The Value of the Curb

Organization, Regulation, and Monetization of Your Precious Right-of-Way

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WALKER CONSULTANTS

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Today's Agenda

01 Getting to Know Each Other

02 What is Curb Management

03 Curb Management Framework

04 Treatments for Success

05 Implementation: Data, Policy, Technology, and Fees

06 Group Activity

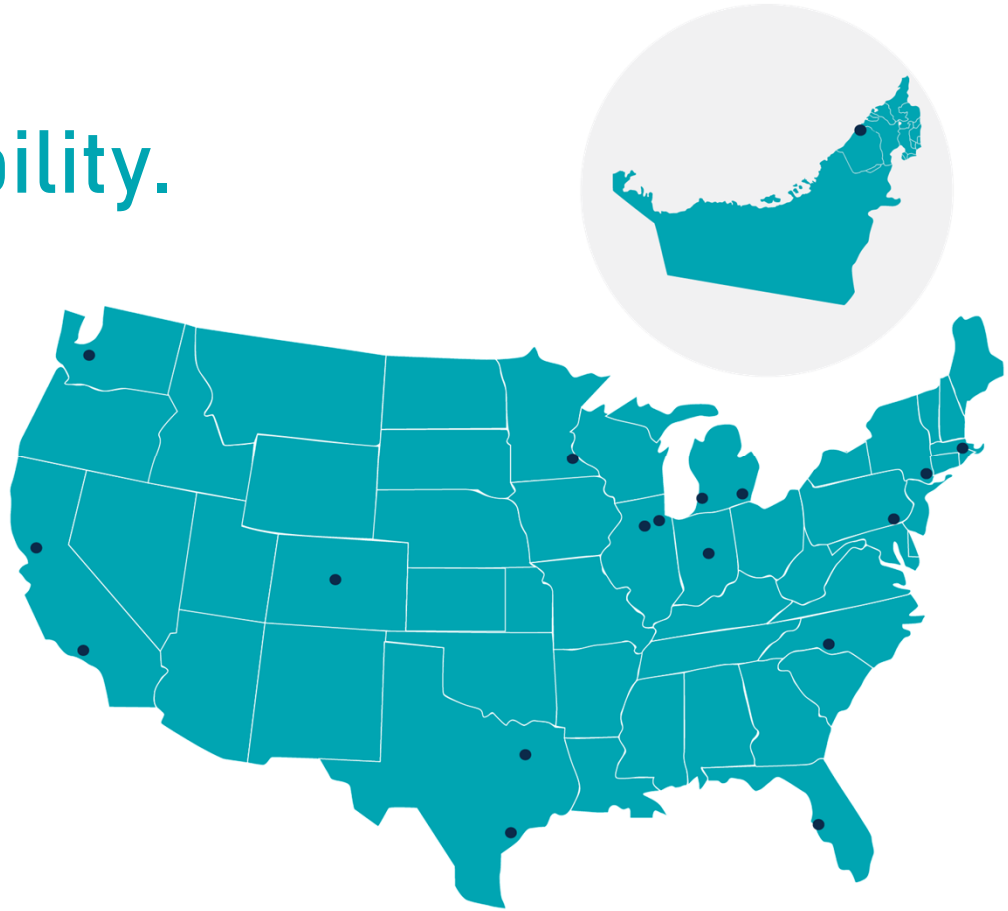
01 | Getting to Know Each Other

About Walker

All things parking and mobility.

55 years of national and international experience.

800+ municipal and public agencies served.



Learning Objectives

Define curb Management and the value of the curb

Understand the historic changing demands of the curb and trends

Understand what effective curb management can accomplish

Define policy and technology considerations

Learn implementation strategies

02 | Why Curb Management

Who Demands Access

- Competing and conflicting demands
- Congestion
- Accessibility, equity, and safety issues
- New and ever-changing transportation methods

Pedestrians | Cyclists | Micromobility | Ride Apps | Transit | Motorists | Delivery/MAAS | Vendors

Create a Curb Management Framework to Prioritize!

Image: Adapted from NACTO

Learnings Since March

- Covid-19 converges with ongoing trends
- Pricing/Revenue
- We can adapt and be nimble and take fast action
- Testing new ideas for the long-term

THE CURB IS PRIME REAL ESTATE

- Traditionally, the curb has focused on private vehicle parking

Changing demand requires cities to understand curb utilization to determine if private vehicle parking is the best use based on actual activity and mobility goals

