Joint Meeting – Capital Area and Alamo Area MPOs

March 22, 2024

Introductions and Opening Remarks

Chairs Long and Cabello-Havrda

IH 35 Planning and Environmental Linkages Study

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Problems We're Trying To Solve

The greater Austin and San Antonio areas are becoming increasingly linked as one region, requiring coordinated solutions to transportation along I-35.

Traffic analysis shows stop-and-go traffic or a failing congestion level on nearly the entire corridor by 2035 and congestion continuing to worsen through 2050.

Population and employment in the region are projected to more than double by 2050.

Several sections along the corridor have a high crash rate with more than 60 fatalities over the past 5 years.

Safety Analysis

2019-2023 CRASH DATA

10,158 Total Crashes

58 Fatal Crashes

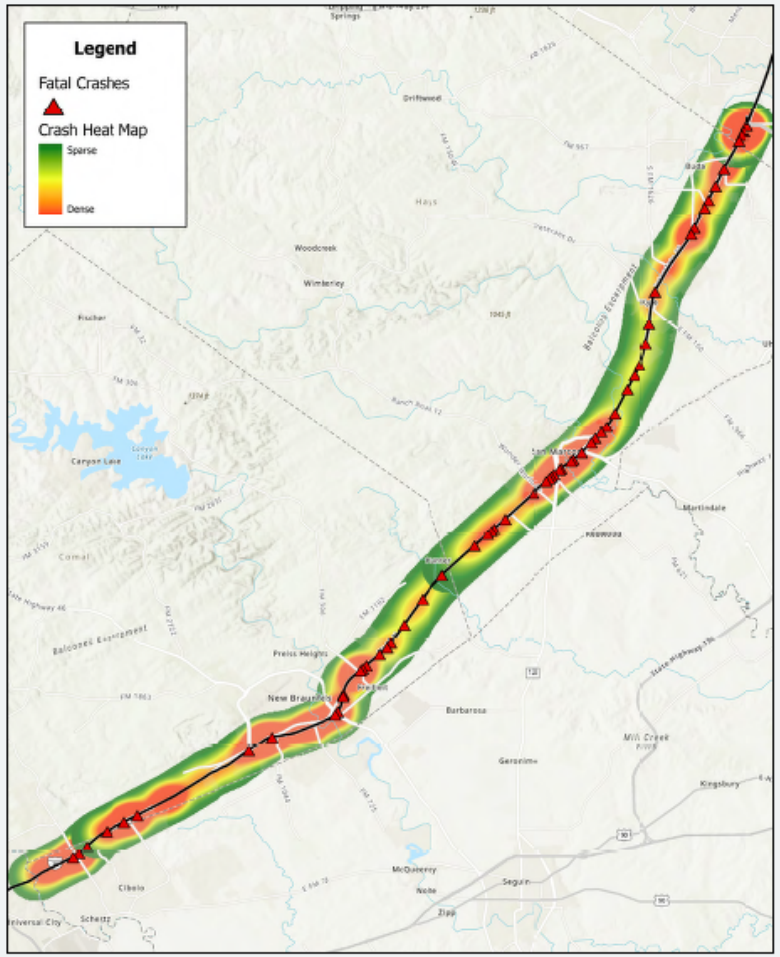
64 Fatalities

Segments of this corridor are experiencing crash rates more than **10%** higher than the statewide average on interstates.

TOP 5 CRASH FACTORS 2019-2023

- Failure to control speed
- Driver inattention
- Unsafe lane change
- Followed too closely
- Faulty evasive action

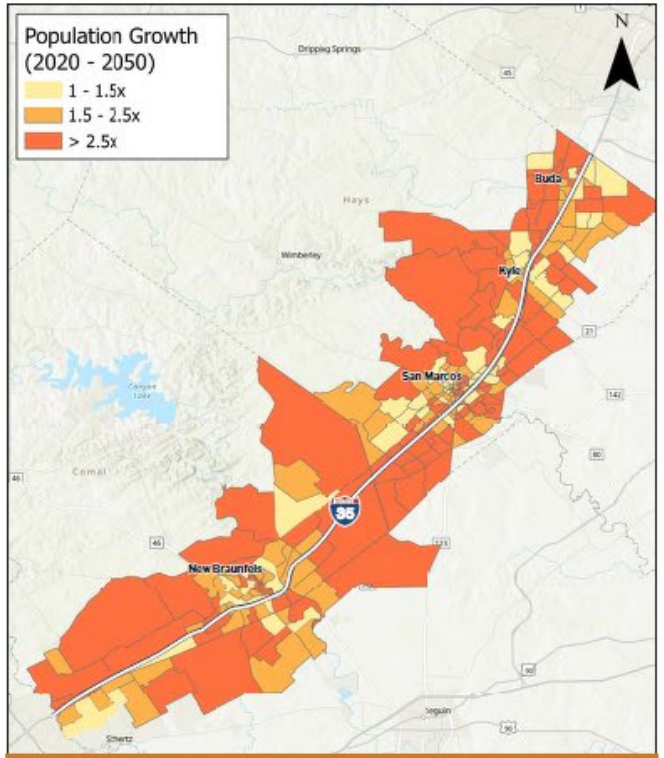
CRASH HOT SPOTS



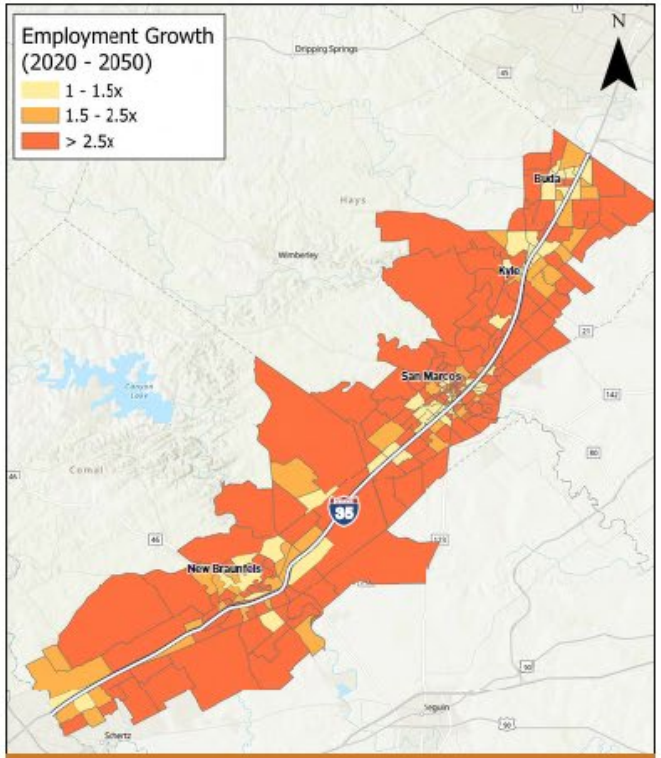
Source: TxDOT Crash Records Information System, 2019-2023

Population and Employment Projected Growth

Population and employment in the study area are projected to increase 2.5 times their current levels by 2050.



POPULATION (2020-2050)



EMPLOYMENT (2020-2050)

