

Advancing the On-Street Parking System in Denver

How we kept moving forward



DENVER
TRANSPORTATION &
INFRASTRUCTURE

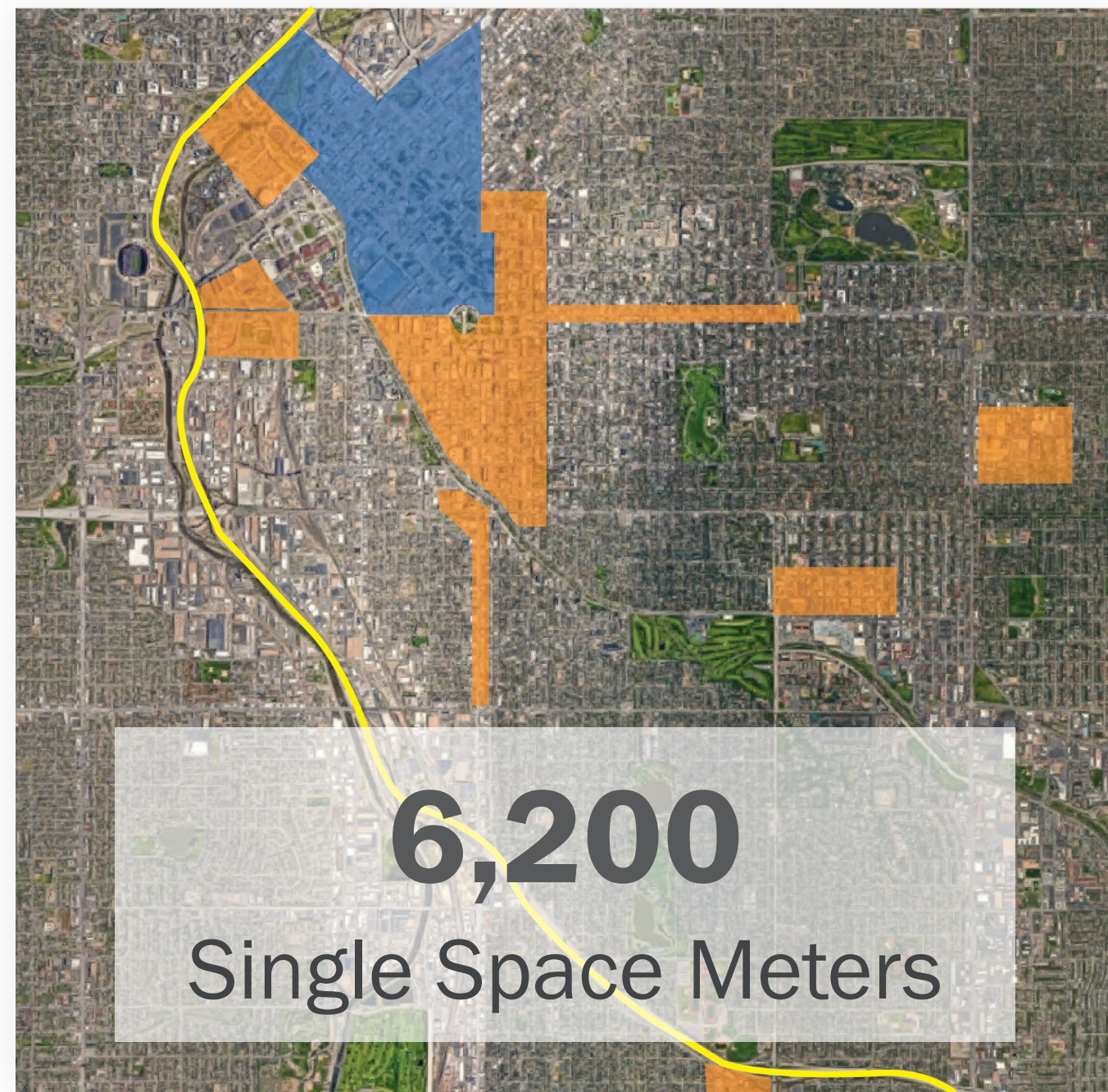
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Welcome and Introductions

- **Speakers**
 - Alyssa Alt, Manager of Curbside and Parking
 - Cindy Patton, Senior Director of Operations
- **City and County of Denver**
 - Population: 715,522
 - Median income: \$81,630
 - Bachelors or higher: 55%
 - Employment: 69.3%
- **Department of Transportation and Infrastructure**
 - General fund based
 - Includes both transportation and utilities functions
 - Curbside and Parking Team sits within Operations Administration

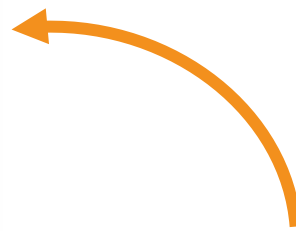


Setting the stage - Denver 2021



 CBD Meters

 Citywide Meters



Paid parking located in **business centers**



\$1/hr max **regardless of differences in demand**



Time-limits are the primary tool for managing demand



Demand highest for on-street parking spaces ...



... yet on-street spaces are **priced far below off-street spaces**

Setting the stage – We were stuck

2021 Context:

- 10+ years of requests to update meter/citation fees
- Increasing demands on curblane space
- Artificially low value of on-street space stifles innovation/pilots
- Stakeholders/BIDs begging for updated strategy and new pricing
- Citation fees misaligned with City values and investments



Hickenlooper's - "Fundamental Nonsense of Government"

- 2002 - Meter rate increases from \$1 to \$1.50 downtown
- 2003 - Hickenlooper Mayoral Campaign harnesses the platform
- Initiates a 20-year political hold on parking meter rate adjustments



<https://www.youtube.com/watch?v=-xT1X7mmR2s>

Inaction Timeline

- New curbside demands
- More focus on mobility
- Better technology

2004



Mayor Hickenlooper lowers rates back to \$1.00/max—less than 75 cents in 2020 dollars

2021



Underpriced meters and increasing pressures for loading, micro mobility, bike & transit lanes, reduces access

2002



Meter prices raised to \$1.50 with little public outreach and old meter technology

