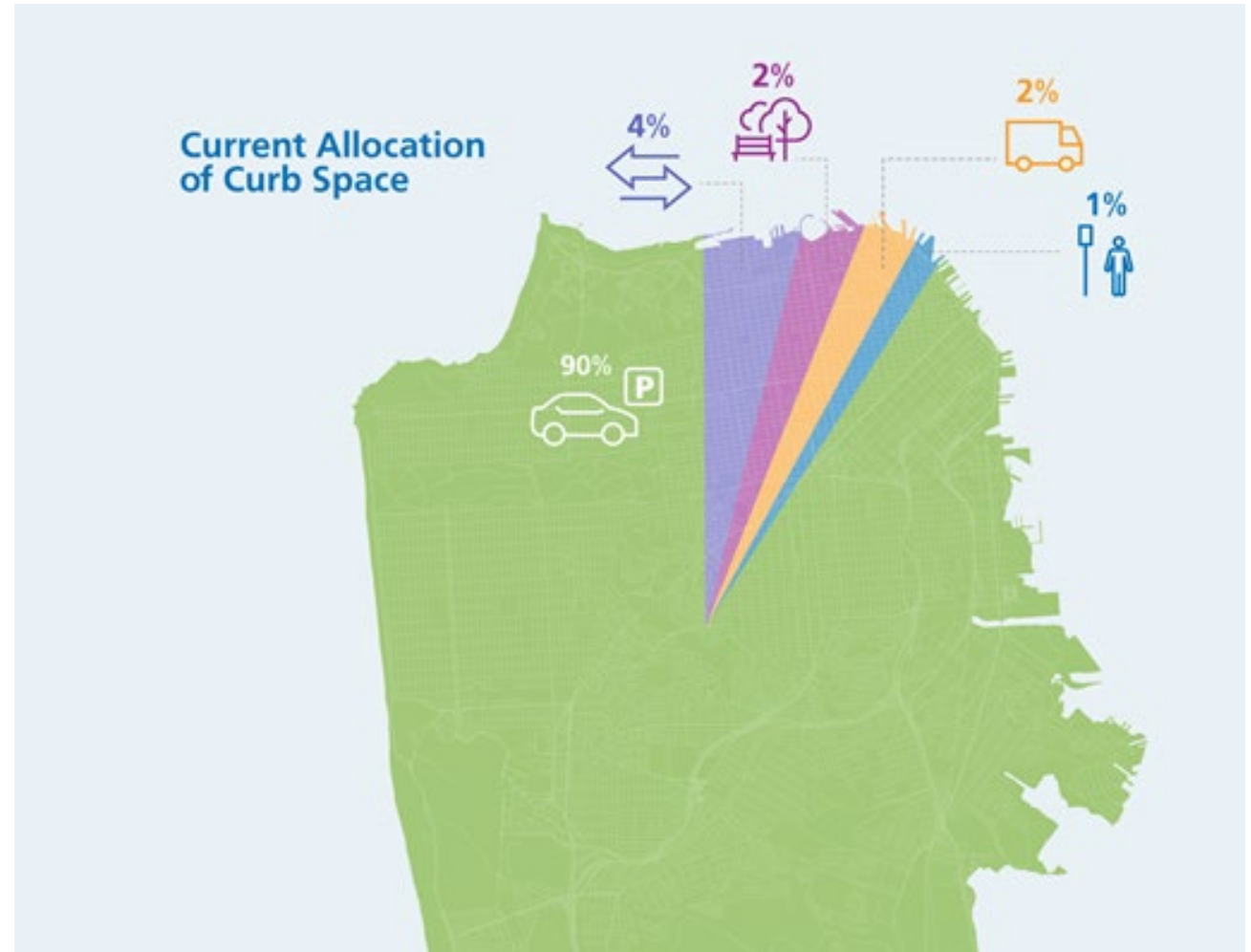
Curb Management Strategy

Purpose

- A holistic and proactive approach
- Align limited curb space with City's values
- Support wider goals: Vision Zero, Transit First

Process

- Staff interviews across agencies
- Multi-agency workshops

Elements

- Curb hierarchy
    - Prioritizing curb functions by land use
    - Curb productivity
- Recommended strategies
    - New tools
    - Policies
    - Legislative changes
    - Process improvements
- Design guidelines
    - Guidance to planners, engineers, and project managers

Curb Hierarchy: Functions

ACCESS FOR PEOPLE

Active space that prioritizes transit boardings, and accommodates pick-ups/drop-offs, and shared-mobility services

ACCESS FOR GOODS

Space for deliveries of different types and sizes, used for short periods of time