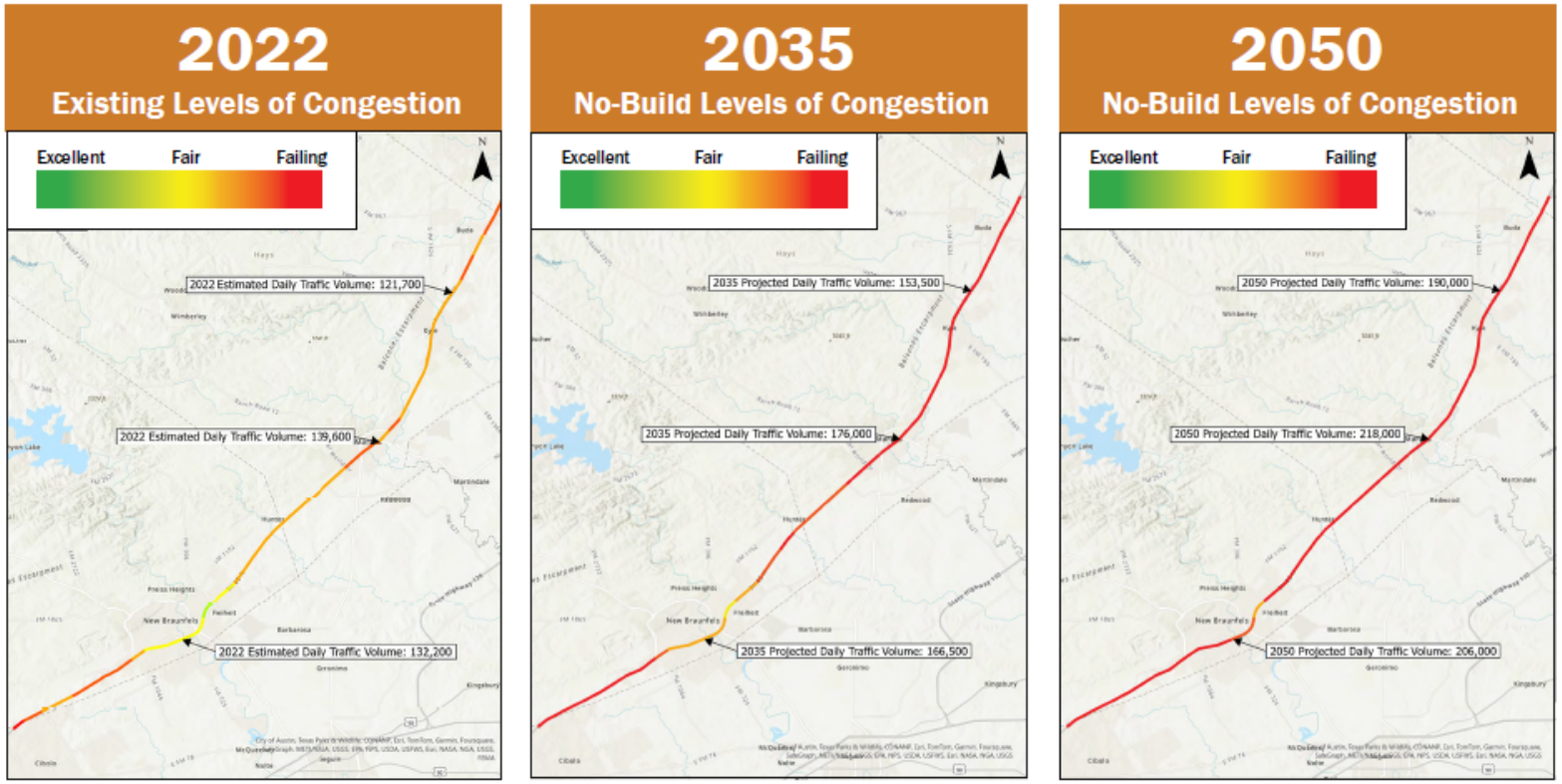
2020 309K › 2050 767K

PEOPLE

2020 135K › 2050 334K

JOBS

Existing and Projected Congestion



Congestion projections are based on PM peak hour travel.
2050 traffic was modeled using forecasted population and employment growth data.

- As the region grows, increased traffic volumes will lead to greater congestion.
- Projected congestion will increase to failing levels by 2035 and continue to decline through 2050.
- If nothing is done, the existing corridor will limit mobility and freight movement within the region. Congestion will cause increased delays, travel times, density, and worsened air quality.
- The study is evaluating alternatives that will improve future mobility.

Overview: I-35 Austin to San Antonio Link Study

The study will focus on how to best link the I-35 Capital Express (CapEx) project in Travis County to the I-35 Northeast Expansion project (NEX) in Guadalupe County. It will evaluate safety and mobility improvements to align with these projects through Hays and Comal counties.

STUDY LIMITS: I-35 from SH 45 Southeast to CR 382 (Cibolo Valley Dr)

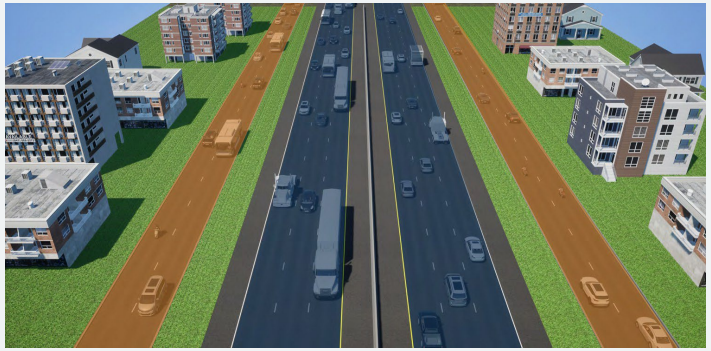
STUDY LENGTH: 46 miles

COUNTIES: Travis, Hays, Comal, and Guadalupe

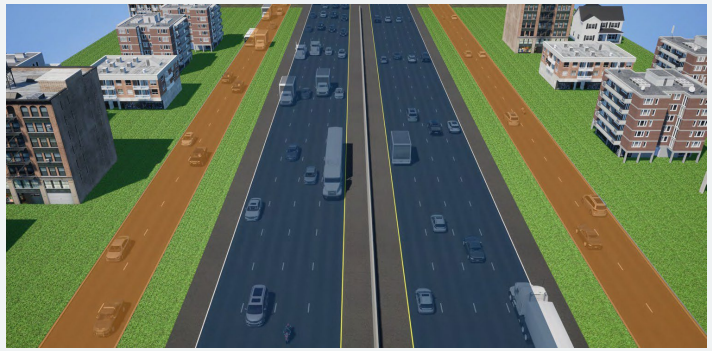
CITIES: Buda, Kyle, San Marcos, New Braunfels, Schertz, and Cibolo

EXISTING I-35 CORRIDOR WITHIN STUDY LIMITS

3 General Purpose Lanes In Each Direction



4 General Purpose Lanes In Each Direction



Frontage Road

General Purpose Lanes

Overview: Planning and Environmental Linkage (PEL) Study

WHAT IS A PEL?

A PEL is an approach for creating efficiency in transportation project development and coordinating with supporting agencies to accelerate project delivery.

BENEFITS OF A PEL

Incorporates feedback early in the process

- Identifies environmental and economic considerations.
- Engages agencies to reduce future project delays.

Conducts public and stakeholder engagement

- Provides opportunities to engage with the study early on.
- Promotes open communication at all levels.

Promotes innovative and cost-effective solutions

- Conducts alternatives analysis and eliminates unfeasible alternatives.
- Minimizes duplication of effort among interested parties.

The I-35 Future Transportation Corridor (FTC)

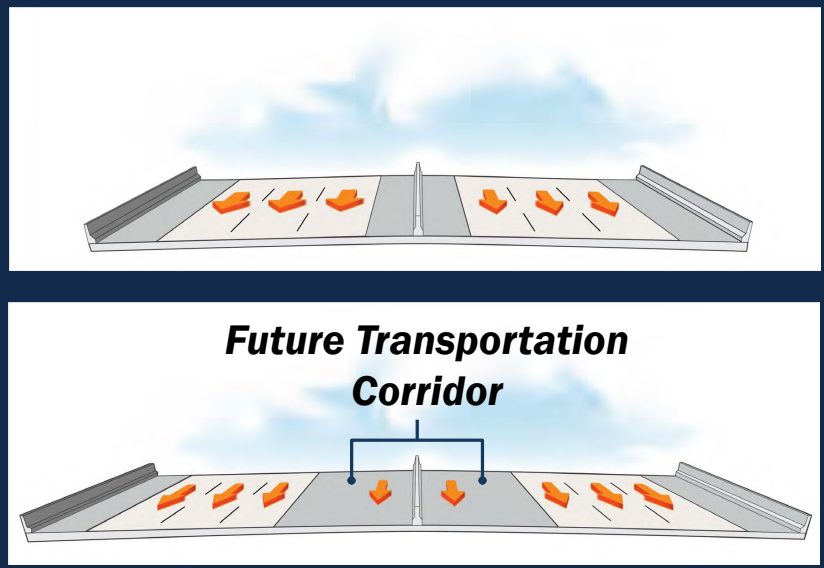
WHAT IS AN FTC?

An FTC is proposed additional capacity for transportation needs.

WHAT TYPES OF LANES WILL THIS STUDY CONDISER FOR ADDITIONAL CAPACITY?