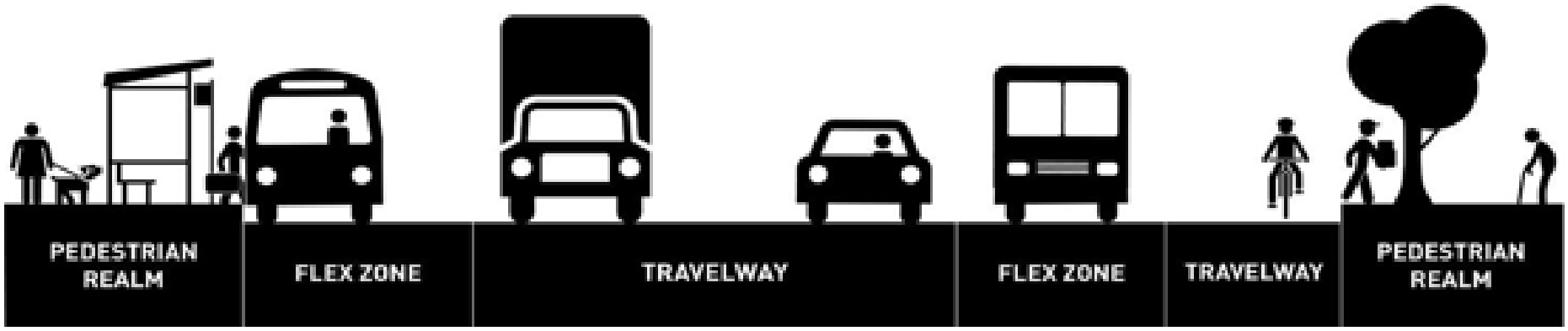
The curb has potential to provide greater access to more people if options beyond private vehicle parking are considered

Curb management is journey based on their local context:

- *Understanding how the curb is regulated and used today*
- *Implementing the tools and processes to quickly adjust curb regulations to optimize for increasingly dynamic demands placed on the curb*
- *Establishing a hierarchy of curb uses and leveraging infrastructure and policies to serve the right user groups, in the right locations, at the right times of day and days of week*
- *Monitoring, enforcing and monetizing the curb in an equitable fashion*
- *Must have curb management strategies in place with any reduction in off-street parking minimums*

What is Curb Management

- Curb management is a journey based on community priorities
  - Inventory, optimize, and manage curb space
  - Determine specific priorities, maximize access, and balance growing needs
  - Improve level of service
  - Strategies will vary depending on the size, context, and priorities of the community
  - Curb access can be flexed or prioritized throughout the day based on changing demand



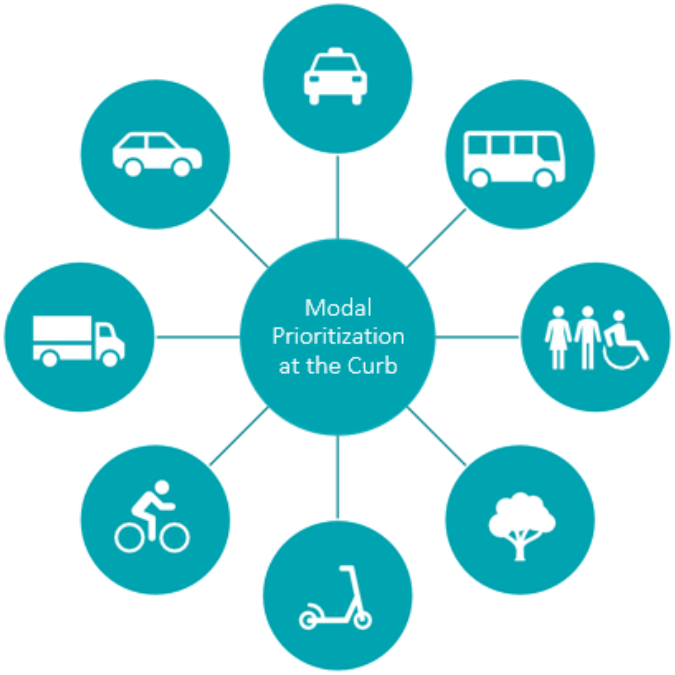
Graphic: City of Seattle

03 | Curb Management Framework

Set Goals for the Curb

- High level goals for curb access
  - Who are the primary user groups?
  - What types of land uses are most prevalent?
  - What are the primary activities occurring at the curb?
  - What are the community's goals for the curb and for mobility generally?