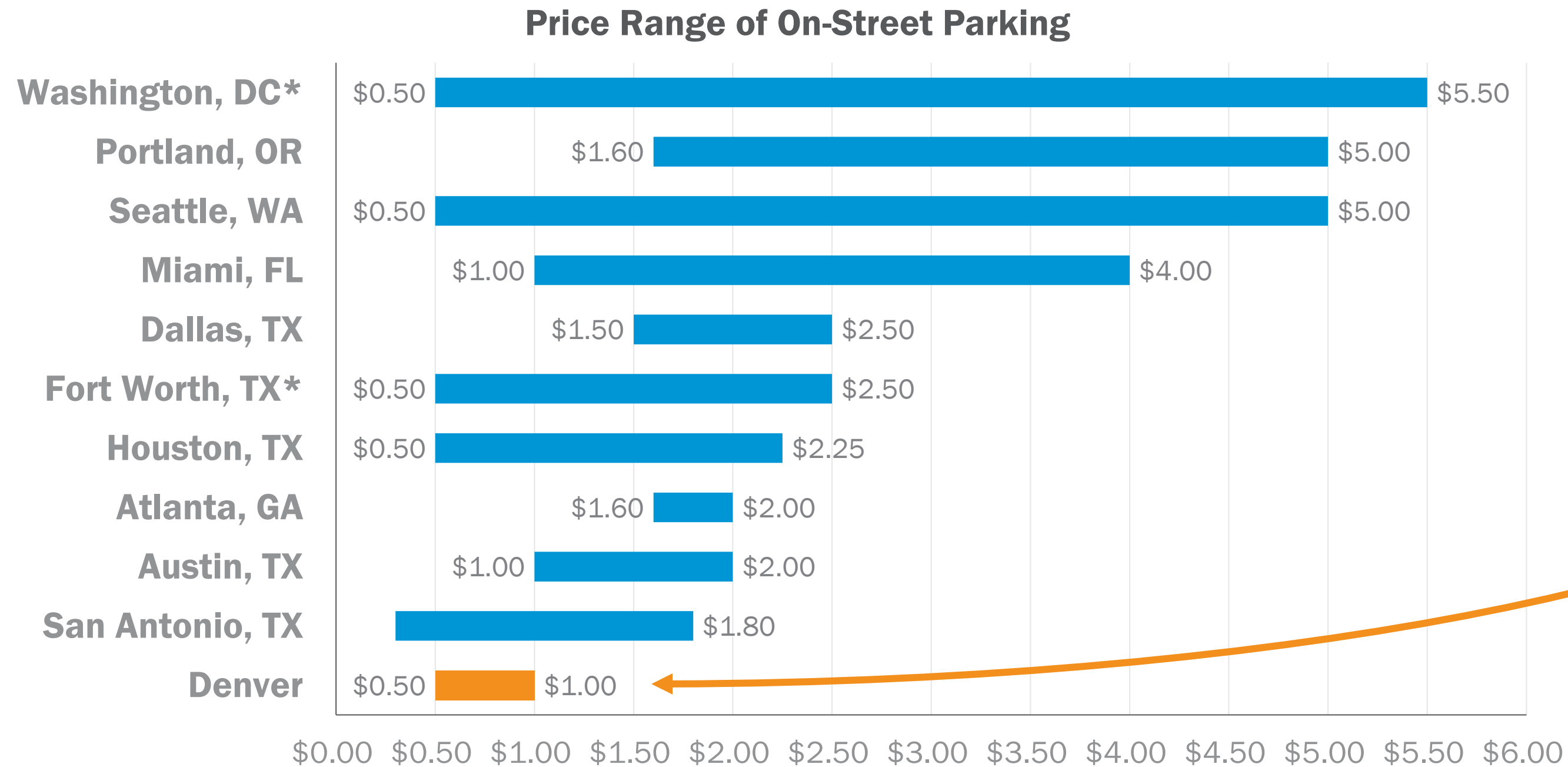
2010



State-of-the-art single space smart meters were installed, accepting credit card payments



How we stacked up to other cities



Denver had a lower maximum on-street parking price than our peers—by a wide margin

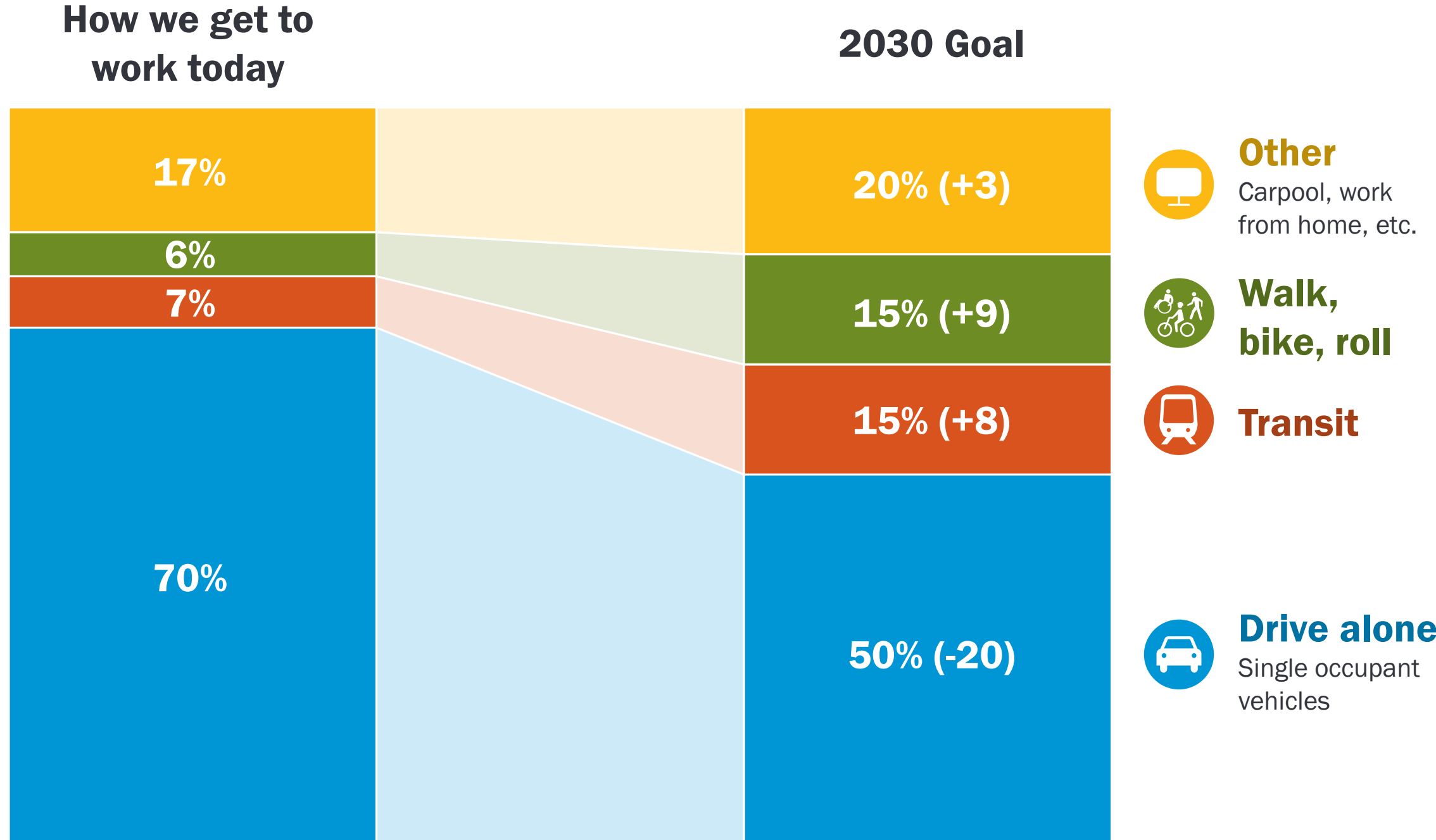
*Dynamic Pricing Program

Getting Traction - Value Misalignment

- ✓ Strategic Parking Plan
- ✓ Curbside (Parking) Access Plans
- ✓ On-Street CarShare Program
- ✓ On-Street Valet Program Click to add text
- ✓ City Sponsored Bicycle Parking Program
- ✓ Denver Moves: Bicycles; Pedestrians & Trails; Transit
- ✓ Vision Zero Action Plan
- ✗ Actual Pricing Strategy



Getting Traction – Denver's Mobility Action Plan



MAP Goals

Reduce single-occupant vehicle (SOV) commuters to 50% and increase bike and pedestrian transit commuters to 30%, by 2030

More transportation options

Equity: Promote equal and flexible access for all travel types and public needs.

Lower emissions

Sustainability: Reduce greenhouse gas emissions by 80% by 2050.

Source: American Community Survey 7-Year Estimates, U.S. Census Bureau, 2017

How We Sold It – Part 1



Transparent data-driven decision making

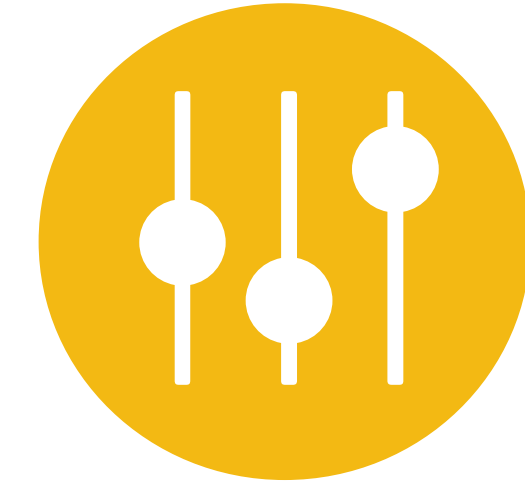
Use data & evidence to guide decision-making over anecdotal observations



Find an on-street parking space when and where you need it

Reduce the number of drivers circling in search of on-street parking

Accommodate visitor needs, not just long-term vehicle storage



Manage the curb for all mobility needs or uses

Promote equal and flexible access for all travel type and public needs



Parking isn't a great experience today





Parking isn't a great experience today

!!!