PUBLIC SPACE AND SERVICES

Curb designated for use by people and public services

STORAGE FOR VEHICLES

Space intended to be occupied by vehicles for extended periods, such that no other users can access the space

MOVEMENT

Curb lane is used for the through-movement of motorized and non-motorized means of transportation, such that the curb lane is unavailable for other functions

Curb Hierarchy: Land Use Types

Low-density residential

Neighborhood commercial

Major attractor

Mid/high-density residential

Downtown

Industrial/PDR

Curb Hierarchy: Prioritization
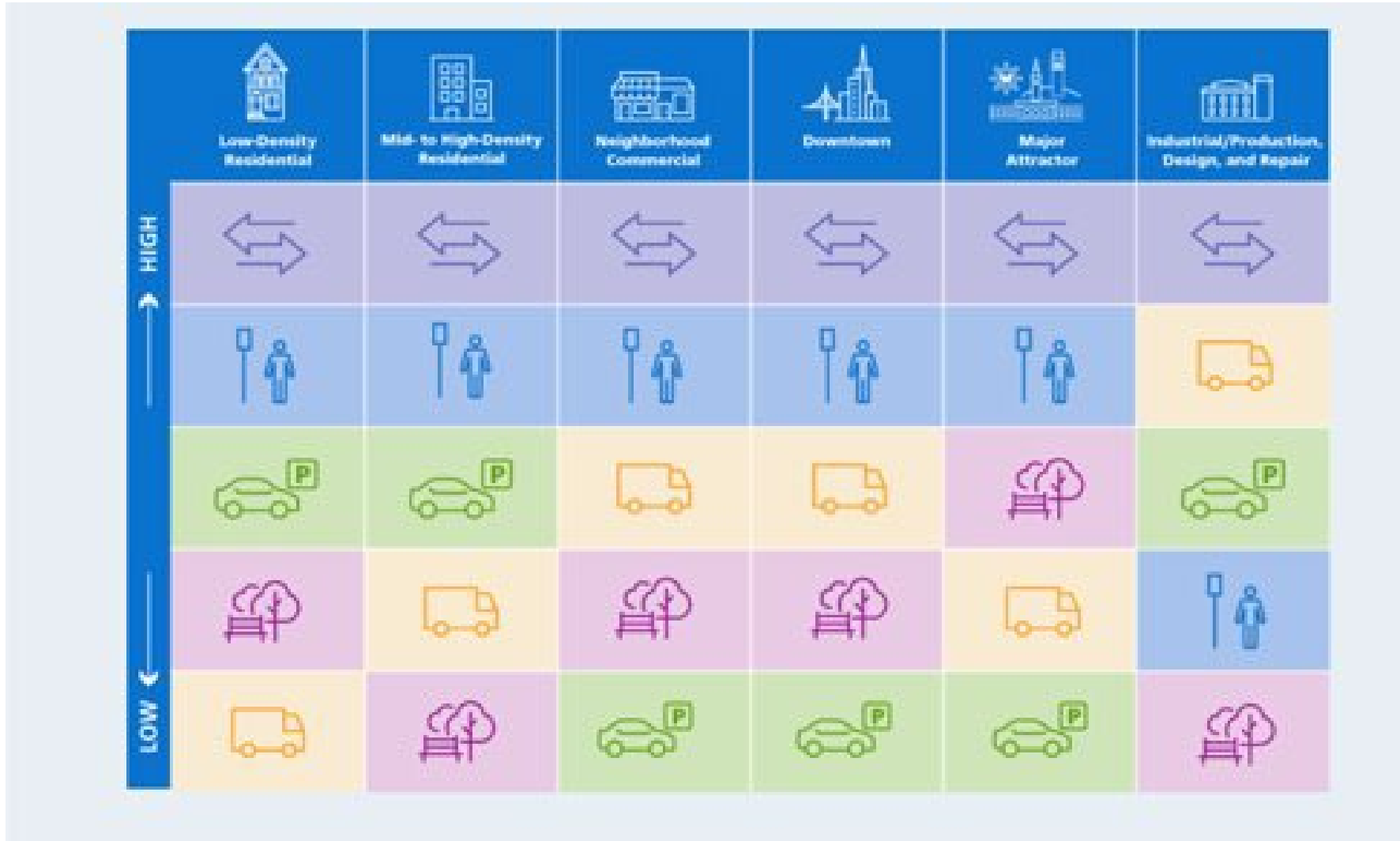
Implementation
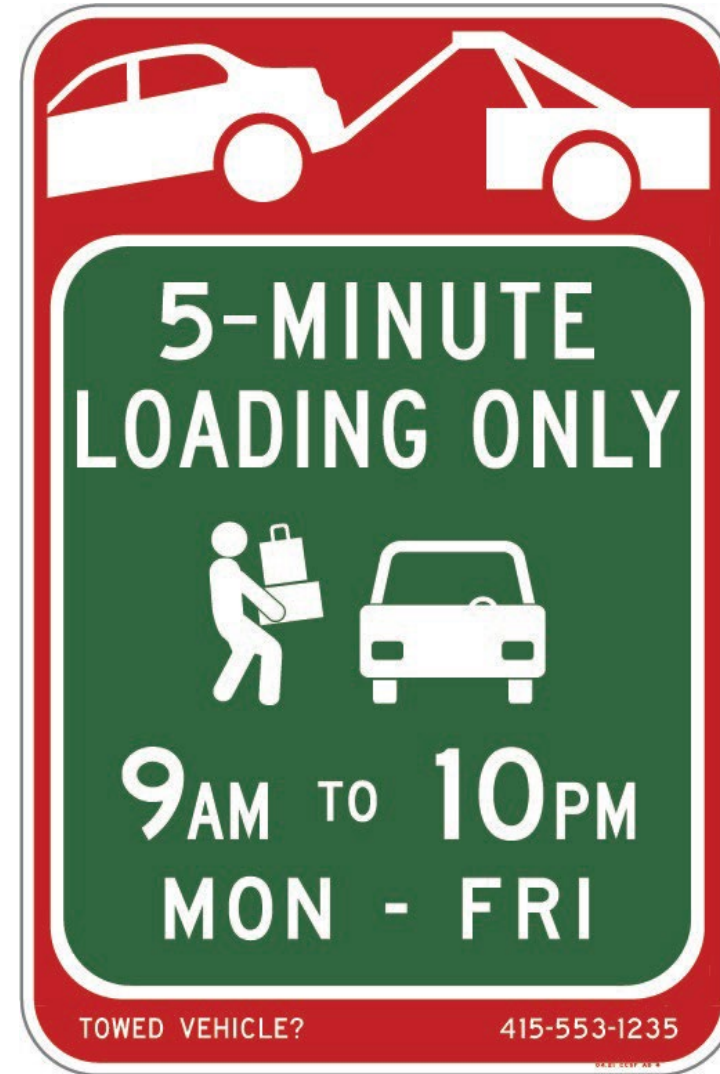
Seattle Curbside Management Program Highlights

