

Fort Worth to Laredo High-Speed Rail Study



**CHANGING MOBILITY: DATA,
INSIGHTS, AND DELIVERING
INNOVATIVE PROJECTS DURING
COVID RECOVERY
(FORMERLY RTC4U)**

REGIONAL TRANSPORTATION COUNCIL

July 9, 2020

Michael Morris, P.E.
Director of Transportation

POLICY METRICS

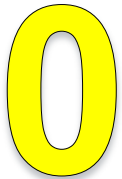
1. Travel behavior response to COVID-19
2. Financial implications to traditional revenue sources
3. Benefits of travel behavior responses to areas of RTC responsibility (e.g., Congestion Management System, national performance measures, ozone standard)
4. Prioritization of infrastructure improvements that offset unemployment increases

Metric 1: Travel behavior response to COVID-19

Travel Behavior by Mode



Bicycle/Pedestrian (+65%)



Freeway Volumes (-20%)

Toll Road Transactions (-40%)

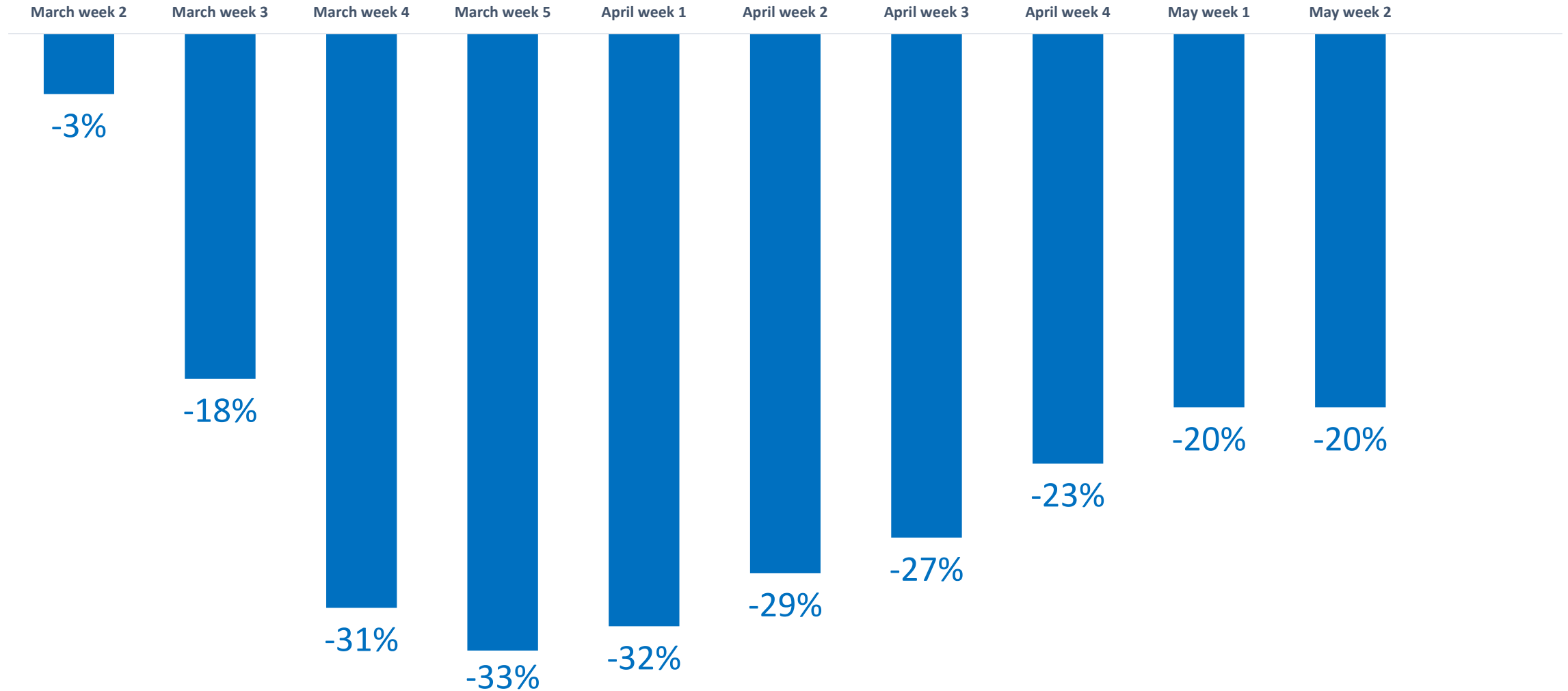
Transit Ridership (-55%)

Airport Passengers (-80%)

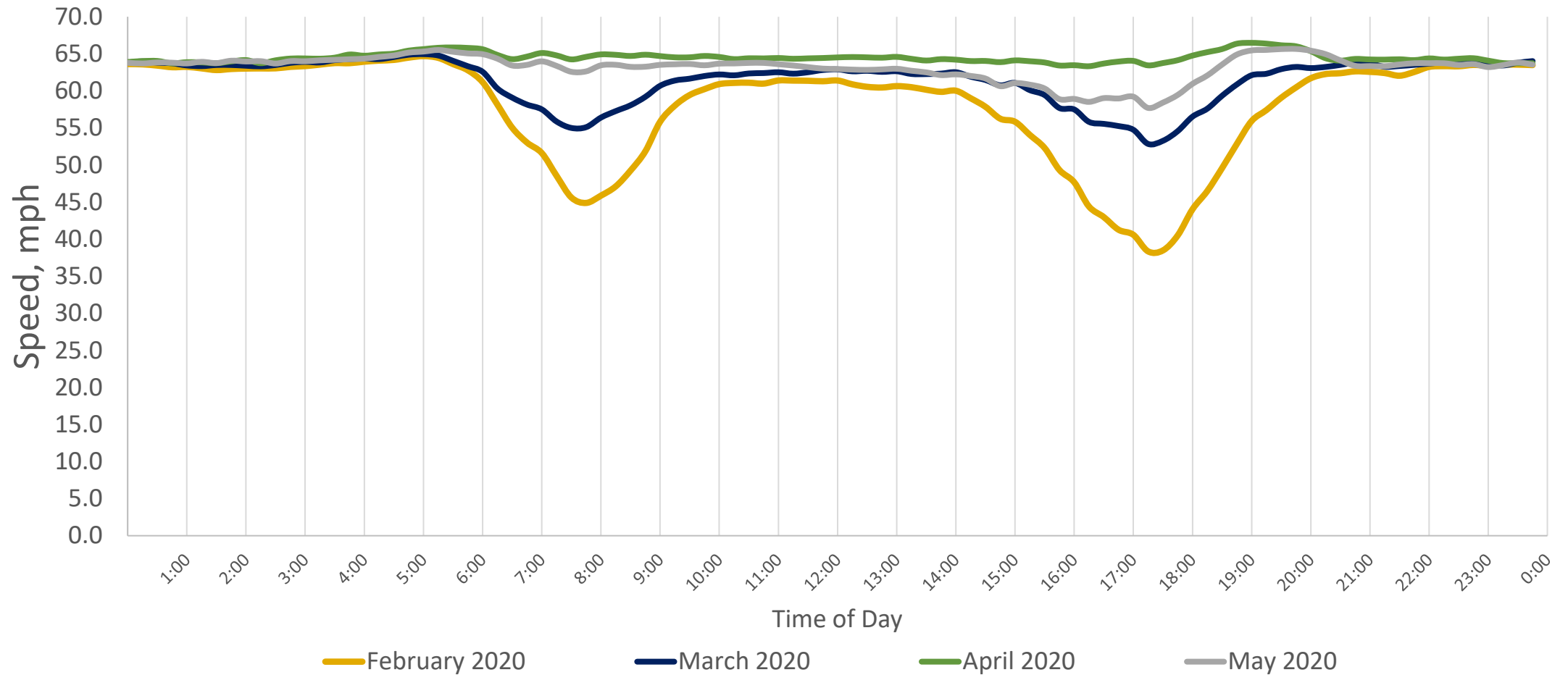


Weekly Freeway Volumes (Weekdays)