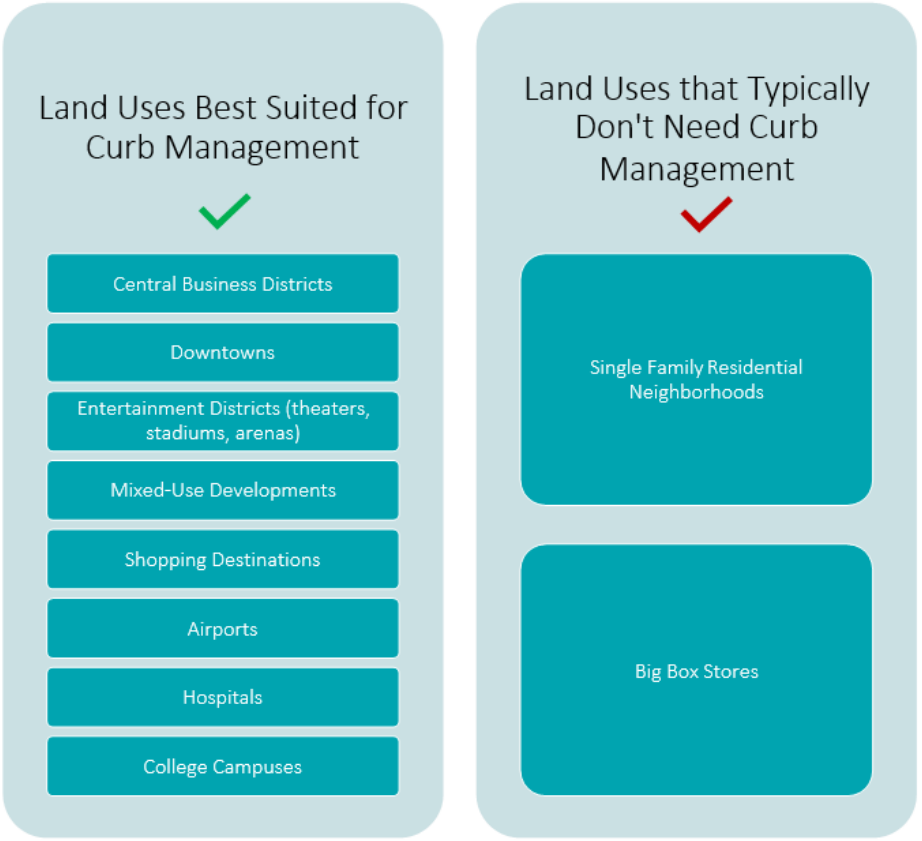
Prioritize People Turnover and Activity



Identify Opportunities in Your Community

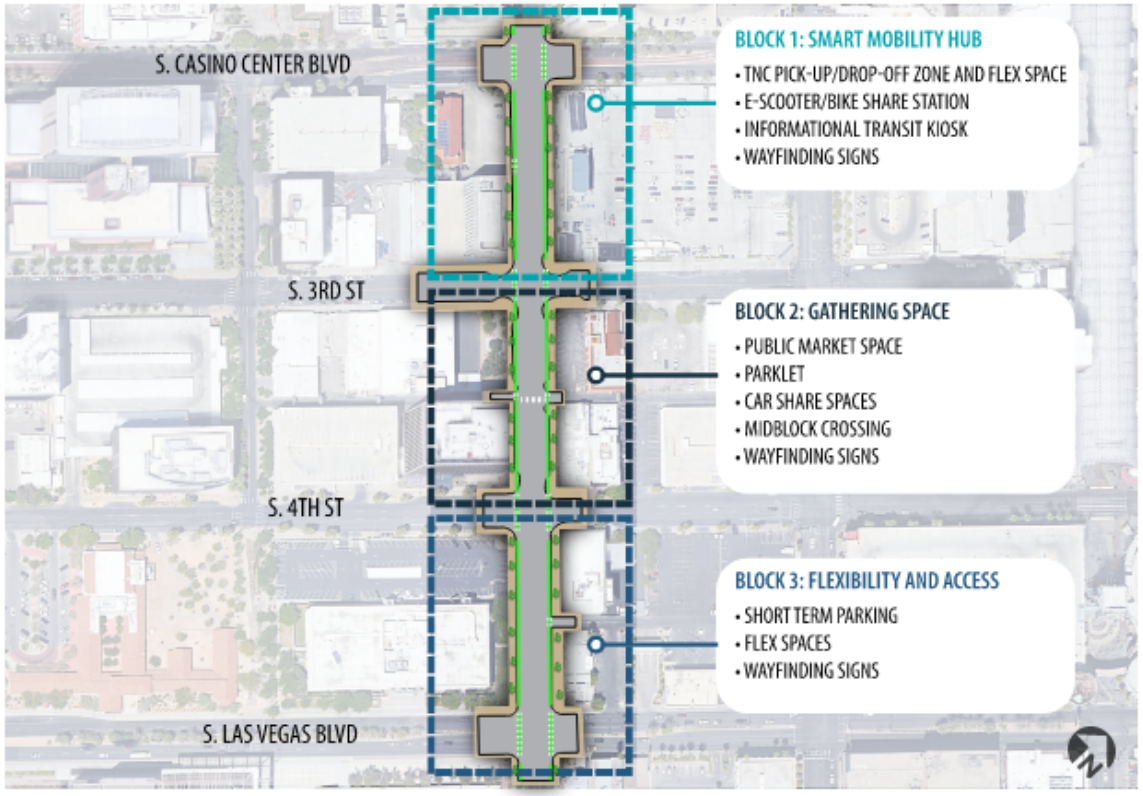
Activity Centers

- Curb Management is best suited for areas where multiple modes of travel converge, such as central business districts, shopping destinations, and airports.