!!!

Limits access to services and businesses

???

Double-parking blocks transit

👎👎

Circling for parking distracts drivers ... and produces additional emissions

How we can better manage parking





How we can better manage parking

Harness curb space to advance Mobility Action Plan goals



Use curb space for last mile delivery, new types of mobility, passenger loading



Deploy new payment technology including pay by phone



Adjust pricing to ensure 1-2 spaces are available on each block

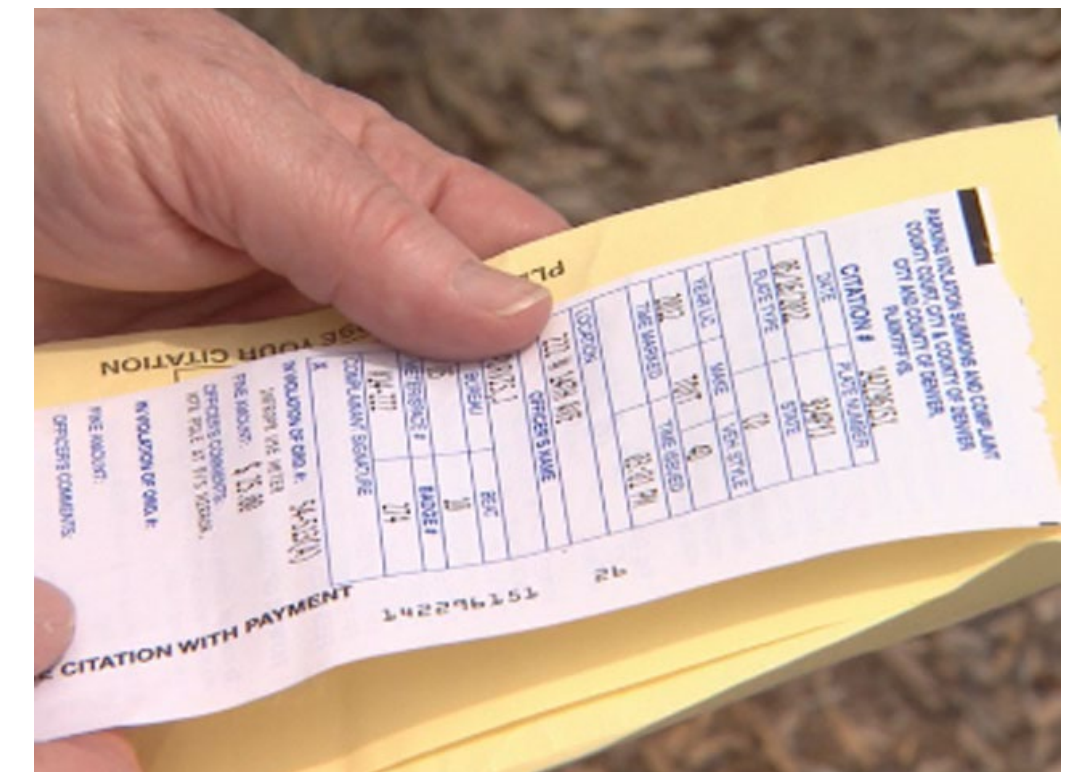
How We Sold it – Part 2



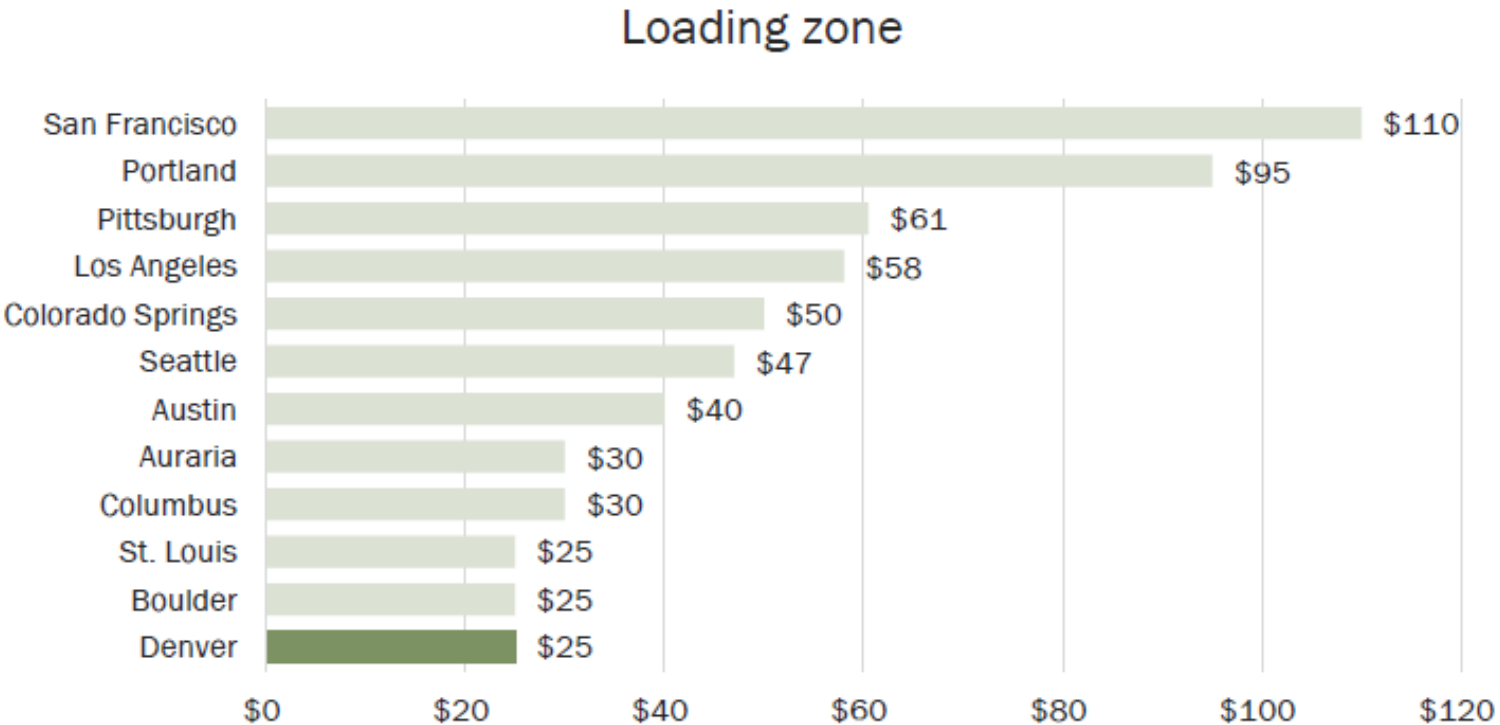
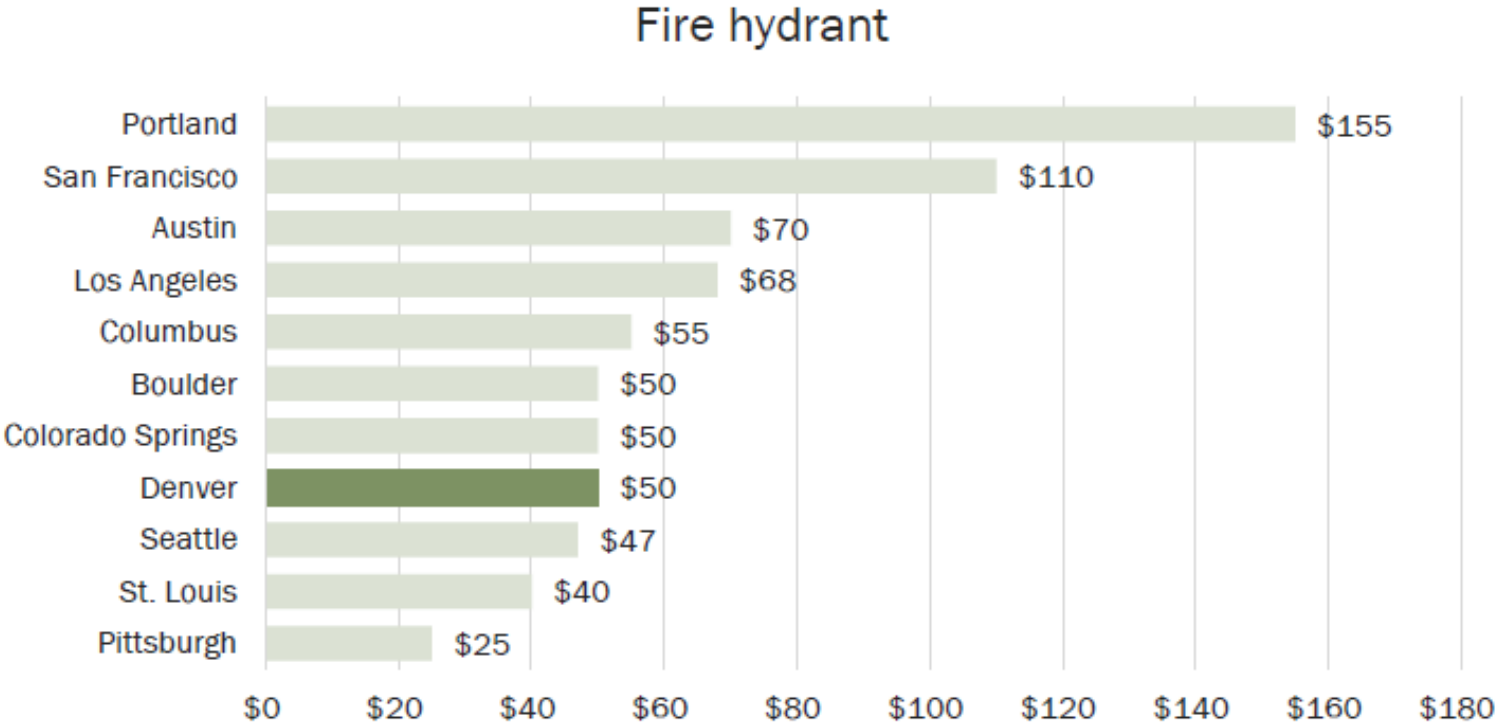