At this time in the PEL study, lane types have not yet been determined but could include general purpose lanes, high-occupancy vehicle (HOV) lanes, truck-only lanes, rail or a combination of lane types. The number of lanes in the FTC is undetermined at this time.

UPDATING REGIONAL PLANS



Source: 2015 Hays Corridor Implementation Plan

Adding capacity, identified specifically as the FTC, is a primary goal of Mobility35. The 2015 I-35 Hays County Corridor Implementation Plan identified that the FTC would provide the single-largest mobility gain for I-35. The I-35 Austin to San Antonio Link Study will update the Hays County plan within the context of current projects along the corridor and updated projections of growth for the region.

Alternatives Under Consideration

FUTURE TRANSPORTATION CORRIDOR

Photo is for illustrative purposes only.

- At this time in the PEL study, potential number of lanes and lane types have not yet been determined but could include general purpose lanes, HOV lanes, truck-only lanes, transit or rail options, or a combination of lane types.
- The majority of the study limits currently include three general purpose lanes in each direction and there is a small section in the New Braunfels area that has four general purpose lanes in each direction.

Additional Study Considerations

TRANSPORTATION SYSTEM MANAGEMENT

Low-cost, non-capital-intensive strategies to enhance safety, reduce congestion and improve traffic flow:

- Highway operations improvements such as changeable message signs and ramp metering.
- Incident management.

TRANSPORTATION DEMAND MANAGEMENT

Strategies to manage or decrease demand for auto-related travel by increasing the operating efficiency of transportation facilities:

- Alternatives to single-occupant vehicles, such as transit, carpool, vanpool and bicycle.
- Travel time advantages for HOV lanes.
- Alternative work environments, such as telecommuting and flex time.

I-35 Austin to San Antonio Link Study Schedule

2023 to 2025

I-35 AUSTIN TO SAN ANTONIO LINK STUDY

IMPROVEMENT CONCEPTS IDENTIFIED

WE ARE HERE

Development of Future Projects 8 to 10 Years

ENVIRONMENTAL REVIEW AND SCHEMATIC DESIGN

TO BE DETERMINED:

- *CATEGORICAL EXCLUSION*
- *ENVIRONMENTAL ASSESSMENT OR*
- *ENVIRONMENTAL IMPACT STATEMENT*

FINAL DESIGN, RIGHT-OF-WAY ACQUISITION AND UTILITIES COORDINATION

CONSTRUCTION WILL BEGIN WHEN FUNDING IS SECURED

PUBLIC INVOLVEMENT, STAKEHOLDER COORDINATION AND ROW PRESERVATION

Schedule is subject to change pending coordination, public involvement and identification of funding for all future phases. Other viable concepts can still be considered during environmental studies.

Overview: PEL Study Open Houses

Total Number of Public Attendees: 116

Total Elected Officials in Attendance: 6

Total Comments Received: 182

What We Heard:

- Key themes include rail, access, growth, congestion, safety, and cyclists/pedestrians
- FTC preferences for transit and especially rail
- Needs along I-35 in the study area include:
  - Addressing existing congestion and safety concerns
  - Enhancing local access and roadway condition
  - Developing transportation options (alternate modes) and cyclist/pedestrian accommodations
  - Planning for growth

Buda Open House

New Braunfels Open House

San Marcos Open House

Open Comment Themes

Top Themes

- Congestion (24)
- Rail (23)
- Safety (19)
- Transit (14)
- Growth & Future Development (12)

Open Comment Submission Dates

- During the open houses: 33 comments (57%)
- On the comment deadline, Friday, March 8, 2024: 18 comments (31%)

"Dedicated lanes for 18-wheelers make driving for everyone safer; please incorporate dedicated truck lanes in the improvement plans."

"Instead of adding single occupancy capacity, consider high frequency commuter rail and high frequency interurban bus between Austin and San Antonio."

"I live in San Antonio and often drive up to Austin. I would love to have a rail option going back and forth. Public and mass transit has shown to have the biggest impact on traffic, provided it has proper investment and usability."

"Ideally, I would prefer a commuter rail system between cities to alleviate this problem, but knowing that this is cost prohibitive, the implementation of an HOV lane alongside an effective bus system would help to remove a significant number of cars and drivers from our road."

"I am keenly interested in the safety concerns, economic opportunities, and scalability/'future proofing' afforded by any proposed transportation system."

Thank You

I-35 Austin to San Antonio Link Study Next Steps:

- The project team will review all comments received during the comment period, assess their feasibility for incorporation into the study and develop responses, which will be available online at TxDOT.gov once they have been prepared.
- The project team will continue conducting traffic, economic and environmental analysis as well as begin evaluating the range of alternatives and determining segments of independent utility along the corridor.
- Additional public involvement will be conducted through future studies and projects.

WWW.TXDOT.GOV | SEARCH "I-35 LINK STUDY"

Discussion on Joint Greenhouse Gas Emissions Target Setting for the San Marcos Urbanized Area

Requirements for **DOTs and MPOs**

The State DOT and MPO shall **establish declining targets for reducing tailpipe CO_2 emissions on the NHS**.

State DOTs

- 2- and 4-year statewide emissions reduction targets (2 years from 2026)

MPOs

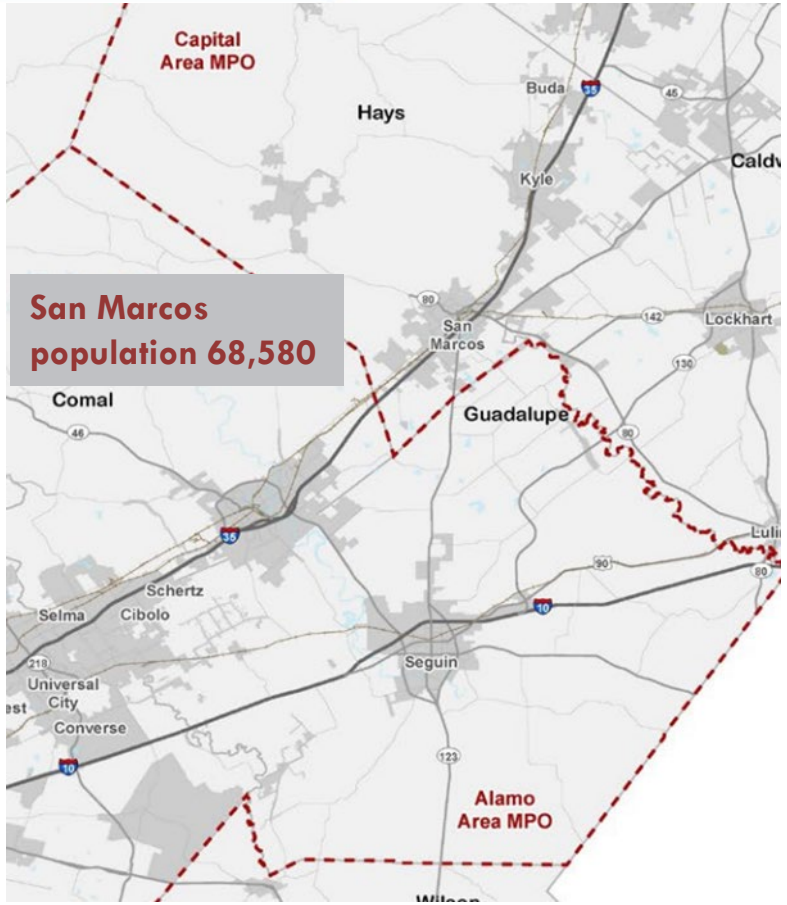
- 4-year emissions reduction targets
- Must establish targets within 180 days from State DOT's establishment of targets
- Option to commit to support the State DOT target or establish a unique quantifiable target; **however when more than one MPO shares an Urbanized Areas (UZA), a unique target must be established.**

Source: USDOT Assessing Performance of the National Highway System, Greenhouse Gas Emissions Measure

Requirements for
MPO Joint UZA Targets
§490.105(f)(10)

For UZAs that are overlapped by the MPA boundaries of two or more MPOs a single joint target must be established

- MPOs must collectively establish a **joint declining** 4-year target for the UZA
- Must be a **single quantifiable** target
- Must be **in addition to** each MPO's metropolitan planning area target



Source: USDOT Assessing Performance of the National Highway System, Greenhouse Gas Emissions Measure

GHG Enforcement Abeyance Memo

22 States have challenged the GHG performance measure rule in federal court including Texas.

- The FHWA extended the deadline for **States** to submit initial targets and reports from February 1, 2024 until March 29, 2024.

