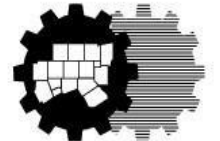




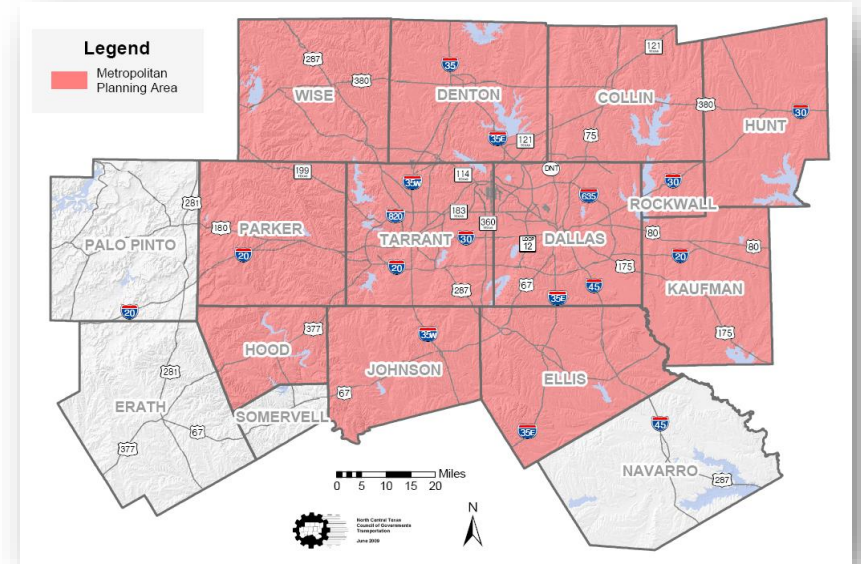
# Mobility 2045 and Freight Planning at NCTCOG

2.02.2021 | ISM Fort Worth



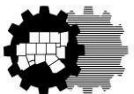
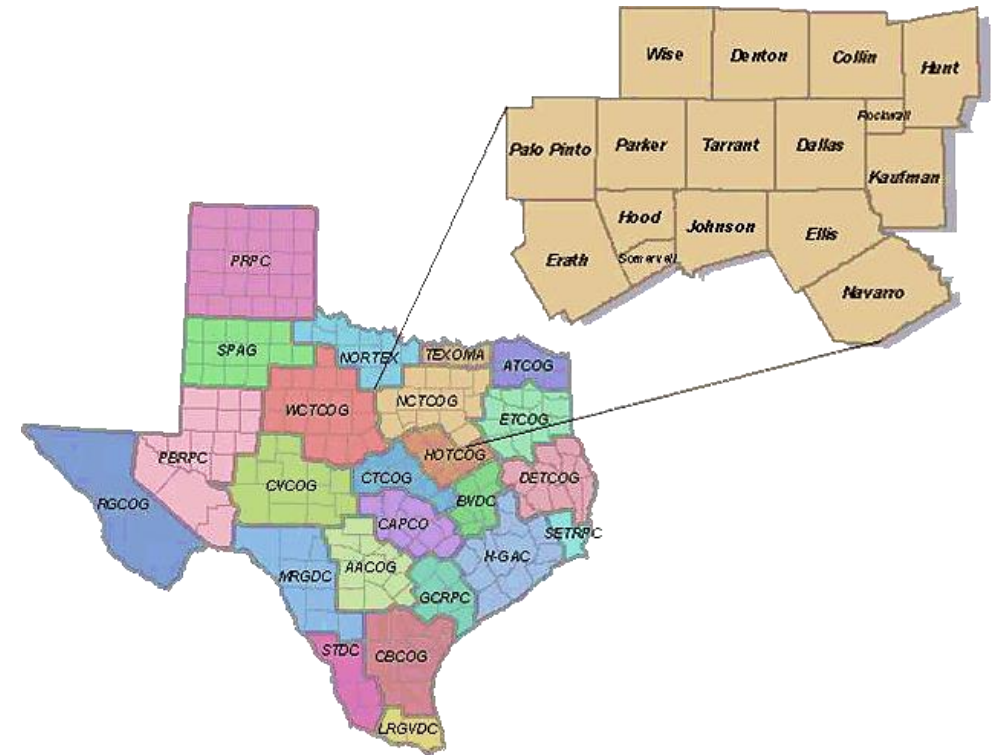
# Topics

- Regional Perspective
- Mobility Planning
- Financial Planning
- Mobility 2045 Recommendations
- Freight Perspective
- Discussion

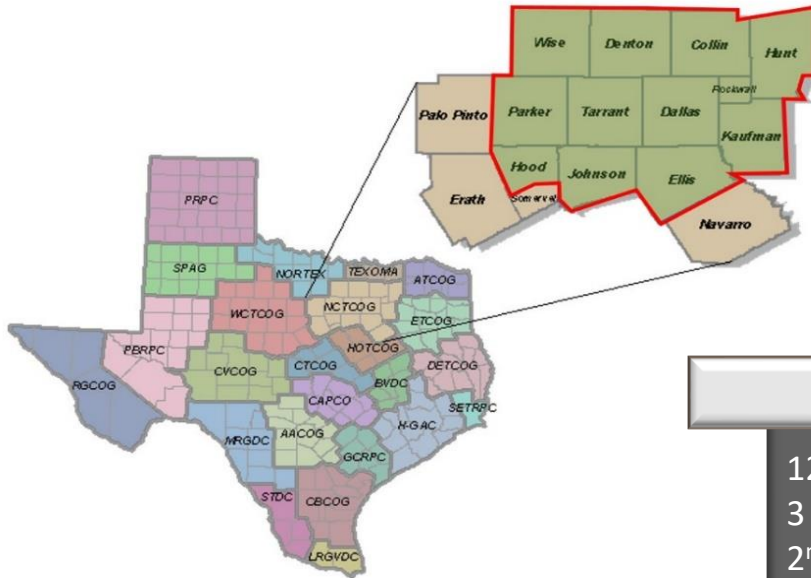


# North Central Texas Council of Governments

- Voluntary Association of Local Governments
- Established in 1966
- Assists Local Governments With:
  - ♦ Planning for Common Needs
  - ♦ Cooperating for Mutual Benefit
  - ♦ Recognizing Regional Opportunities
  - ♦ Resolving Regional Problems
  - ♦ Making Joint Decisions
- One of 25 COGs in Texas



# Regional Perspective



## Population

2019: 7.4 Million  
2045: 11.2 Million  
4<sup>th</sup> Largest Metropolitan Area by Population  
~1 Million People Added per Decade Since 1960