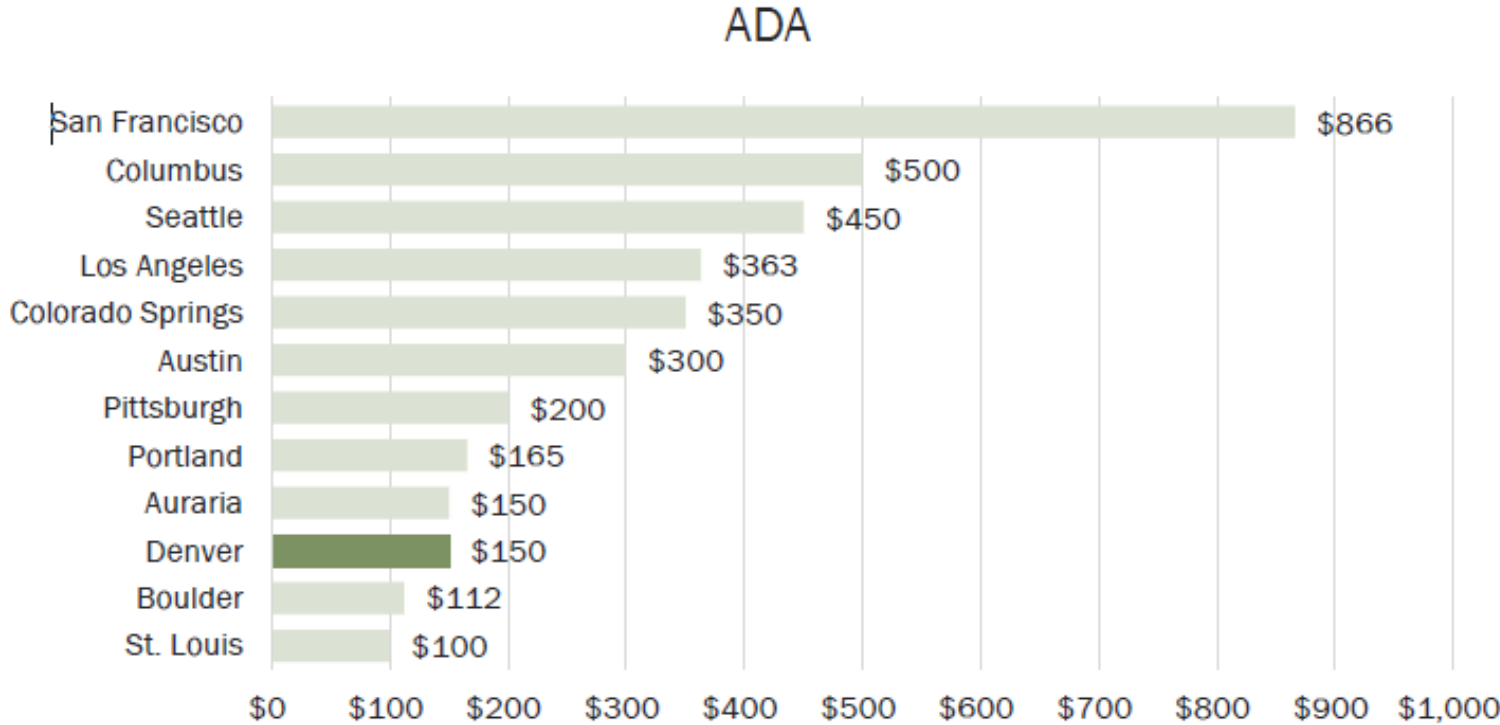
- Any increment over and above 2019 levels of revenue (with a mild escalation/inflation rate set year over year) would go into a Special Revenue Fund dedicated to Transportation – a first!
- SRF focused on funding four categories:
 - Transit (40%)
 - Pedestrian (20%)
 - Safety (20%)
 - Bike (20%)

Pressing Our Luck - Parking Citations

- 2001 - \$5 increase for most citations
- 2007 – targeted adjustment for common citations (\$5) and minor adjustments for less common categories
- 2010 – expired tag increase to \$75
- 2011 – Street sweeping from \$25 to \$50 tow away zone