Determine Curb Functions

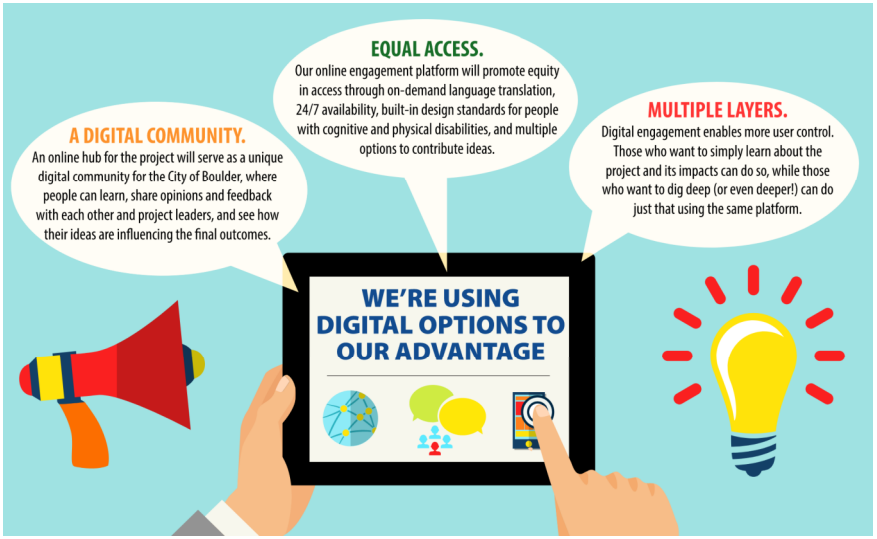
- Access for people
- Goods/Commerce
- Activity
- Vehicle Storage
- Movement

