

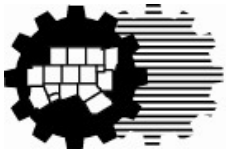
Air Quality Funding Opportunities

Regional Freight Advisory Committee Meeting

May 11, 2021

Jason Brown

Principal Air Quality Planner



**North Central Texas
Council of Governments**

Available Funding

Funding Source: Environmental Protection Agency (EPA) National Clean Diesel Funding Assistance Program

Calls for Projects	Project Types	Available Funding
<u>Clean Fleets North Texas (CFNT) 2020</u>	Replace Heavy-Duty Diesel Vehicles and Equipment	\$109,000*
<u>North Texas Emissions Reduction Project (NTERP) 2020</u>	Replace High-Use Diesel Vehicles/Equipment, Rail/Switch Yard Idle Reduction Technologies	\$1,321,690
<u>North Texas Freight Terminal Electrification (NTFTE) 2020</u>	Installation of Transport Refrigerated Unit Electrified Parking Spaces, Connection Kits, Power Monitoring	\$960,225

* Available from a prior EPA award. Some funding was previously awarded through CFNT 2018 and CFNT 2019 Calls for Projects.

Applicant Eligibility

	Clean Fleets North Texas 2020	North Texas Emissions Reduction Project 2020	North Texas Freight Terminal Electrification 2020
Applicants	Local Governments; Private Companies who Contract with Local Governments	Private Fleets and Companies	Freight Terminals and Distribution Centers
Clean Fleet Policy	Must Adopt RTC Clean Fleet Policy or Similar		
Geographic Area	10-County Nonattainment Area	12 Counties (10-County Nonattainment + Hood & Navarro)	10-County Nonattainment Area

Project Eligibility

	Clean Fleets North Texas 2020	North Texas Emissions Reduction Project 2020	North Texas Freight Terminal Electrification 2020**
Eligible Activities	<u>Replace On-Road Diesel Trucks*</u> 16,001 GVWR and Up; Model Year 1996-2006; (Also Model Year 2007-2009 if Replacing with Electric) <u>Replace Non-Road Diesel Equipment*</u> Must Operate >500 Hours/Year; Eligible Model Years Vary		Transport Refrigerated Unit Electrified Parking Spaces (EPS), Power Monitoring Equipment, Electric Power Kit
		Rail and Switch Yards Idling Control Technology Installation	
Funding Threshold	45% Cost if New is Electric; 35% Cost if New is Powered by Engine Certified to CARB Optional Low-NO _x Standards (Both Natural Gas and Propane Engines Currently Available); 25% Cost for All Others		30% of unit cost
		40% Cost Coverage	

*All old vehicles/equipment must be scrapped; other model years eligible on case-by-case basis.
 California Air Resources Board (CARB); Gross Vehicle Weight Rating (GVWR)