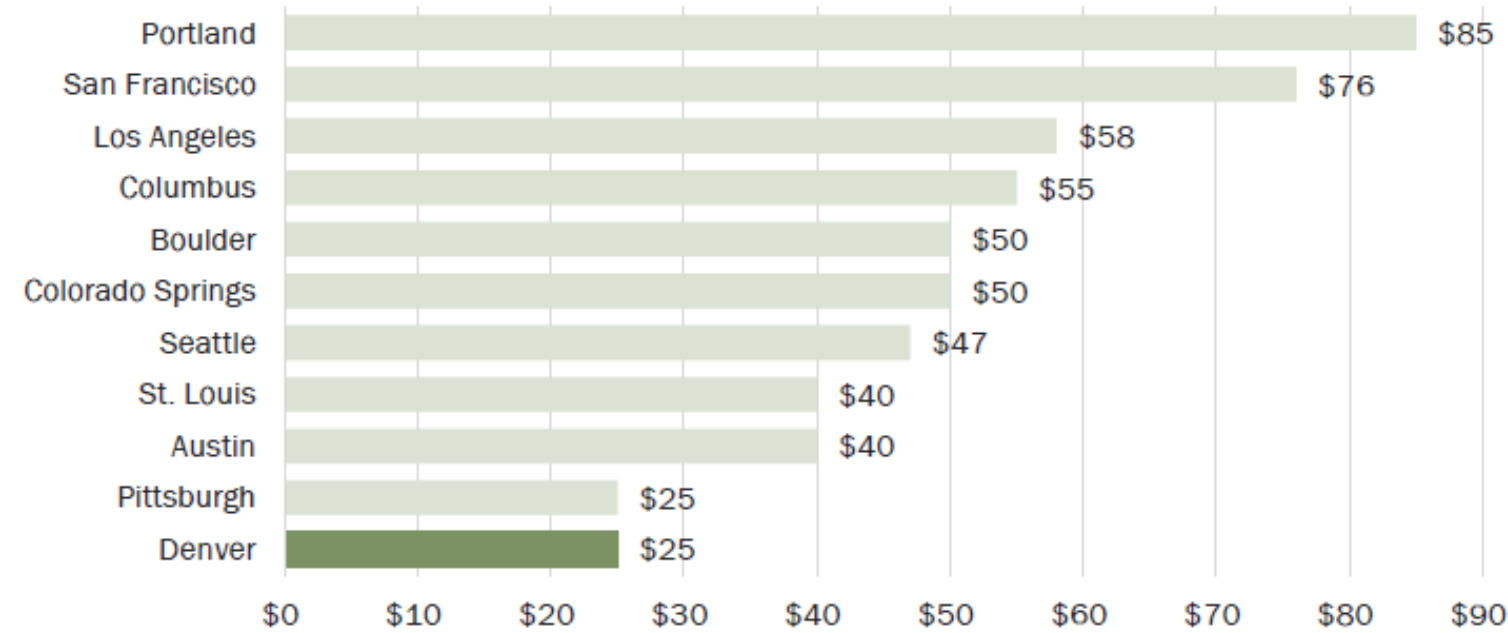


Peer City Comparisons – Denver fell below the median in many categories

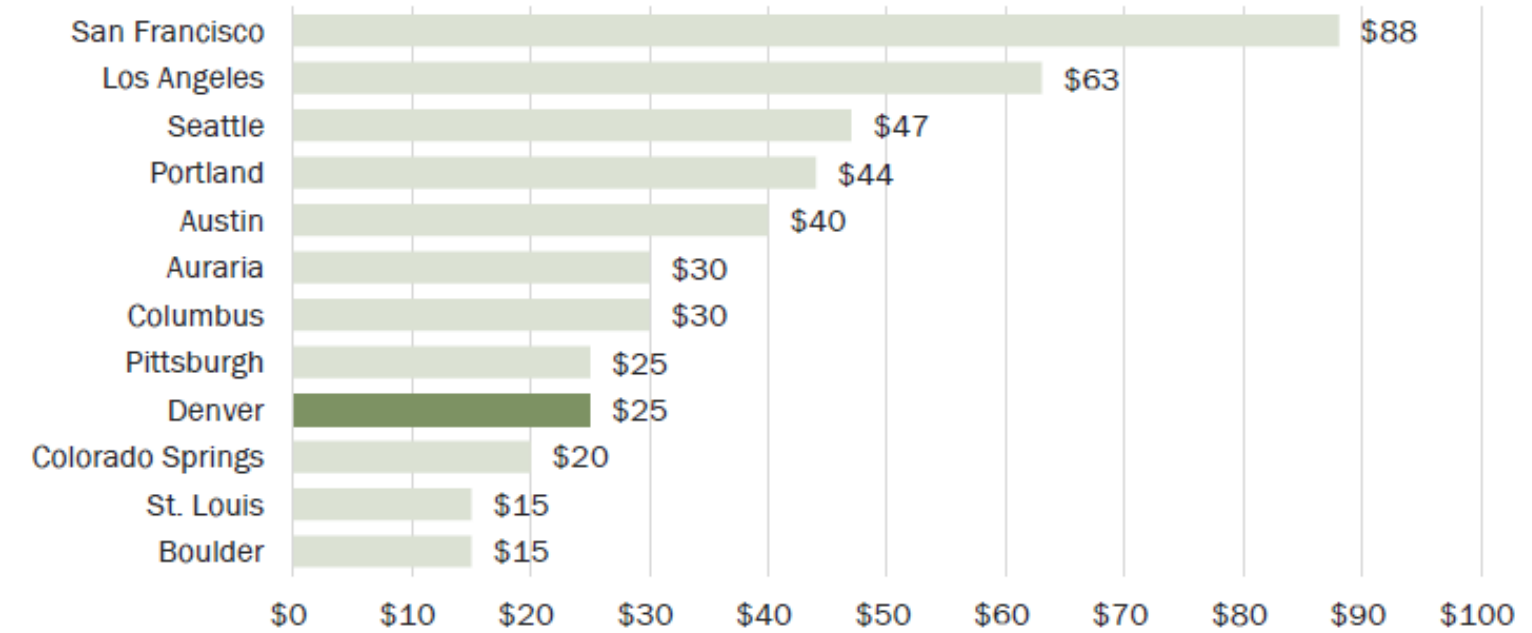


Peer City Comparisons, Cont'd -

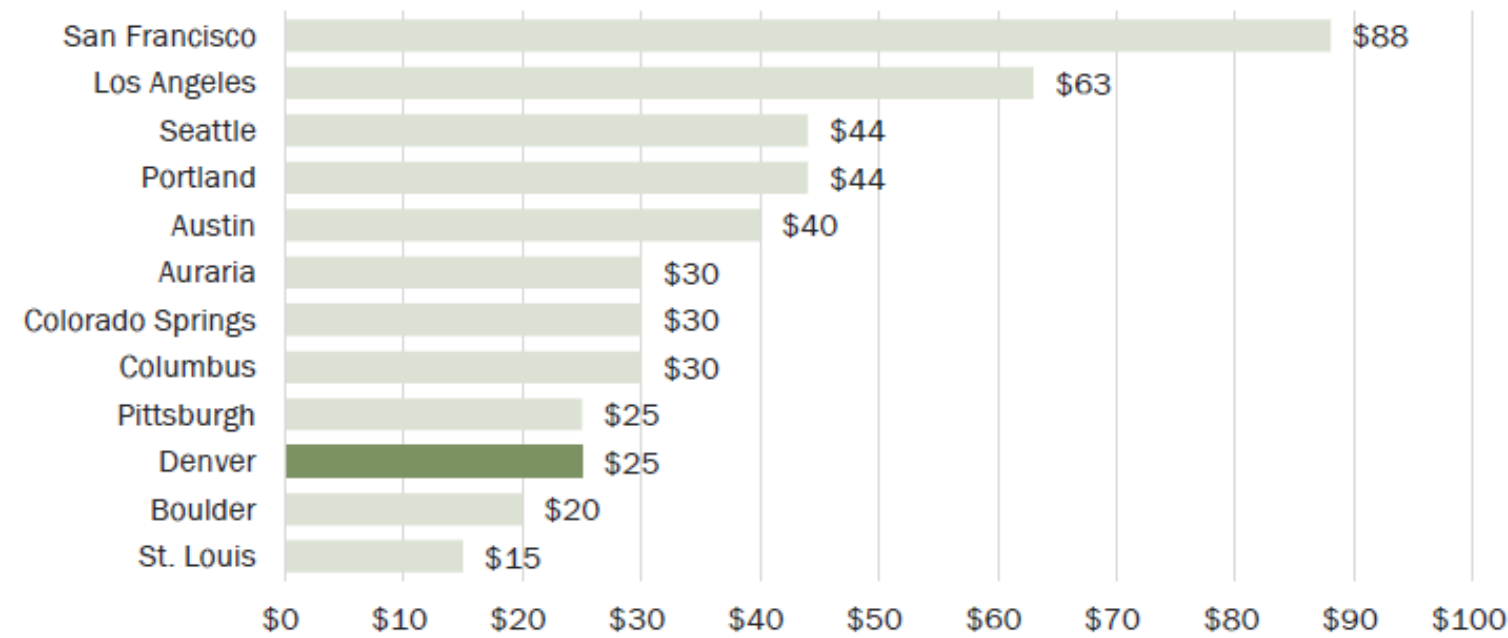
Bike lane or crosswalk



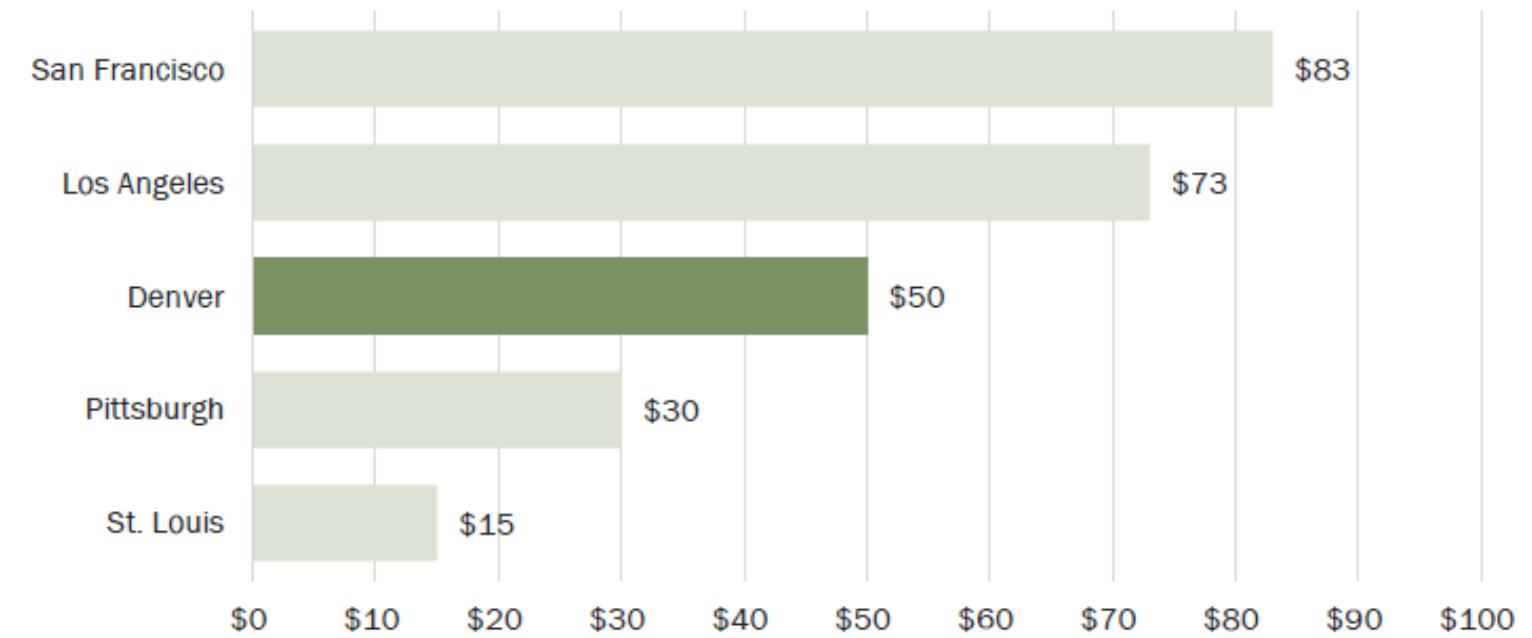
Meter expiration



Overtime parking

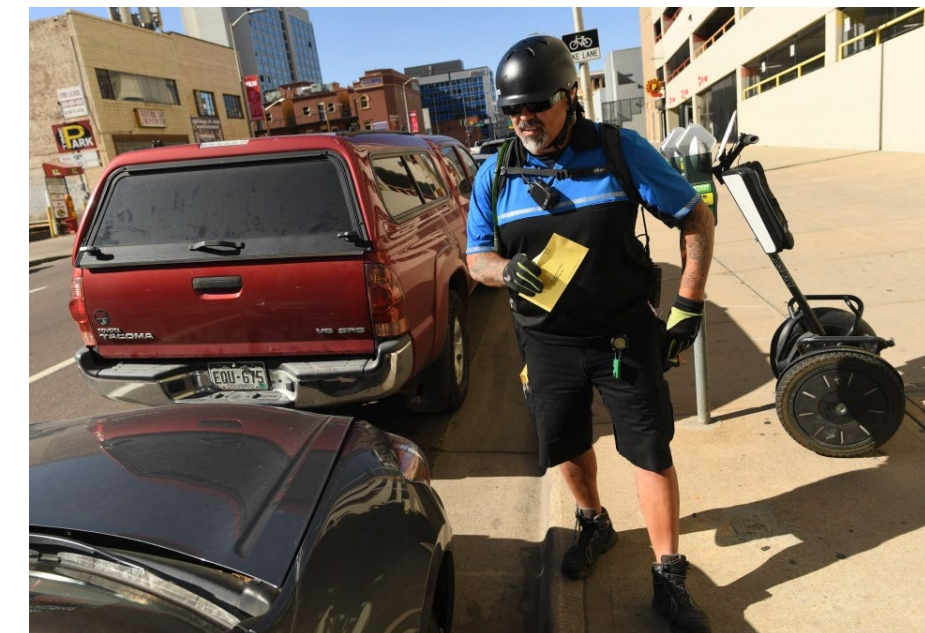


Street cleaning



Summary of Increases

- Common metered and non-metered violations - increase 40%
- Tow-away zone violations - increase 50% due to safety implications
- New, separate citation created for Street Sweeping – increase 40%
- Violations in direct opposition to our mobility and Vision Zero Goals - increase 160%
- ADA violations - increase 133% (citation amount in line with minimum noted in Colorado Revised Statutes)
- License Plate violations - increase 33%
- Large Vehicle Parking - increase 700% at request of Council



A phased approach

Phase 1

**Make it easier to find
and pay for parking**

Parking Price Proposal

Adjust the base parking meter rate to \$2.00 per hour.

New Meter Technology

Enhance parking system by procuring new parking infrastructure. Pay-by-mobile implemented winter 2021

Phase 2

**Fine tune more equitable
access to the curb**

Demand Responsive Pricing

Create demand-responsive pricing program to meet parking occupancy goal, 85% full.

Curbside Pilots

Pilot various curb pilots that meet the mobility goals and promote equitable access for.

Phase 3

**Encourage
good behavior**

Adjust Parking Citation Fine Amounts

Propose increasing safety-related parking fines to enhance compliance.



A phased approach

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What's next?



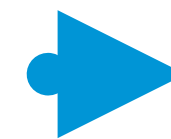
 **Spring 2021**
Mobile Pay
Implemented



 **2022**
Updated/New Meter Equipment
Performance Based Pricing
Expanded curb-lane pilots

Future

- Reallocate curb space to support our goals
- Manage loading and freight
- Predictive analytics/wayfinding