Decrease in Traffic with respect to First Week of March 2020

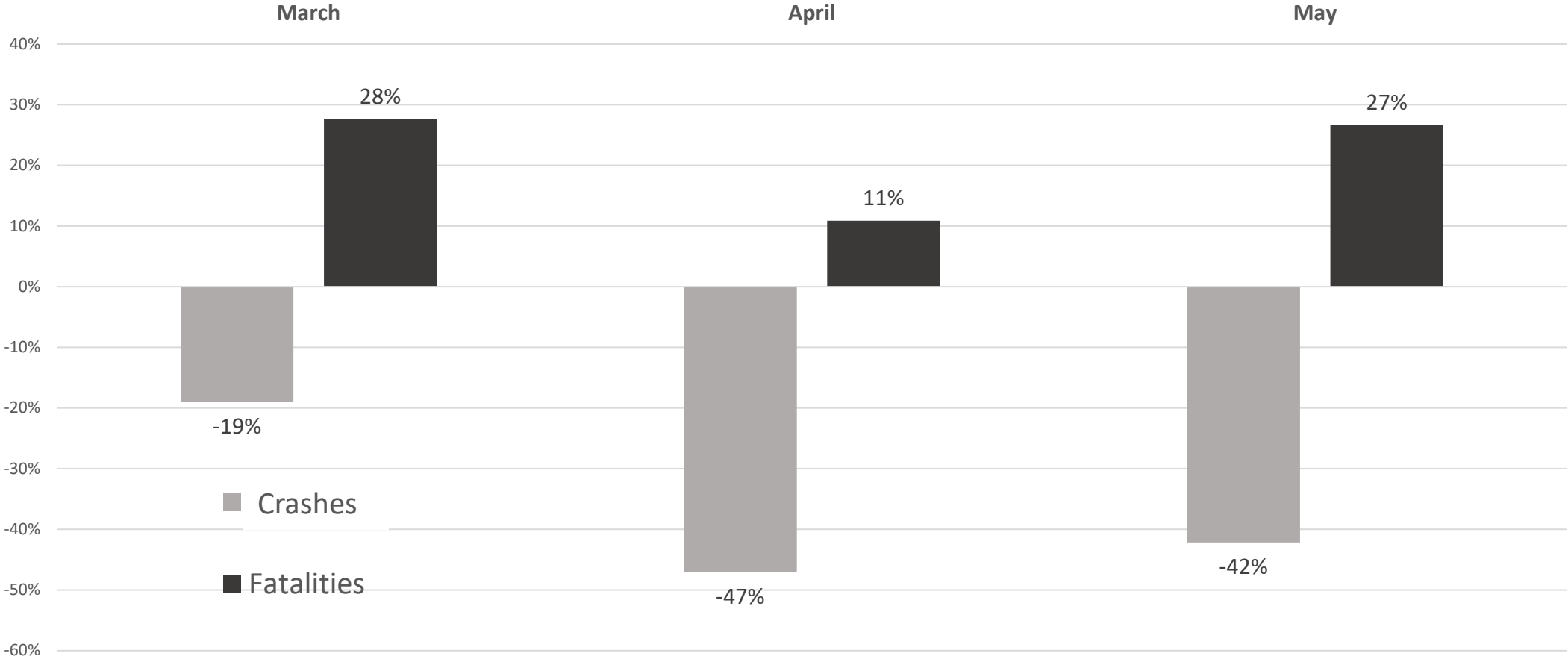


Average Speed on Freeways by time of day



Crashes and Fatalities

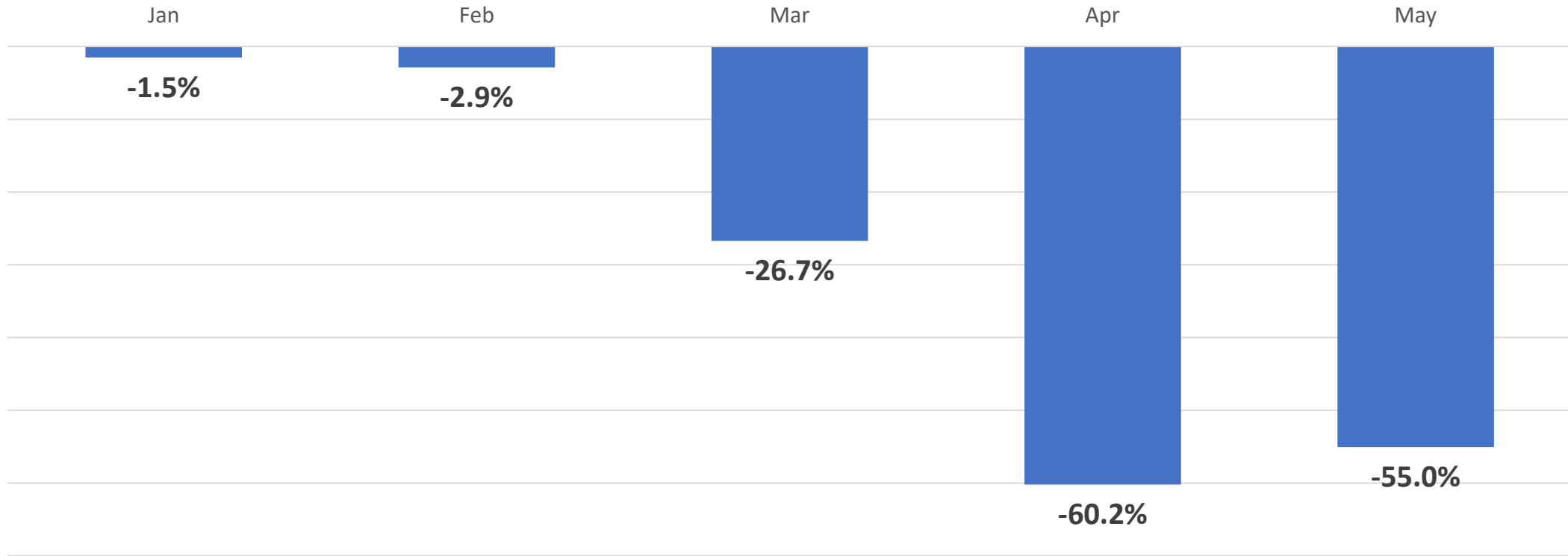
Percent Change of Crashes 2019 vs 2020



Source: TxDOT Crash Records Information System

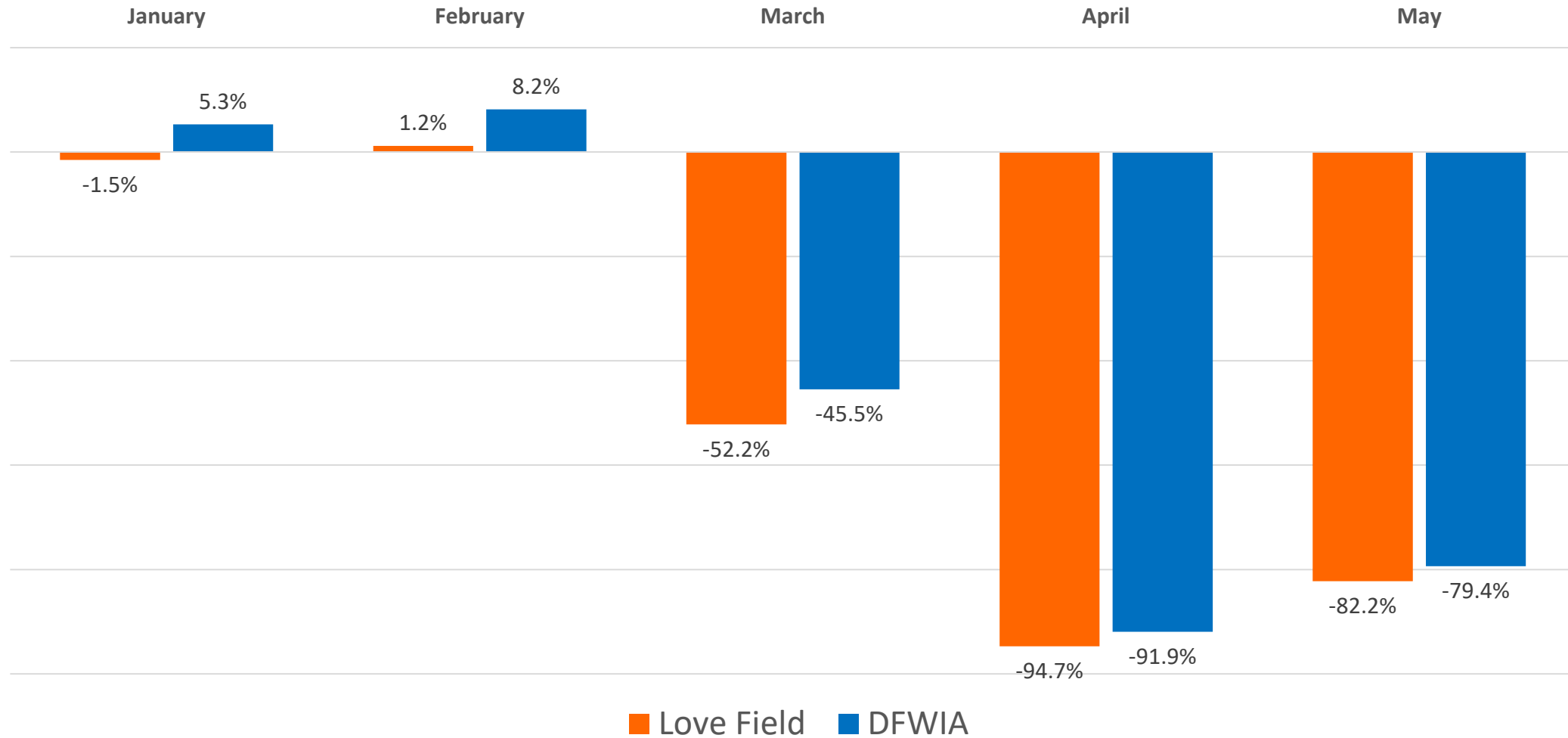
Transit Ridership

Percent Change of Transit Passengers: 2019 vs 2020



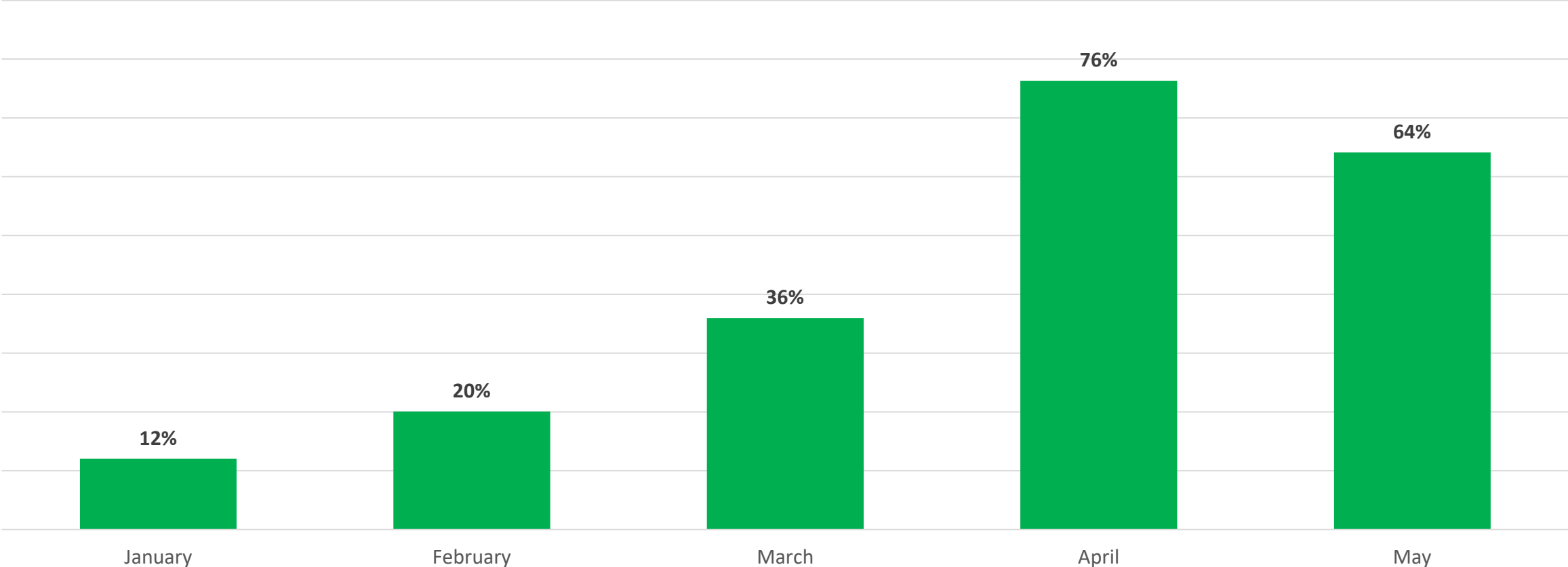
Airport Passenger Enplanements

Percent Change of Airport Passengers: 2019 vs 2020



Bicycle/Pedestrians Counts

Percent Change of Bicycle/Pedestrians 2019 vs 2020



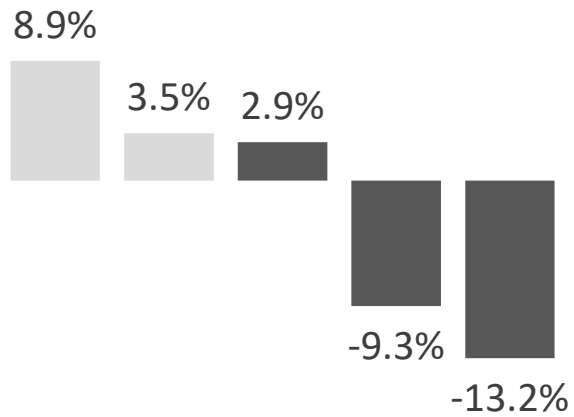
Source: NCTCOG, collected at Chisholm Trail at Plano, Cotton Belt Trail at North Richland Hills, Denton Branch Rail Trail at Denton and Trinity Trails at Fort Worth.
Note: No adjustments for weather were applied.