## Area

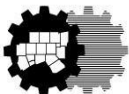
12 Counties  
3 TxDOT Districts  
2<sup>nd</sup> Largest Metropolitan Planning Area by Land Area

## Economy

Home to 22 Fortune 500 Firms  
Projected to be Ranked 11<sup>th</sup> Globally in Metro GDP  
Represents 32% of State's Economy

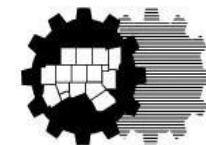
## Facility Miles

Freeway Lane Miles: 4,707 in 2018 / 6,066 by 2045  
Priced Facility Lane Miles: 1,078 in 2018 / 1,826 by 2045  
Passenger Rail Center Line Miles: 148 in 2018 / 449 by 2045





# Mobility Planning



# What Is The Mobility Plan?



**Represents a Blueprint for the Region's Multimodal Transportation System**



**Covers at Least a 20-Year Timeframe**



**Responds to Goals**



**Identifies Policies, Programs, and Projects for Continued Development**



**Guides the Expenditure of Federal and State Funds**

# Mobility 2045 Goals

- Mobility
  - ♦ Improve Transportation Options
  - ♦ Support Travel Efficiency Strategies
  - ♦ Ensure Community Access to System and Process
- Quality of Life
  - ♦ Enhance Environment and Lifestyles
  - ♦ Encourage Sustainable Development
- System Sustainability
  - ♦ Ensure Adequate Maintenance, Safety, and Reliability
  - ♦ Pursue Long Term, Sustainable Financial Resources
- Implementation
  - ♦ Provide Timely Planning and Implementation
  - ♦ Develop Cost Effective Projects and Programs