Today's topics

- Curbside Management Team overview

- Seattle's evolving curbside priorities

- Curbside tools
  - Key themes
  - Many uses of The Curb
  - Curb planning tools
  - Data collection and mapping

Curbside Management key themes

Curbspace – valuable, limited resource in high demand

Team key themes:

- Meet / manage competing needs (transit, urban goods and services, customers, residents, shared vehicles)

- Vibrant biz districts depend on curb access for loading

- Make data-driven, performance-based decisions

- Be action, operations oriented

City of Seattle

The Curb: Many functions + users
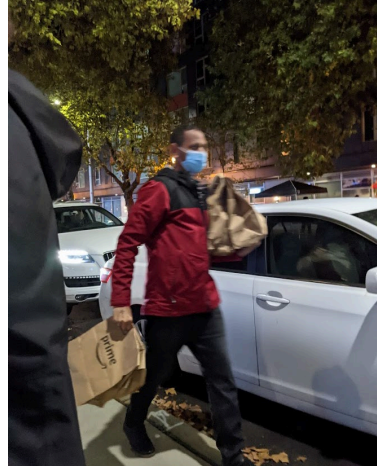
Curbspace planning and tools
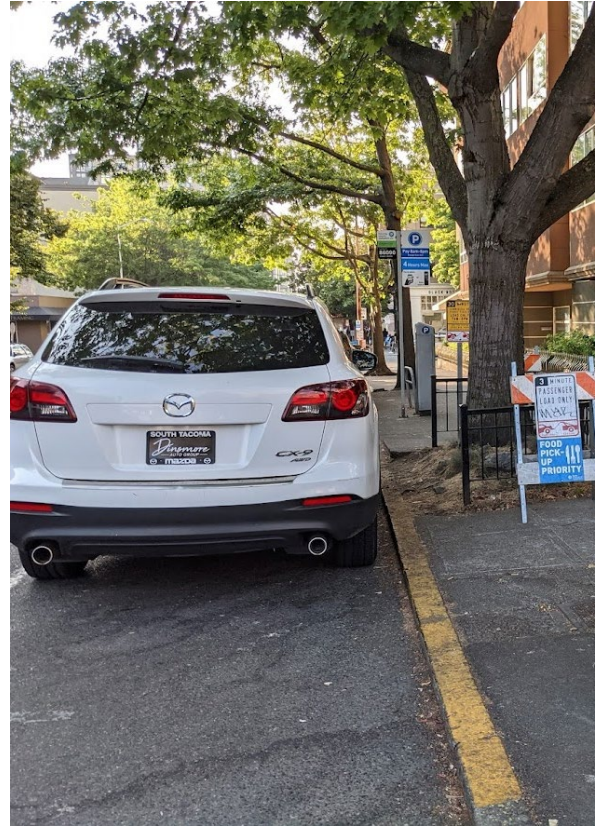
Outdoor eating, Dinner delivery

