



## **Curb Your Transportation**

**an overview of ITE's  
curbside  
management work**

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**MWCOG** **June 22, 2020**

# Introduction to the Guide

- What is Curbside Management?
- Available Tools and Treatments
- Treatment Selection Process
- Performance Measurement
- Future Considerations
- Additional Resources
- Implemented Strategies and Projects



**Unique link to ITE's Curbside Management Practitioners Guide Webinar provided to view until July 1**

**CURBSIDE MANAGEMENT PRACTITIONERS GUIDE**

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# What is Curbside Management?



Drivers, both TNC and non-TNC



Parked vehicles and electric vehicle (EV) charging



Bicycles and bicycle infrastructure



Pedestrians and crossing infrastructure



Couriers and delivery vehicles



Local businesses



Mobile vendors



Transit and transit infrastructure



ADA access



Emergency services



Taxis, transportation network companies (TNCs), and shuttles



Parklets and streetscape



Flex Zones

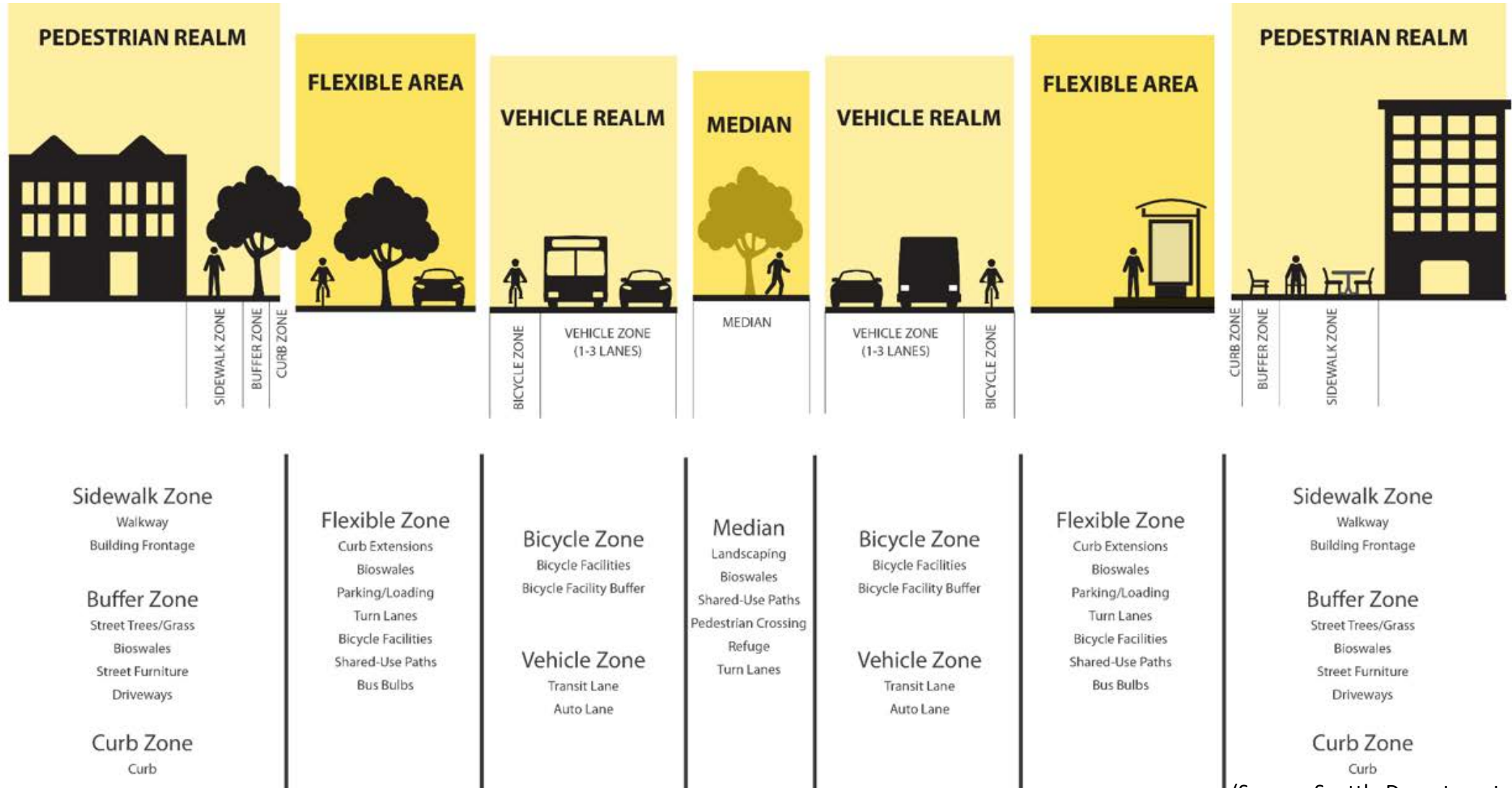


Micromobility









Freight

# It is not just the curb!



(Source: Seattle Department of Transportation)