# Mobility Plan Organization

①

**Goals**  
Guide the Plan

②

**Objectives**  
Define the Goals

③

**Performance Measures**  
Measure the Objectives



# Mobility Plan Organization

③

**Performance Measures**  
Inform Project Selection

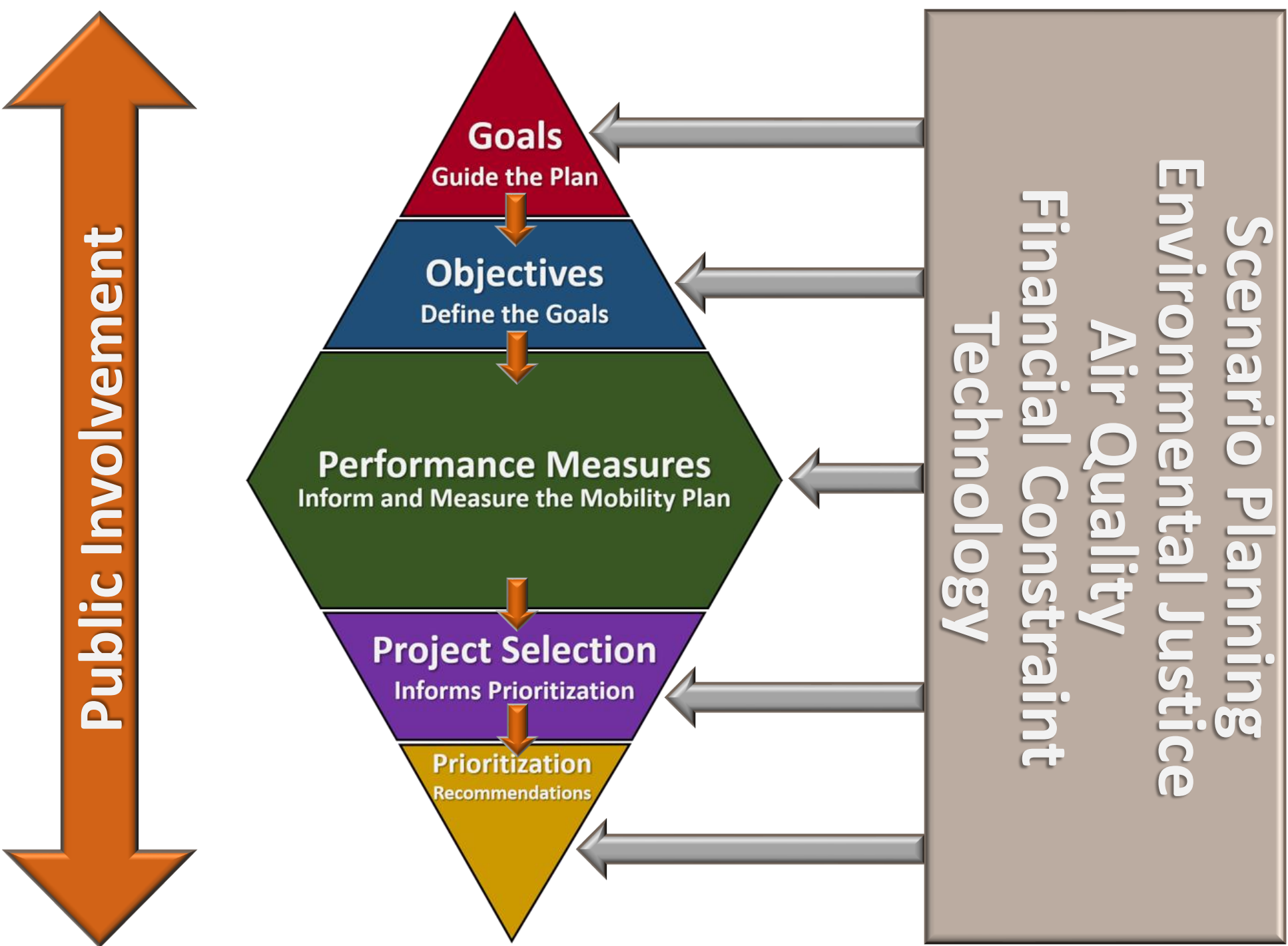
④

**Project Selection**  
Informs Prioritization

⑤

**Prioritization**  
Recommendations

# Mobility Plan Organization



# Mobility Plan Development Steps

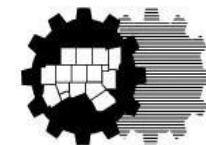


# Mobility Plan Development Steps

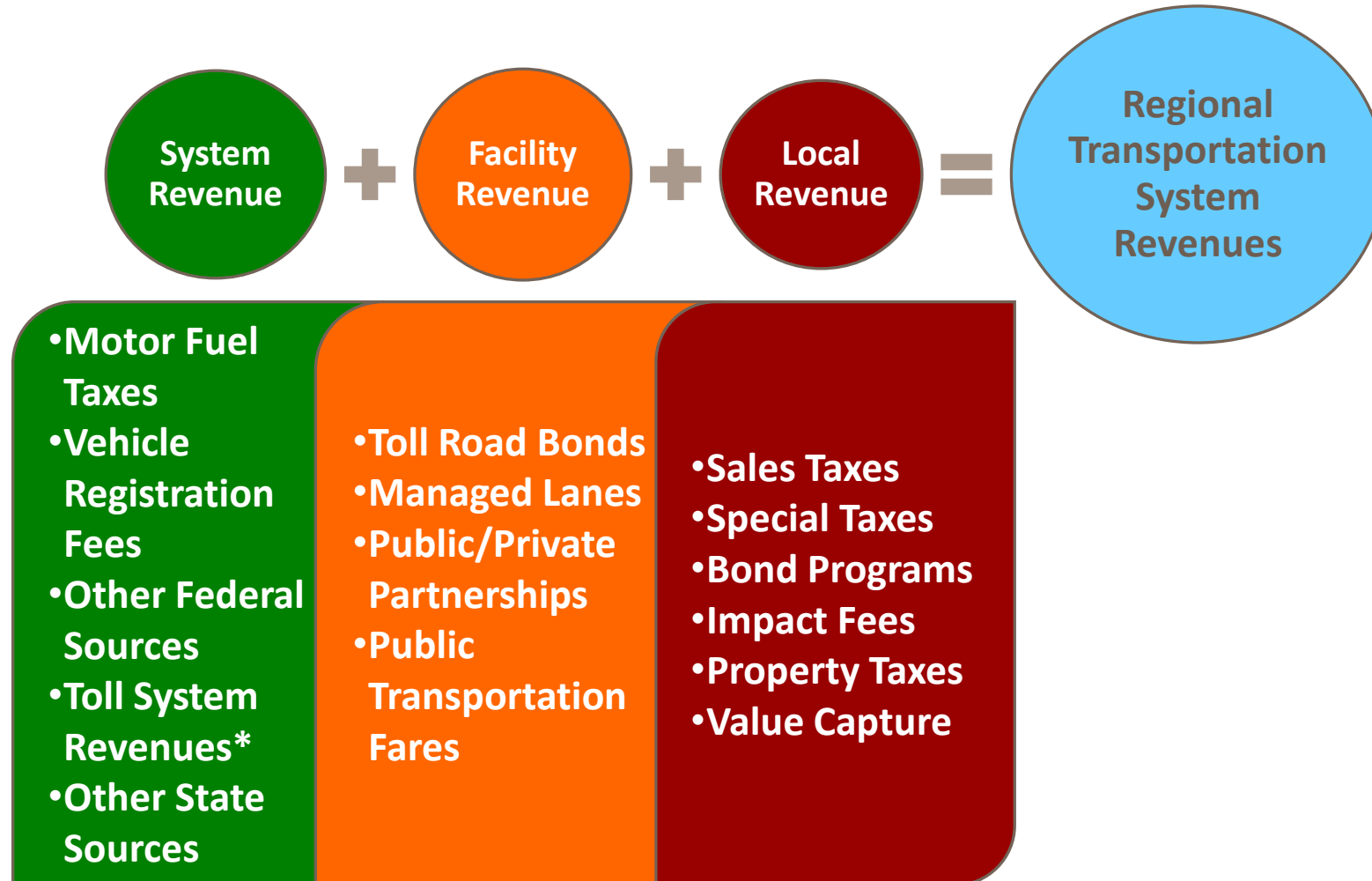




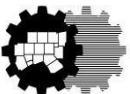
# Financial Planning



# Transportation Funding Basics



\* Revenue from existing NTTA facilities after bonds are retired.



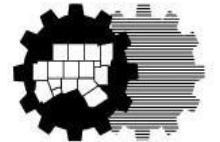
# Financial Plan Requirements

- Use All “Reasonably Expected” Sources
- Year of Expenditure Dollars
- Must be Financially Constrained
- Balance Priorities with Available Resources





# Mobility 2045 Recommendations





# Infrastructure Maintenance

Maintain & Operate Existing Facilities  
Bridge Replacements

**\$ 36.8 B**

- Regular Maintenance
- TxDOT Programmed
- Bridge Replacement Program



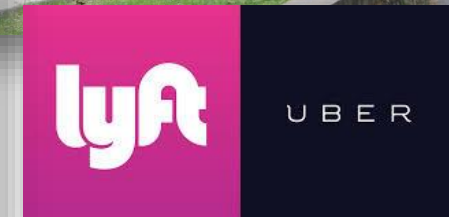
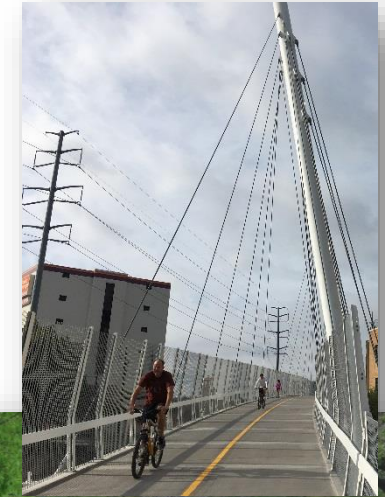
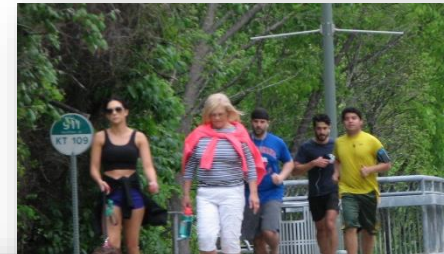
# Management, Operations, and Technology

Improve Efficiency & Remove Trips from System

Traffic Signals and Bicycle & Pedestrian Improvements

\$ 9.5 B

- Traffic Signal Retiming Program
- Technology Program
- Bike/Ped Program
- Asset Optimization Program





# Growth, Development, and Land Use Strategies

More Efficient Land Use and Transportation Balance

\$ 3.2 B

- Incentives for Mixed-Use Development
- Last Mile Connections
- Local Government Coordination