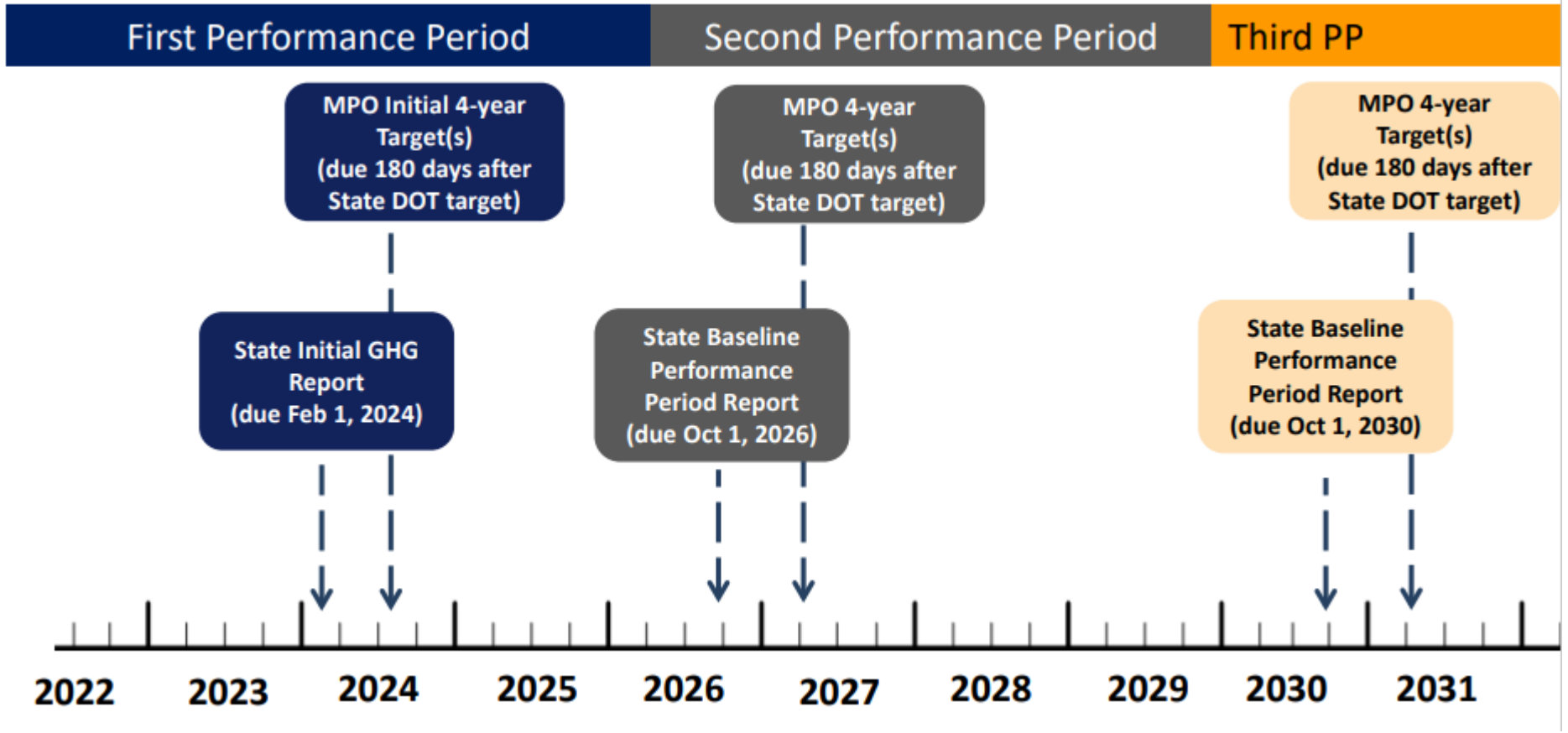
The **MPOs** are due to establish targets no later than 180 days after State DOTs establish their targets.

180 days from March 29

- The next performance reports are due from **States** on October 1, 2024.

MPO Target Timeline

Source: USDOT Assessing Performance of the National Highway System, Greenhouse Gas Emissions Measure



§490.107(c): MPO Reporting Requirements

Existing Framework

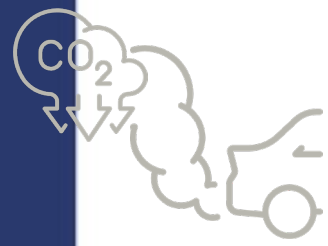
- MPOs report established targets to their respective State DOT in a manner that is documented and mutually agreed upon by both parties.
- Metropolitan Transportation Plan (MTP) shall include:
  - Performance measures and targets.
  - Baseline performance and progress towards achievement of targets.

Additional Reporting Requirements

- Calculation of annual tailpipe CO_2 emissions for the NHS.
- Description of metric calculation method(s) used. If a unique quantifiable target is established or a method not specified in §490.511(d) is used**, the MPO must demonstrate how the method has valid and useful results for measuring transportation related CO_2**
- Report on each required joint target

There are no specific penalties for failing to achieve GHG targets

Specific to tailpipe CO_2 emissions on the NHS

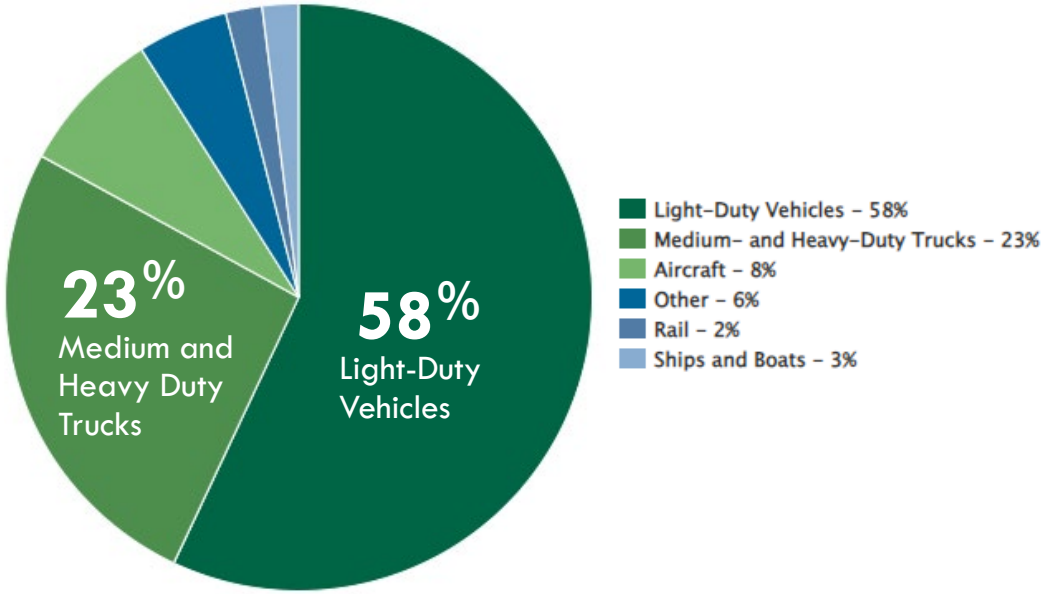


Carbon dioxide (CO_2)

95% of transportation GHG emissions

- Primary GHG associated with combustion of transportation fuels
- Emitted in direct proportion to fuel consumption
- Different emissions levels associated with different fuels
- Emissions can be calculated based on the amount of fuel used by motor vehicles and other transportation sources.