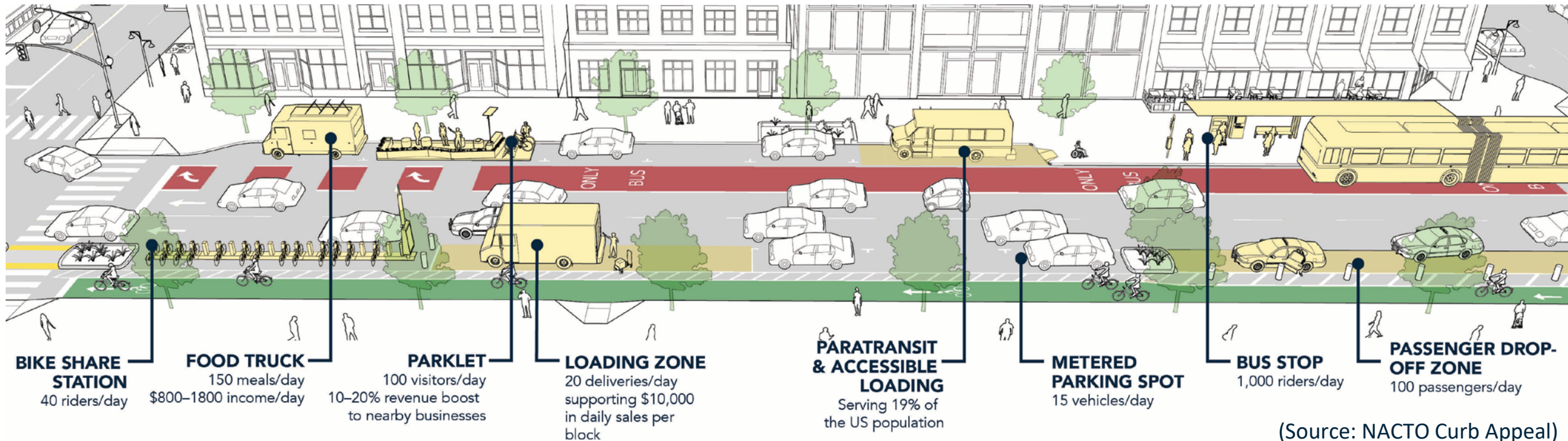
# Modes and Uses that interact with the curb

FUNCTION	DEFINITION	USES
 <b>MOBILITY</b>	Moves people and goods	<ul style="list-style-type: none"> <li>• Sidewalks</li> <li>• Bus or streetcar lanes</li> <li>• Bike lanes</li> <li>• General purpose travel lanes - includes freight</li> <li>• Right- or left-turn only lanes</li> </ul>
 <b>ACCESS FOR PEOPLE</b>	People arrive at their destination, or transfer between different ways of getting around	<ul style="list-style-type: none"> <li>• Bus or rail stops</li> <li>• Bike parking</li> <li>• Curb bulbs</li> <li>• Passenger load zones</li> <li>• Short-term parking</li> <li>• Taxi zones</li> </ul>
 <b>ACCESS FOR COMMERCE</b>	Goods and services reach their customers and markets	<ul style="list-style-type: none"> <li>• Commercial vehicle load zone</li> <li>• Truck load zone</li> </ul>
 <b>ACTIVATION</b>	Offers vibrant social spaces	<ul style="list-style-type: none"> <li>• Food trucks</li> <li>• Parklets and streateries</li> <li>• Public art</li> <li>• Seating</li> <li>• Street festivals</li> </ul>
 <b>GREENING</b>	Enhances aesthetics and environmental health	<ul style="list-style-type: none"> <li>• Plantings                             <ul style="list-style-type: none"> <li>- Boulevards</li> <li>- Street trees</li> <li>- Planter boxes</li> </ul> </li> <li>• Rain gardens and bio-swales</li> </ul>
 <b>STORAGE</b>	Provides storage for vehicles or equipment	<ul style="list-style-type: none"> <li>• Bus layover</li> <li>• Long-term parking</li> <li>• Reserved spaces (e.g. for Police or other government use)</li> <li>• Construction</li> </ul>

(Source: Seattle Department of Transportation)