# Rail and Bus

Induce Switch to Transit

\$ 33.3 B

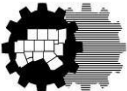
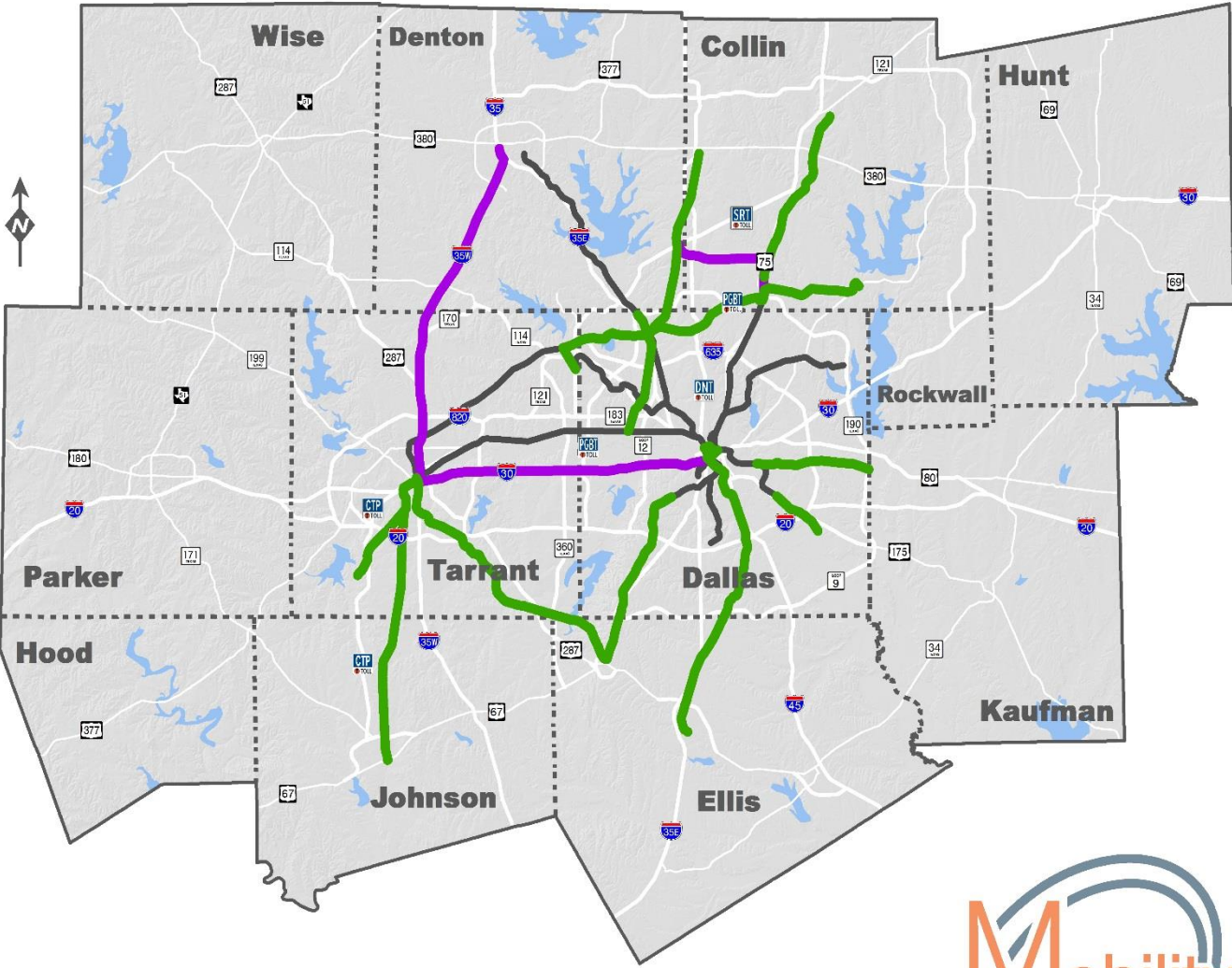
- Local Transit Agencies
- Trinity Metro
- DART
- DCTA





# Transit Corridor Recommendations

- Recommended Rail
- Existing Rail
- Recommended High-Intensity Bus



# HOV/Managed Lanes

Increase Auto Occupancy  
Corridor Traffic Management

**\$ 53.6 B**

## Freeways/Tollways and Arterials

Additional Roadway Capacity

- Economic Development Engine
- Transportation System Backbone
- Increased Connectivity
- Strategic Investment
- Accessibility



Source: North Tarrant Express

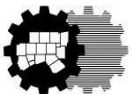
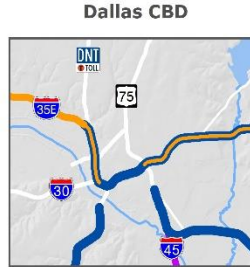
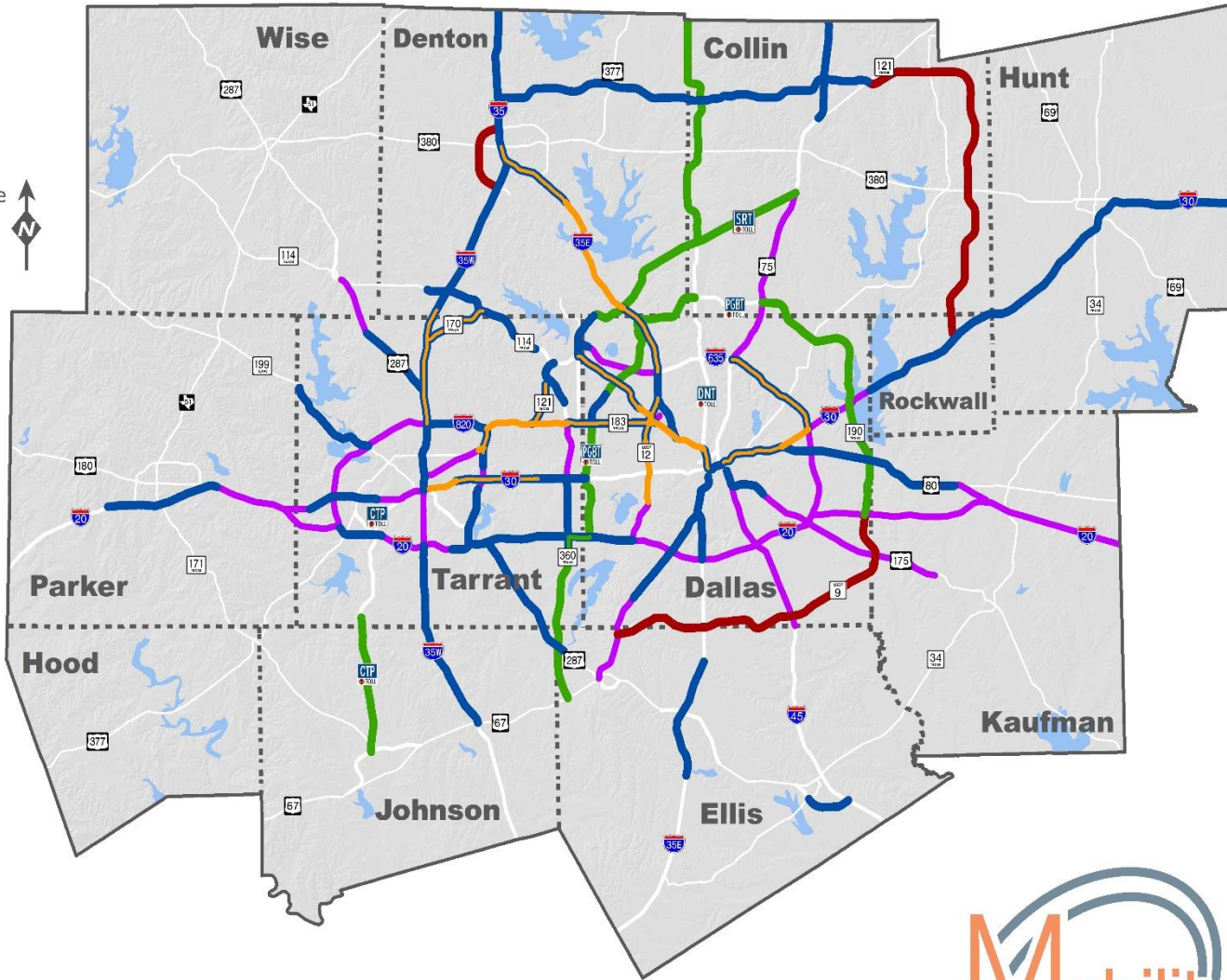