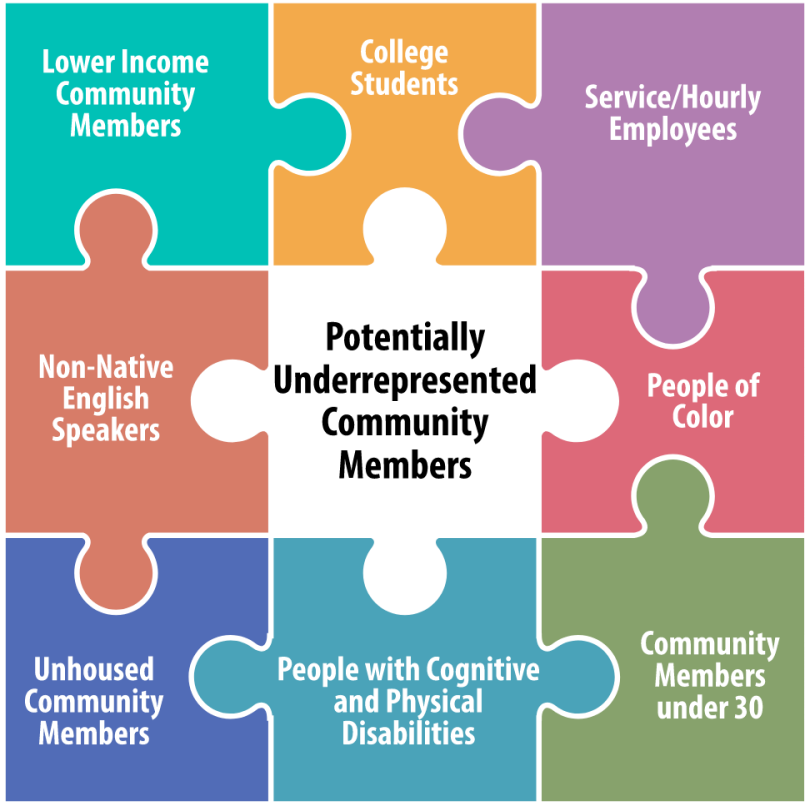


Education and Outreach

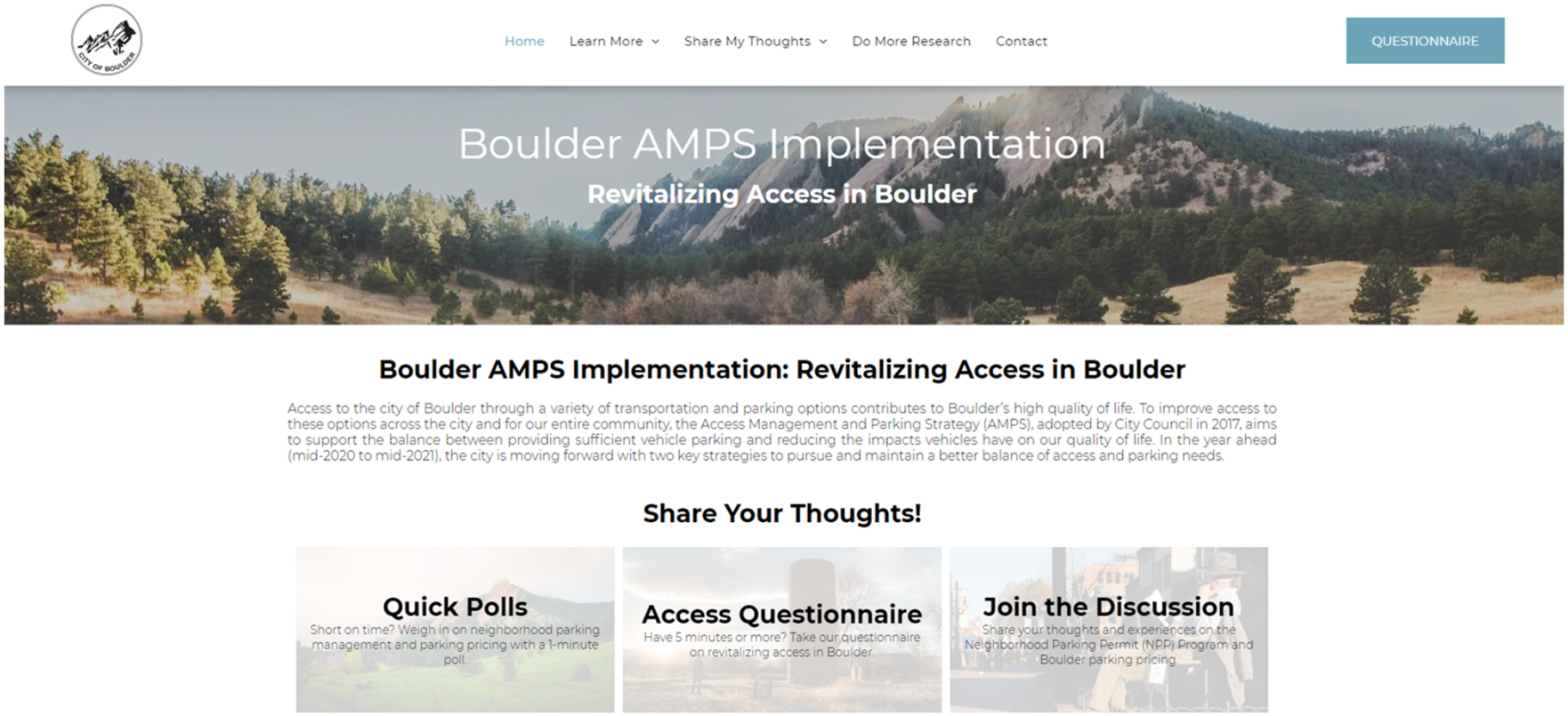
- **Convey value of the curb**
  - Benefits from organized curb
- **Learn community needs**
- **Pilot Programs:** Establishing pilot programs to test the efficacy of selected treatments
  - People can experience
  - Adapt based on use and performance

Education and Outreach





Education and Outreach



Prioritize Access and Tradeoff Evaluation

The City of Seattle prioritizes curbs based on land use context

	Industrial Areas	Residential Areas	Commercial or Mixed-use Areas
Modal Plan Priorities	1	1	1
Access for Commerce	2	3	2
Access for People	3	2	3
Public Space Activation	5	6	4
Greening	6	4	5
Private Vehicle Storage	4	5	6

Source: *Curb Appeal*, NACTO, 2017

04 | Treatments for Success

Selecting Curb Treatments

- Private vehicle parking
- Passenger pickup/drop-off
- Parklets
- Bike / Micromobility lanes and parking
- Bus/Transit lanes
- Commercial loading zones

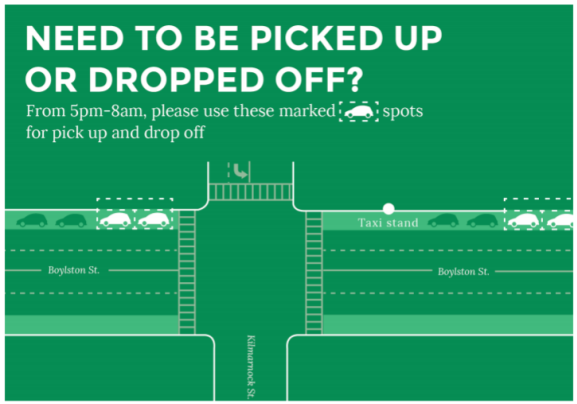
Can be flexed throughout the day

Passenger Pickup / Drop-Off: Boston, MA

- Pilot program for pickup/drop-off
- Geofenced areas for pickup only
- 30% reduction in pickup/drop-offs in the travel lane
- Increased curb utilization by 350%

Learnings:

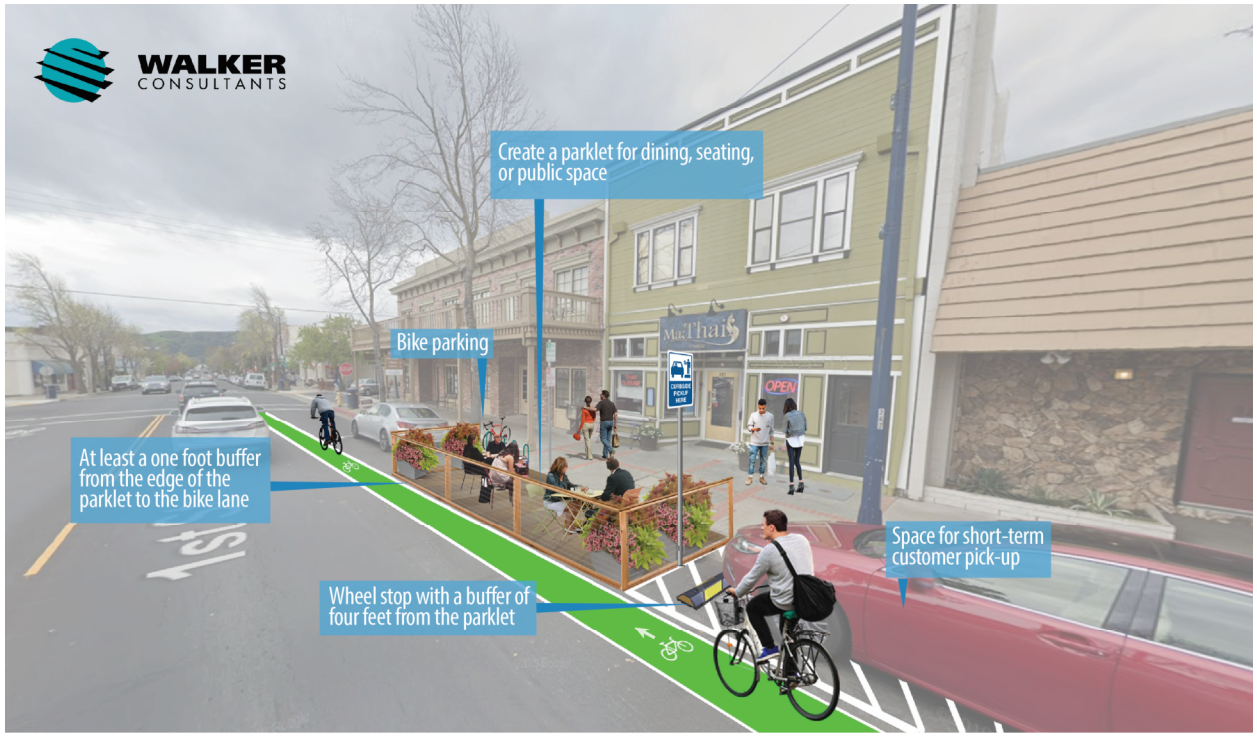
- Remove furniture zone and trip hazard
- Need specific wayfinding and communications
- Data collection challenges, difficult to collect manually
- Offsetting parking meter revenue
- Allow for more space for vehicle pull-ins



Images: City of Boston

Pedestrian Realm: Benicia, CA

- Parklet program
  - Streateries / Public parklets
- Street has high crown and slope
  - Flooding and drainage
  - Must be ADA accessible
- Wheel stops / Buffer zone
- Flexible posts or bollards
- One-foot setback from bike or travel lane
- Utility access
- Local support
- City may provide platforms



Loading Zones: Columbus, OH

- Tested on-demand curbside reservation system for delivery drivers
- Better understand operational needs for delivery
- Test if a reservation system could improve efficiency and safety
- Eight loading zones used 19,000 times, 105/day

Learnings:

- Average dwell times was five minutes
- Peak demand 12pm – 2pm and 6pm – 7pm
- Prevented double parking
- Need more dedicated spaces
- Resistance to using an app
- Need enforcement
- Pricing challenges because of transaction fees

Parking

San Francisco, CA: SF Park

- Federally funded pilot
- Performance pricing
- Sensor data
  - Reached end of useful life
- Adjusted approach
- Concept offers a framework for other cities

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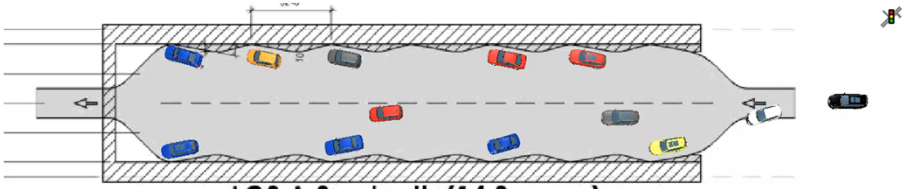

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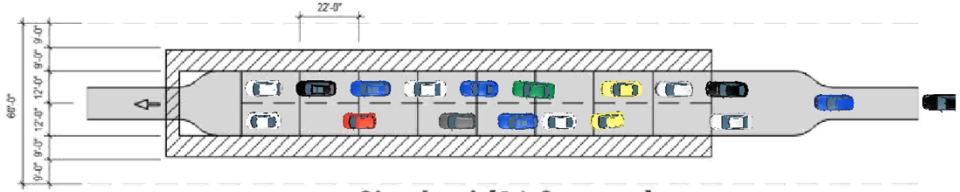

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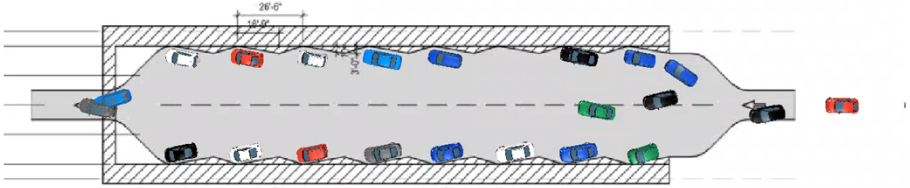