2021 US Transportation Sector GHG Emissions by Source



Source: EPA.gov

Performance Measure Examples

Strengths and Limitations of Example GHG (Combustion) Emissions Metrics

Metric	Agency using Metric	Pros	Cons
Total on-road related CO2 emissions (light duty + freight)	NCRTPB at the Metropolitan Washing Council of Governments and Puget Sound Regional Council	• Accounts for the vast majority of GHG emissions • Easy to assess progress toward national or State goals	• Emissions from freight sources may be difficult for transportation agencies to address • Outcomes may be affected by population growth
Light-duty vehicle CO2 emissions per capita	Portland Metro	• Focuses on light-duty emissions, which are most responsive to transportation policies and strategies	• Does not account for benefits of freight related improvements
Light-duty CO2 emissions per capita (removing effect of reductions from State fuel and vehicle policies)	All California MPOs	• Focuses on light-duty emissions, which are most responsive to transportation policies and strategies. • Controls for improvements due to fuel efficiency that are outside of agencies' control	• Does not account for benefits of freight related improvements • Requires additional analysis of technology-related reductions
Total on-road and off-road related greenhouse gas (GHG) emissions	Massachusetts and Maryland DOT	• Accounts for all major sources of GHG emissions • Easy to assess progress toward national or State goals	• Emissions from freight and non-road sources may be difficult for transportation agencies to address. • Outcomes may be affected by population growth and other exogenous factors.

Source: FHWA, A Performance Based Approach to Addressing Greenhouse Gas Emissions Through Transportation Planning

Performance Target Examples

San Francisco Bay Area

- San Francisco Bay target calls for RTP to reduce CO2 emissions 40 percent below 1990 levels by 2035. This target aligns with statewide goals.

Denver Regional Council of Governments

- Overall goal of reducing emissions 20% by 2020 and 80% by 2050, compared to 2005 levels

Portland, Oregon Metro

- Adopt targets to reduce greenhouse gas emissions to 10% below 1990 levels by 2020 and 75% below 1990 levels by 2050

Source: USDOT MPO Activity Case Studies

Minnesota

- 30% reduction in emissions from 2005 levels by 2025 with a net zero emissions target by 2050. Aligns with 2025 SMTP greenhouse gas target.

Source: Greenhouse Gas Performance Measure Target, TAC Planning

Case Study: Colorado

Colorado DOT

- Colorado DOT and MPOs are planning to achieve GHG reduction levels for four time periods up to 2050 as established in State legislation and the Colorado GHG Pollution Reduction Roadmap.
- Model existing transportation networks and all future regionally significant capacity projects in their long-range transportation plans to measure compliance

Source: USDOT FHA/FTA Transportation Planning Capacity Building Planning Topics, Addressing GHG in the Transportation Planning Process

Case Study: Virginia

Virginia DOT

- Uses the Infrastructure Carbon Estimator to evaluate construction-related GHG emissions from projects as part of its LRTP.
- This information is included in a Statewide Greenhouse Gas Planning Level Analysis.

Source: USDOT FHA/FTA Transportation Planning Capacity Building Planning Topics, Addressing GHG in the Transportation Planning Process

Regional Freight Studies Presentation and Discussion

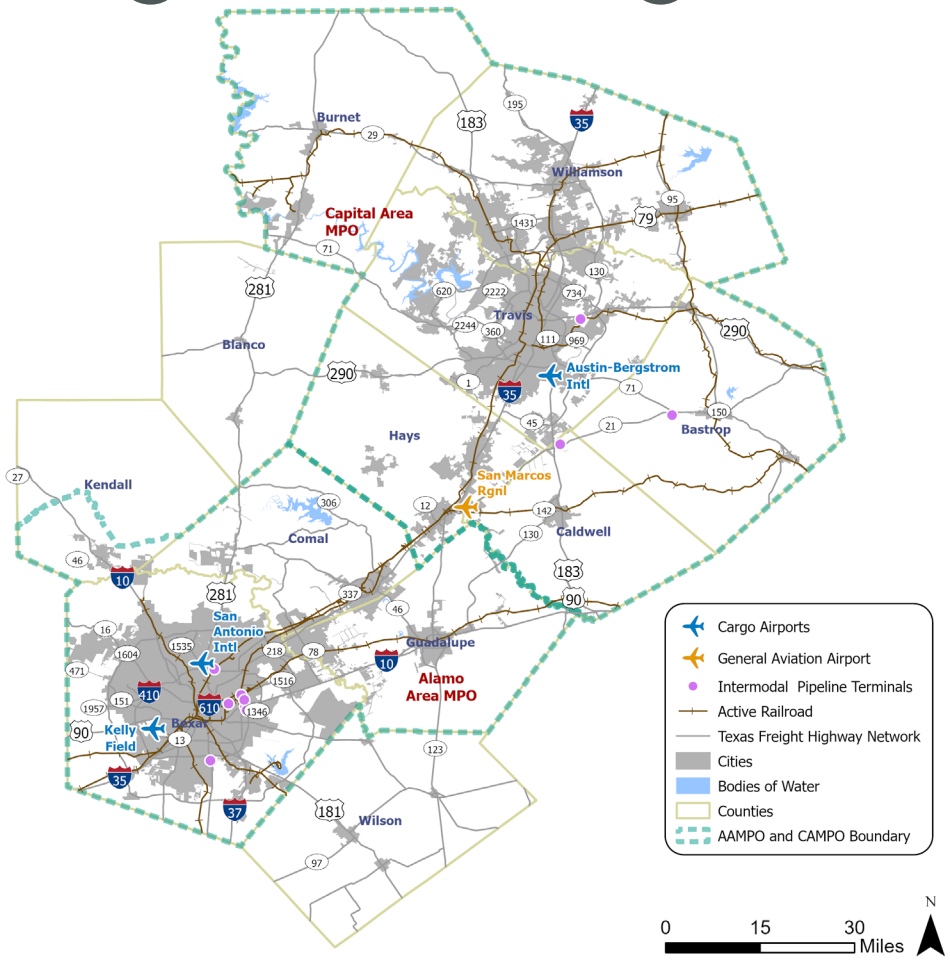
Overview

- Freight Linkages
- Truck Volumes
- Regional Impacts
- Trip Activity
- Commodity Flows
- Opportunities for Collaboration

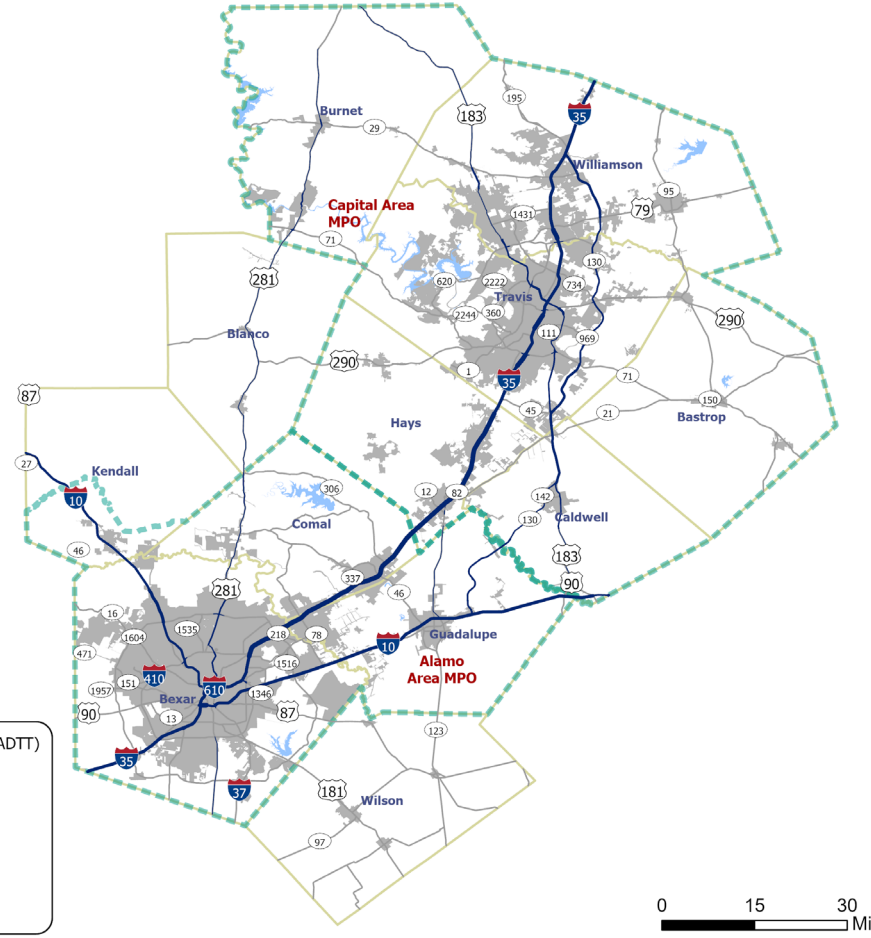
AAMPO – CAMPO
CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION