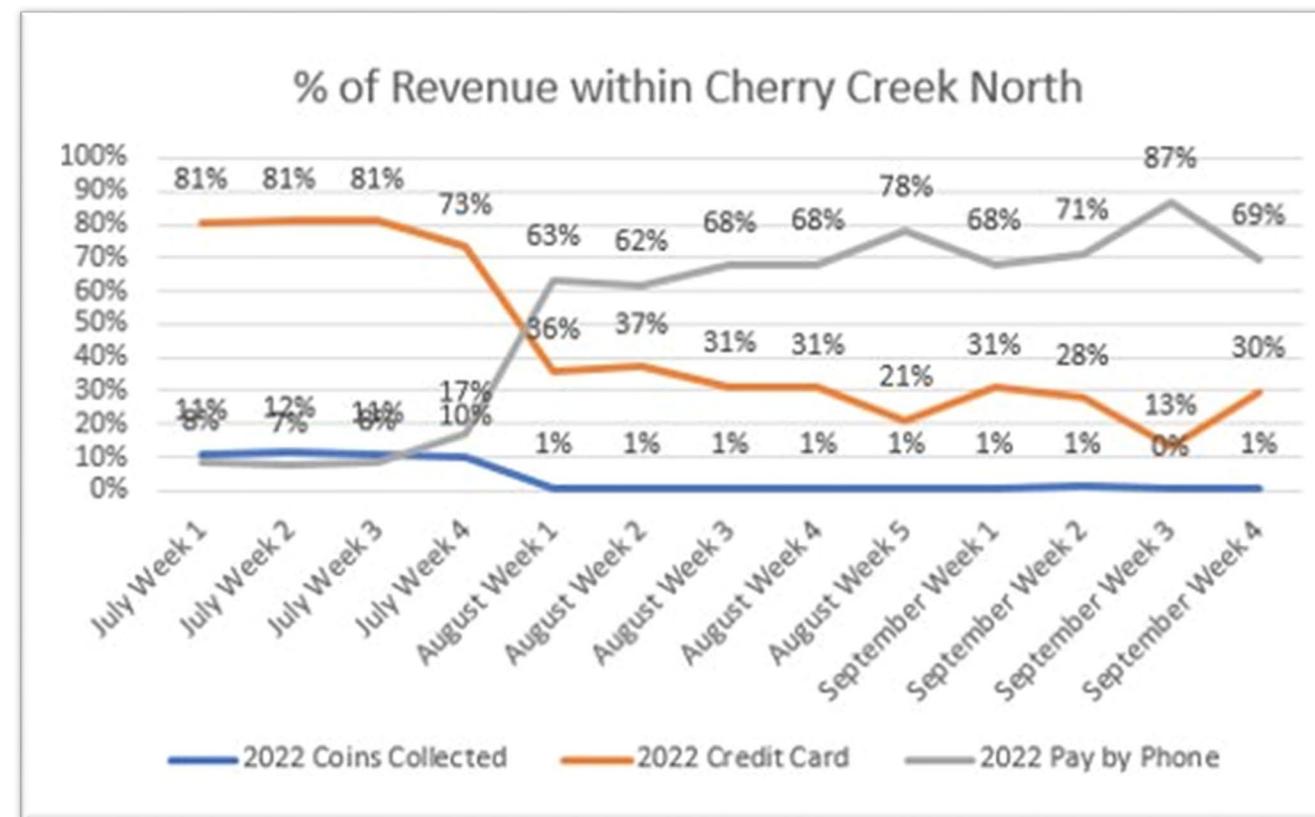
New Meter Technology

2021 ~6,200 single space meters - End of Life

Vacancy Savings

- Replace all meters
- 1/4 single space with multi-space
- Provide multiple payment options
- Meters upgrade to accept NFC