Importance of data management

Seattle Department of Transportation
2020 PAID PARKING ANNUAL REPORT
Making it Easier to Find Parking
October 2021

- Tracking and maintaining space inventory

- Manual street parking counts

- Video based load zone turnover, usage

- Vehicle detection sensors at load zones

Data mapping + analytics

- Keep ongoing inventory – sign and other assets

- Interested in creating curb data by time of day, past and current

- Sharing with delivery companies to improve effectiveness
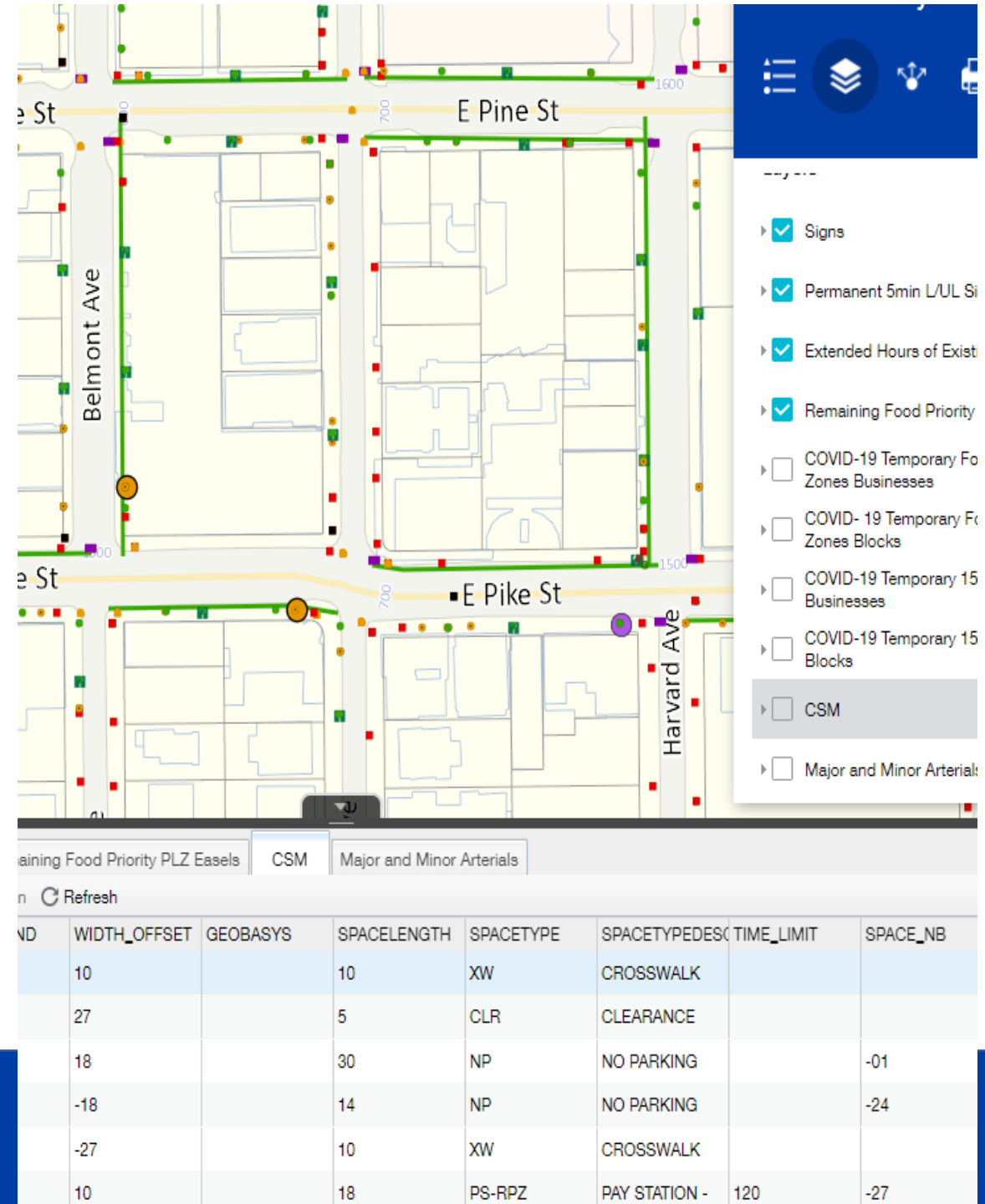
Questions?