Source: NCTCOG



# Major Roadway Recommendations

- New or Additional Freeway Capacity
- New or Additional Managed Lane Capacity
- New or Additional Toll Road Capacity
- Staged Facility (Frontage Roads)
- Asset Optimization



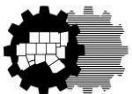
# Mobility 2045 Expenditures

Maximize Existing System	<b>Infrastructure Maintenance</b> Maintain & Operate Existing Facilities Bridge Replacements	\$ 36.8
	<b>Management, Operations, and Technology</b> Improve Efficiency & Remove Trips from System Traffic Signals and Bicycle & Pedestrian Improvements	\$ 9.5
	<b>Growth, Development, and Land Use Strategies</b> More Efficient Land Use & Transportation Balance	\$ 3.2
Strategic Infrastructure Investment	<b>Rail and Bus</b> Induce Switch to Transit	\$ 33.3
	<b>HOV/Managed Lanes</b> Increase Auto Occupancy	\$ 53.6
	<b>Freeways/Tollways and Arterials</b> Additional Roadway Capacity	
<b>Total Expenditures<sup>1</sup></b>		<b>\$136.4<sup>2</sup></b>

Notes:

<sup>1</sup> Actual dollars, in billions. Values may not sum due to independent rounding.

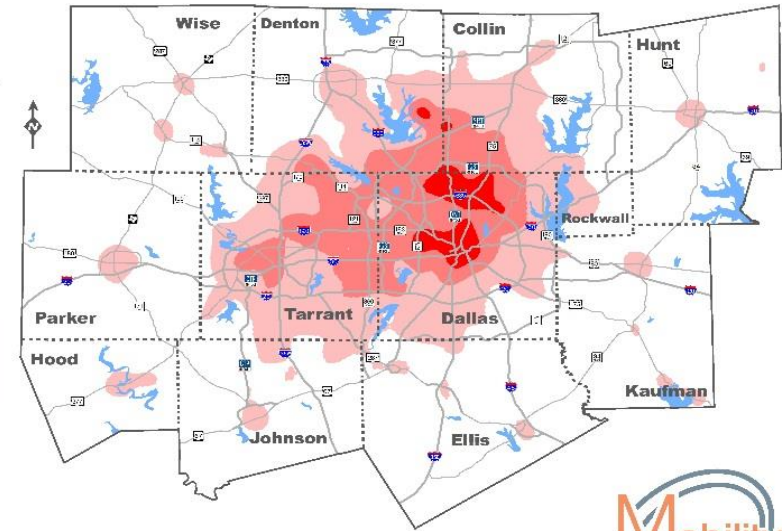
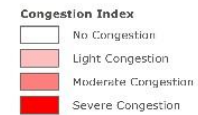
<sup>2</sup> Balances to reasonably expected revenue, demonstrating financial constraint.