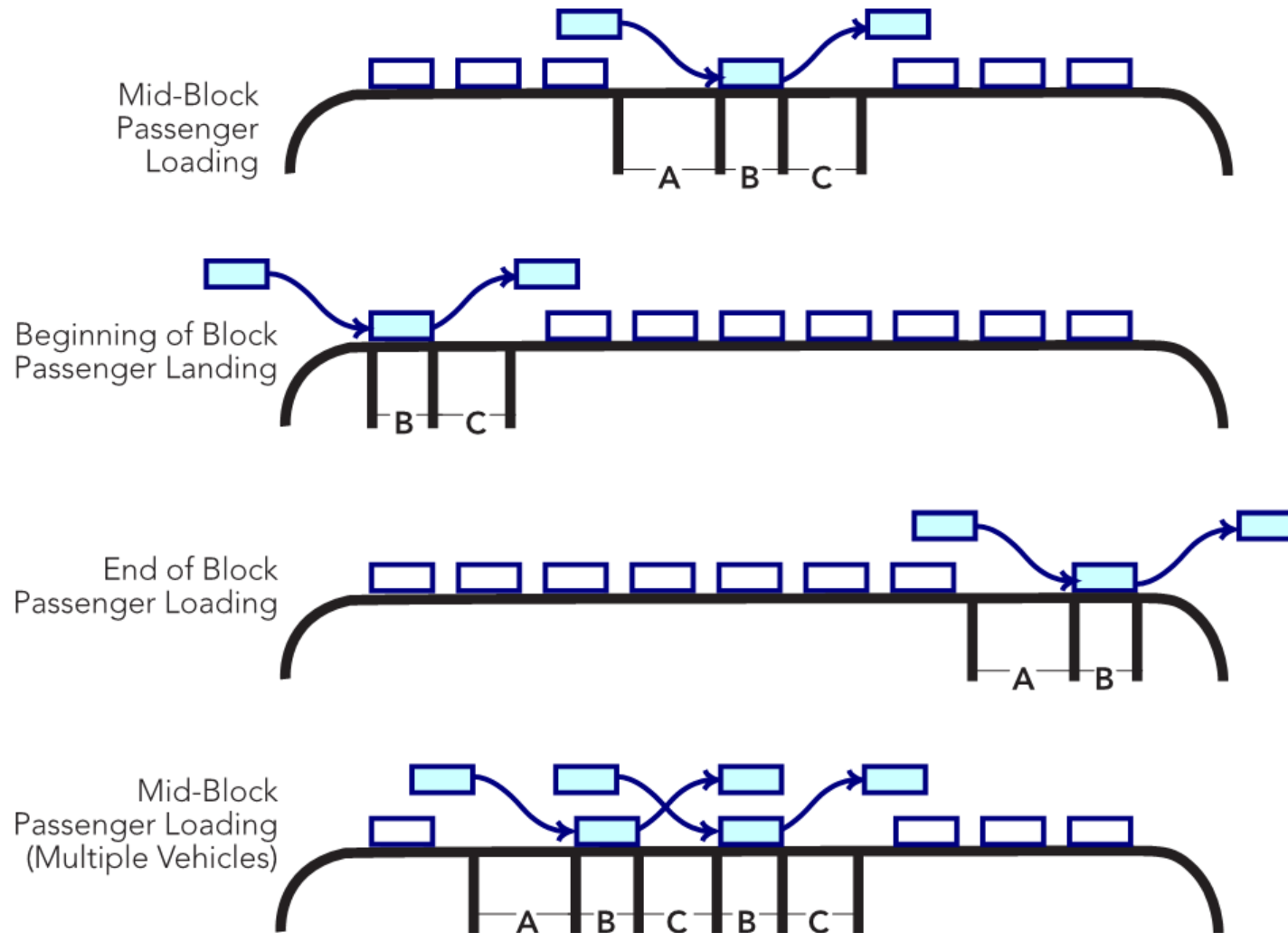
# Available Tools and Treatments

1. Planning and Implementation
2. Loading/Unloading Zones
3. Parking
4. Transit
5. Bicycles
6. Pedestrians and Activation



(Source: NACTO Curb Appeal)

# How to Assess need for Access to the Curb?



# Treatment Selection Process

1. Inventory Existing Conditions
2. Develop Modal Prioritization
3. Identify Treatment Alternatives
4. Assess and Present Alternatives
5. Refine and Implement Treatments



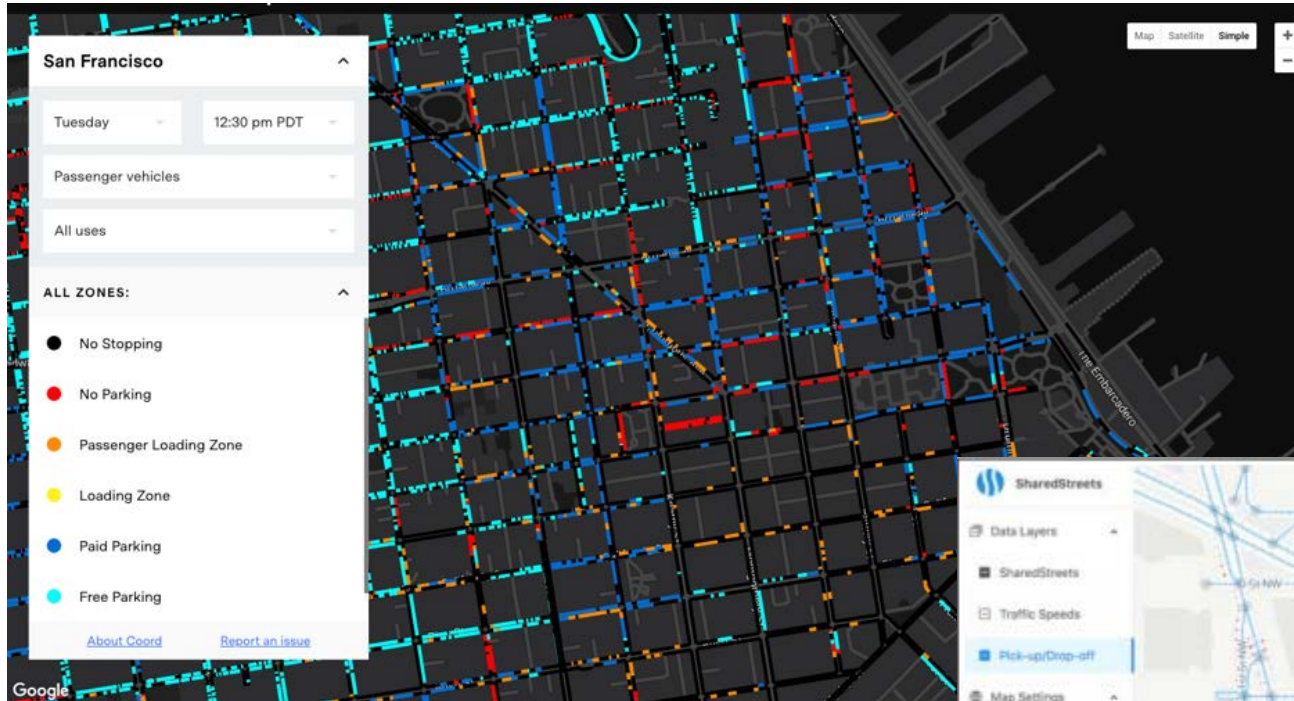
(Source: City of Chicago )