Metric 2: Financial Implications to traditional transportation revenue

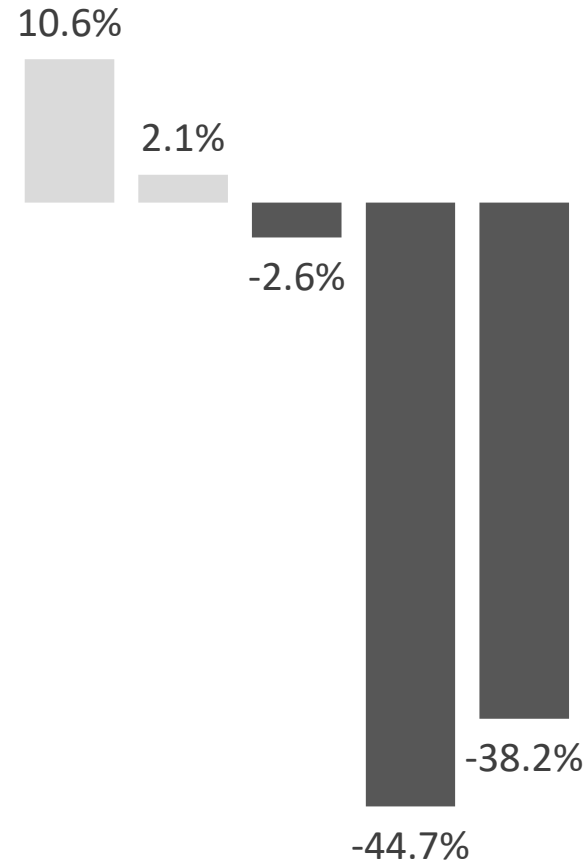
State Transportation Revenue Trends

Components of Proposition 7

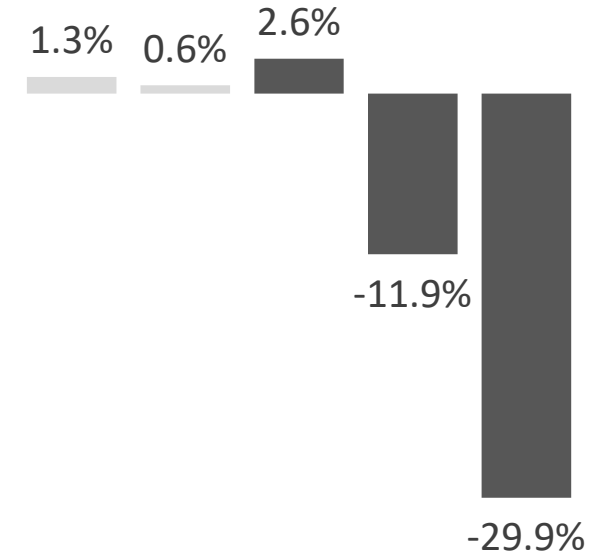
Sales Tax, 2020 vs 2019



Motor Vehicle Sales & Use



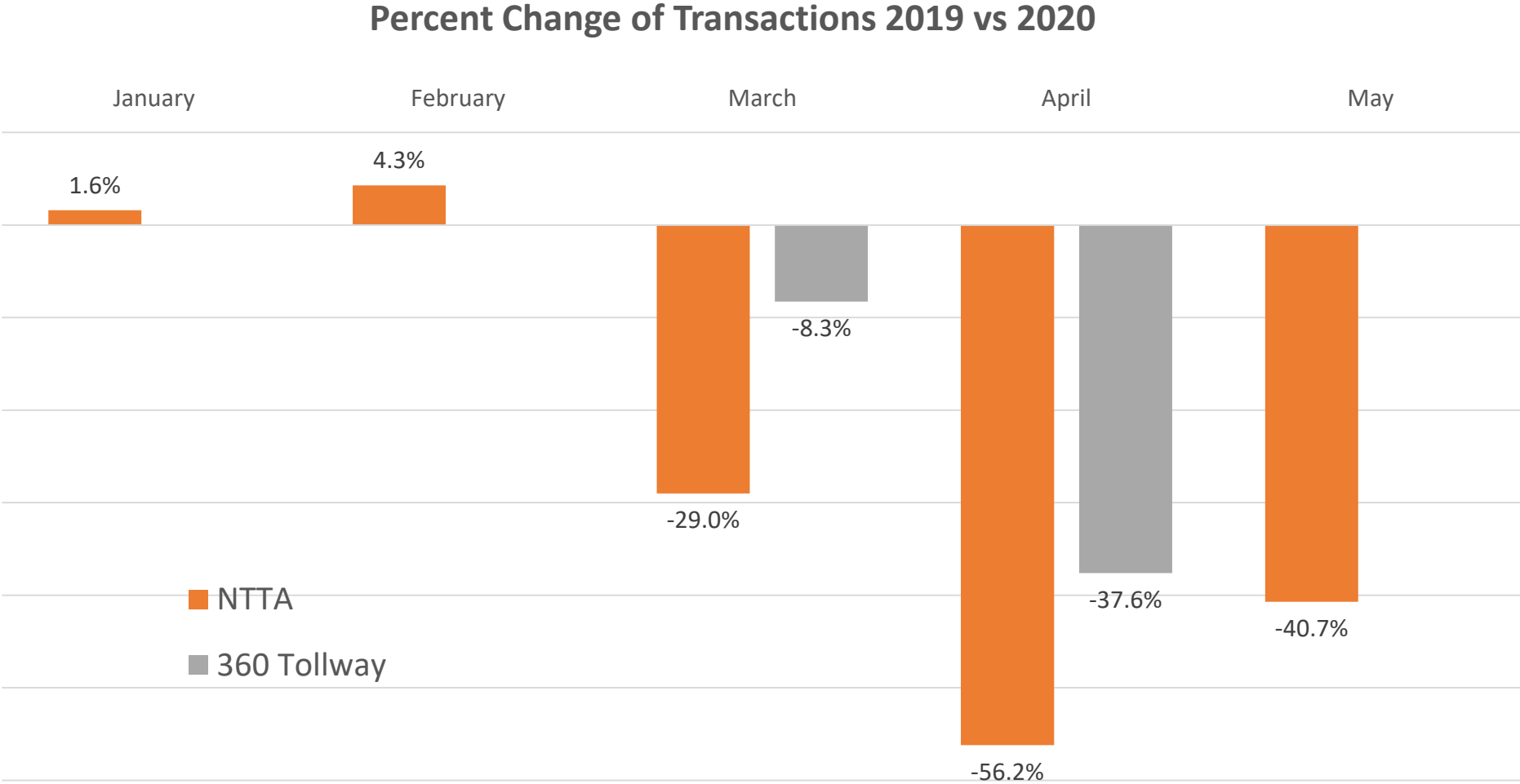
Motor Fuel Tax



January – February, year over year

March – May, year over year

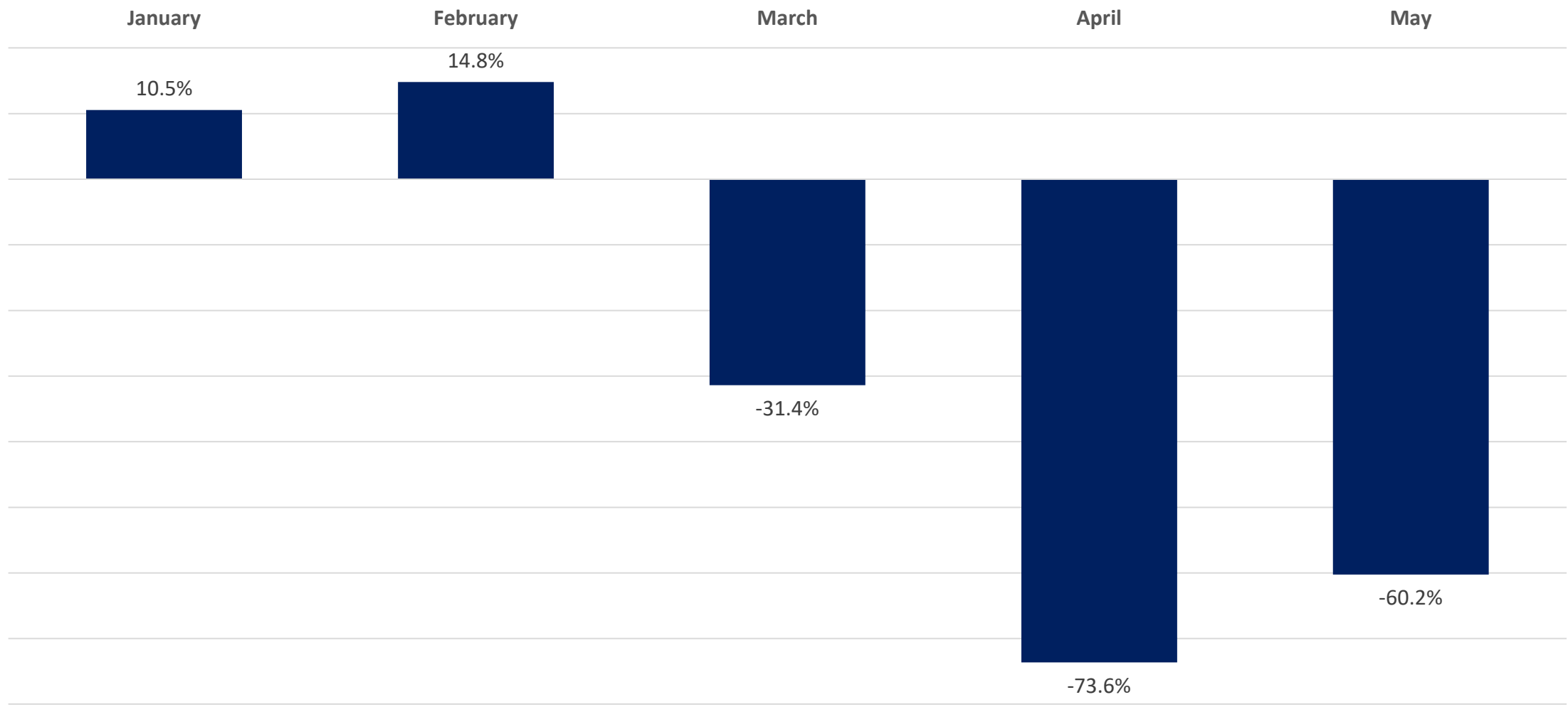
NTTA Transactions



Source: NTTA
Note: Change for NTTA includes 360 Tollway
Additional Note: Despite decline in transactions, the revenues are sufficient to meet debt service for SH 360. No current impact to RTC backstop expected.

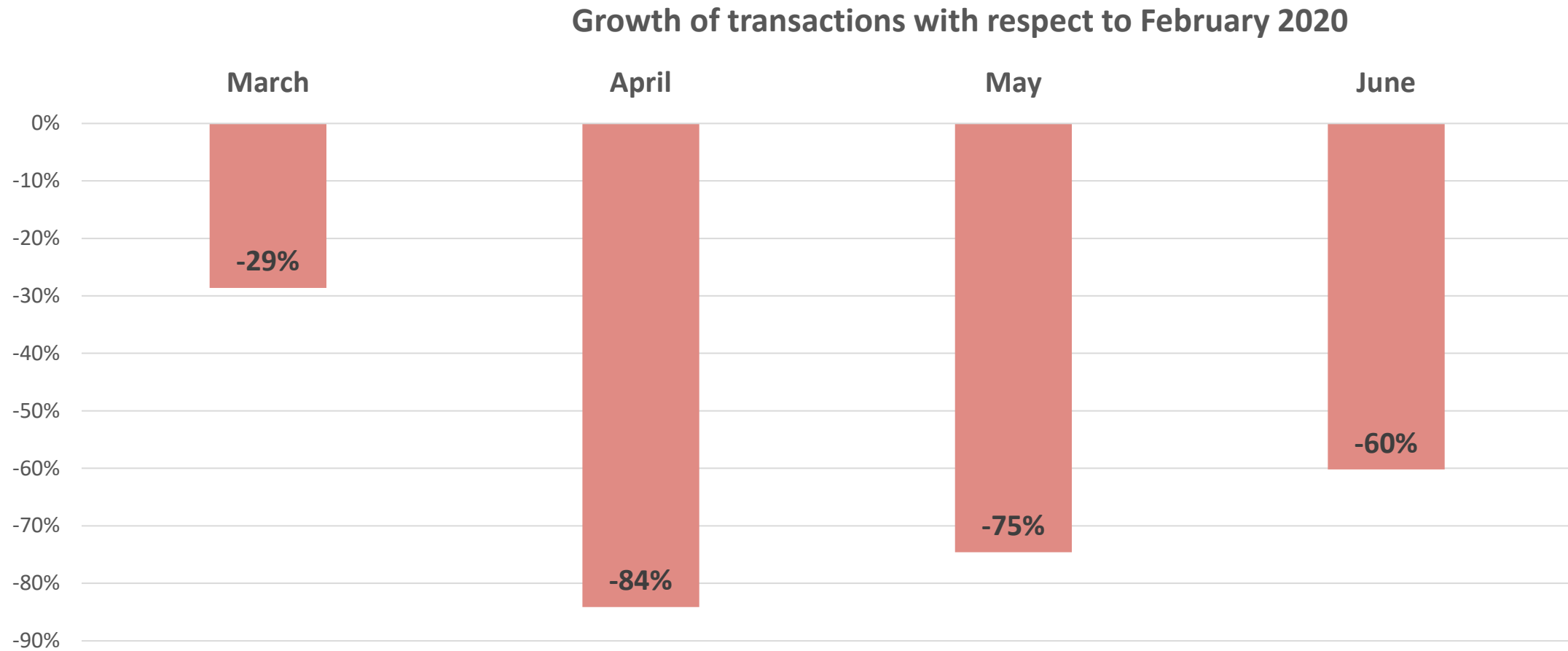
IH35E TEXpress Lanes Transactions

Percent Change of Transactions 2019 vs 2020



Source:TxDOT
Note: TIFIA loan not impacted at this time as interest only payment period does not begin until May 2022

TEXpress Lanes HOV Discount Through GoCarma



Source: Source: GoCarma Dashboard.

Note: For comparisons purposes transactions for LBJ-E (closed in April 2020) were subtracted

Metric 3: Benefits of Travel Behavior Responses to Areas of RTC Responsibility

REGIONAL AIR QUALITY IMPACTS DURING COVID-19

Reduced Vehicle Emissions

Lowest Frequency of High-Level, Unhealthy Ozone Exposure Days
(prior to exceedances on May 17, 2020)

Cleaner Air = Blue(r) Skies

Positive Health Impacts? (Under Review)

How Can We Sustain Impacts?