# Congestion and Delay

## 2018 Levels of Congestion/Delay

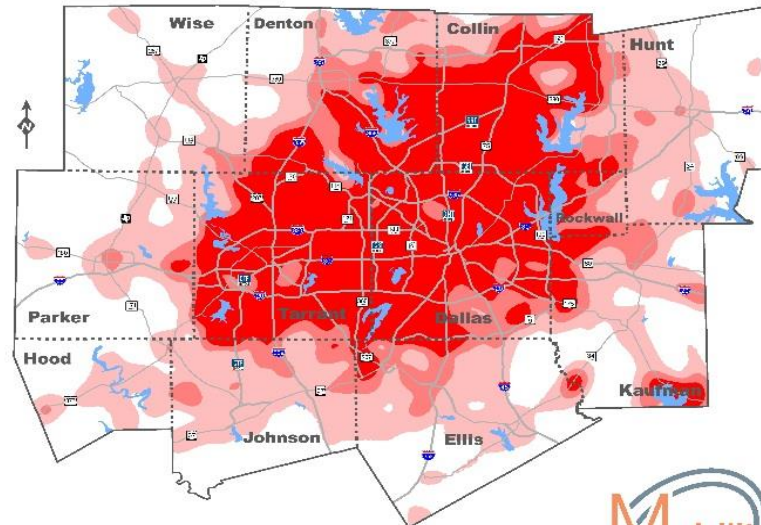


North Central Texas  
Council of Governments

**Cost of Congestion/Delay: \$12.1 billion**  
Congestion Index is based on a percent increase in travel time.



## 2045 No-Build Levels of Congestion/Delay

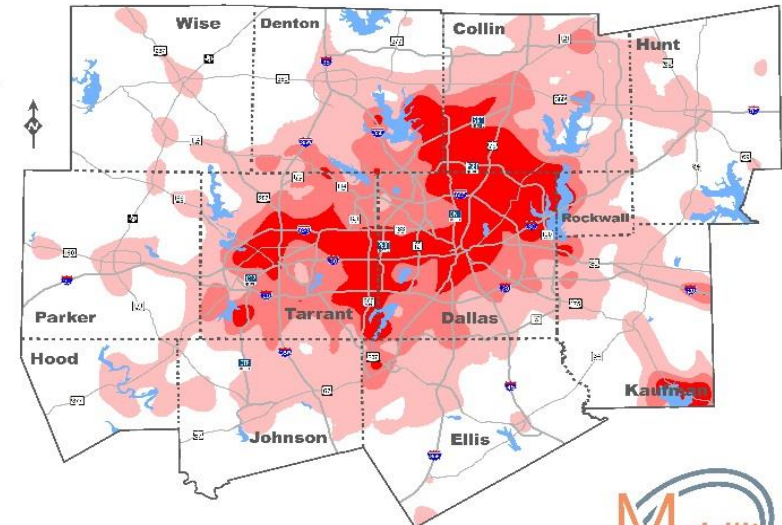


North Central Texas  
Council of Governments

**Cost of Congestion/Delay: \$47.9 billion**  
Congestion Index is based on a percent increase in travel time.

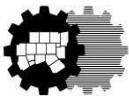


## 2045 Levels of Congestion/Delay

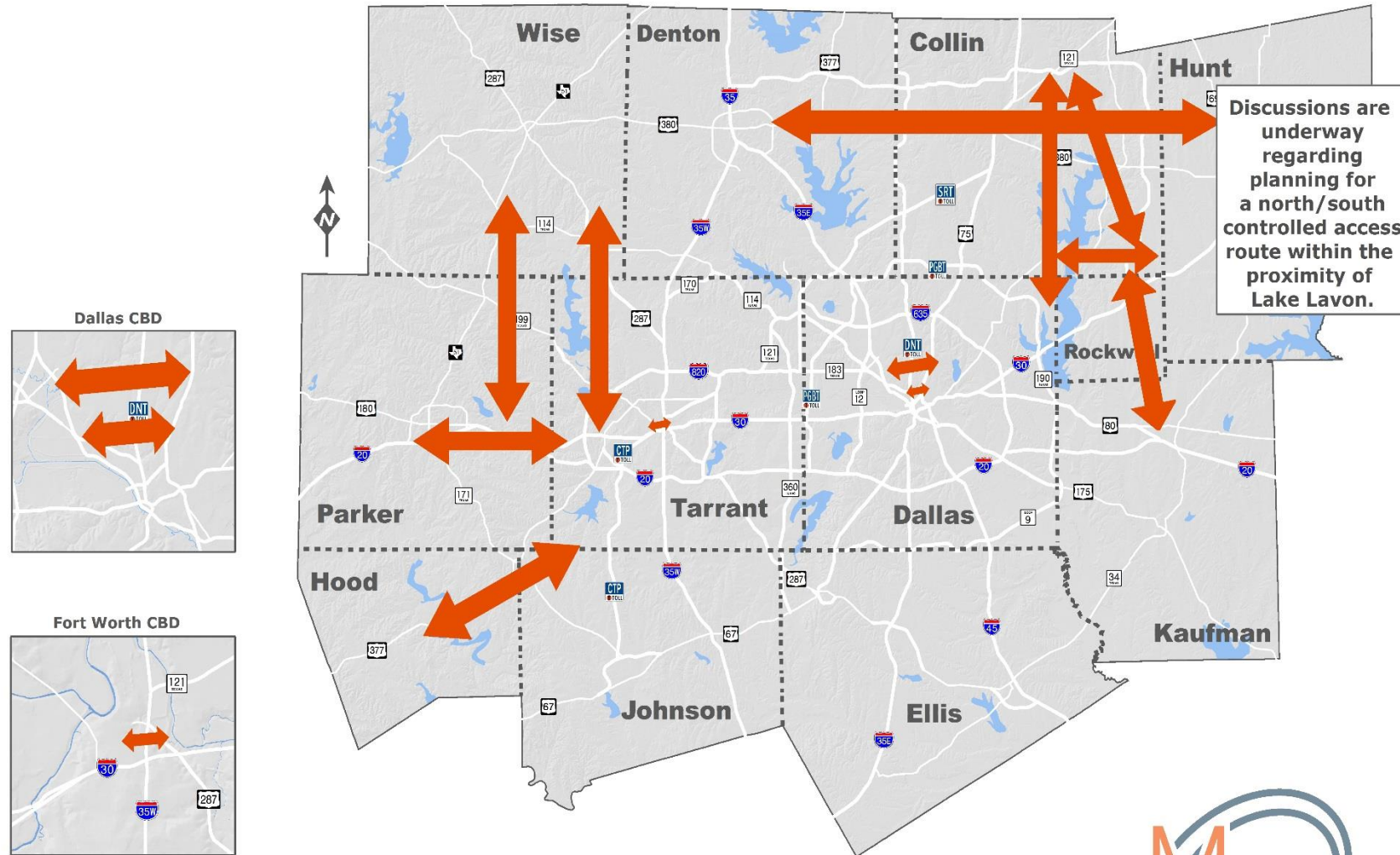


North Central Texas  
Council of Governments

**Cost of Congestion/Delay: \$27.2 billion**  
Congestion Index is based on a percent increase in travel time.

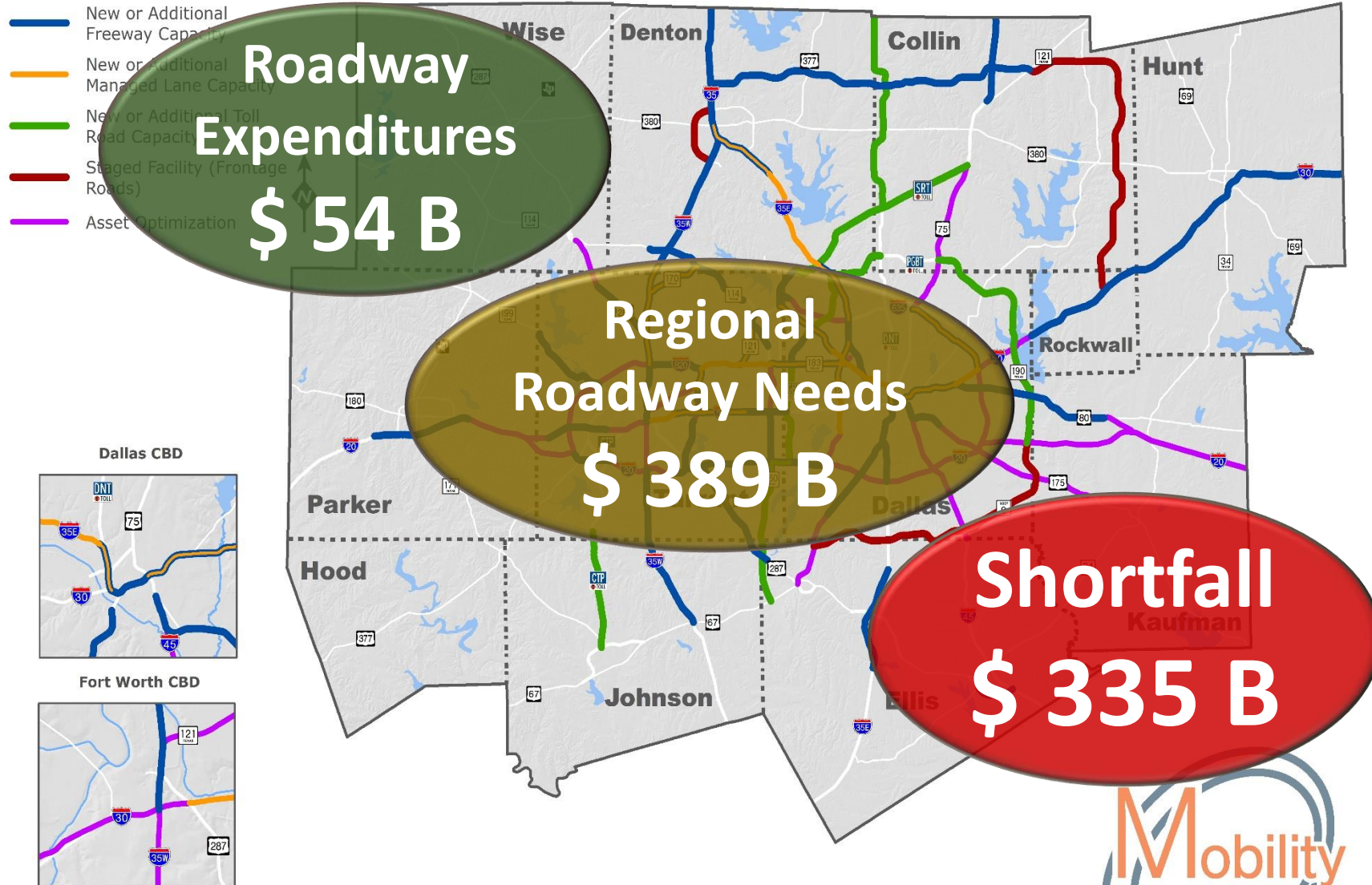


# Roadway Corridors for Future Evaluation



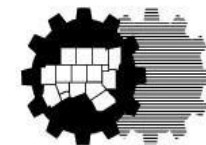