(Source: Fehr & Peers)



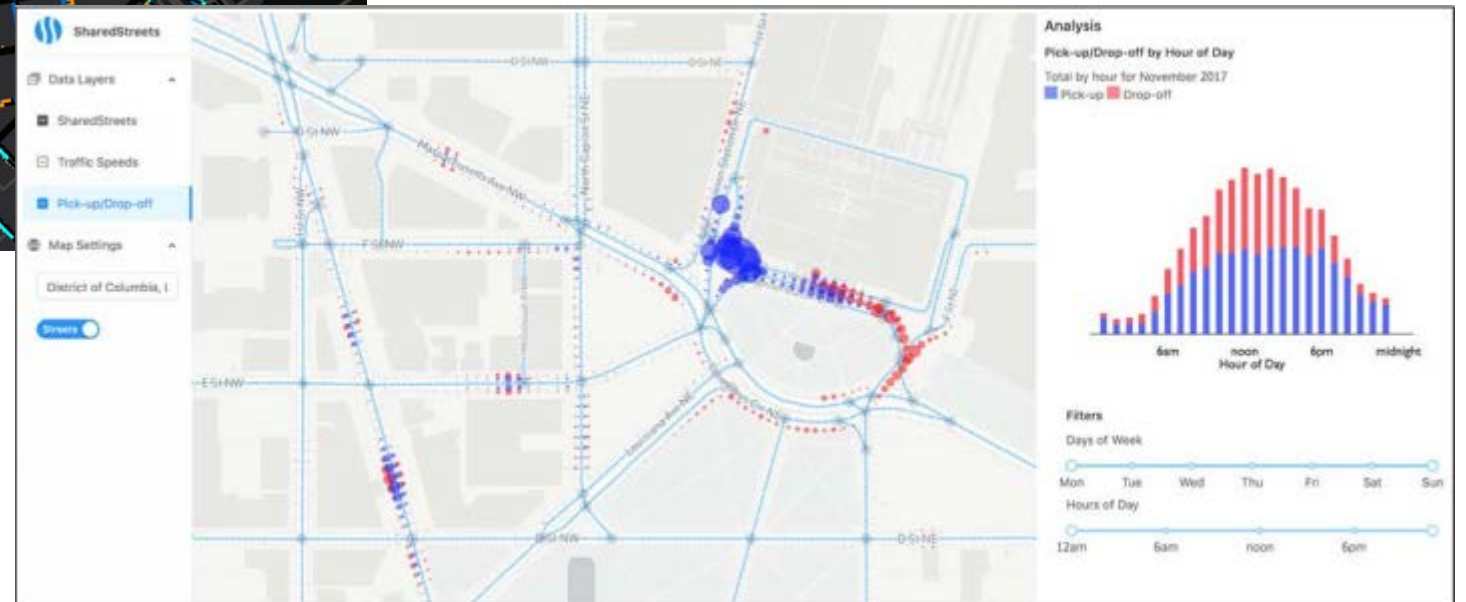
# Inventory Existing Conditions



(Source: [Coord](#))

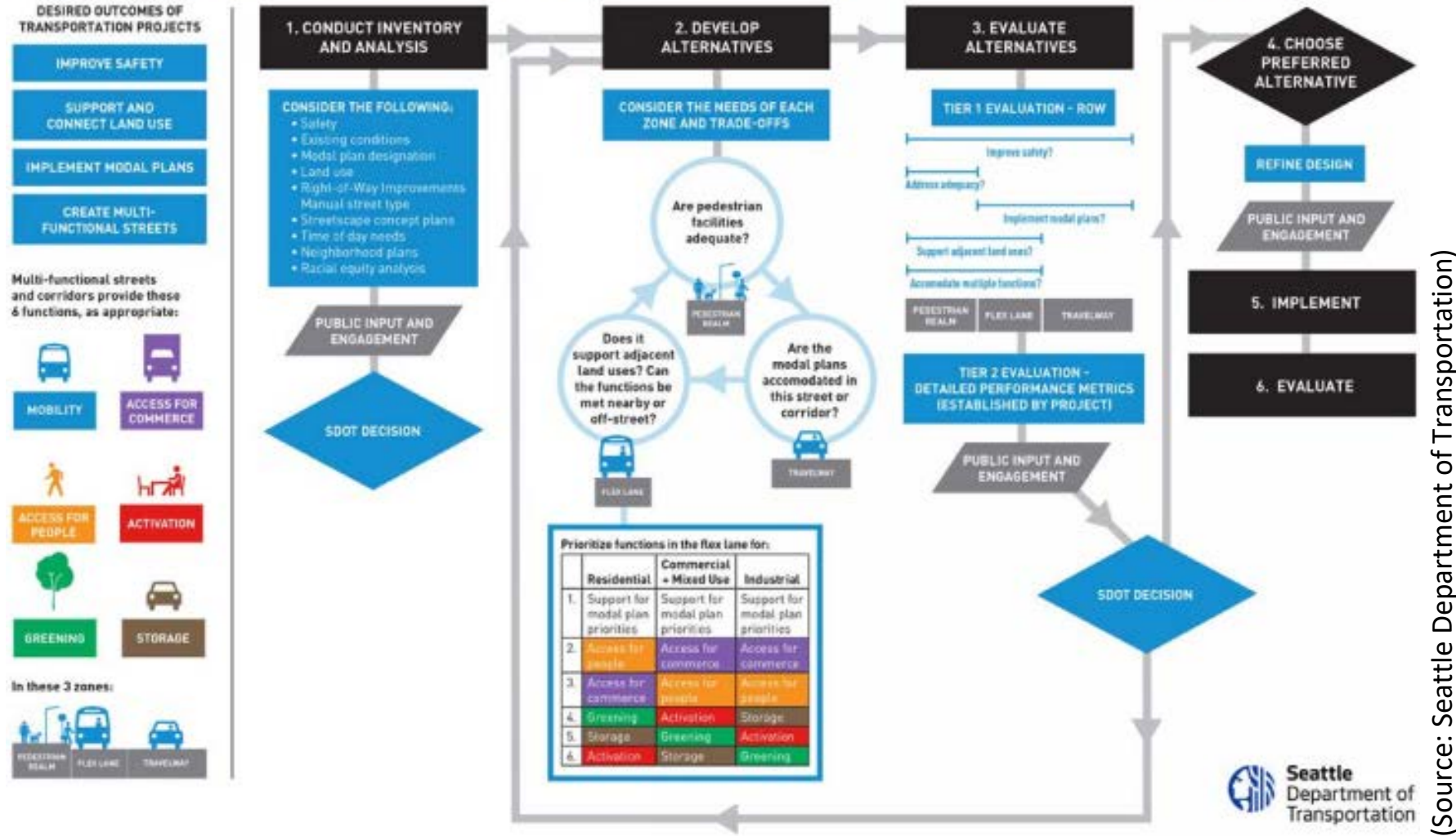
- Policies and Codes
- Supply, Demand and Utilization
- Needs and Opportunities