**All equipment and installation must be completed by EPA SmartWay Verified Technology Vendor.

For More Information

Next Application Deadline: July 9, 2021, at 5 PM Central Time

Website

www.nctcog.org/aqfunding

Amy Hodges

Senior Air Quality Planner
817-704-2508

AHodges@nctcog.org

Jason Brown

Principal Air Quality Planner
817-704-2514

JBrown@nctcog.org

Lori Clark

Program Manager
DFW Clean Cities Coordinator
817-695-9232

LClark@nctcog.org

Chris Klaus

Senior Program Manager
817-695-9286

CKlaus@nctcog.org

DFW Freight Optimization Project

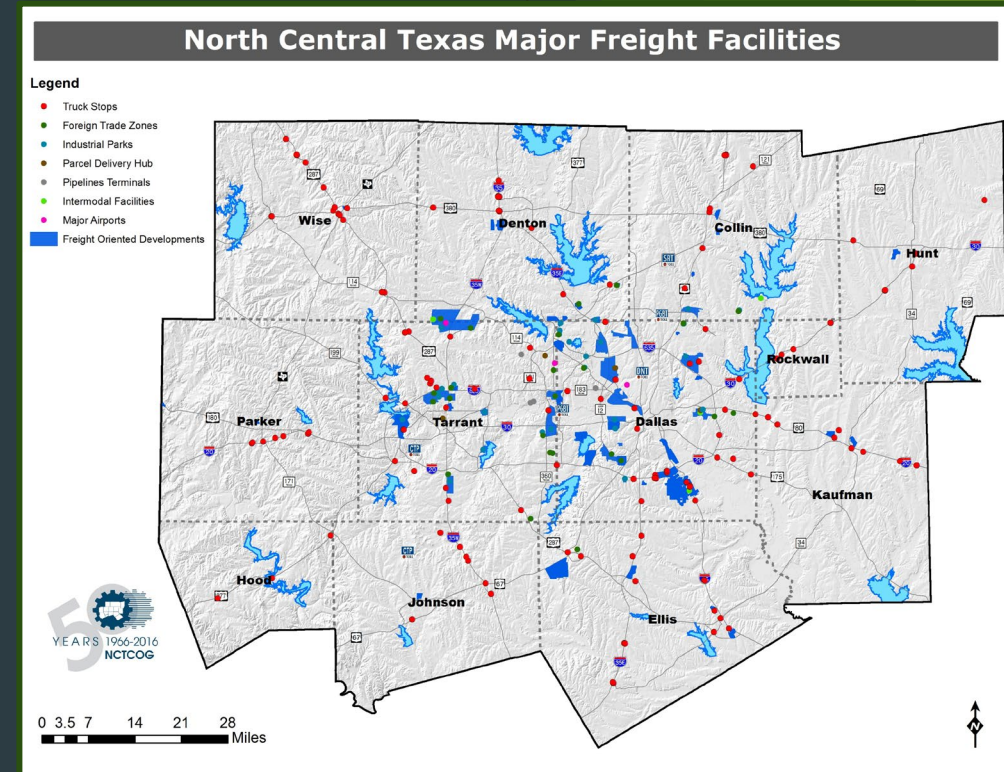
North Central Texas Council of Governments
Regional Freight Advisory Committee

Clint Hail

May 11, 2021

Overview


- ▶ Dallas-Fort Worth (DFW) is a major inland port; freight flow is a critical component of the region's economy.
- ▶ Large hubs of freight activity—known as Freight Oriented Developments (FOD)—are spread across the region and act as staging and distribution points for freight movements.
- ▶ Shippers must send trucks through signalized intersections to reach expressways from FODs.
- ▶ This project focuses on optimizing the flow of freight through signalized intersections by identifying “problem” traffic signals and applying a technology solution that prioritizes freight movement.



Project Inspiration

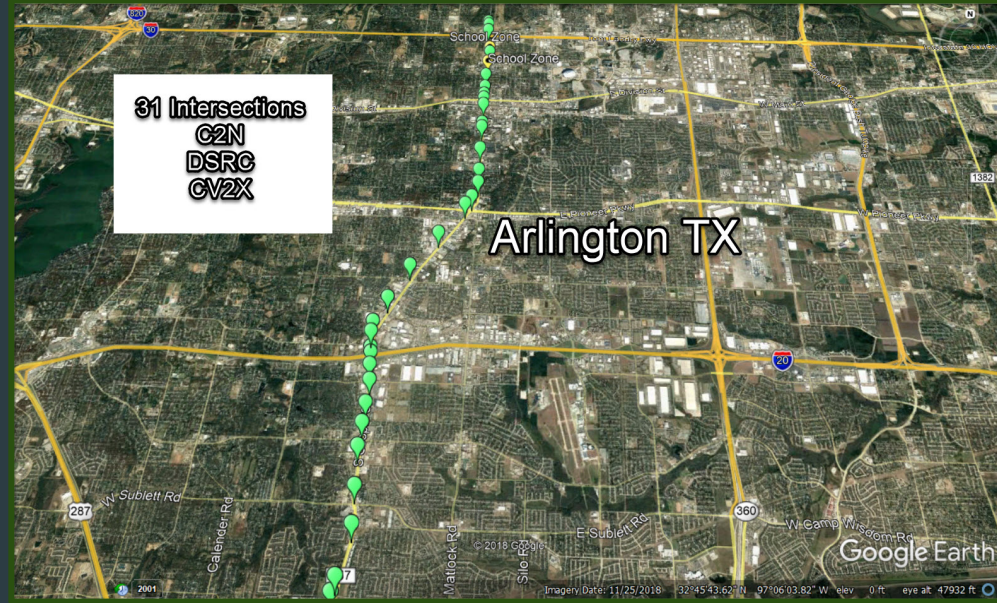
TxDOT: Texas Connected Freight Corridors Program