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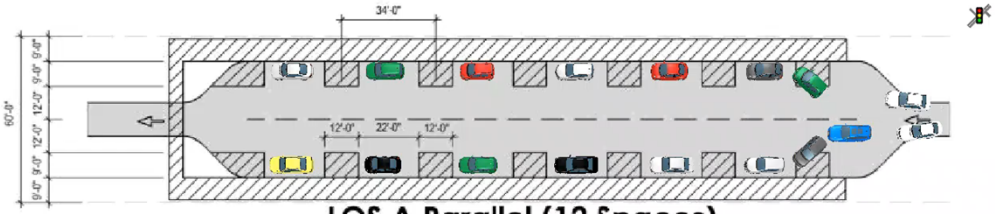

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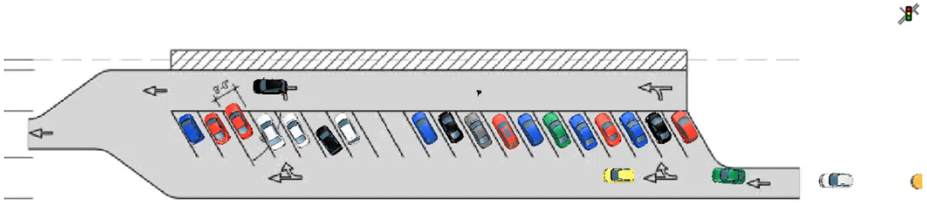
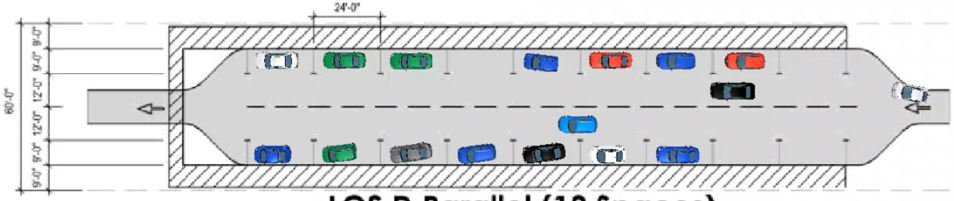


LOS A Pull-thru with peds (20 Spaces)



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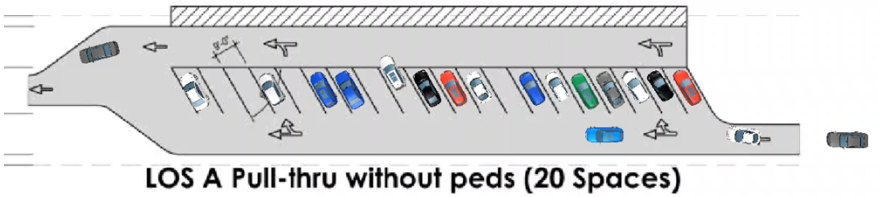

LOS A Pull-thru without peds (20 Spaces)

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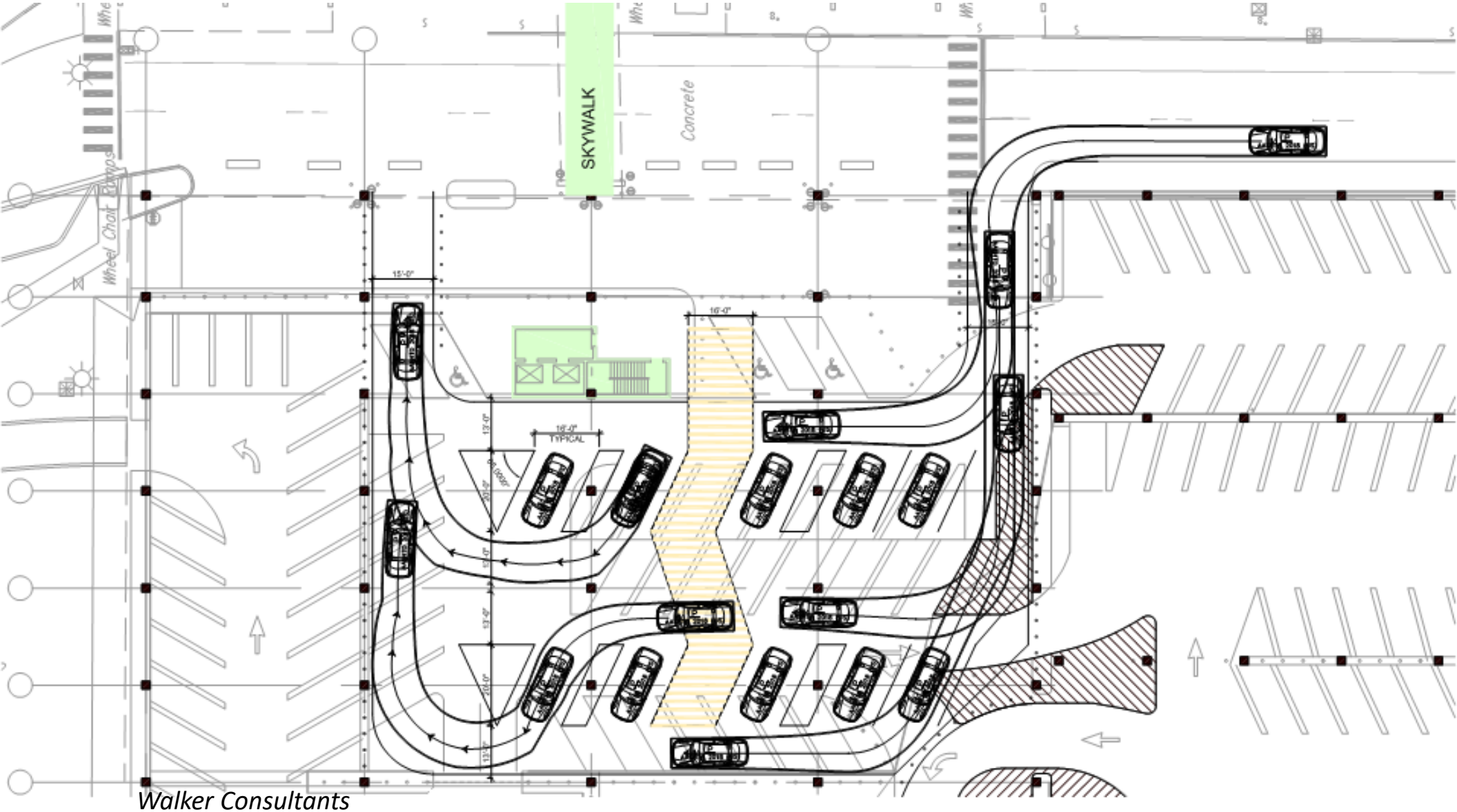