(Source: [SharedStreets](#))



# Treatment Selection Process

## SEATTLE RIGHT-OF-WAY (ROW) ALLOCATION DECISION FRAMEWORK



# Treatment Selection Process

## PROJECT OVERVIEW

SFMTA.COM/INNERSUNSETCURBS

### Project Goals

- Improve safety
- Improve business vitality
- Reduce congestion
- Improve transit reliability

### Key Proposed Changes

- Increase and re-allocation of commercial loading zones
- Increase and re-allocation of short-term parking spaces
- Targeted passenger loading zones on Lincoln and Irving
- Increase in accessible parking spaces
- Visibility red zones at corners to improve safety, especially on Lincoln
- Transit improvements on Lincoln, including stop consolidation and peak tow-away extension
- Proposed metering at 11th & Irving and on Irving from 6th to 7th

	Current	Proposed Change	Resulting
Metered Parking	176	+15	191
Short-Term Metered Parking	19	+7	26
Short-Term Unmetered Parking	2	-2	0
Commercial Metered Loading	27	+5	32
Commercial Unmetered Loading	1	+4	5
Passenger Loading	3	+4	7
Accessible Parking	3	+4	7
Unmetered - RPP	339	-23	316
Unmetered - No Regulation	258	-10	248

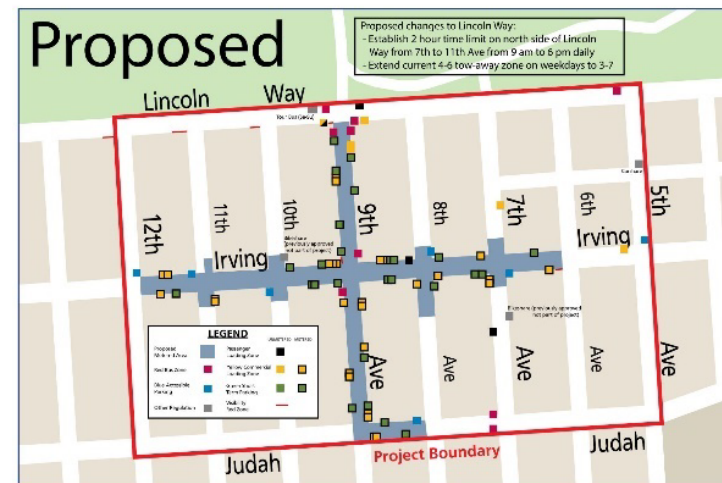
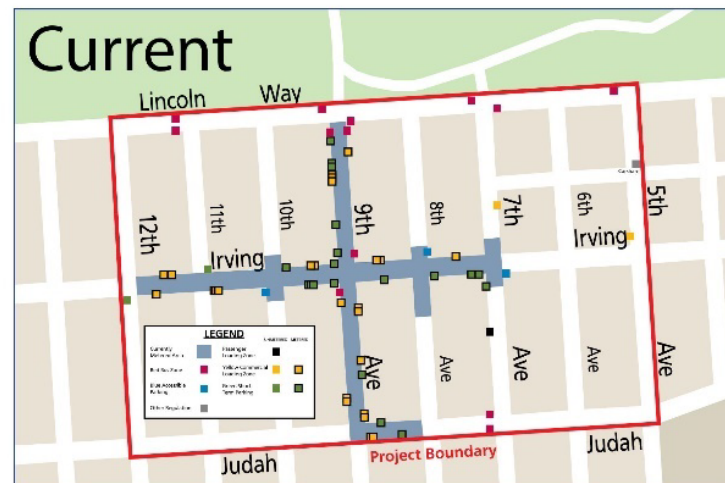
### How is parking reallocated through this project?