Exceedances influenced by high background levels

Real world analysis on local contributions suggest multi-state SIP's to reduce background

Metric 4: Prioritization of
Infrastructure Improvements
That Offset Unemployment
Increases

CANDIDATE PROJECTS

High Speed Rail: Dallas to Houston (FEIS Released May/June)

High Speed Rail: Dallas to Fort Worth

Hyperloop Certification Center (Governor's Letter Anticipated)

Autonomous Transit (GM, Midtown)

Freeway Induction Loops

State Highway 183 (Section 2E+)

Y Connector (FEIS June 4 – 22, 2020)

COVID-19 #00X Program

INVENTORY OF COVID-19 PROJECTS TO DATE¹

- COVID-19 #001: Loop 9 Cost Overrun - \$17.3M, STBG
- COVID-19 #002: IH 35E at Frankford Rd - \$5M, STBG
- COVID-19 #003: IH 45 at Dowdy Ferry Rd - \$3.7M, CMAQ
- COVID-19 #004: Tripp Rd - \$800K, RTR

Notes:

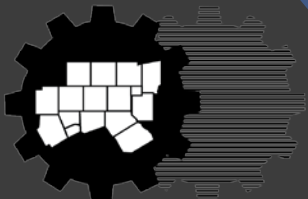
1 Anticipate adding projects to inventory in 2020 and 2021

Congestion Management Process Update

Regional Transportation Council

July 9, 2020

Natalie Bettger



What is the CMP?

One of five federally-mandated planning documents
(MTP, TIP, UPWP, Public Participation Plan, CMP)

**Required for urbanized areas with populations exceeding 200,000
(also known as Transportation Management Areas)**

“A **regionally-accepted** approach for **managing** congestion that provides **up-to-date** information on **multimodal** transportation performance and **assesses** alternative strategies that meet state and local needs.”

FHWA CMP Guidebook

What is Required in the CMP?

Regulations are not prescriptive towards the methods, approaches, and strategies in the CMP.

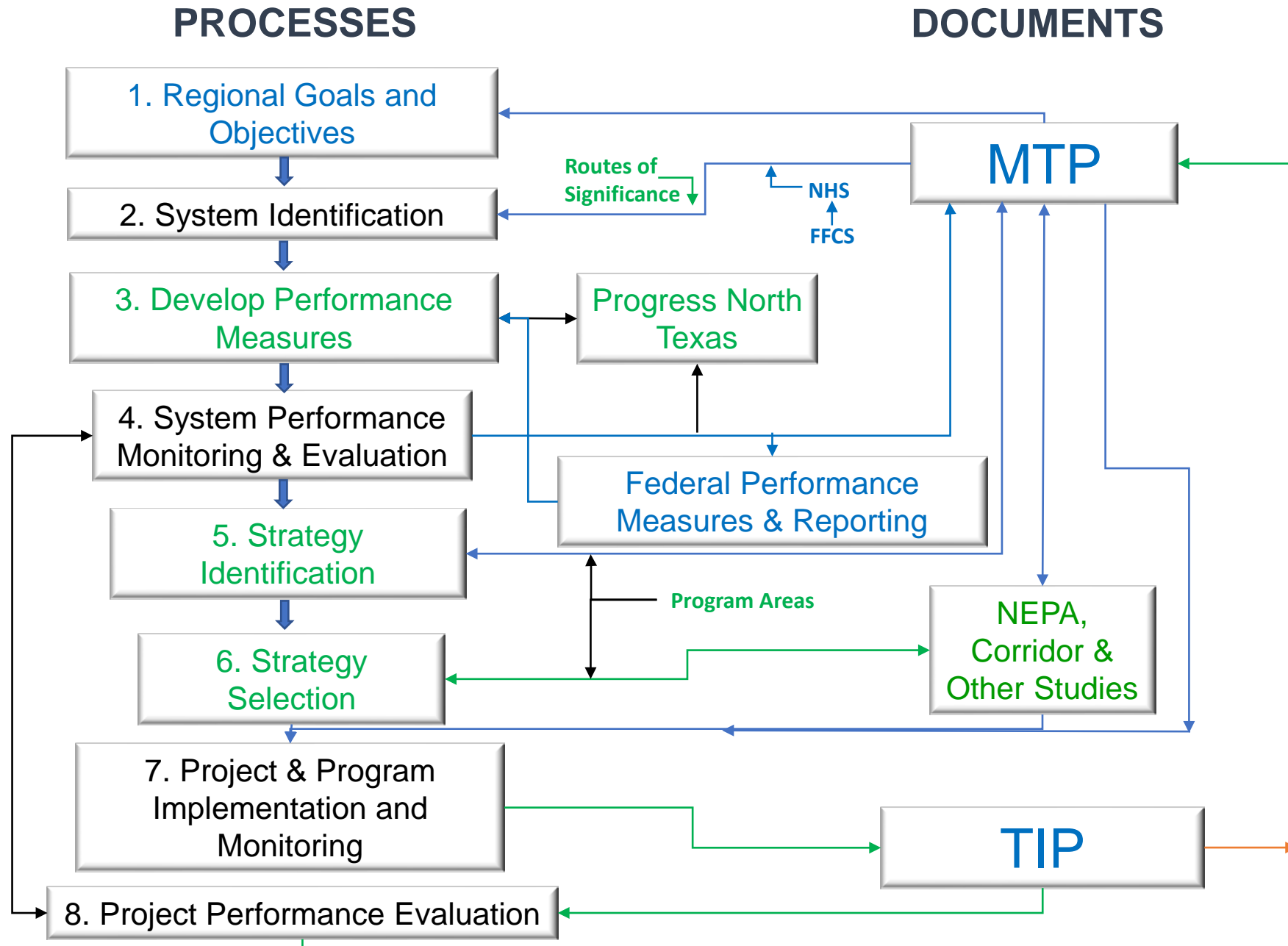
Congestion Management Strategies *should* include:

- Demand management strategies;
- Traffic operational improvements;
- Public transportation improvements;
- ITS technologies; and
- "Where necessary, additional system capacity"

For nonattainment areas, projects adding Single Occupant Vehicle (SOV) capacity *must* be evaluated and comply with the CMP, by integrating congestion management strategies.

The CMP *shall* be developed, established, and implemented as part of the Metropolitan Transportation Planning Process.

CMP Processes and Related Documents



Regional Goals and Objectives

Mobility

Increase available options, reduce congestion, increase efficiency, provide access

Quality of Life

Preserve environment, improve air quality, promote active lifestyles, livable communities

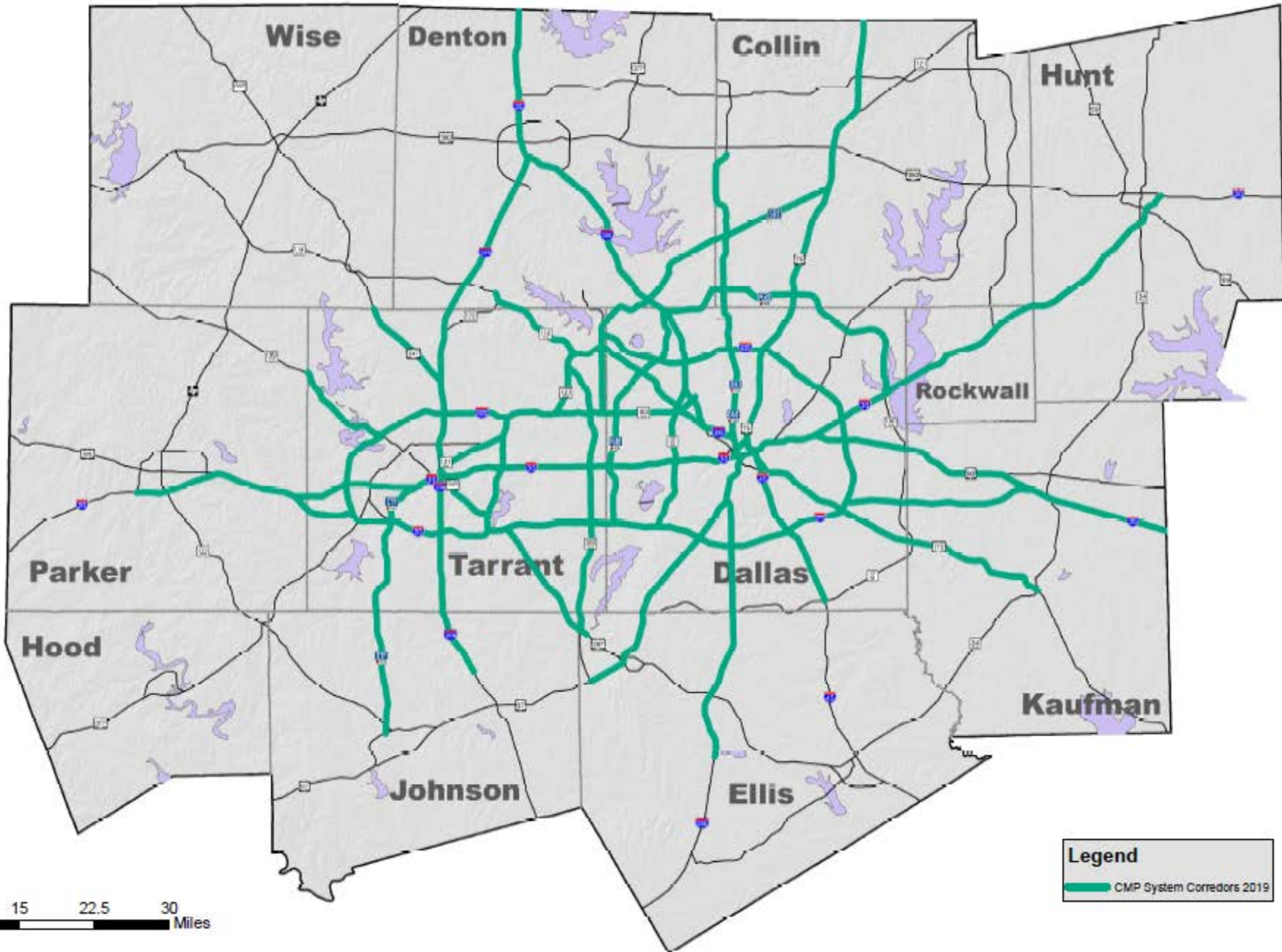
System Sustainability

Encourage and enhance maintenance, increase **safety** and reliability, invest long-term in existing system

Implementation

Timely project planning; cost-effective solutions for construction, operations, and maintenance; leverage existing assets

CMP System Corridors (2019)