Freight Linkages

- Shared non-highway transportation assets
  - Airports, pipelines, rail
- Interregional highways and trip activity
  - I-35, SH 130, US 281, US 183
  - Trip activity going north/south from CAMPO or AAMPO
- Freight-intensive industries and supply chains
  - Automotive, electronics, construction, agriculture, petroleum, and warehousing



Interregional Truck Volumes, 2021



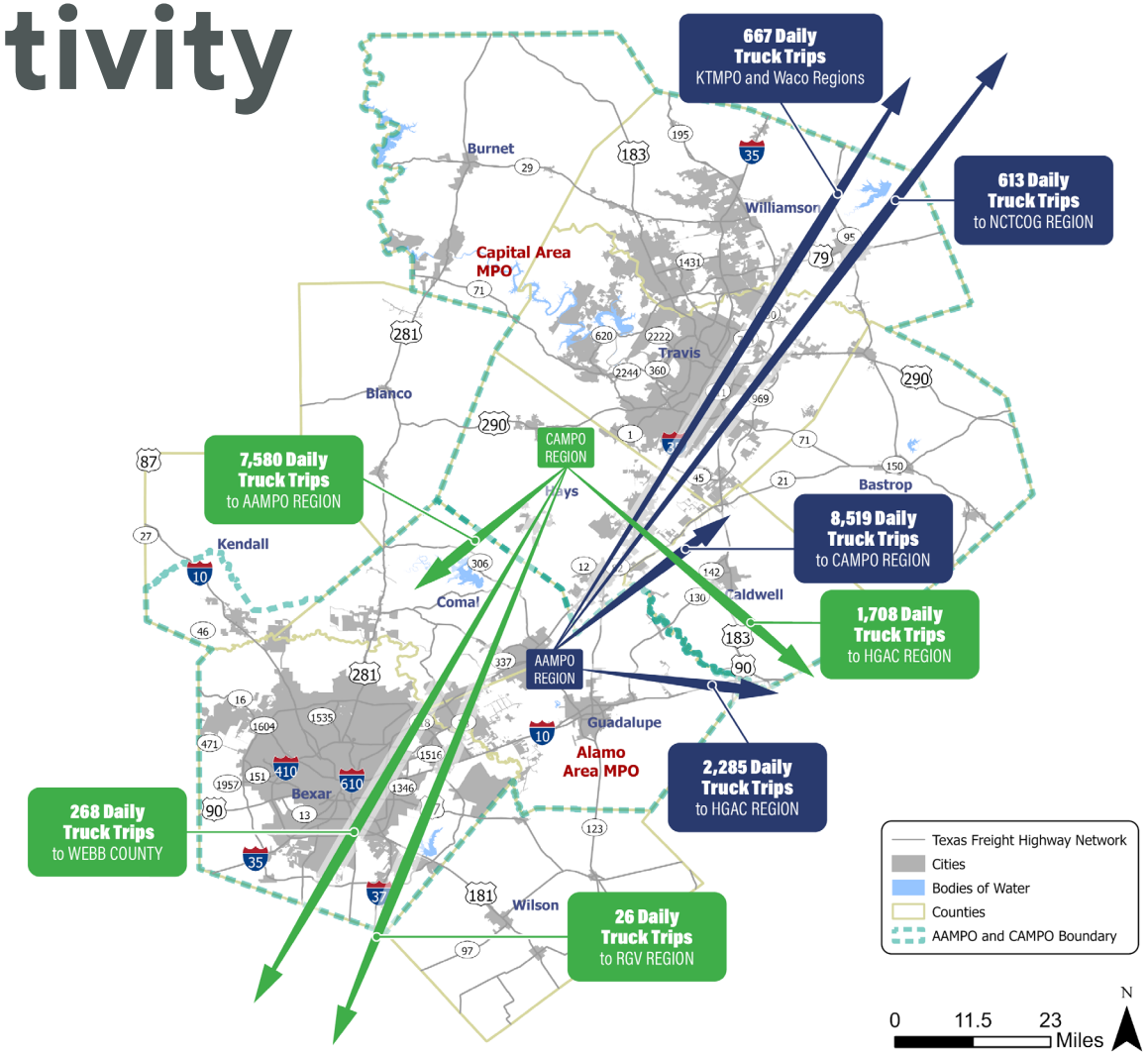
- Highest daily truck traffic (>20,000) on I-35 corridor linking the two regions
- Trucks utilize US 183 and SH 130 as alternatives to bypass I-35 congestion
- US 281 corridor another key north-south alternative for freight

Source: Texas Department of Transportation (TxDOT). Roadway Inventory (2022). Available at: https://gis-txdot.opendata.arcgis.com/datasets/txdot-roadway-inventory/explore

CAMPO AAMPO

Interregional Trip Activity

- IH-35 is not just a corridor for through freight traffic
- About a third of truck trips from CAMPO and AAMPO travel between regions
- Smaller number of trips continue to points north or south



Source: Texas Department of Transportation (TxDOT). Texas Truck Analysis Tool (2022).

Regional Congestion Impacts, 2021

- TTI's list of 100 most congested roadways for trucks
  - 7 in the Austin Metro region
  - 11 in the San Antonio Metro region
- Total traffic delay – 74 million hours
- Total cost of congestion – $1.8 billion
- Trucks – represents 6% of traffic delay and 14.1% of congestion costs

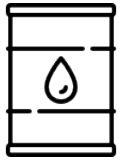
Source: Texas A&M Transportation Institute (TTI). Texas' 100 Most Congested Road Sections. 2022.
Available at: https://mobility.tamu.edu/texas-most-congested-roadways/

Interregional Commodity Flows

- Top 5 commodities by value (2019)
  - Warehouse/Retail
  - Transportation equipment
  - Chemicals and allied products
  - Petroleum or coal products
  - Food or kindred products

- Commodity flow forecasts
  - +78% Commodity Flow value ($)
    - $5.6 billion in 2019 → $10.0 billion 2050
  - +103% Commodity Flow Tonnage
    - 23.3 million tons 2019 → 47.3 million tons 2050




Source: 2019 Transearch database updated to reflect energy-related commodities (sand, brine, and water), and international water and air cargo.

Build on Partnership and Collaboration

- Highway and Rail
  - Aligning timing of improvements (e.g., I-35 CapEX and NEX)
  - Selection of alternative routes and improvements to detours
  - Approaching railroads together for access or solutions along corridors
- Technology and Operations
  - Traffic management (TxDOT TMCs)
  - Truck parking information
  - EV infrastructure planning

Regional Freight Study

presented to

AAMPO/CAMPO Joint Policy Board Meeting

presented by

Clifton Hall, Transportation Planning Program Manger
Alamo Area Metropolitan Planning Organization

AAMPO

March 2024

Regional Freight Plan Goals and Objectives

- Plan Goals:
  - Understand the state of freight infrastructure in the AAMPO region
  - Align with the current statewide freight plan (Texas Delivers 2050)
  - Build on statewide freight initiatives advancing technology, truck parking, design, resiliency, etc.
  - Evaluate freight trends and disruptors

- Plan Objectives:
  - Analyze current and projected growth
  - Engage regional stakeholders
  - Analyze freight corridor safety
  - Understand freight and land use planning issues
  - Evaluate freight infrastructure needs
  - Develop prioritized projects and programs