Mary Catherine Snyder

Parking Strategist

marycatherine.snyder@seattle.gov

Mike Estey

Manager, Curbside Management

mike.estey@seattle.gov

DEVELOPING A HIGHEST AND BEST USE OF CURB TOOL

Amber Evans
City of Emeryville

Emeryville had an Un-restricted, Unenforced Curb

- Occupancy at 90% -95% on some commercial corridors

- Restaurants' customers unable to find spots at lunch

- A successful shuttle facing congestion on key commercial corridor

- Meters were ripped out on San Pablo after vandalism a decade prior

- 2006 planning efforts for paid parking in the northern commercial area were stalled by the Great Recession, followed by the 2012 elimination of Redevelopment, which halved Emeryville's operating budget

- EPD had no enforcement: not even red curbs or driveways – it was the wild, west

- City poured green paint in 2013 to set the ground for curb controls but lack of enforcement stymied impact

- Parking was discussed at lunch spots as completely unenforced

IMPLEMENTED PAID PARKING IN 2021

- Pay by License Kiosks

- Park Mobile

- Meter mounted sensors

- Online receipts

- Virtual permits

- Variable Pricing

- Controls for street sweeping

- Pathway to time managed transit only lane

WITH ALL THE BELLS AND WHISTLES

Parking management led to curb management discussions

The development of a methodology for determining the highest and best use of a curb can advance conversations for:

- Curb Extensions for Active Uses
- Green Infrastructure
- Through Lanes to Promote Modal Shift
- Temporary Vehicle Stops
- Other vehicle storage
- Infrastructure
- Property access

MTC funded Highest Best Use Curb Efforts for this

50 Uses to be Considered

Curb Extensions for Active Uses
1. Parklets
2. Artlets
3. Side walk cafes
4. Curb extensions at crosswalks
5. Curb widening
6. Bus bulb-outs
7. Bike share

Green infrastructure
1. Permeable paving/passive storm water treatment
2. Planters
3. Rain gardens
4. Tree bulb-outs
5. Trees in sidewalk
6. Bike corrals
7. Bike repair

Thru Lane to Promote Modal Shift /Green Infrastructure
1. Protected bike lanes
2. Standard bike lanes
3. Transit lanes (by time)
4. Transit lanes permanent
5. Turning or sight line preservation (use restrictions)
6. Street cleaning
7. Emergency vehicle by-pass
8. Autonomous vehicle Infrastructure (RFI chips)

Temporary Vehicle Stops
1. Transit stops
2. Shuttle stops
3. Drop off and loading for cars for hire
4. Delivery and pickup of goods
5. Trash and recycling collection

Vehicle storage
1. Taxi parking
2. Rideshare parking
3. Carshare parking
4. Paid parking
5. Free parking
6. Permitted parking
7. Handicapped parking
8. Bus layovers
9. Autonomous vehicles self-parking (Infrastructure)
10. Construction parking

Infrastructure
1. Hydrant
2. Electrical poles
3. Electrical vaults
4. Temporary encroachment permit
5. Traffic signal
6. Utility boxes
7. Wifi signal poles
8. Street lights
9. Pedestrian lights

Private Access
1. Driveways
2. Loading docks
3. Construction staging

Partners

AC Transit
Amtrak
Caltrans
Commission on aging (Paratransit)
PGE
Pony Scooter
Populus
Taxi Association (Friendly Cab)
Transform
Uber
UPS
Waste Management
WayMo
Zipcar

Project Overview

A.   Curb Use Compatibility

B.   Flexible Curb Uses

C.   Cost/Benefit Valuation

D.   Curb Use Prioritization

Matrix of Curb Use Compatibility and Conflict

- **Matrix identifies level of adjacency compatibility in two directions:**
  - **"Vertical" – Along the block and in the same zone**
  - **"Horizontal" – Across the public ROW and in same or different zones**