0 3.75 7.5 15 22.5 30 Miles

Legend
CMP System Corridors 2019

System and Performance Monitoring

Performance Criteria

CMP Corridor
Segments



Under Construction or
Programmed in TIP



Performance Criteria

Recurring Congestion:
Travel Time Index

Safety:
Crash Rate

Non-Recurring
Congestion:
Level to Travel Time
Reliability

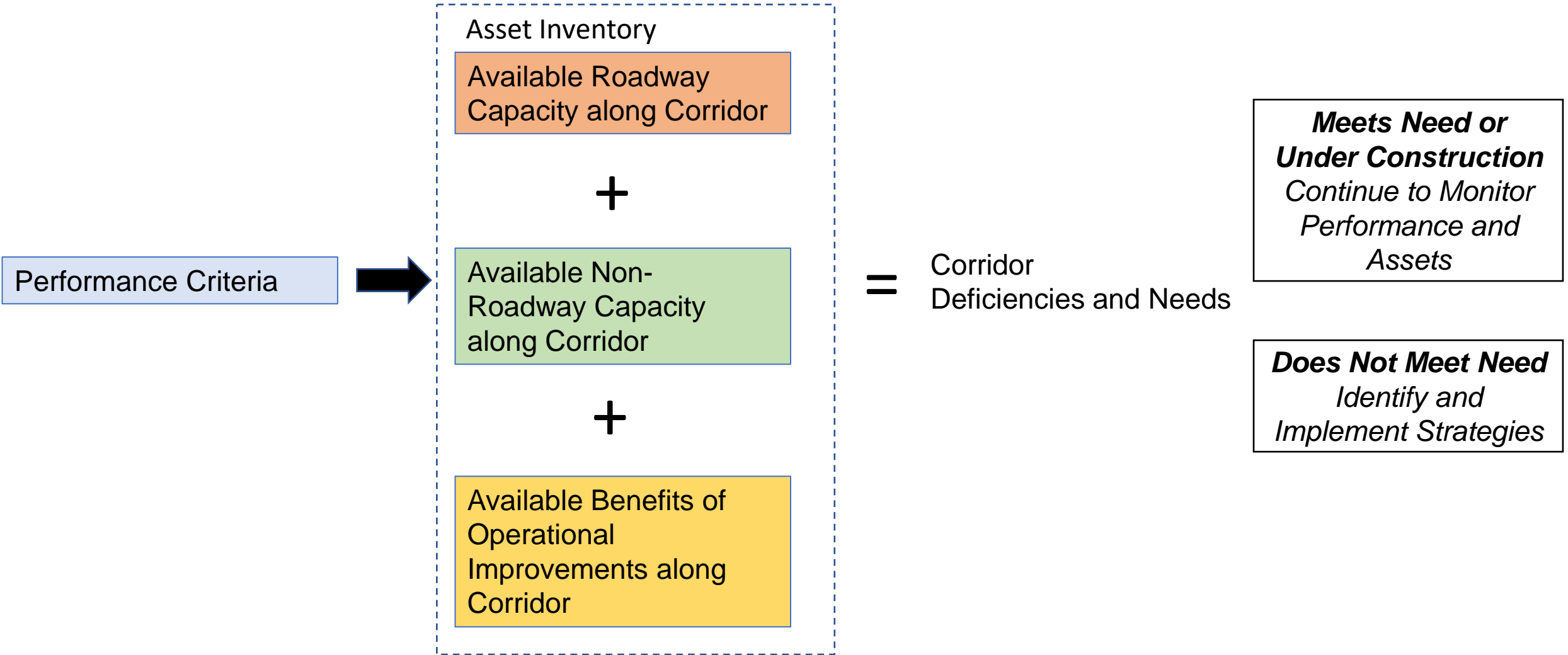
Pavement and
Bridge Conditions:
% Pavement and
Bridge Deck Area in
Poor Condition

System and Performance Monitoring Corridor Asset Inventory



Asset Inventory		
Roadway Capacity	Non-Roadway Capacity	Operational Assets
	Park-and-Ride Facilities	ITS
Parallel Arterials	Veloweb/Multi-Use Paths	Managed/HOV/Express Lanes
Frontage Roads	Light Rail	Truck Lane Restrictions
Parallel Freeways	Commuter Rail	TIM Attendance & Coverage
	Bus Routes	Mobility Assistance
		Shoulders

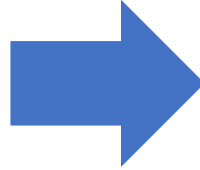
Corridor Evaluation



Strategy Identification and Selection

Deficiencies

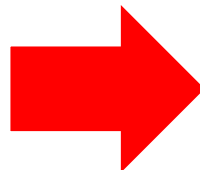
Recurring Congestion and Non-Roadway Capacity



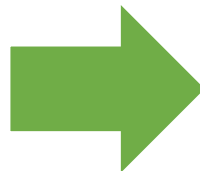
Safety and Recurring Congestion



Non-Recurring Congestion and Safety



Pavement and Bridge Condition and Recurring Congestion



Example Strategies

Promote and encourage usage of parallel roadways
Promote and encourage usage of available transit services
Promote and encourage usage of trip reduction programs

Bottleneck removal
Emergency vehicle routing
Mobility assistance patrols
Reduction in merging and weaving

Increase deployment of Intelligent Transportation Systems	
Dynamic route guidance	Speed monitoring
Network surveillance (CCTV)	511
Promote Freeway Incident Management Training	
Improve incident response and clearance times	
Shoulder Utilization Program	

Bottleneck improvements
Rebuild roadway

Example Project Performance Evaluation

- Before/After Speeds
- Before/After Volumes
- **Before/After Crash Rate**
- Transit Ridership/Mode Split
- Changes in Asset Inventory
- Changes in Asset Condition
- Changes in Criteria Performance Measures, Peak Hour LOS, Crash Rate, and Travel Time Reliability

Schedule

April 2020	30-Day Public Comment Period and Public Meeting**
May 22, 2020	STTC Info
July 9, 2020	RTC Info
September 25, 2020	STTC Workshop – Scoring, Ranking, Strategies and Implementation
September 2020	30-Day Public Comment Period and Public Meeting
October 23, 2020	STTC Info
November 12, 2020	RTC Info
December 4, 2020	STTC Action
December 10, 2020	RTC Action

Questions?

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TRANSIT-ORIENTED DEVELOPMENT PARKING STUDY

Regional Transportation Council

Karla Weaver, Senior Program Manager

July 9, 2020



**North Central Texas
Council of Governments**

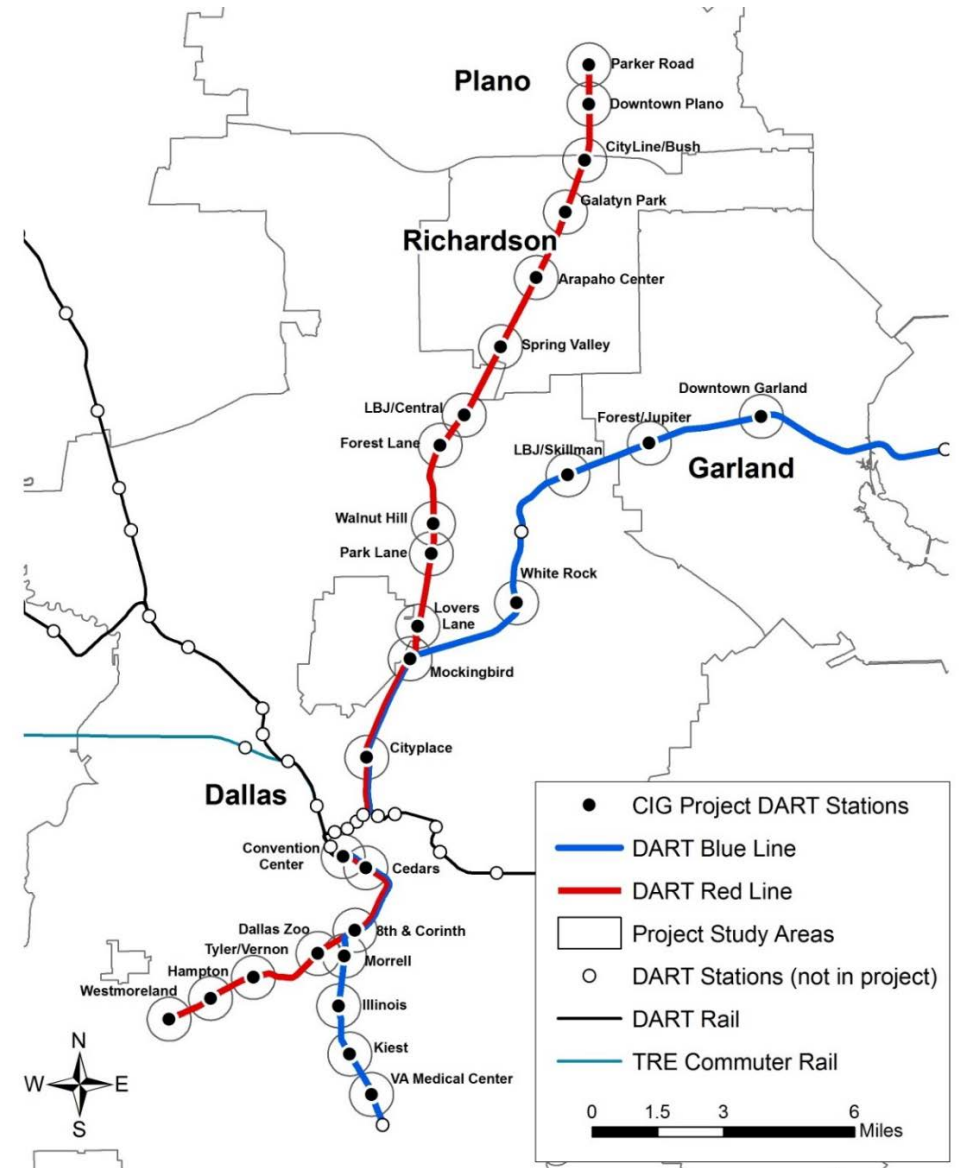
TOD Planning Pilot

Federal Transit Administration Grant to NCTCOG in 2016 - \$1.75 million

Partnership: NCTCOG, DART, Dallas, Richardson, Plano, Garland

1. First/last pedestrian mile
2. **Parking**
3. Survey TOD residents, businesses, employees

Goal: Increase TOD and ridership in corridors



Parking Challenges to TOD

Subsidizes driving, reducing the economic incentive to use other modes or carpool (parking is free, but DART day pass = \$6)

Increases the cost of development (\$17K - \$40K per space)

Expands block geometry to often unwalkable scale

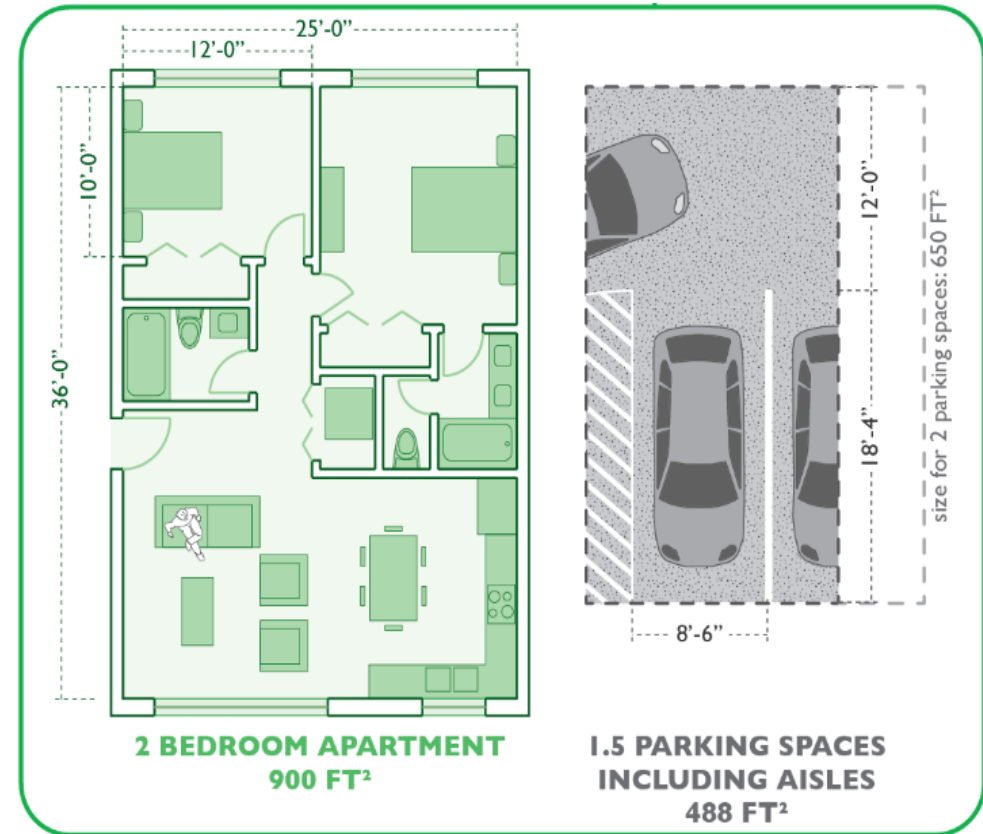


Image source: Graphing Parking - <https://graphingparking.com/>

TOD Parking Study Goals

Generate data to inform and guide policy such as **TOD-appropriate parking ratios** and development practices.

Develop **best practices and recommendations for parking management** in transit station areas.