2023 - Expand Paid Parking footprint



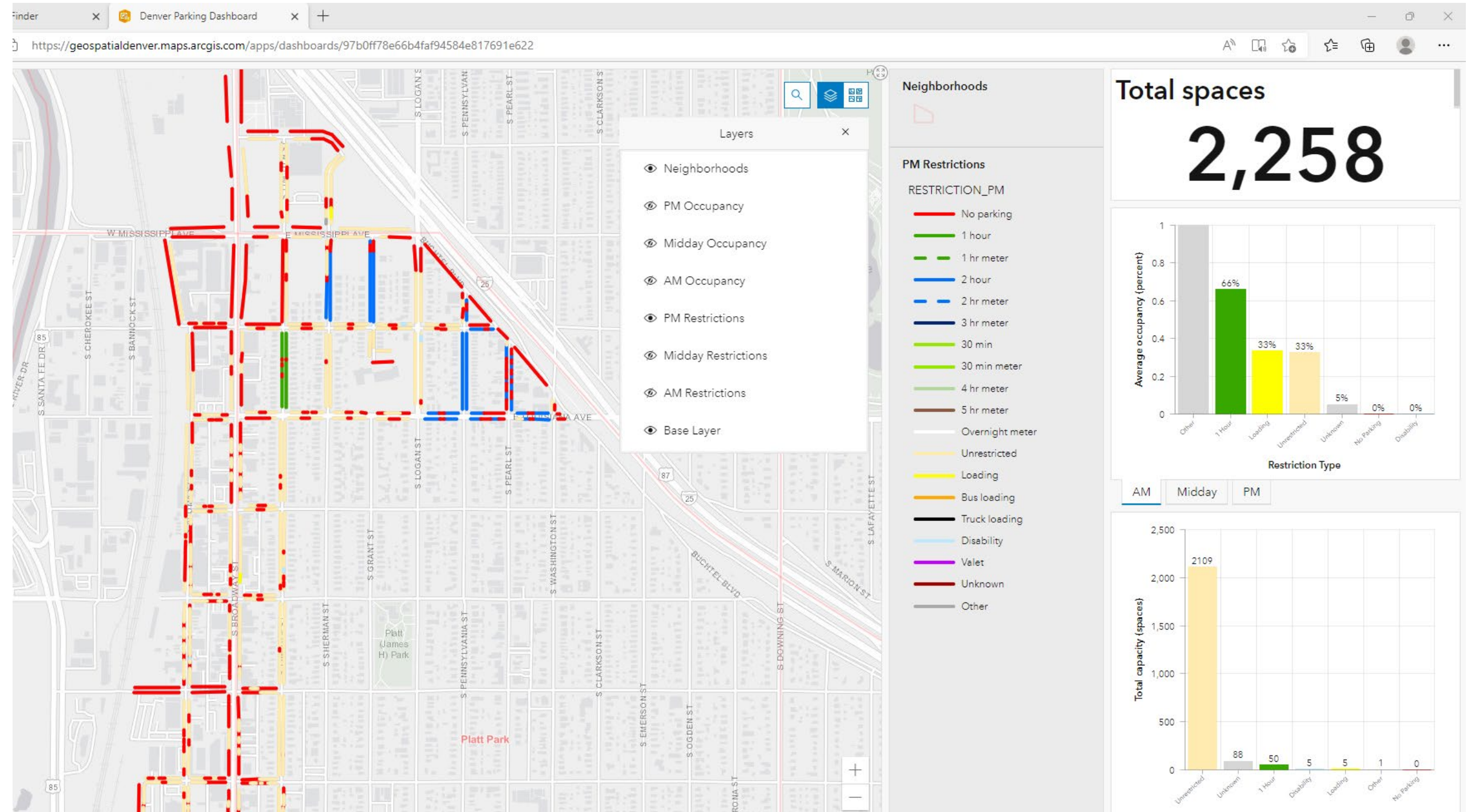
4G LTE
THE TIME IS NOW

T-Mobile and Verizon announce the sunset of their 2G and 3G networks

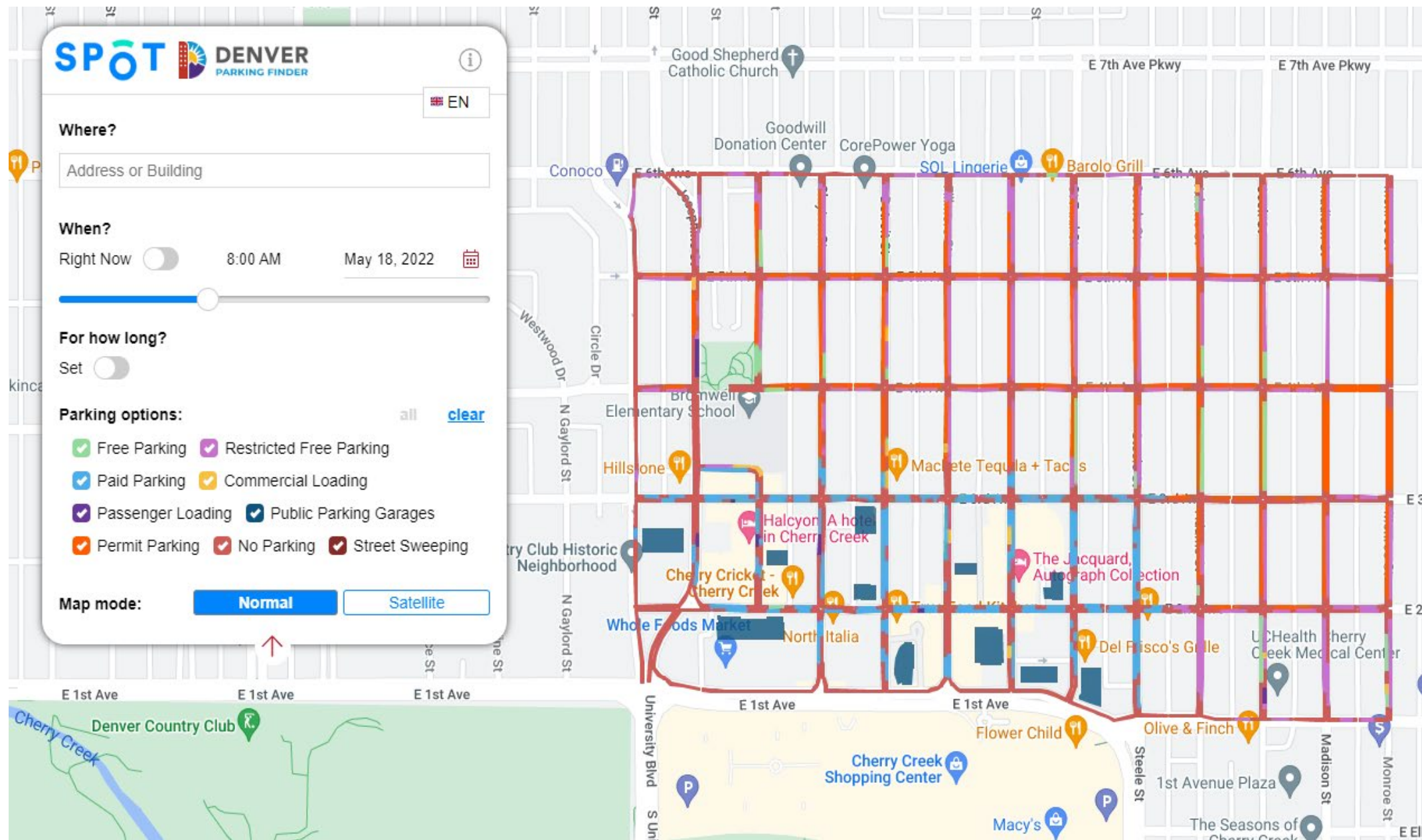
Managing the Curb - Mapping

Internal DOTI mapping

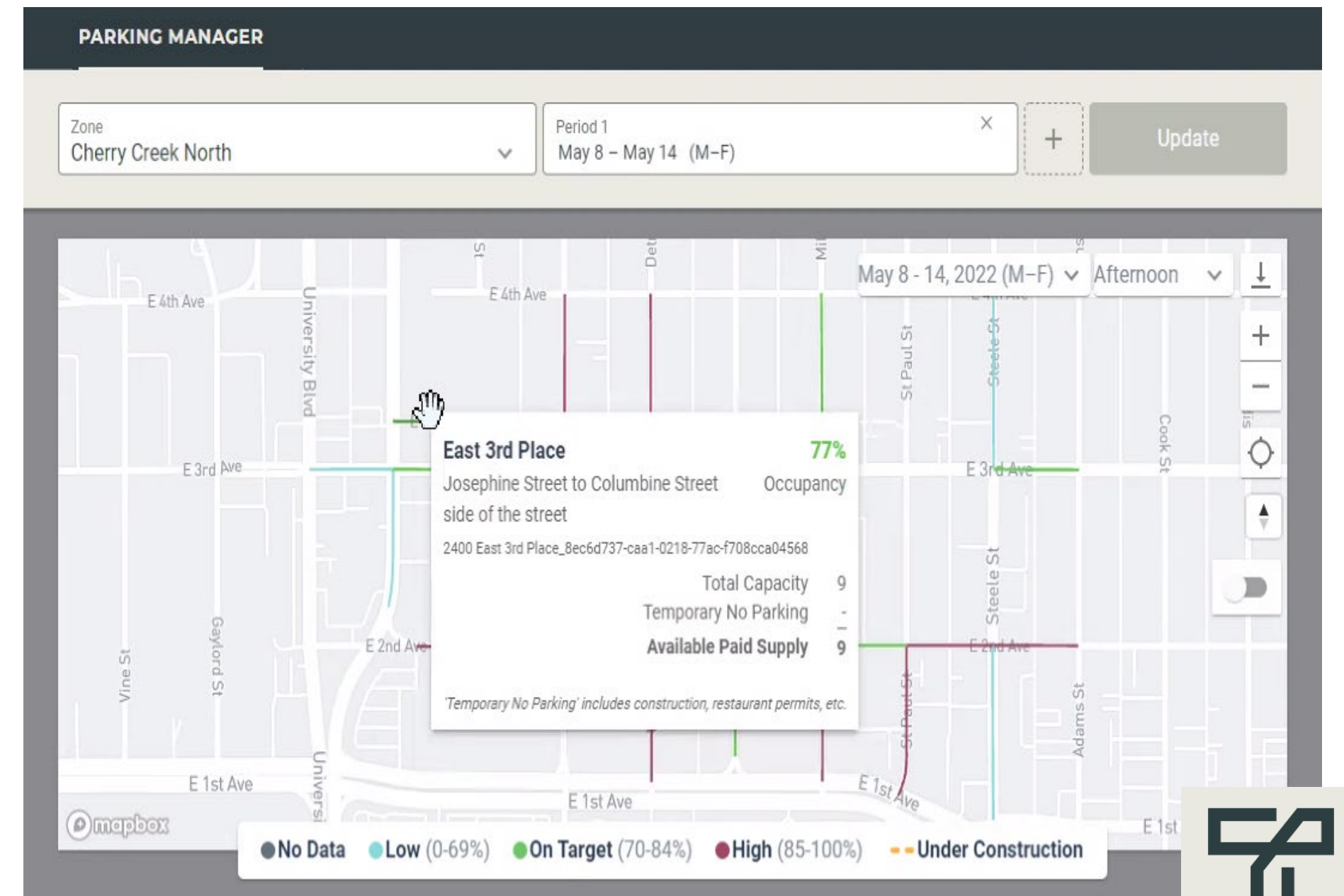
- Point-in-time parking occupancy
- Standardized parking occupancy collection method
- Incorporate information into Asset Management system – Cartegraph
- One-stop-shop for on-street parking information
 - Transportation Planning
 - Vendors
 - Public



Managing the Curb – Mapping & Predictive Analytics



SPoT - Curbside Digital Mapping



Turnstone – Parking Occupancy Model



Performance Based Pricing

- Data-driven parking pricing to achieve 15% parking availability
- Demand responsive to find lowest price that achieves availability target
- Recognize that demand factors are always changing
- Enhances customer experience



Curbside Action Plan

- Update to 2010 Strategic Parking Plan
- Establish curbside priorities
- Utilize previous Citywide planning efforts

Themes	Key Takeaways from Existing Work Efforts
Align Curbside Priorities to Meet City Goals	Prioritize guidance from: Blueprint Denver, Denver Moves, and Complete Street Guidelines
	Prioritize user safety when determining curbside use ★
	Complement nearby transportation network and land uses
	Provide accessibility for diverse curbside uses
Promote Innovative and Dynamic Curbside Management	Accommodate and support a variety of modal choices
	Deploy active parking management strategies and dynamic pricing
	Create curbside strategies that can adapt to evolving needs and technologies
	Prioritize space for electric vehicles
	Update development standards to reflect curbside priorities
	Focus on placemaking with a “People-First Places” orientation
Customize Prioritization of the Curbside Within a Neighborhood or Corridor	Integrate Smart Technology into curbside products such as payment systems, data collection, and customer use
	Include flexibility for temporary uses
	Balance curbside demands based on user needs and land uses
	Consider on and off-street parking when identifying parking strategies
	Prioritize curbside uses for the greatest number of people
Integrate Regulations, Procedures, Engineering, and Enforcement	Provide and plan for flexibility
	Emphasize the need for neighborhood Curbside Access Plans
	Continue parking enforcement and optimize
	Utilize engineering strategies (capital and operations) to support diverse curbside uses
	Consider safety countermeasures on/at the curbside when implementing engineering solutions
	Develop and implement curbside regulations and procedures consistently

Continuing to Evolve

Food/Mobile Commerce Policy

Residential Parking Permit Program Update

CarShare Program Changes

Parking Management Information System Vendor Change

Outdoor Patio Expansion Programs



Thank you!

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