# Major Roadway Recommendations





# Freight Perspective



# NT MOVES Program

North  
Texas

Multimodal  
Operations  
Velocity  
Efficiency  
Safety

**FREIGHT**  
**NORTH TEXAS**

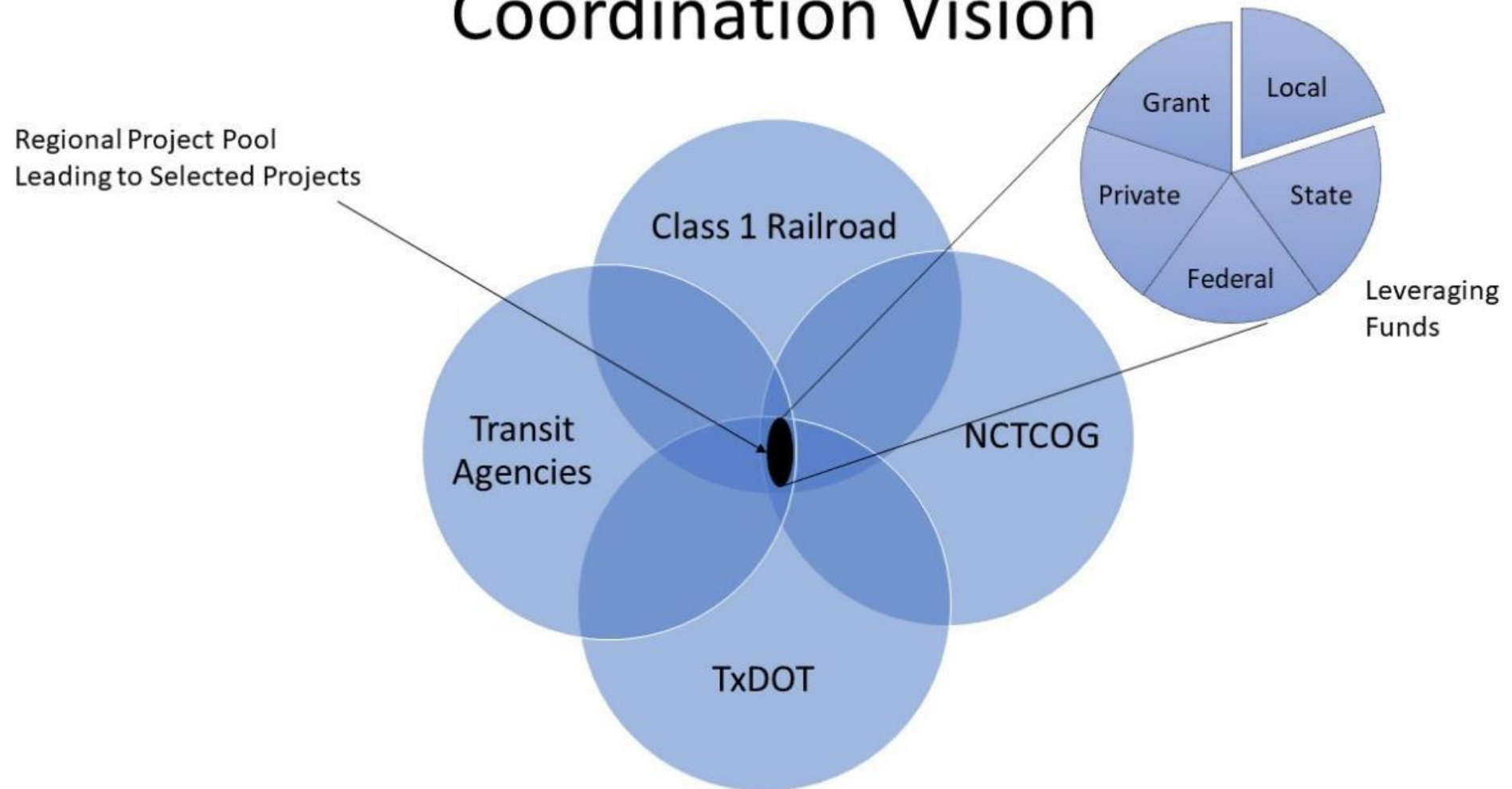


# NT MOVES Program

- NT MOVES is a long-range plan for increasing freight and passenger mobility in Dallas-Fort Worth through Public and Private strategic investment in rail capacity to improve multimodal transportation.
- NT MOVES is a regionwide collaborative effort between NCTCOG, Class 1 Railroads, Short Lines, TxDOT, and Passenger Rail Agencies.
- NCTCOG was awarded \$25 Million in BUILD Grant Funds for the TRE Corridor. The project total cost is \$55 Million and includes:
  - Double Track Medical Market Center to Stemmons Freeway and Bridge Improvements
  - Double Track Handley Ederville Road to Precinct Line Road and Bridge Improvements
  - Implement Regional Rail Information System Technology