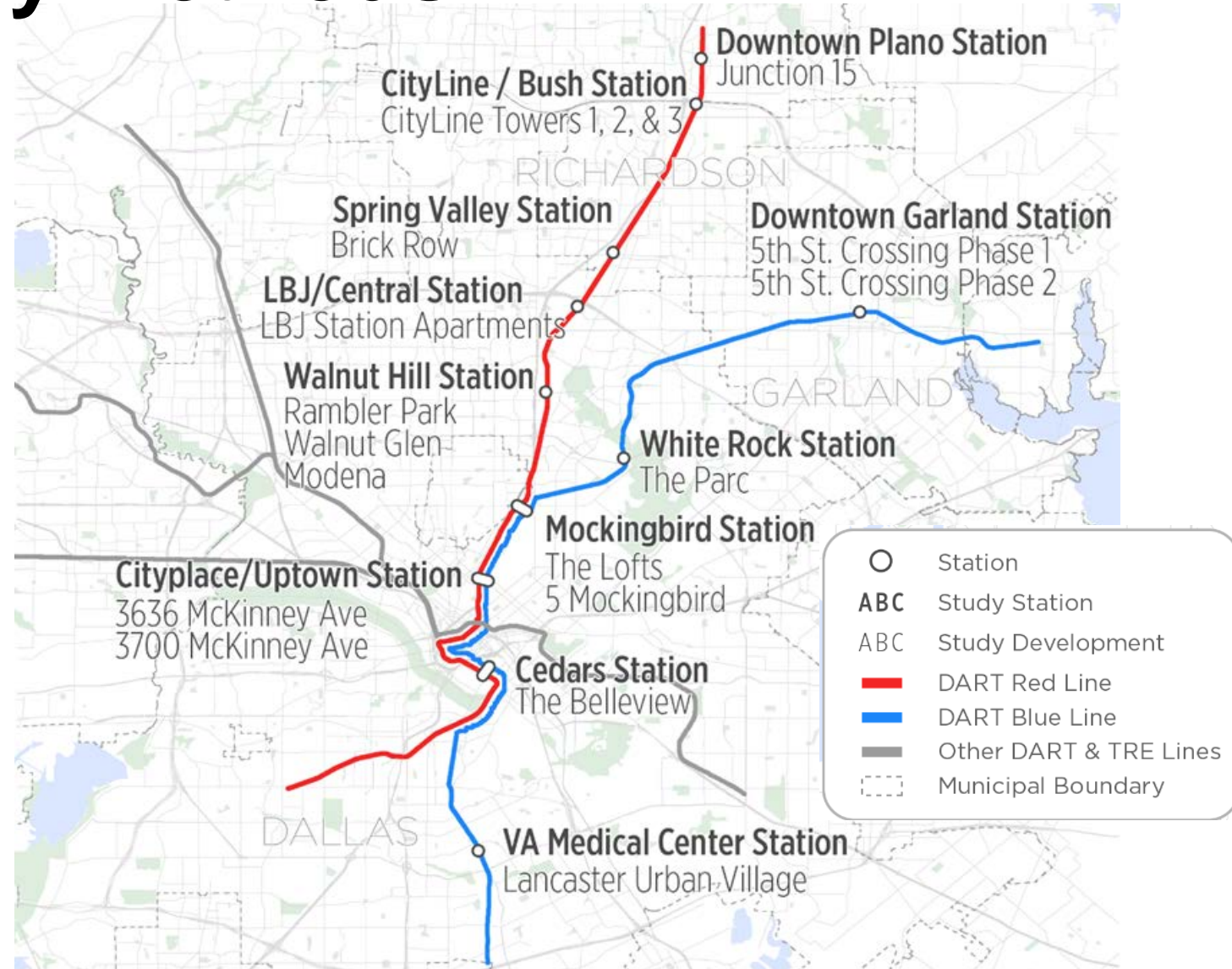
Identify ways managing parking can increase TOD performance such as **ridership** and **dense development**.

TOD Parking Study Methods

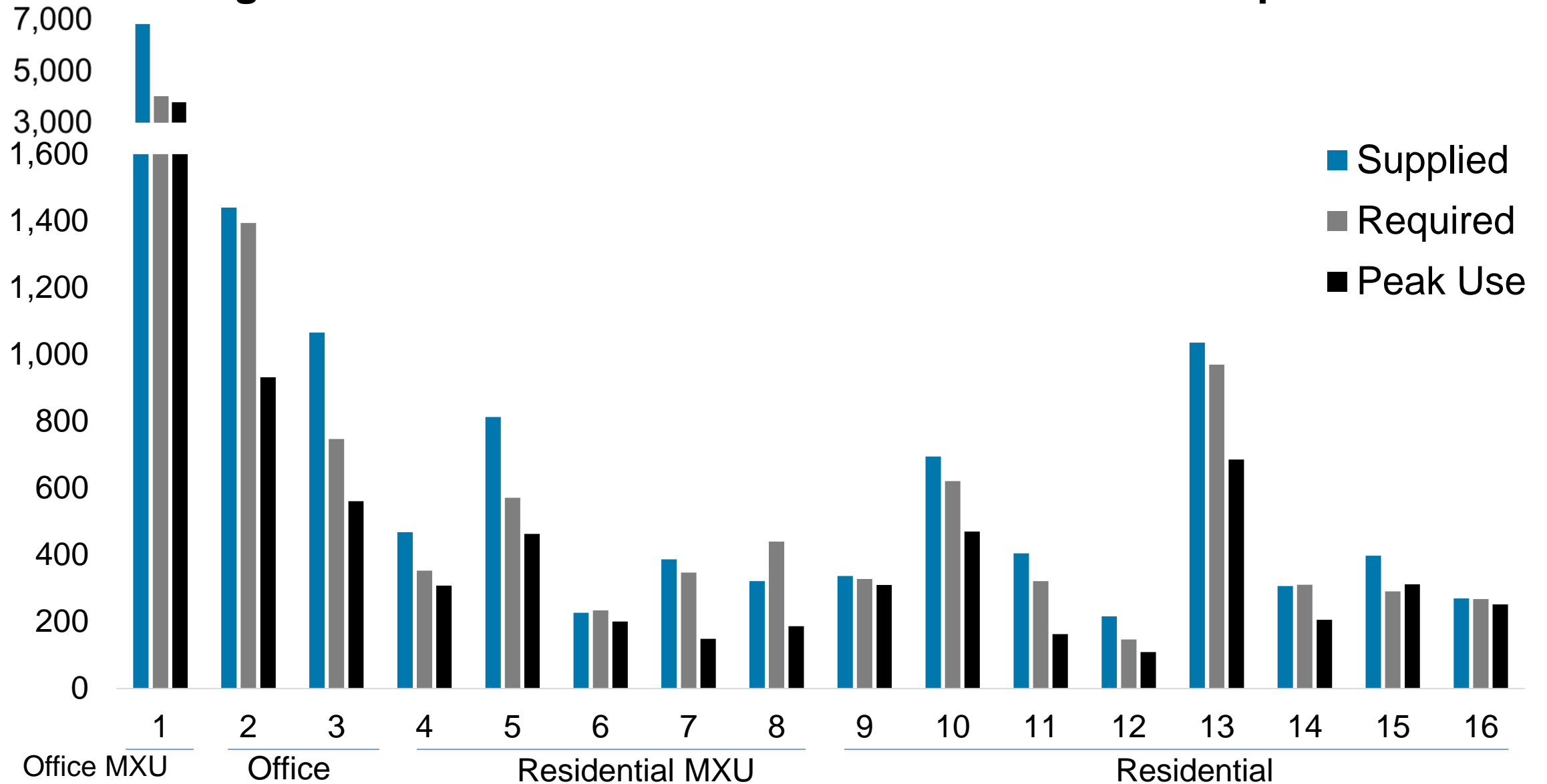
All sites within walking distance of DART Stations, TOD characteristics

72 hours continuous data collection at each of 16 privately owned sites (July – October 2018)

Interviews of property managers and developers



Parking Observations at 11 DART Station TODs & 16 unique sites



Excess Capacity

13 of 16 sites never peaked above 80% utilization.

Excess parking capacity in these 13 sites totaled over 4,500 spaces



Workforce Housing

Finding: Two workforce housing TODs in this study, peak parking use:

- Lancaster Urban Village (40%)
- The Belleview (50%)

Less parking demand than other multi-family TOD housing

Impact: Garage spaces (\$17k to \$40k per space) – 4,500 vacant spaces total value at least \$80 million. Smarter parking policies can reduce construction cost.



Public/Private Coordination

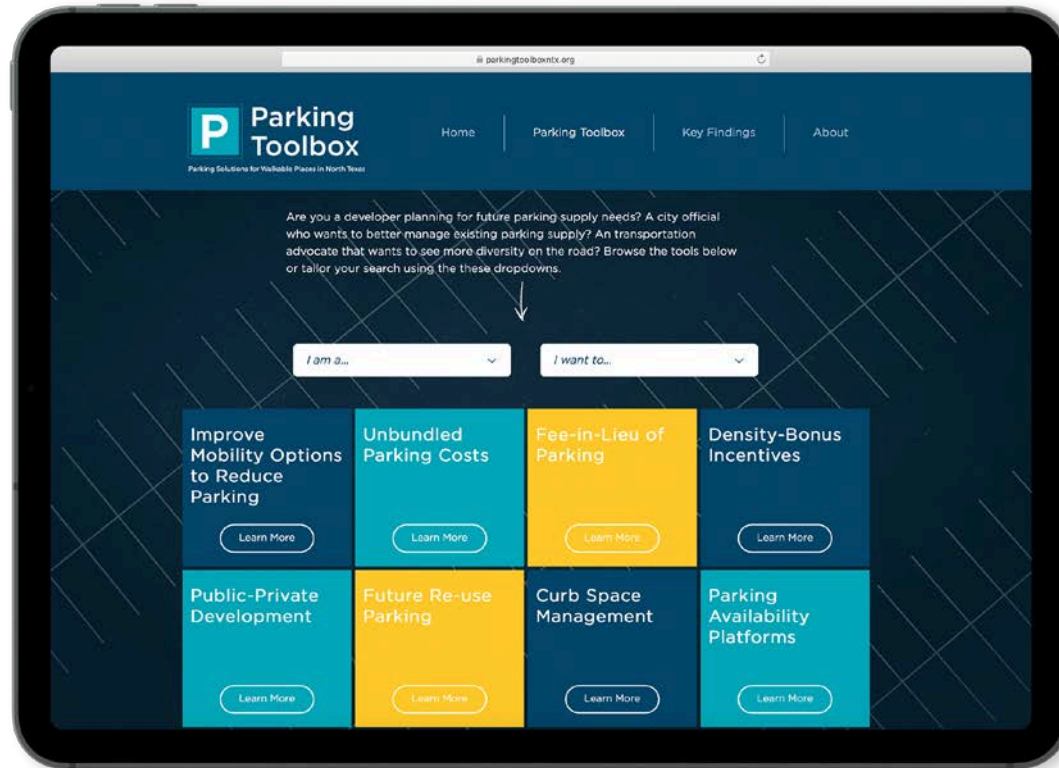
Minimum city requirements were exceeded by developers at most sites

Influence of commercial real estate private sector is important to parking supply

Communication of data and these results is needed to educate brokers and lenders



Report and Recommendations



www.parkingtoolboxNTX.org

15 strategies/policies toolbox

Final report/data summary

Parking video developed as education tool



Parking Toolbox

www.parkingtoolboxNTX.org



EFFICIENCY

Shared / public
parking

Data-driven Parking

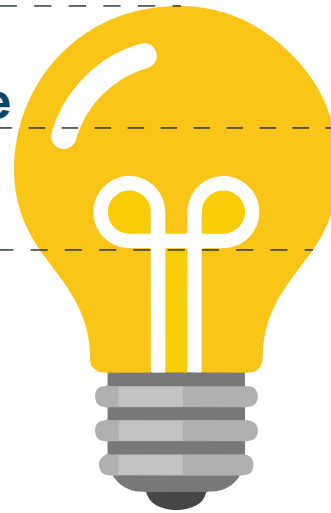
Maximums

Reduce/ Eliminate

Minimums

Unbundle

Parking



SMARTER CITY CODES



TECHNOLOGY

Availability web/
app platforms



Contact

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Legislative Update

Rebekah Hernandez
North Central Texas Council of Governments
July 9, 2020
Regional Transportation Council

Federal Update

Transportation Reauthorization

- Action needed by September 30, 2020
- House INVEST in America Act; HR 2
- Senate America's Transportation Infrastructure Act (2019)

HR 2 – Moving America Forward Act

- \$1.5T Infrastructure Bill
- Transportation, water, broadband, housing, energy, healthcare
- Includes INVEST text