TIERS

01	Work Zone Warning 	Queue Warning 	Wrong-Way Drivers 	Truck Signal Priority 
	Advance Traveler Information System (ATIS) 	Road Weather Warning 	Truck Parking Availability 	Bridge Height Warning 
	Emergency Electronic Brake Light 	Pedestrian & Animal Warning 	Eco-Dynamic Routing 	Border Wait Times 

 = Highlighted applications are prioritized for development

City of Arlington: Connected Vehicle Corridor



GDOT & ARC: Georgia Regional Connected Vehicle Program



Project Elements

- ▶ **Technology solution(s)** to optimize the flow of trucks from hubs to expressways
- ▶ **Benefit-cost analysis** to identify where tech will do the most good:
 - ▶ Truck travel time savings
 - ▶ Improved traffic flow
 - ▶ Public health
 - ▶ Any adverse impacts—e.g., cross-traffic delay
 - ▶ Compare with alternative solutions—e.g., signal retiming
- ▶ **Coordination** with local agencies/freight industry
- ▶ **Integrator** to collaborate with local partners and combine assets and solution(s)
- ▶ **Monitor** performance and adapt

Technology Options

Examples include:

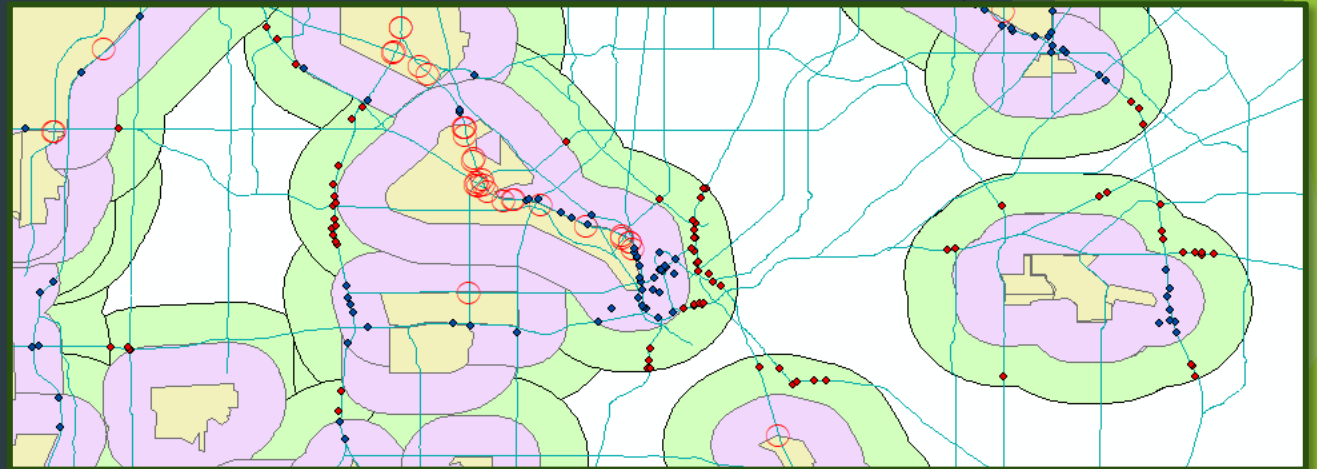
- ▶ **Traditional connected vehicle technology** which relies on an on-board unit talking to the signal controller;
- ▶ **Vehicle-to-cloud** technology which uses an app/cellular connection to communicate with signal controllers;
- ▶ **Vehicle detection device**—such as a camera or some other tool—communicating directly to the controller, no vehicle tech required.

Developing Candidate Intersections

Review Process

- ▶ Distance to FODs was the original starting criteria.
- ▶ This did not narrow the number of intersections enough (350 intersections).
- ▶ After discussions with AV Team and others, it was decided, for now, only intersections within FODs would be reviewed.