AAMPO – CAMPO Freight Linkages

AAMPO

CAMPO
CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION

- Shared non-highway transportation assets
  - » Airports, pipelines, rail
- Interregional highways and trip activity
  - » I-35, SH 130, US 281, US 183
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- Freight-intensive industries and supply chains
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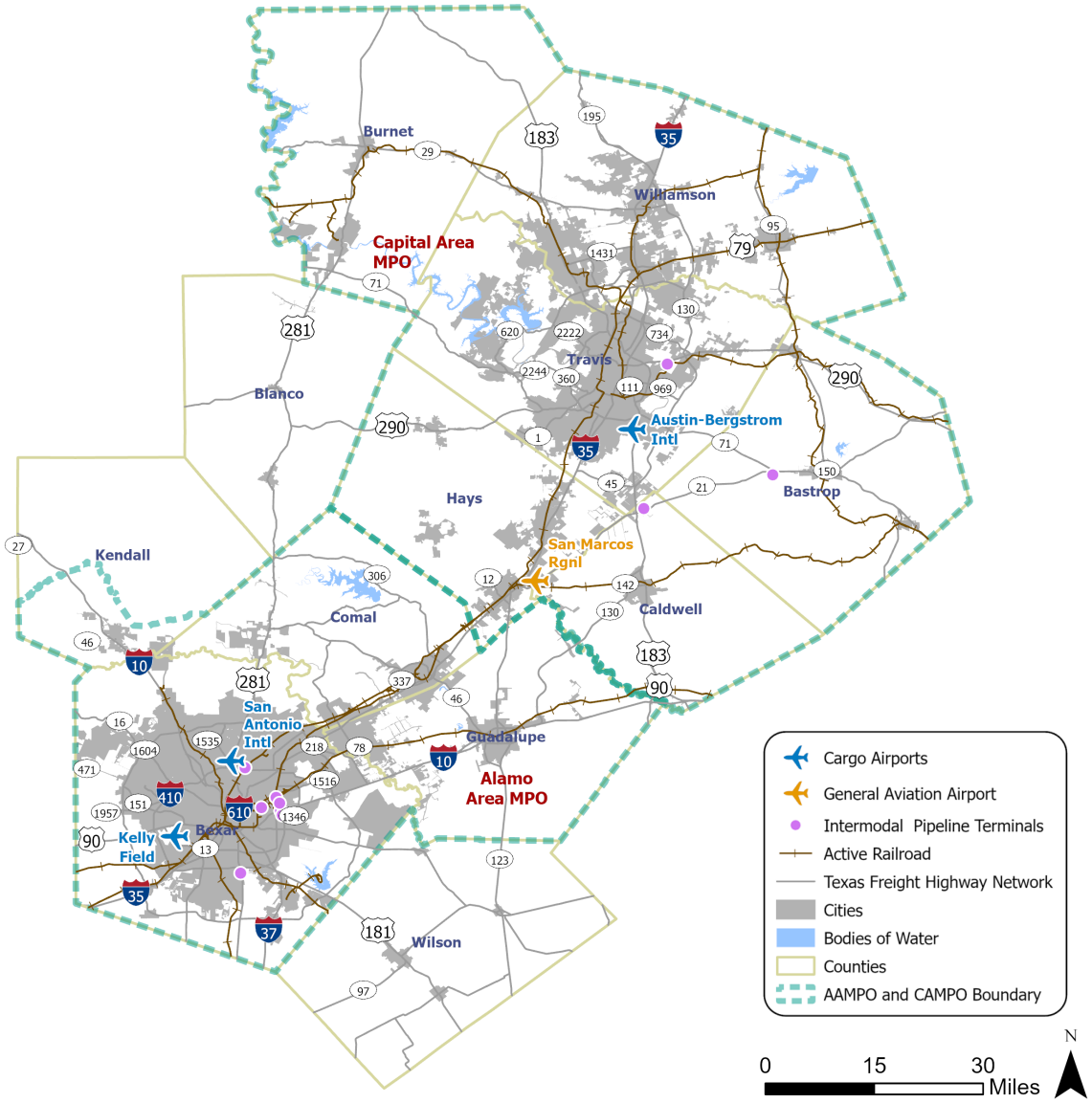

Project Team

Project Management

Hannah Santiago
Project Manager

Gui Leao
Deputy Project Manager. ***Acting Project Manager until July 2024***

Michael Williamson
Principal-in-Charge

Research & Background

Daniel Wong, CS
Task Lead

Develop Near to Mid-Term Implementation Plan

Linda Vela, CS
Task Lead

Long Range Strategies & Policies

Daniel Wong, CS
Task Lead

Final Plan

Hannah Santiago, CS
Task Lead

Supported by

TRANSCEND engineers + planners

POZNECKI CAMARILLO

WSP

Task 1 – Schedule and Approach

TASK 3 – NEAR TO MID-TERM IMPLEMENTATION

Projects & programs prioritization, implementation strategy with costs, timeframe, and responsible party

TASK 5 – FINAL REPORT

Telling the story of the significance of the AAMPO region in freight transportation & priorities for meeting key needs

TASK 2: RESEARCH & BACKGROUND

Define goals & objectives of the study, data inventory, previous plan review, research freight & freight related land use trends, stakeholder involvement plan

TASK 4 – LONG-RANGE STRATEGIES & POLICIES

Menu of long-range policies & programs, Freight advisory committee development

FREIGHT INDUSTRY FORUM

Transportation priorities, needs & concerns

FREIGHT INDUSTRY FORUM

Long-term freight needs & priorities

FREIGHT ADVISORY COMMITTEE MEETING

Review draft plan & charter for future advisory group

Task 1 – Schedule and Approach

TASK 3 – NEAR TO MID-TERM IMPLEMENTATION

Projects & programs prioritization, implementation strategy with costs, timeframe and responsible party

TASK 5 – FINAL REPORT

Telling the story of the significance of the AAMPO region in freight transportation & priorities for meeting key needs

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Defining goals & objectives of the study, data inventory, previous plan review, & research freight & freight related land use trends, stakeholder involvement plan

TASK 4 – LONG-RANGE STRATEGIES & POLICIES

Menu of long-range policies & programs, Freight advisory committee development

MONTH 1 | MONTH 2 | MONTH 3 | MONTH 4 | MONTH 5 | MONTH 6 | MONTH 7 | MONTH 8 | MONTH 9 | MONTH 10 | MONTH 11 | MONTH 12 | MONTH 13 | MONTH 14 | MONTH 15 | MONTH 16 | MONTH 17 | MONTH 18

Project Management

OVERSIGHT COMMITTEE MEETING
Defining goals & objectives of the study

OVERSIGHT COMMITTEE MEETING
Freight trends

TAC/TPB
Project Update

FREIGHT INDUSTRY FORUM
Transportation priorities, needs & concerns

OVERSIGHT COMMITTEE MEETING
Existing conditions, trends in freight transportation, freight industry needs & priorities

TAC/TPB
Project Update

FREIGHT INDUSTRY FORUM
Long-term freight needs & priorities

OVERSIGHT COMMITTEE MEETING
Long-term freight industry needs & priorities, priority policies & recommendations

OVERSIGHT COMMITTEE MEETING
Present draft plan

FREIGHT ADVISORY COMMITTEE MEETING
Review draft plan & charter for future advisory group

TAC/TPB
Project Update

Task 2 – Research and Background

Defining goals & objectives of the study, data inventory, previous plan review, & research freight & freight related land use trends, and stakeholder involvement plan

Truck Traffic Volumes	Truck Annual Hours of Delay	Truck Travel Time Reliability	Pavement Condition
Bridge Vertical Clearance	Bridge Load Restrictions	Bridge Condition	Truck-Involved Crashes and Severity
Truck Origins-Destination Flows (O-D)	TRANSEARCH Commodity Flows (tonnage and value by mode)	Truck Parking Demand and Supply	Oversize/ Overweight Vehicle Permits

KEY FREIGHT NEEDS DATASETS

- CAMPO Freight Plan
- Texas Delivers 2050
- Texas Freight Mobility Plan (2018)
- Freight Infrastructure Design Considerations (FIDC)
- Statewide Truck Parking Study (2020)
- Freight Network Technology Operations Plan (FNTOP)
- The Economic Role of Freight in Texas (2021)
- Capital-Alamo Connections Study
- Mobility 2050 Plan
- I-35 Planning and Environmental Linkage (PEL) Study

PREVIOUS PLANS, MANY DEVELOPED BY TEAM MEMBERS

Task 3 – Develop Near to Mid-Term Implementation Plan

Projects & programs prioritization, implementation strategy with costs, timeframe, and responsible party