**Investing in a
New Vision
for the
Environment
and Surface
Transportation
(INVEST)
in America Act**

- \$495.4 billion in federal funding for FY2021 through FY2025
- Approved by House Committee on June 18
- Text rolled into HR 2
- Recent House actions
- Barriers to final approval



INVEST in America Act

Division A

- Maintains existing program structure for FY2021; mostly extends authorized funding levels for FY 2021
- Provides state DOTs and local transit agencies with relief from COVID revenue loss

Division B

- Reauthorizes highway, transit and safety programs for four more years

Division C

- Hazardous materials safety reauthorization

Division D

- Rail reauthorization

INVEST in America Act

Major Themes

- Focuses on improvements to existing facilities vs. new capacity
- Creates at least 20 new programs, new grant programs
- Climate, resiliency, greenhouse gas reduction
- Bike/ped access and safety
- Increases in transit funding
- Bridge improvements

Appropriations

House:

Appropriations subcommittee markup scheduled for week of July 6

- **July 7:** Energy-Water
- **July 8:** Transportation-Housing and Urban Development

In full committee week of July 13

Senate:

Markups delayed

State Legislative Update

- Texas House and Senate Committees cancelled interim hearings due to COVID-19
- Comptroller mid-cycle revenue estimate expected this month
- Texas Transportation Commission continues to meet monthly
 - Draft FY2021 UTP open comment period July 10-August 10

State Legislative Update

- Bill filing begins November 9, 2020
- First day of 87th Texas Legislature – January 12, 2021
- Next step – Draft RTC Legislative Program for the Texas Legislature

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www.nctcog.org/legislative

UPDATE ON VOLKSWAGEN SETTLEMENT AND ZERO EMISSION VEHICLE CORRIDOR

**Regional Transportation Council
July 9, 2020**

**Lori Clark
Program Manager & DFW Clean Cities Coordinator**

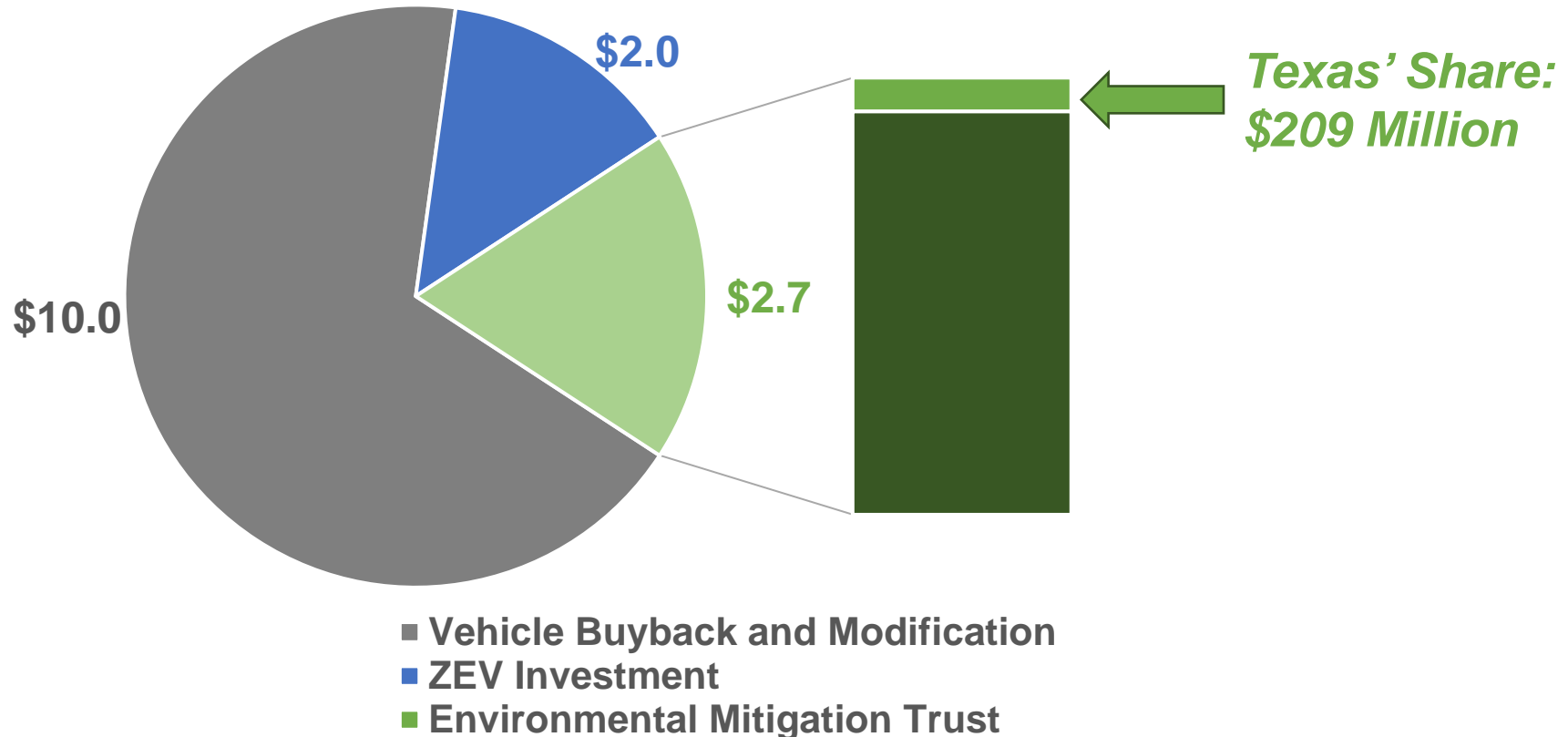
VOLKSWAGEN SETTLEMENT OVERVIEW

Total Settlement to Date: \$14.7 Billion

Environmental Mitigation Trust - Distributed to States →

Texas Volkswagen Environmental Mitigation Program (TxVEMP)

Zero Emission Vehicle (ZEV) Investment - Managed by Electrify America

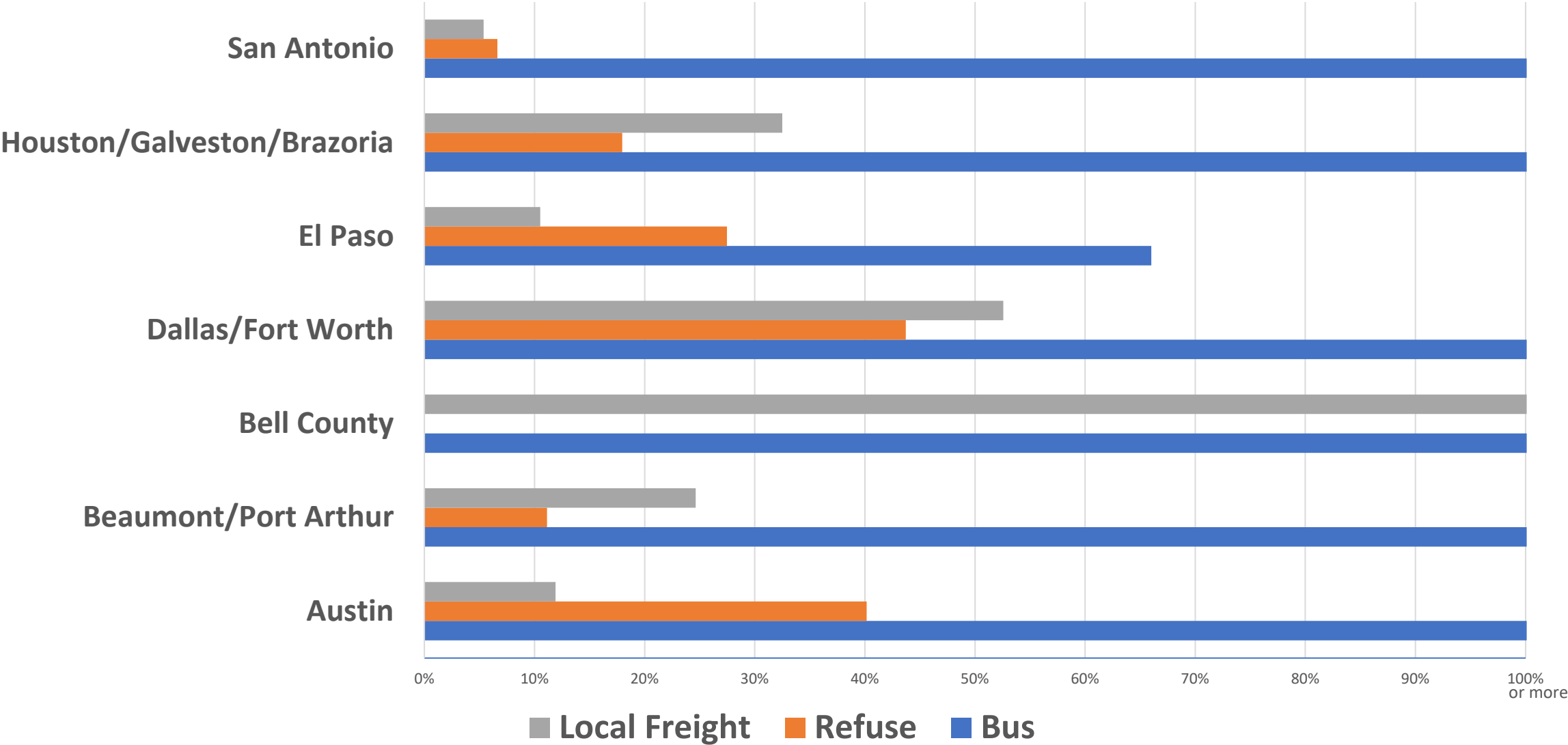


TEXAS VOLKSWAGEN ENVIRONMENTAL MITIGATION PROGRAM

Statewide Allocation	Program	DFW Area Allocation	Schedule	Status (as of May 22, 2020)
~\$169.5 Million	School, Shuttle, and Transit Buses	\$11,684,806	Closed	All Funds Awarded; Over \$17.3 Million Requested
	Refuse Vehicles	\$8,346,290	Open; First-Come First Served Until 10/8/2020	\$3,648,740 Requested* \$4,697,550 Available
	Freight & Port Drayage Vehicles	\$6,677,032	Open; First-Come First-Served Until 1/27/2021	\$3,509,465 Requested* \$3,167,567 Available
	Electric Forklifts and Port Cargo-Handling Equipment	\$6,677,032	To Be Determined	
	Electric Airport Ground Support Equipment			
	Ocean-Going Vessel Shore Power			
~\$31.4 Million	ZEV Infrastructure - Level 2 Rebate	~\$2.5 Million (Statewide)	May be Opening Late Summer 2020	
	ZEV Infrastructure – DC Fast Charge Funding	~\$25 Million (Statewide)	May Open Late 2020/Early 2021	

PROGRESS OF FUNDING BY REGION

Percent Available Funds Requested by Funding Round



CURRENTLY AVAILABLE FUNDING

Refuse Vehicles

Eligibility: Engine Model Year 1992 – 2009, Diesel Trucks, Greater Than 26,001 Pounds

Must Be Configured To Collect And Transport Municipal Solid Waste; Includes Garbage Trucks, Roll-off Trucks, Dump Trucks, Sweeper Trucks, Chipper Trucks, and Grapple Trucks

Grants Awarded on First-Come, First-Served Basis

Local Freight and Port Drayage Vehicles

Eligibility: Engine Model Year 1992 – 2009, Diesel Trucks, Greater Than 14,000 Pounds

Must Be Used To Deliver Cargo and Freight

Grants Awarded on First-Come, First-Served Basis

Funding Levels:

Government-Owned Vehicles: 80%

Privately-Owned Vehicles:

50% for Electric Projects

40% for Other Repowers

25% for Other Replacements

Funding Levels:

Government-Owned Vehicles: 80%

Privately-Owned Vehicles:

50% for Electric or **Any Drayage Projects**

40% for Other Repowers

25% for Other Replacements

ELECTRIFY AMERICA SUBMISSION OPPORTUNITY

INPUT NEEDED – DATA

Unique Opportunities To Collaborate in Deploying ZEV Investments

Actions Being Taken to Support Taxi/Ride-Share EV Adoption

Current/Expected ZEV Infrastructure Plans Or Strategies

**Fuel Cell Electric Vehicle (FCEV) Data And/Or Adoption Perspectives, Especially
for Medium- And Heavy-Duty Vehicles**



ELECTRIFY AMERICA SUBMISSION OPPORTUNITY

INPUT NEEDED - POLICY, EVENTS, AND SITING



Community-Specific ZEV Policies

- Financial Incentives for Vehicle Purchase or Infrastructure
- Non-Financial Incentives (e.g. Parking Preferences, Front-of-Line Privileges)
- ZEV Adoption Targets, Transportation Climate Policies
- EV-Ready Building Codes or Expedited Permitting
- ZEV Marketing or Communications