Co-location/grouping is desirable, encouraged

Design could be compatible/adjacent

Possible but not recommended; could compete

Adjacency not possible

Cost/Benefit Valuation

	Fixed		Fixed	
	COST/BENEFIT VALUATION			
	Installation Cost	GHG Emission Reduction	City Benefit	
	Annualized Installation Cost per Parking Space Footprint	Annual GHG Emissions Reduction Value per Parking Space Footprint	Annual City Benefit per Parking Space Footprint	Annual Cost/Benefit Adjusted per Parking Space Footprint
	$	$	$	$
Activation				
Bike repair (DIY)	$765.00			$765.00
Sidewalk cafés	$1,275.00		$648	$627.00
Parklets/Artlets	$2,500.00			$2,500.00
Mobility				
Pedestrian thru-way				$0.00
Right or left turn-only lanes	$66.25			$66.25
Emergency vehicle by-pass				
Protected bike lane/cycle track	$63.00	$156		$92.82
Bike lane	$13.50	$156		$142.32
Drop off and loading for cars for hire	$5.25			$5.25
Electric Vehicle charging	$1,400.00	$1,588		$187.90
Taxi parking	$187.75			$187.75

Cost/Benefit Valuation: GHG Emission Reduction

	Input		Input		FYI	FYI	FYI	
					COST/BENEFIT VALUATION			
					GHG Emission Reduction			
	Number of Units	Unit	Number of Units	Unit	Annual CO2 Reduction (lb.)	Annual CO2 Reduction (lb.) per Parking Space Footprint	Annual GHG Emissions Reduction Value	Annual GHG Emissions Reduction Value per Parking Space Footprint
							$	$
Protected bike lane/cycle track			1	length of new bikeway (miles)	241649.0	823.8	$45,707	$156
Bike lane			1	length of new bikeway (miles)	241649.0	823.8	$45,707	$156
Drop off and loading for cars for hire								
Electric Vehicle charging	5.0	number of chargers			8395.0	8395.0	$1,588	$1,588
Taxi parking								
Paid parking (note: requires pay station in Zone								
Permitted parking								
Uncontrolled parking								
Handicapped parking								
Emergency vehicle parking								
Transit queue jump								
Transit-only lanes (curbside)	9000.0	annual ridership	1	length of transit lane	180000.0	613.6	$34,047	$116
Transit-only lanes (center-running)		annual ridership	1	length of transit lane	0.0	0.0	$0	$0
Access for People								
Bulb-outs at intersection								
Bus bulb-outs								

Curb Use Prioritization: General Plan Designations

- **General Plan designations based on relevant applicability**
  - **Area Specific**
  - **Street Type**
  - **Building and Use Type**

- **Assignment of points based on guidance from Emeryville Design Guidelines**
  - **HIGH (30 pts.)**
  - **MEDIUM (20 pts.)**
  - **LOW (10 pts.)**
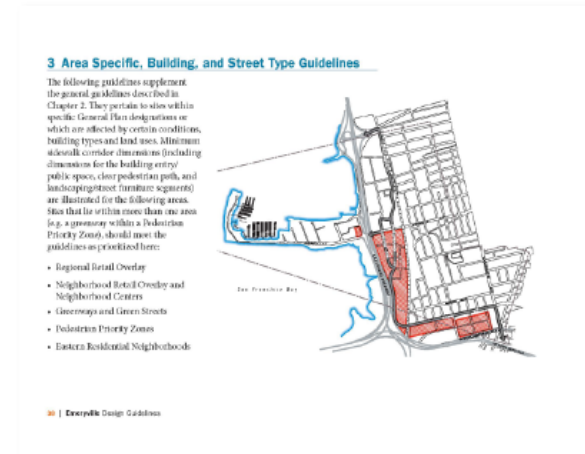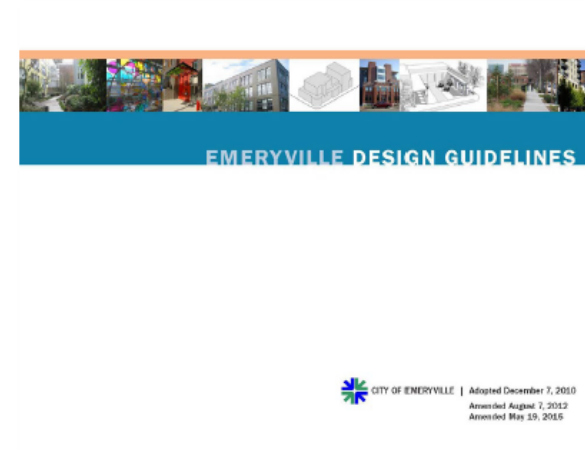
Curb Use Prioritization: Area Specific Example

- **Pedestrian Priority Zone**
  - Pedestrian safety and movement are priority
  - Busy activity centers, such as transit stations, neighborhood centers, schools, and City Hall
  - Includes outdoor cafés and restaurant seating
  - Has consistent landscaping and street furnishings
  - Curb bulb-outs at intersections
  - Places for public art