Sample: FOD Intersection Analysis



Review of Intersections

Scoring Criteria

- ▶ Distance to Freight Oriented Developments
- ▶ Annual Average Daily Trucks (AADT)
- ▶ Truck percent of traffic
- ▶ Physical condition
- ▶ Further refinement needed

Freight Signal Optimization - Intersection Scoring								Location Infor	
Intersection/Corridor	FOD	Truck AADT	Truck %	Geometry	Road Condition	Total Score	Physical Issue	FOD Location	City
HI LINE DR W @ I-35E/US-77/N STEMMONS FWY	3	2	2	No	No	7	No	Trinity FOD	
I-35E FRONTAGE/N STEMMONS FWY S @ I-35E/US-77	3	2	2	No	Cracks	7	Yes	Trinity FOD	Lancaste
I-35E FRONTAGE/N STEMMONS FWY S @ I-35E/US-77/INWOOD RD	3	2	2	No	No	7	No	Trinity FOD	Dallas
I-35E S @ TX-356/EXIT 432	3	2	2	No	No	7	No	Trinity FOD	Dallas
I-35E N @ TX-356/EXIT 432	3	2	2	No	Cracks, bumps	7	Yes	Trinity FOD	Dallas
TX-183 E @ I-35E	3	2	2	No	No	7	No	Trinity FOD	Dallas

Review Results

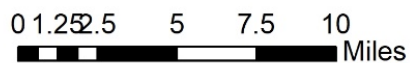
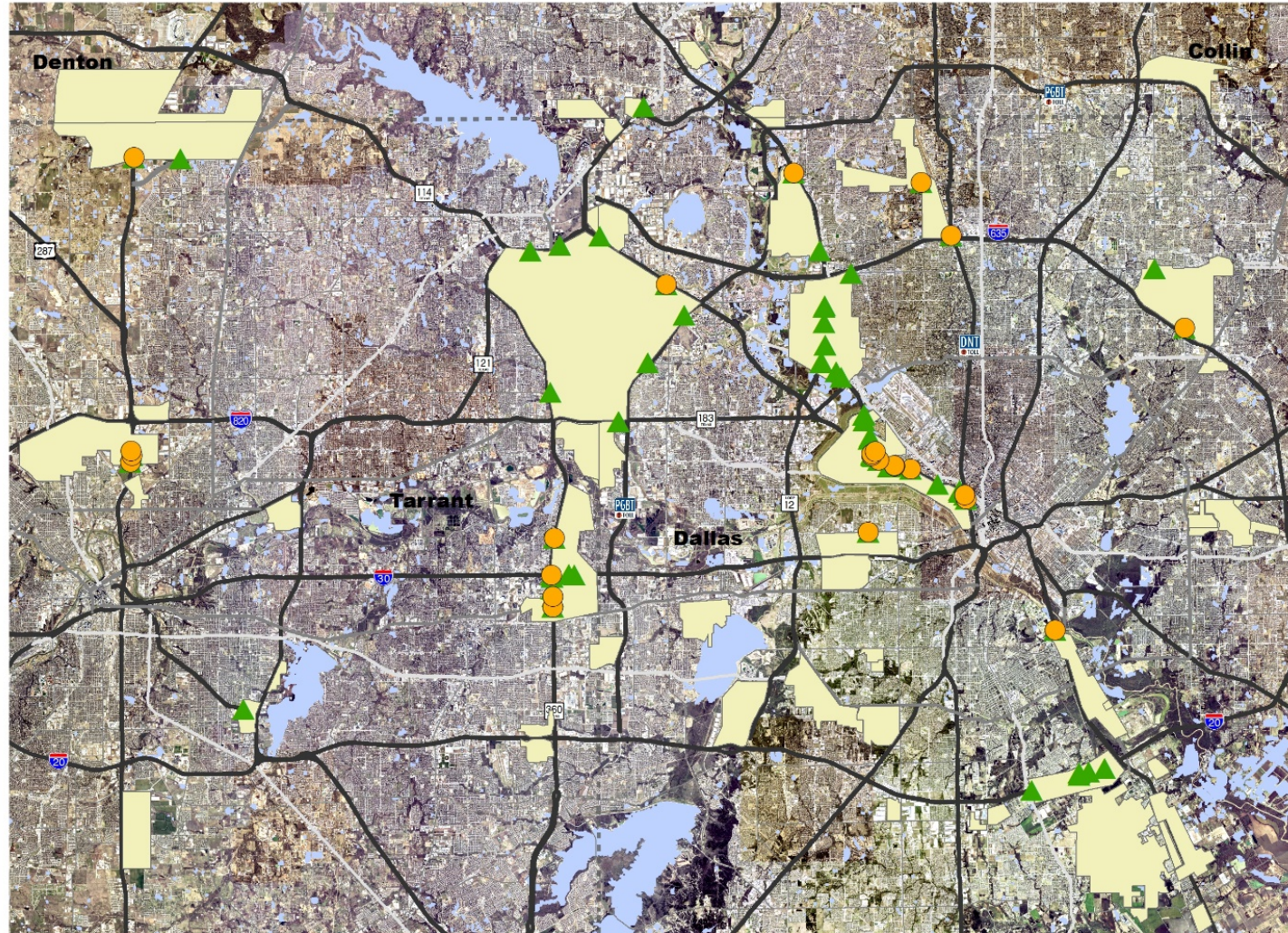
Highlights