- 3 spaces for commercial loading (daytime only)
- 3 spaces for passenger loading
- 1 space for Muni bus stop extension
- 4 spaces for visibility red zones at corners
- 3 spaces for tour bus zone (weekend only)

### How is parking gained through this project?

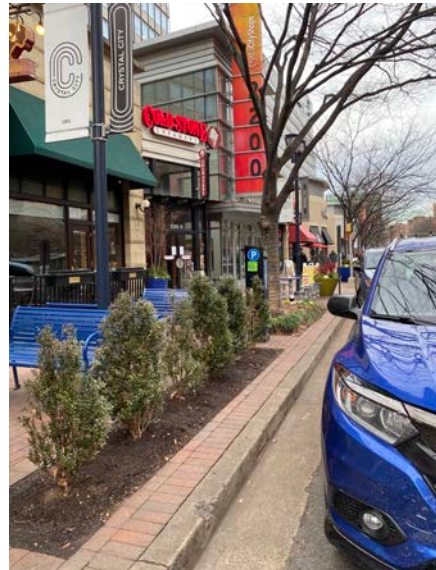
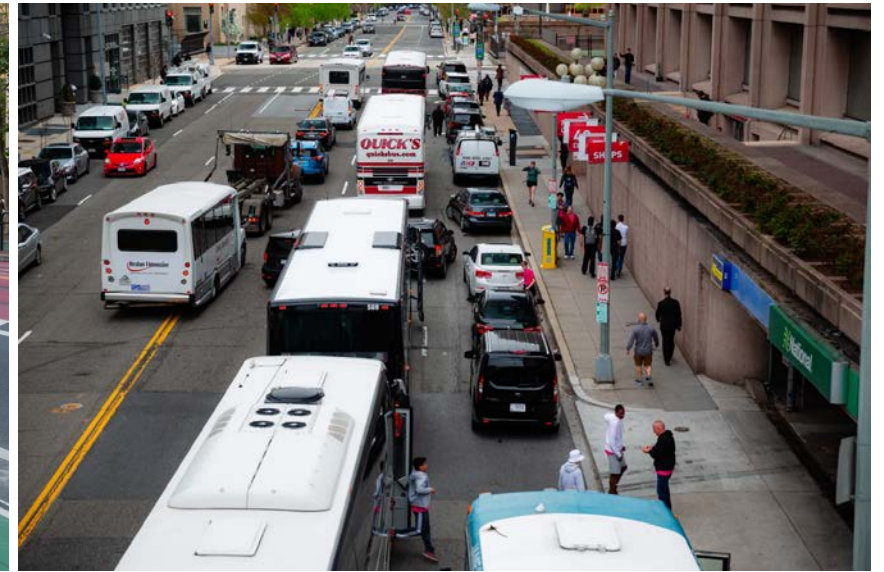
- 10 spaces from Muni stop consolidation on Lincoln
- 2 spaces from former N-Judah stop at 9th & Irving
- 2 spaces from former no parking zones
- 6 spaces from former commercial loading

**Net reduction of 9 full-time parking spaces**  
**Net increase of 13 loading spaces**  
**Out of 828 total spaces in project area**



# Performance Measurement

- Mobility
- Livability
- Accessibility
- Safety
- Efficiency
- Economic Vitality



# Performance Measurement

- Mobility
- Livability
- Accessibility
- **Safety**
- Efficiency
- **Economic Vitality**

## SAFETY

Measure Of Effectiveness (MOE)	Dataset(s)
Fewer consequences of curb access events (i.e., vehicles swerving, bicycles swerving mid-block U-turns, and mid-block crossings)	In-person observations (anecdotal) Video data collection
Less risky consequences of curb access events (i.e., less likely to affect vulnerable users or their infrastructure, less likely to be high-speed)	
Fewer near-miss incidents	Video detection (i.e., Bellevue/ Microsoft) On-board vehicle data on driver behavior (i.e., ZenDrive technology)
Fewer curb-access-related collisions	Local or statewide collision datasets (medium to long term)

## ECONOMIC VITALITY

Measure Of Effectiveness (MOE)	Dataset(s)
Additional café/ restaurant seating provided	Permits
Staff time coordinating deliveries reduced	Feedback from business owners via survey or focus groups
More disabled loading and parking zones provided on street	Asset management system database

# Types of Data Collection

- Manual data collection
- Automated data collection
- Third-party data providers
- Interagency data

## PROJECT SURVEY HIGHLIGHTS

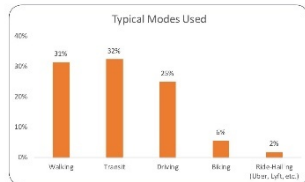
SFMTA.COM/INNERSUNSETCURBS

## DATA COLLECTION HIGHLIGHTS

SFMTA.COM/INNERSUNSETCURBS

### INTERCEPT SURVEY

44% of those surveyed live in the 94122 zip code



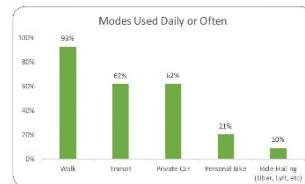
Per trip, drivers spend about \$44, twice as much money as those walking or taking transit

However, per week, those walking are estimated to spend the most, nearly \$100, at local businesses

The most common reasons for visiting are:  
 Eating/drinking: 33%  
 Entertainment/recreation: 20%  
 Services: 17%  
 Shopping: 15%

82 surveys collected at 9th & Irving and 9th & Lincoln

### RESIDENT SURVEY



Average number of vehicles per household: 1.4  
 49% of residents don't park vehicles on the street  
 The average Inner Sunset garage can fit 1 vehicle