Specific Events Electrify America Should Participate In

Specific Site Location Suggestions

Submissions Due July 31st 2020

www.electrifyamerica.com

IH-45 ZEV CORRIDOR DEPLOYMENT PLAN

FHWA Goals:

- Develop an Infrastructure Deployment Plan
- Transition Designated Corridors from “Pending” to “Ready”
- Identify Public-Private Partnerships

NCTCOG Proposal:

- Develop Electric and Hydrogen Infrastructure along IH-45
- Expand Fueling Facilities Suitable for Medium and Heavy-duty Electric Trucks and Buses
- Support Future Strategic Initiatives in the Corridor, such as AV Technology Deployment and Truck Platooning

Deliverables



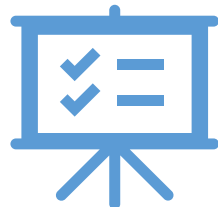
Stakeholder Lists



Stakeholder Meetings



Corridor Workshops



Case Studies



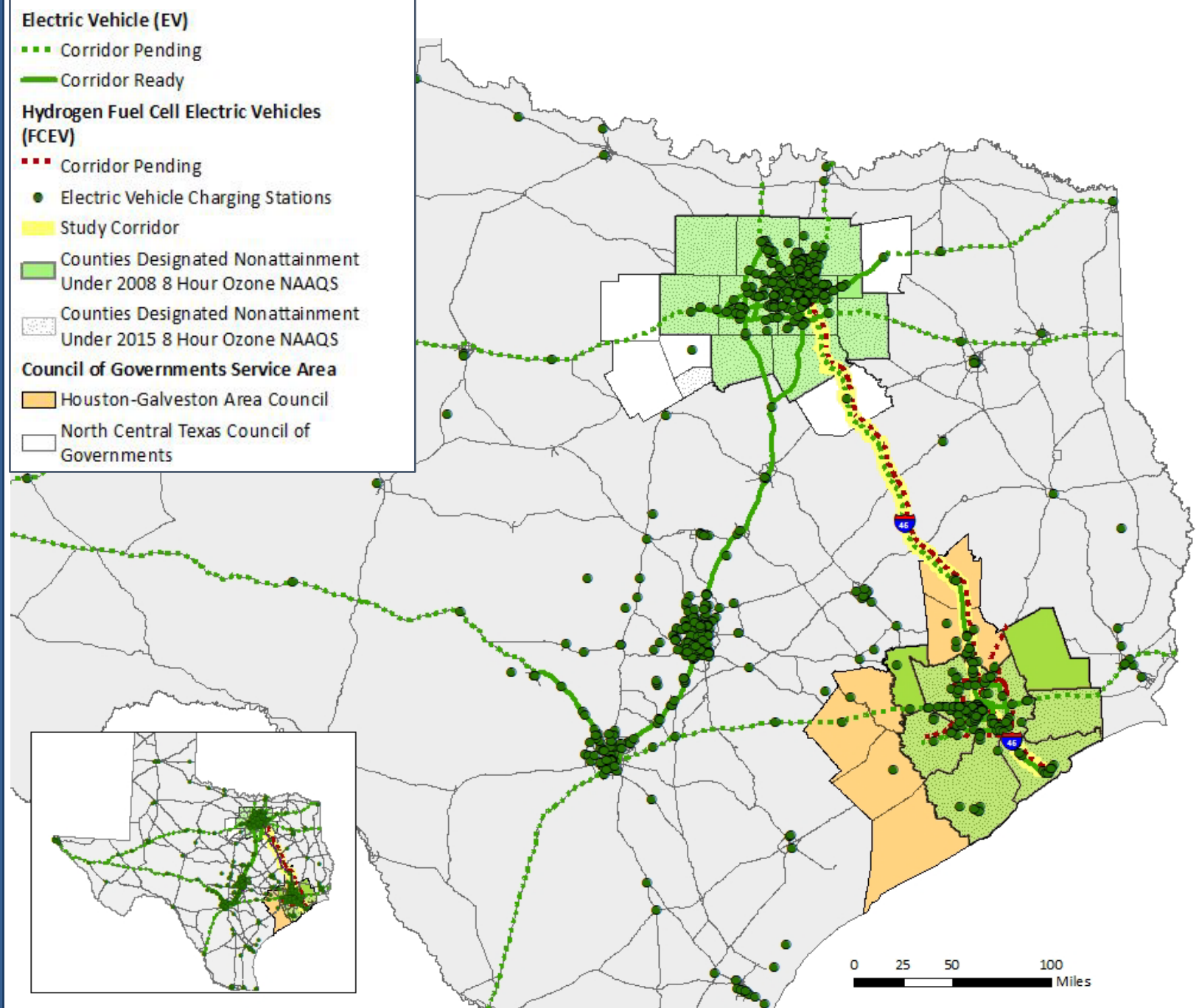
Deployment Plan (May 2021)

IH-45 ZEV CORRIDOR PLAN

290 Miles

Carries Nearly half of Texas' Truck Freight

Over 10,000 Ton-Miles of Cargo Between Dallas and Houston, Valued at Over \$62.6 Billion, Transported in 2017



CURRENT STATE OF ELECTRIC VEHICLE SUPPLY EQUIPMENT

Corridor Designated as “Pending” by FHWA

111 Mile Gap Between Ennis and Madisonville

FHWA Criteria Dictates 1 Station Every 50 Miles

<https://afdc.energy.gov/stations/#/find/nearest>

Public Stations | Advanced Filters | Corridor Measurement

Use this tool to measure the driving distance along Interstate Highways between stations that meet the criteria under the Federal Highway Administration's [Alternative Fuel Corridors Program](#). Explore more [resources for nominating corridors](#).

Texas | Electric | 50 miles between stations allowed

Starting Station
Walmart 286 - Ennis, TX
700 E Ennis Avenue
Ennis, TX 75119
0.5 miles to Interstate Highway

Ending Station
Walmart 446 - Madisonville TX
1620 East Main St null
Madisonville, TX 77864
1.2 miles from Interstate Highway

111 miles
driving distance between the stations

See Route Directions

Possible Focus Areas for Additional Sites:

1. Corsicana, Texas
2. Fairfield, Texas
3. Buffalo, Texas
4. Centerville, Texas

The screenshot shows the AFDC station finder interface. It displays a map of Texas with a blue line representing the driving route between Ennis and Madisonville. The distance is 111 miles. Four potential focus areas for additional stations are marked with orange dots and numbered 1 through 4. The interface includes search filters for 'Texas' and 'Electric', and a '50 miles between stations allowed' criterion. The starting station is Walmart 286 in Ennis, TX, and the ending station is Walmart 446 in Madisonville, TX. The map shows major highways and cities in the region.

iPhone App for U.S. stations | Android App for U.S. stations | Developer APIs | Submit New Station | About the Data

CURRENT STATE OF HYDROGEN FUELING

Corridor Designated as “Pending” by FHWA

No Existing Facilities

FHWA Criteria Dictates 1 Station Every 100 Miles

<https://afdc.energy.gov/stations/#/find/nearest>

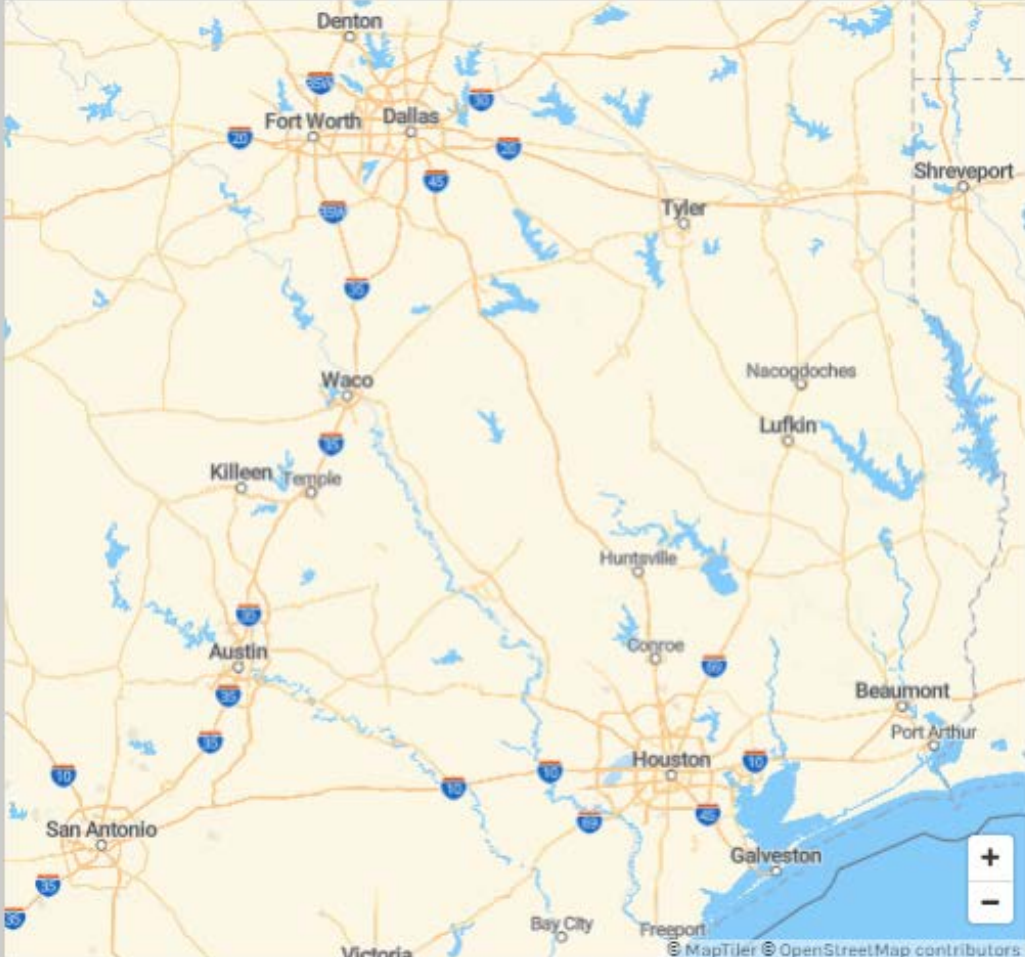
Public Stations | Advanced Filters | Corridor Measurement

Use this tool to measure the driving distance along Interstate Highways between stations that meet the criteria under the Federal Highway Administration's Alternative Fuel Corridors Program. Explore more resources for nominating corridors.

Texas | Hydrogen | 100 miles between stations allowed

Starting Station
Select a station on the map to choose your starting point.

Ending Station
Select a station on the map to choose your ending point.



Map showing potential hydrogen fueling stations in Texas, with a 100-mile distance constraint between stations. Major cities and highways are labeled.

iPhone App for U.S. stations | Android App for U.S. stations | Developer APIs | Submit New Station | About the Data

STAKEHOLDER INVOLVEMENT



Infrastructure Development

- Solicit Infrastructure Needs and Criteria
- Identify and Contact Property Owners



Vehicle Availability

- Identify Best Technologies Suitable for Vocational Needs
- Evaluate Commercialization Status of Suitable Vehicles



Customer Identification

- Identify and Engage End-User Fleets
- Match User Needs to Vehicle Availability



Policy/Incentives

- Identify and Prioritize Non-Monetary Policies/Incentives
- Assess Existing and Needed Monetary Incentives



[Stakeholder Survey](#)
[\(3 minutes!\)](#)

OPPORTUNITIES TO ENGAGE

PLEASE CONSIDER

Applying for, or Encouraging Contractors to Apply for, Refuse or Local Freight Truck Funding

www.texasvwfund.org

Submitting Comments to Electrify America

www.electrifyamerica.com/submissions

Participating as a Stakeholder in, or Inviting Stakeholders to, the IH-45 ZEV Corridor Development Plan

[Stakeholder Survey](#)

FOR MORE INFORMATION

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