REGIONAL FREIGHT INDUSTRY FORUMS

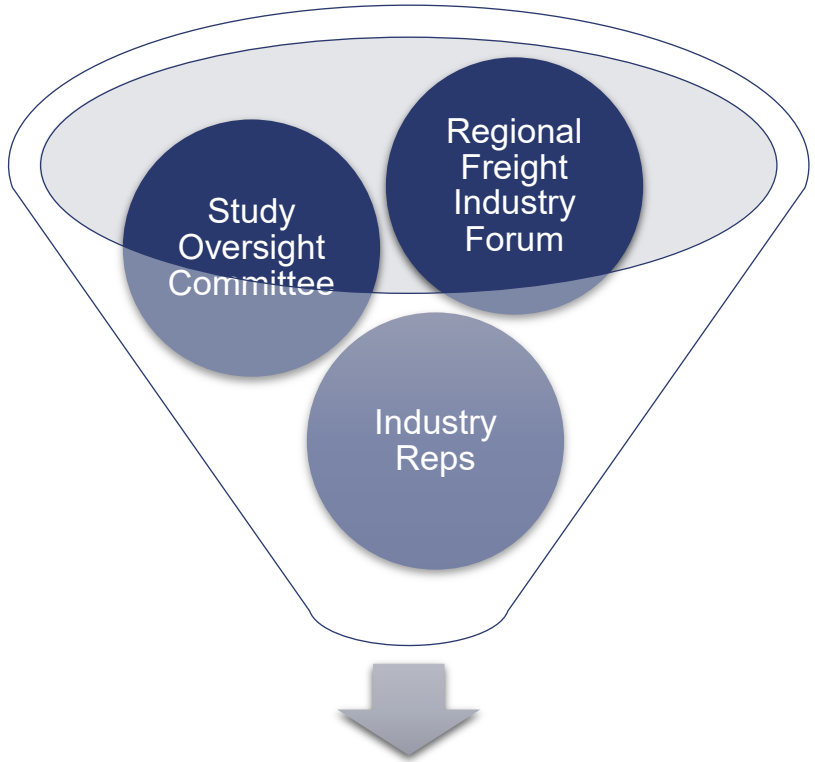
- **Roles & responsibilities**
- **Barriers & obstacles**
- **Phasing & dependent projects**
- **Definition of success**

IMPLEMENTATION TRACKING

Task 4 – Long Range Strategies & Policies

Menu of long-range policies & programs, Freight Advisory Committee development

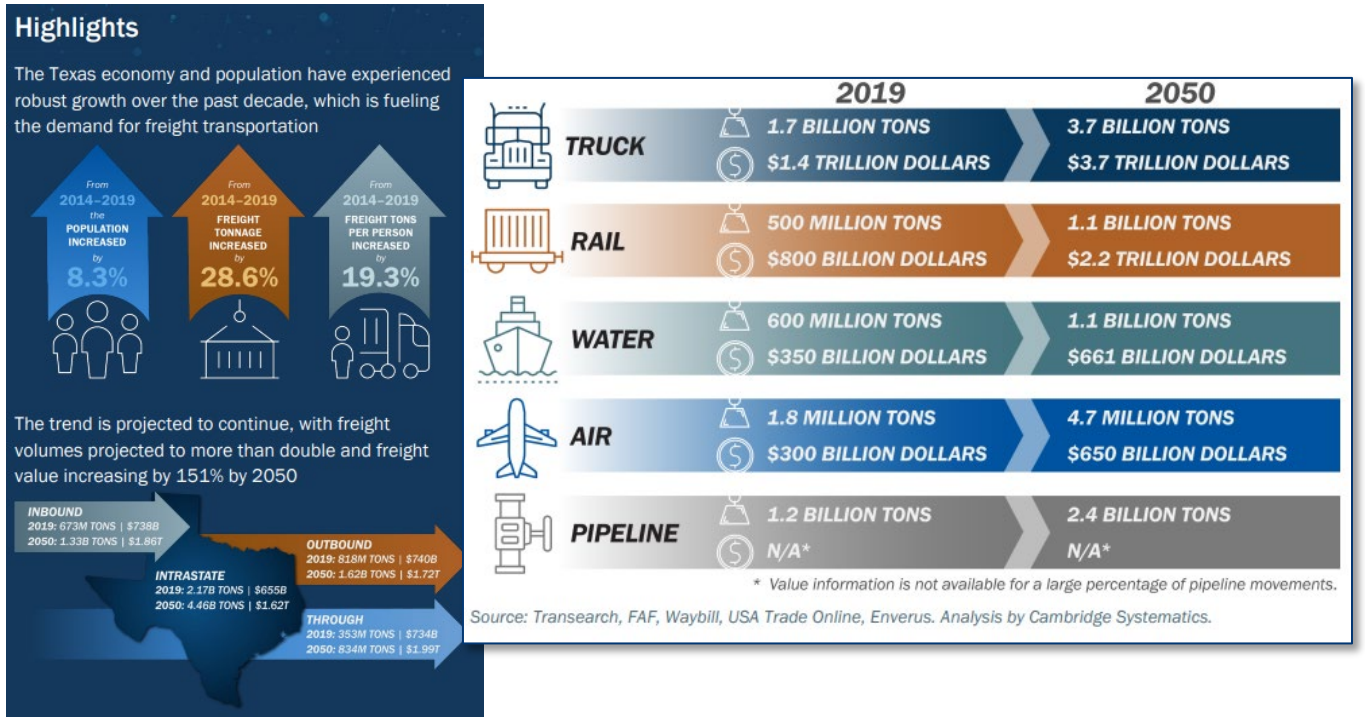
POLICY & PROGRAM RECOMMENDATIONS, TEXAS DELIVERS 2050



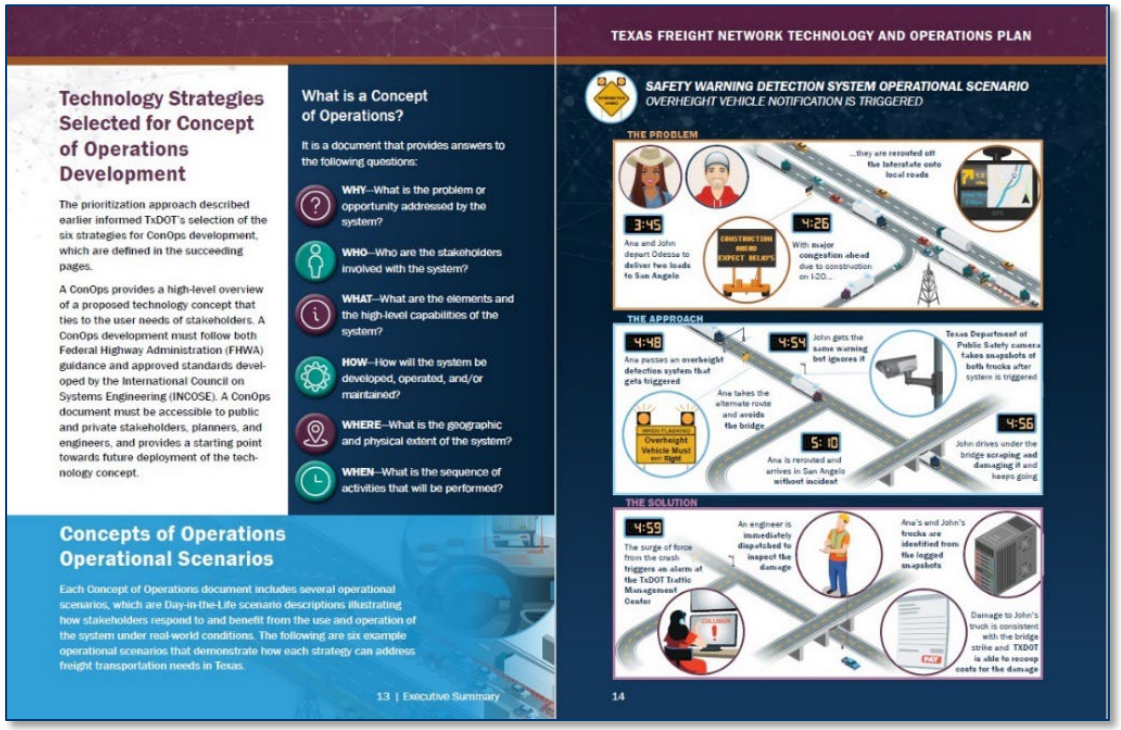
REGIONAL FREIGHT/ GOODS MOVEMENT STAKEHOLDER GROUP

Task 5 – Final Plan

Telling the story of the significance of the AAMPO region in freight transportation & priorities for meeting key needs



VISUAL STORY TELLING



TXDOT FREIGHT NETWORK TECHNOLOGY AND OPERATIONS PLAN EXECUTIVE SUMMARY

Thank you!

Concluding Remarks

Adjournment