It takes the average resident 7.5-9.5 minutes to find a parking space

#### Common Resident Feedback

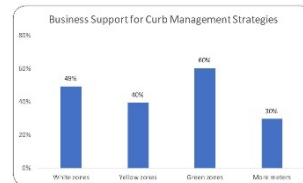
- Concern about previous parking removal
- Mixed responses to streetscape project
- Issues with double parking for passenger loading and deliveries
- Blocked driveways
- Concerns about bikeshare and carshare expansion
- Requests for more bicycle infrastructure
- Concerns about pedestrian safety

203 surveys collected; 132 from within project area

### MERCHANT SURVEY

Most deliveries occur between 9 am and 3 pm and take 10-20 minutes

Over 1/2 of businesses double-park for deliveries  
 Less than 1/3 of businesses use loading zones  
 40% of businesses use a personal car for deliveries



#### Common Merchant Feedback

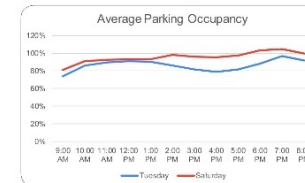
- Difficult for customers and employees to find parking
- Need for more short term parking
- Difficulty using personal vehicles for deliveries
- Concerns about number and price of parking tickets
- More residential parking permits for businesses

91 surveys collected; nearly all businesses contacted

Inner Sunset Curb Management Open House  
 Golden Gate Park County Fair Building  
 November 20, 2019, 5:30pm-7:30pm

### OCCUPANCY DATA

On many of the neighborhood's streets, occupancy is consistently over 100% as a result of double parking, parking in red zones, and parking across driveways.



Average occupancy is 88% on primarily commercial streets and 96% on primarily residential streets

Average occupancy at:  
 Regular meters is 89%  
 Short-term meters (green) is 90%  
 Commercial loading (yellow) is 74%  
 Unmetered RPP is 87% (500 block of Irving only)

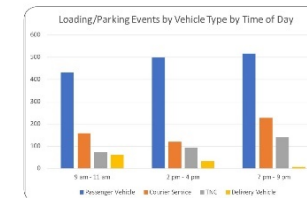
Collected Tuesday, September 10th, Saturday, September 14 and Saturday, September 21 from 9 AM to 9 PM on the majority of blocks in the project area



### LOADING DATA

Loading/parking events at the curb are:

- 58% passenger vehicles
- 20% courier services (Grubhub, Postmates, etc.)
- 12% TNCs (Uber, Lyft, etc.)
- 4% delivery vans and trucks

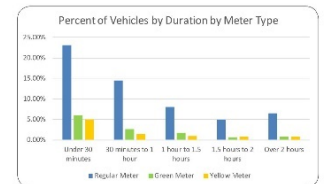


Over half of TNCs and nearly a quarter of delivery vehicles don't pull fully to the curb

Most loading doesn't last long:  
 80% of TNCs were stopped for under 1 minute  
 60% of courier services were stopped for under 4 minutes  
 68% of delivery vans and trucks were stopped for under 15 minutes

Collected Tuesday, September 17th and Saturday, September 21 from 9 AM - 11 AM, 2 PM - 4 PM, and 7 PM - 9 PM on the 700 block of Irving and 1200 and 1300 blocks of 9th Ave.

### DURATION DATA



Average metered parking duration is 1 hour  
 Duration at unmetered locations is 2 hours  
 Saturdays have slightly longer durations than Tuesdays



Collected Tuesday, September 17th and Saturday, September 21 from 2 PM to 10 PM on Irving St and 9th Ave

Inner Sunset Curb Management Open House  
 Golden Gate Park County Fair Building  
 November 20, 2019, 5:30pm-7:30pm



# Future Considerations

- Dynamic/Flex curbs
- Increased Dynamic Management Technologies
- Enhanced Communication
- Changes in Land Uses
- Data Methods and Standards
- Micromobility and Modes TBD
- Switch points and hubs



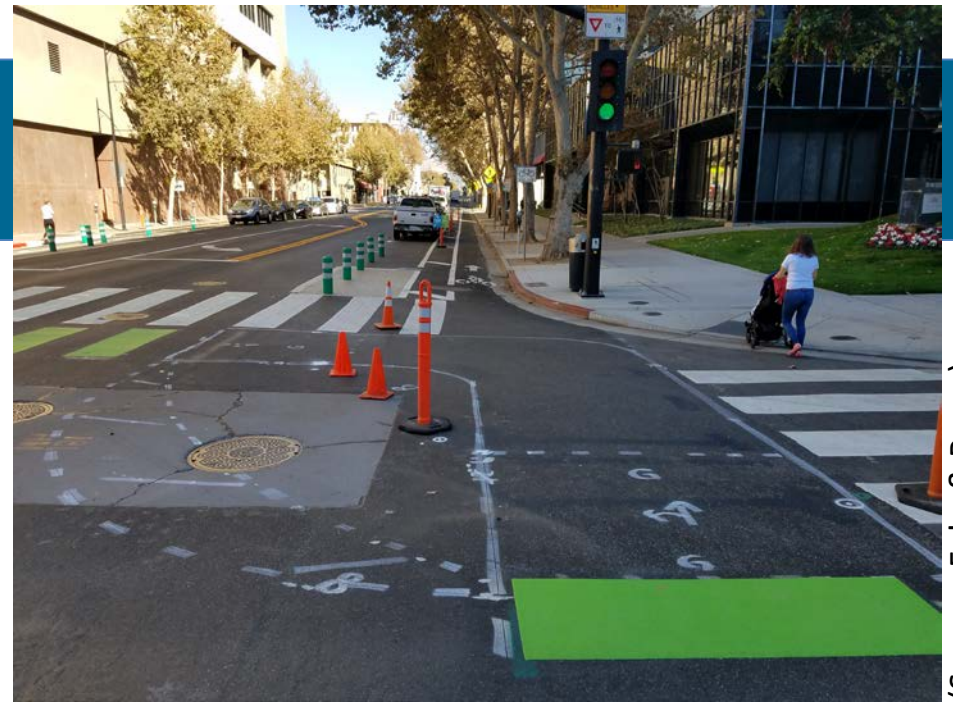
(Source: Fehr & Peers)