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05 | Considerations

Curb Data

- **Need data to test and adapt curb treatments**
  - Ongoing data collection and analysis
  - Partnerships/data ownership and access

- **Open data standards**
  - Mobility Data Specifications (MDS, Open Mobility Foundation)
  - General Transit Feed Specification (GTFS Mobility Data)
  - General Bikeshare Feed Specification (GBFS North American Bikeshare Association)
  - Open Curbs (Coord)
  - CurbLR (SharedStreets)
  - OpenALPR (Rekor Recognition Systems)

Data gaps currently exist in accommodating commercial freight and courier services, on-demand delivery and Ride Apps

Spectrum of Curb Management Technology

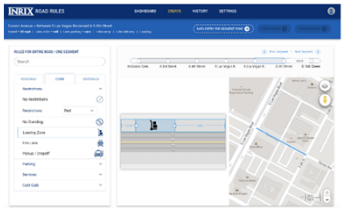
Inventory
- Visualizing and mapping existing conditions

Monitoring and Enforcement
- Know curb use patterns
- Monitor demand

Monetization
- Enact fees for curb activities beyond parking

Operationalize/Implement

Collector for ArcGIS



UNLEASH

POPULUS

curbFlow

VADE

PARKUNLOAD

Automotus

pay by phone

NUMINA

COORD

Passport

SharedStreets

remix

Cleverciti

Curb Access Fees

- Charge access for all curb users
  - Ride Apps
  - Commercial / On-demand delivery
- Diversify parking and transportation revenue sources
- Manage demand and prioritize access
- Expand the financial output of the curb and respond to changing consumer demand
- Invest in access and mobility improvements
- Provide a higher level of service

✓ ***Incremental process***

✓ ***Allow regulatory flexibility***

✓ ***Data and monitoring***

✓ ***Enforcement***

✓ ***Move toward***
✓ ***curb congestion pricing***

Ride App Fees

San Francisco

- Ballot measure in California

- **Chicago, IL** tiers Ride App fees to incentivize shared rides and decrease congestion

Micromobility: Columbia, MO / Univ. of MO

Columbia, MO and the University of Missouri developed a joint Dockless Mobility RFP / fee structure

Policy Considerations

- **Permit flexibility**
  - City council permit broad curb management framework and a range of fees
  - Allows planners to easily test and adapt
- **Track legislation**
  - Efforts to limit local control and data access
- **Consolidation of companies**
  - Can limit options and leverage
- **Partnerships**
  - Are curbs the next public-private partnerships?
    - Need to align public and private sector goals
    - Could bring innovation and access to capital
  - Evaluate long term considerations
  - Lessons from public private partnerships
    - Public “owns” the curb
  - Data and privacy

Walker's Curb Management Research Project

- Testing curb management technology
- Pilots with cities of all sizes to solve a curb issue
- Data collection to model curb demand:
  - Location, land use, modes available
    - Average peak hour demand
    - Peak of the peak hour demand
    - Weekday/weekend
    - Dwell times

Outcome

- Evaluate technology
- Curb design models and treatments based on:
  - Density
  - Land Use
  - Geography
  - Users

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06 | Group Activity

Questions?

For more information and resources:
https://walkerconsultants.com/service/planning-mobility/curb-management/

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