- ▶ 70 intersections within FODs
- ▶ Top scoring intersections are near limited access facilities
- ▶ Top scoring intersections are located on east side of region
- ▶ The FODs with top-scoring clusters include:
 - ▶ Trinity FOD (West/North Dallas)
 - ▶ DFW FOD (DFW International Airport)
 - ▶ International Inland Port of Dallas (IIPOD—Southern Dallas County)
 - ▶ Great Southwest Industrial District (Arlington/Grand Prairie)

Truck Bottleneck Intersections

Legend

- ▲ First Tier Intersections
- Second Tier Intersections
- FreightZones
- Primary Highway
- Secondary Highway
- Major Arterial
- - - Counties
- Lakes



North Central Texas
Council of Governments



FREIGHT
NORTH TEXAS



Discussion/Q&A

Please feel free to post questions and comments in the chat.

Contacts

Clint Hail

Transportation Planner, NCTCOG

Connected and Automated Vehicle
Program

Email: chail@nctcog.org

Thomas Bamonte

Senior Program Manager, NCTCOG

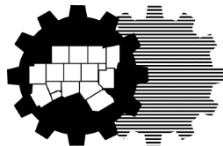
Connected and Automated Vehicle
Program

Email: tbamonte@nctcog.org

Twitter: [@tombamonte](https://twitter.com/tombamonte)

Freight Safety Awareness Initiative

Regional Freight Advisory Committee
May 11, 2021



Morgan Tavallaee, Transportation Planner
NCTCOG Transportation Department



FREIGHT SAFETY AWARENESS INITIATIVE

In 2018, staff held the first Freight Safety Awareness campaign.

The second Freight Safety Awareness campaign begins in May and runs through September. This initiative helps create awareness for safe driving habits near large freight vehicles on the highway and at railroad crossings.