HIGH (30 pts.)	MEDIUM (20 pts.)	LOW (10 pts.)
• Sidewalk café • Parklet/artlet • Curb ramp • Curb widening • Curb extension at crosswalk • Pedestrian light • Bulb-out at intersection	• Tree well • Planter	• Bike repair • Permeable paving/passive stormwater • Rain garden • Tree bulb-out • Bus bulb-out

Curb Use Prioritization: Street Type Example

- **Transit Street**
  - Prioritized for transit service, but also accommodates pedestrians, with sidewalks and amenities, as well as automobiles, bicycles, and trucks
  - Primary routes for public buses, including AC Transit and Emery Go-Round
  - Provide signal preemption for transit vehicles, bus stops, and where appropriate, bus lanes
  - Provide ample sidewalks on both sides of the street and amenities around bus stops, such as shelters, benches, and lighting

HIGH (30 pts.)	MEDIUM (20 pts.)	LOW (10 pts.)
• Transit-only lane • Transit queue jump • Bus bulb-out • Transit/shuttle stop • Transit/shuttle passenger environment	• Pedestrian thru-way • Planter • Pedestrian light • Tree well • Curb ramp • Bike rack • Bike share station	• Protected bike lane/cycle track • Bike lane • Bulb-out at intersection • Driveway or loading dock • Delivery and pickup of goods • Sidewalk café • Parklet/artlets • Permeable paving/passive stormwater • Rain garden • Curb widening • Curb extension at crosswalk

Curb Use Prioritization: Building and Use Type Example

- **Mixed-use Developments**
  - Prioritize active uses on the ground level

HIGH (30 pts.)	MEDIUM (20 pts.)	LOW (10 pts.)
• Sidewalk café • Parklet/artlet	• Pedestrian thru-way • Drop off and loading for cars for hire • Driveway or loading dock • Delivery and pickup of goods • Pedestrian light	• Curb ramp • Bike repair • Bike rack • Bike share station • Curb widening • Curb extension at crosswalk • EV charging • Paid parking

Curb Use Prioritization: People Throughput

- **Curb uses with potential for people throughput assigned points on a range from 1 to 100**
    - HIGHEST (80-100 pts.) include transit-related uses
    - MEDIUM range (50-80 pts.) include pedestrian and bike facilities
    - LOW range (<50 pts.) include car parking, bike parking, etc.

- **People throughput points only awarded if the curb use is a priority in the relevant General Plan designation**

Case Study Application: Hollis Street

✓ Transit Hub
✓ Transit Street
✓ Truck Route
✓ Mixed-use

- Curb use prioritization:

1. Transit/shuttle stop (150)
2. Transit passenger environment (130)
3. Bus bulb-out (130)
4. Transit-only lane (130)
5. Transit queue jump (130)
6. Shuttle passenger environment (120)
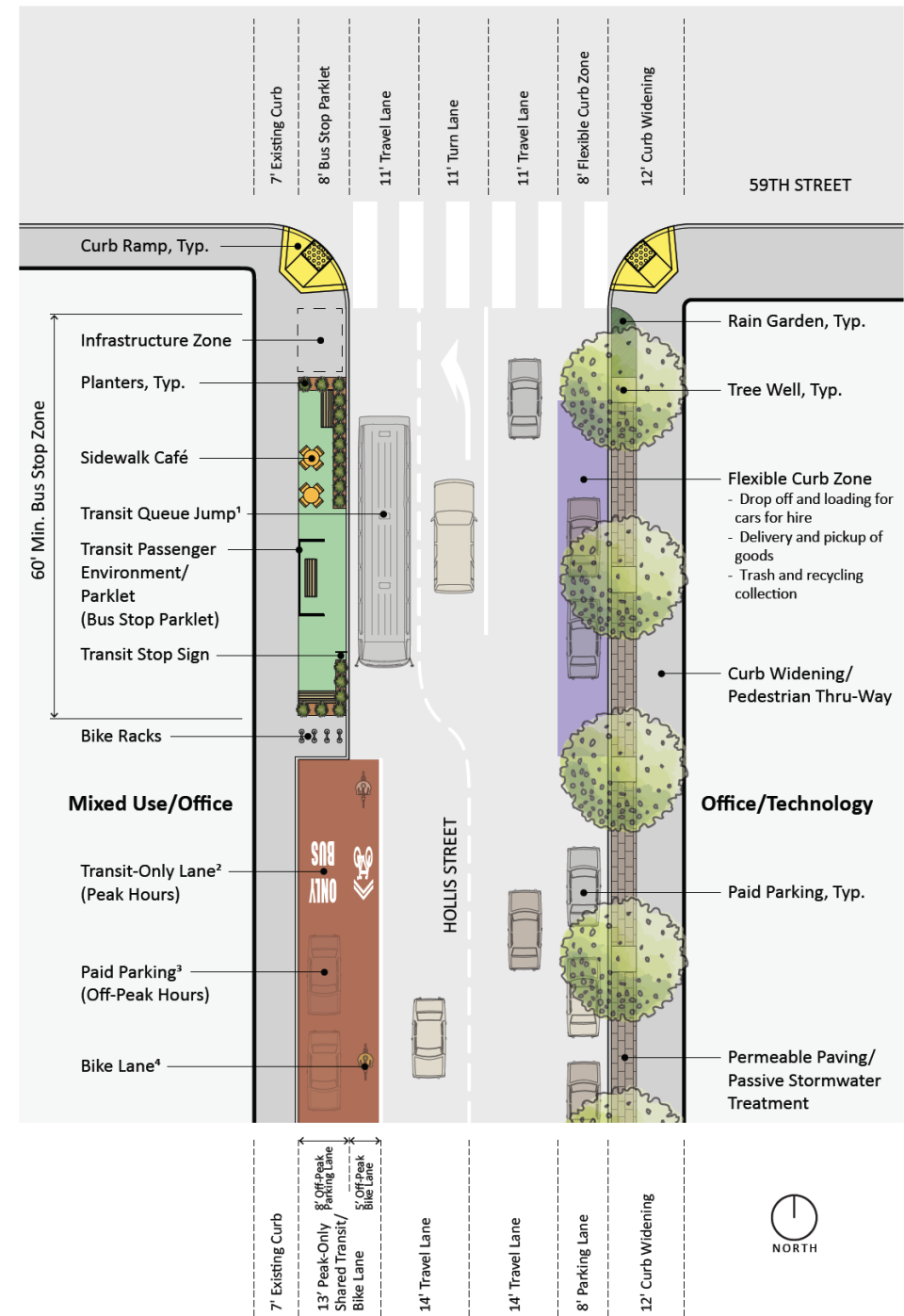7. Pedestrian thru-way (110)

Hollis Street Corridor (between 59th and Powell Streets)

8. Bike rack (100)
9. Parklet/Artlet (100)
10. Bike share station (95)
11. Curb extension at crosswalk (90)
12. Curb widening (90)
13. Sidewalk café (90)
14. Drop off and loading for cars for hire (90)

16

SAMPLE HBUC DESIGN OF
HOLLIS STREET AT 59TH STREET

Existing ROW: 68' Wide

59TH STREET

7' Existing Curb
8' Bus Stop Parklet
11' Travel Lane
11' Turn Lane
11' Travel Lane
8' Flexible Curb Zone
12' Curb Widening

Curb Ramp, Typ.

Infrastructure Zone

Planters, Typ.

Sidewalk Café

Transit Queue Jump[1]

Transit Passenger Environment/ Parklet (Bus Stop Parklet)

Transit Stop Sign

Bike Racks

Mixed Use/Office

Transit-Only Lane[2] (Peak Hours)

Paid Parking[3] (Off-Peak Hours)

Bike Lane[4]

60' Min. Bus Stop Zone

HOLLIS STREET

Rain Garden, Typ.

Tree Well, Typ.

Flexible Curb Zone
- Drop off and loading for cars for hire
- Delivery and pickup of goods
- Trash and recycling collection

Curb Widening/ Pedestrian Thru-Way

Office/Technology

Paid Parking, Typ.

Permeable Paving/ Passive Stormwater Treatment

BUS ONLY

7' Existing Curb
13' Peak-Only Shared Transit/ Bike Lane
8' Off-Peak Parking Lane
5' Off-Peak Bike Lane
14' Travel Lane
14' Travel Lane
8' Parking Lane
12' Curb Widening

NORTH

Lessons

- Vertical vs Horizontal compatibility raise key tool development issues
- Mandatory infrastructure/standard set of approvals for infrastructure integration critical
- Policy documents are the backbone of basis for decisions – MTC's tool operationalizes these decisions
- Changing operations is challenging and made more challenging by remote work and sheltering in place
- Crowdsourcing of inputs is need to truly assess HBUC for capital and operation costs and thruput (proprietary data complicates)

Q&A

What questions do you have for this team as you approach your work?

Francesca Napolitan
Curb Access
Manager

SFMTA

Amber Evans
Economic Development
Coordinator

City of Emeryville

Someone
OMF

OMF

Thank you!

Click to add text

ABAG-MTC Webinar: Reconsidering Parking Development Requirements

Local Parking Policy Technical Assistance

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