# NT MOVES Program

## Coordination Vision



# NT MOVES Program

## Regionally Significant Rail Projects:

- Madill Subdivision (Irving to Carrollton), Irving Wye/Gribble Siding
- Downtown Dallas Canyon Area/CP 217
- IH 35W Corridor
- TRE Double/Triple Tracking Projects
- Regional Rail Information System

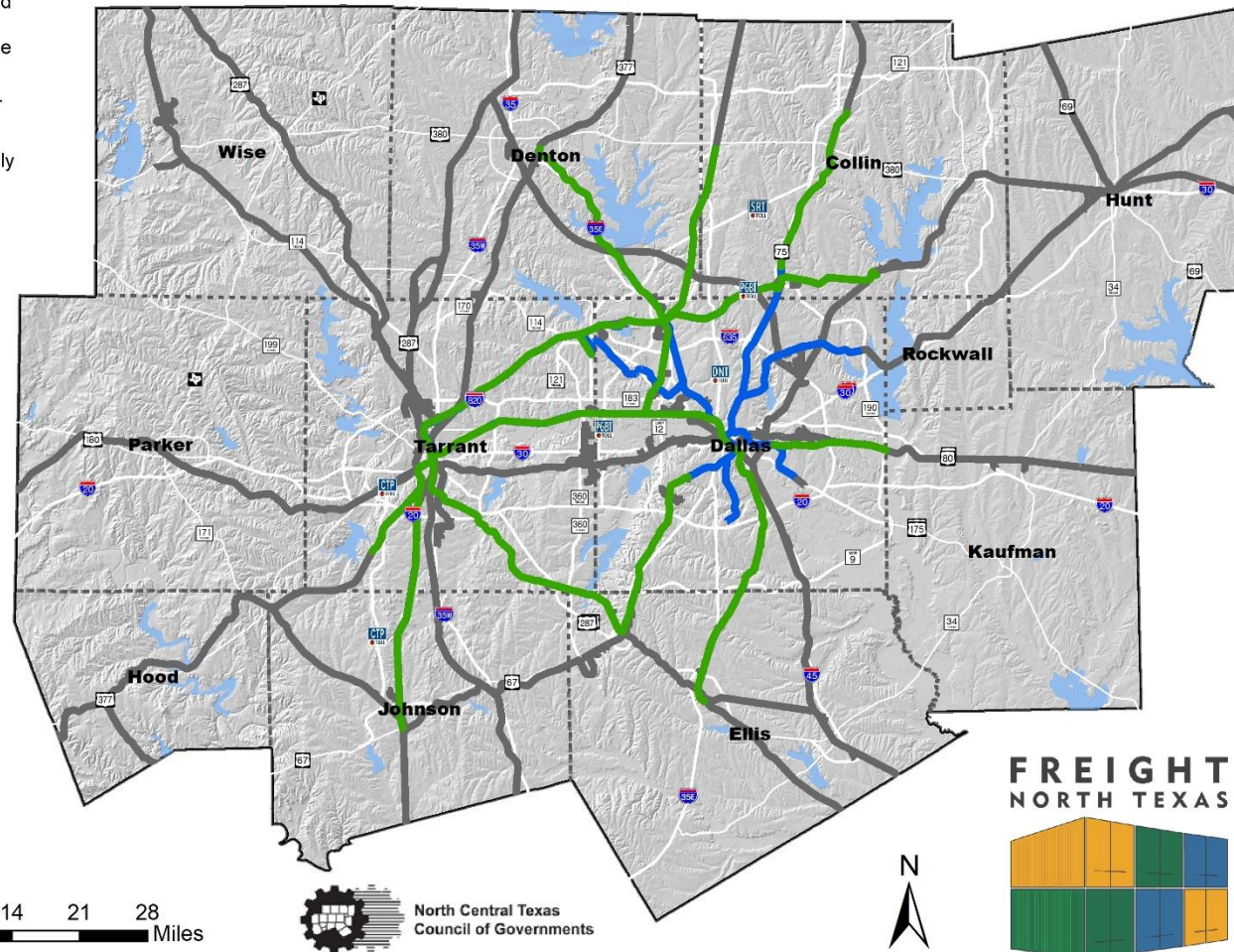


# Regional Rail Information System

## RRIS Corridor Impacts

### Legend

- Current and Planned Shared Use Corridors
- Passenger Only
- Freight Only



# Regional Rail Information System

Objectives of the RRIS are to:

- Address Shared-Use Corridors and Interconnected Network Concerns
- Monitor Ongoing Performance Measures
- Improve Capital Project Selection and Facilitate Public-Private Partnerships

# Regional Rail Information System

Implementation of RRIS Technology will:

- Assist with Freight and Passenger Train Interactions and Identify Bottlenecks
- Enhance Long-Term Mobility Plan Projects – Road and Rail Interactions
- Enable Rail Agencies to Exchange Timely, Accurate, and Actionable Information on Regional Train Movements
- Identify Infrastructure Projects to Increase Rail Capacity Throughout the Region

Currently in the RFP Process and is Planned to be Presented to the NCTCOG Executive Board in March

# Freight Planning

## Freight North Texas Program products

- *The North Central Texas Regional Freight System Inventory*, May 2013

Recommendations to enhance the safety, mobility, efficiency, and air quality associated with freight

- Other regional freight system plans upcoming in 2021
  - ♦ Freight Land Use Analysis
  - ♦ Truck Bottleneck Study
  - ♦ Freight Economic Analysis
  - ♦ NT MOVES Program

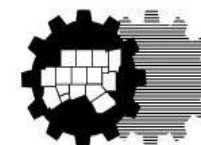
# Freight Planning

## Freight North Texas Program Goals

- Reduce air quality impacts
- Incorporate freight considerations in transportation projects
- Develop and use a sustainable and reliable funding source
- Develop a regional freight database
- Improve railroad safety and reliability



# Discussion



# Contacts

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[www.nctcog.org/mobility2045](http://www.nctcog.org/mobility2045)

[www.nctcog.org/trans/plan/freight](http://www.nctcog.org/trans/plan/freight)