Introduction to the ITE Curbside Management Practitioners Guide

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# Filling a Gap in the Industry

#### Identified Gaps in Industry Guidance and Best Practice

- No existing process to determine the best use of curb space
- Current guidance focuses on traditional parking
- Demands on city streets are changing rapidly





#### Why Manage Curb Space? Challenges/Opportunites

#### Challenges

- Lack of "How to" guidance
- Address basic safety needs first
- Must prioritize demands for curb space

#### **Opportunity to think differently!**

- Set priorities
- Define better performance standards
  - Prepare for changing demands





#### State of the Practice

#### What are the existing measures of success?

- Parking meter revenue?
- Parking space occupancy?
- Parking turnover?
- Transit ridership?
- Transit schedule adherance?





# New Demands for Curb Space

#### **Priorities?**

- Emergency access
- Clear zones
- Fire hydrants
- Traditional parking
- Accessible parking
- Bus stops shelters
- Taxis
- Commercial loading

- Bicycle facilities
- Bus lanes
- TNCs: Uber, Lyft...
- Carsharing
- Vending trucks
- Autonomous Vehicles







# 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





## What is Curbside Management?



	Drivers, both TNC and non-TNC	ŀ	Parked vehicles and electric vehicle (EV) charging	ç o	Bicycles and bicycle infrastructure
ŵ	Pedestrians and crossing infrastructure	5	Couriers and delivery vehicles		Local businesses
	Mobile vendors		Transit and transit infrastructure	8	ADA access
+	Emergency services		Taxis, transportation network companies (TNCs), and shuttles	Y	Parklets and streetscape





## What is Curbside Management?

	FUNCTION		DEFINITION	USES		
		MOBILITY	Moves people and goods	<ul> <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>		
	X	ACCESS FOR PEOPLE	People arrive at their destination, or transfer between different ways of getting around	<ul> <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>		
	ſ.	ACCESS FOR COMMERCE	Goods and services reach their customers and markets	<ul> <li>Commercial vehicle load zone</li> <li>Truck load zone</li> </ul>		
	ᡰᡄ᠋ᠯᢥ	ACTIVATION	Offers vibrant social spaces	<ul> <li>Food trucks</li> <li>Parklets and streateries</li> <li>Public art</li> <li>Seating</li> <li>Street festivals</li> </ul>		
	P	GREENING	Enhances aesthetics and environmental health	<ul> <li>Plantings</li> <li>Boulevards</li> <li>Street trees</li> <li>Planter boxes</li> <li>Rain gardens and bio-swales</li> </ul>		
l darning		STORAGE	Provides storage for vehicles or equipment	<ul> <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>		
LEGIIIIIY	(Source: Seattle Department of Transportation)					



## **Available Tools and Treatments**

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





#### 1. Planning and Implementation





#### 1. Planning and Implementation

#### **Flex Zones**

#### 3 ROW zones



(Source: Seattle Department of Transportation)





#### 1. Planning and Implementation

#### Layered Network Approach



(Source: San Francisco Planning Department)

# 1. Planning and Implementation Living Previews (Pop-ups)







#### 2. Access to Loading/Unloading Zones



# 2. Access to Loading/Unloading Zones

#### Passenger Access Mid-Block **Identifying Demand** Passenger Loading Geofencing ${}^{\bullet}$ Beginning of Block × Passenger Landing RIDESHARE PICK-UP End of Block Passenger Loading THIS LEVEL -**A** DOOR 2E IN TERMINAL 2 Mid-Block Passenger Loading (Source: Fehr & Peers) (Multiple Vehicles)

# 2. Access to Loading/Unloading Zones

## **Freight Access**

- Freight Zone Pricing
- Off-Peak Delivery and Congestion Pricing
- Delivery Vehicle Staging Zones
- Urban Consolidation Centers











#### **Demand-based Pricing**









# **Time Restrictions**

- Time Limits
- Time-of-day Restrictions







# **Other Parking Strategies**

- Reduced Occupancy Targets
- Evaluation of Area-wide Availability

- Inclusion of Off-street Options
- Priority Parking Programs







# 4. Transit

- Transit Lanes
- Bus Queue Jumps
- Bus Bulbs and
   Bus Boarding Islands
- Commuter Shuttle Management
- Automated Enforcement







# 5. Bicyclists

- Protected Bikeways
- Personal Mobility Device Parking



(Source: Austin Transportation Department)





#### 6. Pedestrians and Activation

Source: Fehr & Pee

- Curb Extensions
- Wider Sidewalks
- Parklets





## **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





#### **Treatment Selection Process**

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





(Source: Seattle Department of Transportation)

### 1. Inventory Existing Conditions



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

#### (Source: <u>SharedStreets</u>)





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Sample Priorities

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- Transit Priority
- Bicycle Priority
- Pedestrian Priority
- Major Thoroughfare
- Mixed-use Main Street
- Mixed-use Access





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(Source: Fehr & Peers)

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(Source: David Smith, Chicago Department of Transportation)

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(Source: Fehr & Peers)

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(Source: NYCDOT)

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(Source: Google Earth)





## 3. Identify Treatment Alternatives



Productivity of right-of-way for different uses. (Source: NACTO Curb Appeal)





#### 4. Assess and Present Alternatives







#### 5. Refine and Implement Treatments



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#### Performance Measurement

• Mobility

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- Livability
- Accessibility
- Safety
- Efficiency
- Economic Vitality





# Performance Measurement

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

#### LIVABILITY

Measure Of Effectiveness (MOE)	Dataset(s)	
Additional park/green space provided	Amount of green/park space available citywide, by neighborhood – data inventory	
Additional bicycle parking provided	Amount of short-term and long-term bicycle parking – data inventory	
Additional seating/ community gathering space provided	Amount of seating/ community gathering space available citywide, by neighborhood – data inventory	
Enhanced public space activation	Calendar of community events Permit requests	





# Performance Measurement

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

#### **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		
Improved sales receipts	Tax/ sales data		
Enhanced availability and convenience of loading zones	Feedback from business owners via survey or focus groups		





#### **Future Considerations**

• Increased Dynamic Management Abilities

Fehr & Peers

- Enhanced Communication
- Improved Data Management
- New Mobility Devices





(Source: Austin Transportation Department)

#### **Additional Resources**

#### ITE Curbside Management Practitioner's Resource



City of Toronto | DOWNTOWN CENTRAL BUSINESS DISTRICT



WASHINGTON, D.C., USA District Department of Transportation (DDOT) | DISTRICT-WIDE



#### **CASE STUDY**

San Francisco Municipal Transportation Agency (SFMTA) | URBAN





# What's Next? Monitor Implementation

- Monitor application of guidance
- Refine use of performance measures
- Seek additional case studies