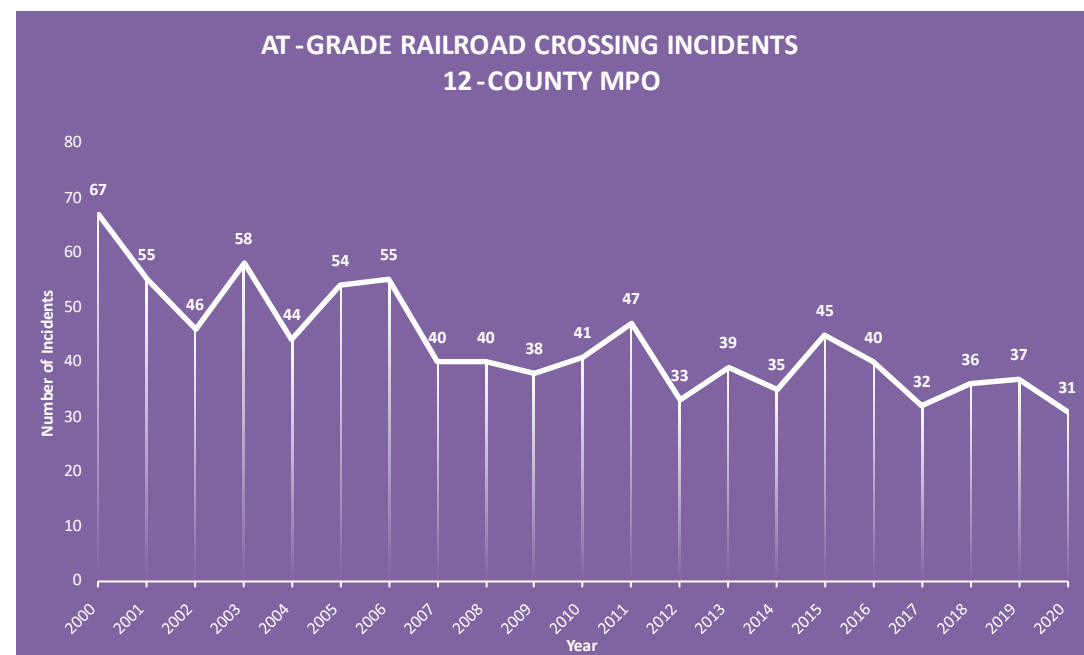
Imagery provided by Getty Images

SAFETY

Truck Safety – There have been an average of 267 truck crashes per month over the last 5 years.

CMV Crashes on Limited Access Facilities		
Year	Yearly Crashes	Monthly Average
2015	3,129	261
2016	3,310	276
2017	3,316	276
2018	3,279	273
2019	2,996	250

Rail Safety – There were 31 crossing incidents in 2020.



GOALS

To create a safer environment for freight and passenger movements, through physical improvements and safety awareness initiatives

To merge two campaigns (Safe Driving Campaign & Operation Lifesaver) into one larger Freight North Texas marketing campaign

Truck Safety – To reduce freight-related accidents and inform the public about safe driving practices near large commercial motor vehicles

Rail Safety – To reduce rail crossing and trespassing incidents by informing the public about safe rail crossing habits and practices



Imagery provided by Getty Images

TARGET AUDIENCE

General Public – Increase awareness about truck limitations with regard to:

- Stopping distance and sight line availability
- Strategies and simple adjustments for driving near large trucks
- The importance of freight and its role in our daily lives

The initiative will also increase awareness about safe mobility practices at rail crossings and Quiet Zones, and the importance of not trespassing on railroad land.

COVID-19 Messaging – This year, due to the pandemic, we plan on stressing the importance of truck drivers, especially during lockdowns, and the significance of keeping goods moving.

Truck Drivers – The initiative also aims to educate truck drivers about truck lane restriction locations and safety benefits, to increase awareness on the roadways. Information about air quality and mobility benefits will also be elements of this initiative.

OUTREACH

Outreach will be conducted through:

- Fact Sheets
- Social Media
- Search Engine Optimization
- Billboards
- Radio
- **Podcasts**
- Website



Imagery provided by US Department of Transportation

WEBPAGE

www.freightntx.org

[Home](#) > [Transportation](#) > [Regional Planning & Projects](#) > [Freight](#)

Freight Safety

Regional transportation safety initiatives are developed to create a safer environment for bicyclists and pedestrians, commuters, first responders, commercial motor vehicle operators and anyone else traveling from one place to another on our roadways. North Central Texas has an enormous volume of freight being transported every day, by semi-trucks and other Commercial Motor Vehicles. If you own it, a truck probably brought it.

As the population grows and freight traffic increases to supply the growing demand of consumer product deliveries, the potential for roadway incidents between automobiles and Commercial Motor Vehicles escalates. Many drivers do not realize that these vehicles have "blind spots" where the driver has no view of passing vehicles. They are difficult to maneuver and the length of time needed to stop is about 40% greater than cars. *Source: TheTruckersReport.com*

- Regional Planning & Projects
- Congestion Management
- Maps, Models & Data
- Quality of Life
- Funding & Business
- Plans, Studies, Reports
- Get Involved
- About Transportation

Stop. Trains Can't.



Graphics: Transportation.gov, Federal Railroad Administration and National Highway Traffic Safety Administration

The U.S. Department of Transportation's Federal Railroad Administration (FRA) and National Highway

Initiative

Safety

Goal

Target Audiences

Outreach

Webpage

Questions

QUESTIONS?

Initiative

Safety

Goal

Target Audiences

Outreach

Webpage

Questions

CONTACT INFORMATION

Morgan Tavallaee
Transportation Planner
682-433-0490
MTavallaee@nctcog.org

Mike Johnson
Principal Transportation Planner
817-695-9160
MJohnson@nctcog.org

Jeff Hathcock
Program Manager
817-608-2354
JHathcock@nctcog.org