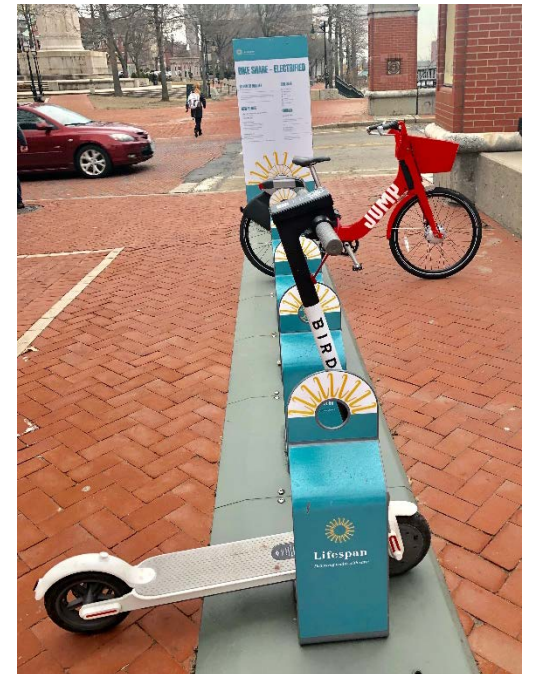
(Source: Austin Transportation Department)

# Monitoring Implementation

- Develop plans and policies
- Monitor the curbside evolution
- Adjust the curb using performance measures
- Learn from peers and case studies
- Apply open source tools



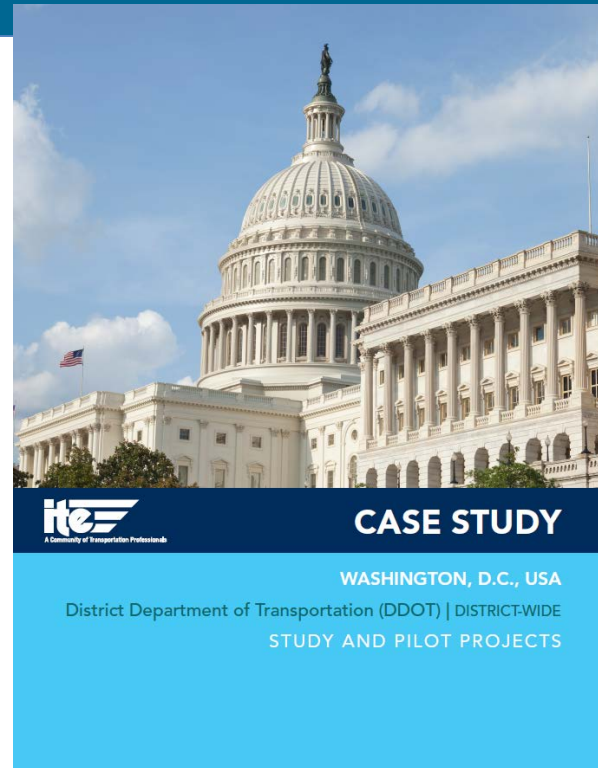
(Source: Fehr & Peers)





# Additional Resources

- ITE [Curbside Management Resources](#)
- Recent webinar on [Case Studies on Curbside Management](#)
- **STAY TUNED!** for more resources on Curbside Management
- Call for curbside case studies in **later in 2020!**



# Curbside Management during/after COVID-19

- Curbside was one of the first things some cities adjusted during COVID-19.
- Visit ITE [COVID-19 Resource Page](#)
- COVID-19 is potentially allowing the profession to figure out **dynamic and flex curbs** more quickly!
- Introduction of **on-street dining and partial open streets** as part of COVID-19 phased reopening in some cities.



Temporary permits for restaurant pick up drop off zones are now available.

[ddot.dc.gov/node/1469086](https://ddot.dc.gov/node/1469086)

## TEMPORARY PERMIT FOR RESTAURANT PICK UP DROP OFF ZONES

The District Department of Transportation (DDOT) will offer a temporary permit for Restaurant Pick Up Drop-Off (PUDO) Zones to allow residents and commercial drivers easy access to restaurants that are still open but out of service during the COVID-19 public health emergency.



Request a permit for a PUDO Zone through their Districts (BIDs), Advisory Districts (ADs), and Main Street (MS) programs. DDOT has waived the fees for requests for the free permit via DDOT's Permitting System (TOPS).



We've seen how parking needs have changed during the #COVID19 pandemic. The @CityofSeattle and @SeattlePD will temporarily ease some parking regulations to better support residents' and businesses' needs during this time. Learn more [▶](#)



We will temporarily ease parking regulations beginning today. We've seen how parking needs have changed, and we are committed to do everything we can to make sure we support people's needs. [@sdotblog.seattle.gov](#)



Today we converted paid on-street parking spaces in front of restaurants into free customer pick-up zones, allowing customers access to restaurants who don't have parking lots or drive-thru services. To view a map of pick-up zones, visit [bit.ly/2xVSSQ5](https://bit.ly/2xVSSQ5) (1/2)

