

**MEETING OF THE RTP SUBCOMMITTEE
HOUSTON-GALVESTON AREA COUNCIL**

MEMBERS PLEASE USE THE TEAMS INVITATION

TELECONFERENCE PARTICIPATION VIA MICROSOFT TEAMS

[+1 346-262-0140](tel:+13462620140) United States, Houston (Toll)

Conference ID: 641 945 004#

March 9, 2022

1:30PM

AGENDA

1. Call to Order
Roll Call Attendance
2. Acceptance of Minutes
From meeting of January 19, 2021
3. Transit Asset Management (TAM) Plan – Informational (Jamila Owens and Chris Whaley)
 - a. CY 2022 Asset Target Analysis
 - b. CY 2024-2026 Target Setting
 - c. Investments to Meet Targets
4. Discussion of the 2045 RTP Updating Strategy
 - a. Outreach Strategy – Visioning Phase Update (Mike Burns)
 - b. Transportation Assets – Regional ITS/Safety (David Fink)
 - c. Freight – Regional Goods Movement Plan Update (Veronica Green)
5. Announcements
 - a. Next TAC Meeting – March 16, 2022 at 9:30AM (Teleconference)
 - b. Next TPC Meeting – March 25, 2022 at 9:30AM (Teleconference)
 - c. Next RTP Subcommittee Meeting – April 13, 2022 at 1:30PM (Teleconference)
6. Adjourn

RTP Subcommittee Roster

Primary – Name	Organization	Alternate – Name	Organization
Morad Kabiri, P.E.	City of Friendswood	Robert Upton, P.E.	City of Pearland
Perri D'Armond	Fort Bend County	Stacy Slawinski	Fort Bend County
Monique Johnson	City of Sugar Land	VACANT	City of Sugar Land
Bill Zrioka	Houston Airport System	Marcel Allen	Houston Airport System
Andrea French	TAG-Houston Region	Nikki Knight	Southeast Management Dist.
Elijah Williams	Energy Corridor	Elizabeth Whitton, AICP	Energy Corridor
Iris Gonzalez	Coalition for Env., Equity & Res.	Jonathan Brooks	LINK Houston
Adam France, AICP	City of Conroe	Chris Bogert, P.E.	City of Conroe
Christopher Sims	City of League City	Hon. Chad Tressler	City of League City
Matt Hanks	Brazoria County	Karen McKinnon	Brazoria County
David Fields	City of Houston-P&D	Peter Eccles	City of Houston-P&D
Hon. Jay Knight	Liberty County	David Douglas	Liberty County
Loyd Smith, P.E.	Harris County	Bryan Brown	Harris County
Nick Woolery	City of Baytown	Frank Simoneaux	City of Baytown
Yancy Scott	Waller County	Jared Chen	Waller County
Katherine Parker	GCRD	Carol Lewis, PhD	TSU
Bruce Mann	Port of Houston	Rohit Saxena	Port of Houston
Rodger Rees	Port of Galveston	Brett Milutin	Port of Galveston
Charles Airiohuodion	TxDOT-HOU	Jeffrey English	TxDOT-HOU
Lisa Collins	TxDOT-BMT	Scott Ayres	TxDOT-BMT
Ken Fickes	Harris County	Vernon Chambers	Harris County
Kenneth Brown	METRO	Philip Brenner	METRO
John Tyler	HCTRA	Dale Hilliard	HCTRA

**MEETING OF THE RTP SUBCOMMITTEE
HOUSTON-GALVESTON AREA COUNCIL
TELECONFERENCE PARTICIPATION VIA MICROSOFT TEAMS
January 19, 2022
1:30PM
Minutes**

Member Attendance:

Primary-Name	Present	Alternate-Name	Present
Morad Kabiri, Chair	Yes	Robert Upton	Yes
Perri D'Armond, Vice Chair	Yes	Stacy Slawinski	No
Monique Johnson	Yes	Krystal LaStrape	No
Bill Zrioka	Yes	Marcel Allen	Yes
Andrea French	Yes	Nikki Knight	No
Elijah Williams	No	Elizabeth Whitton	Yes
Iris Gonzalez	No	Jonathan Brooks	Yes
Adam France	No	Chris Bogert	No
Christopher Sims	Yes	Hon. Chad Tressler	No
Matt Hanks	Yes	Karen McKinnon	No
David Fields	Yes	Peter Eccles	No
Hon. Jay Knight	No	David Douglas	Yes
Loyd Smith	No	Bryan Brown	Yes
Nick Woolery	No	Frank Simoneaux	No
Yancy Scott	Yes	Jared Chen	No
Katherine Parker	Yes	Carol Lewis	Yes
Bruce Mann	Yes	Rohit Saxena	No
Rodger Rees	No	Brett Milutin	No
Charles Airiohuodion	Yes	Jeffrey English	Yes
Lisa Collins	Yes	Scott Ayres	Yes
Ken Fickes	Yes	Vernon Chambers	Yes
Kenneth Brown	No	Philip Brenner	No
John Tyler	No	Dale Hilliard	Yes

Others Present: Amy Skicki, Caroline Bailey, John Bowen, Daniel Brassil, Andrew DeCandis, Jim Dickinson, Eliza Paul, Carrie Evans, David Fink, Ben Finley, Shixin Gao, James Garland, Brandy George, Donte Green, Veronica Green, Allie Isbell, James Koch, Sharon Ju, Catherine Kato, Stephen Keen, Megan Kennison, Kent McLemore, Justin Kuzila, Vishu Lingala, Graciela Lubertino, Carlos Lugo, Patrick Mandapaka, Carlene Mullins, Natalie G. Lopez, Jamila Owens, Craig Raborn, Alan Rodenstein, Sean Middleton, Tim (Guest), Veronica Waller, Gilbert Washington, Christopher Whaley

Staff Participating:

Mike Burns, Thomas Gray

1. Call to Order
Chair Morad K called the meeting to order at 3:00PM and conducted roll call to ensure a quorum. Morad K confirmed that a quorum was present.
2. Acceptance of Minutes
Bruce M made a motion to approve, Christopher S seconded.
The motion was approved unanimously with a correction to the spelling of Perri D'Armond under item 2.

3. Discussion of the 2045 RTP Updating Strategy

a. Outreach Strategy – Visioning Outreach Update

Mike B briefly mentioned the public survey and outreach meetings for each county will now start in April rather than March 2022.

Elizabeth W asked if the outreach meetings for county-specific meeting will be in-person or virtual.

Mike B responded that meetings will likely be a combination of in-person and virtual.

b. Transportation Assets – High-Capacity Transit (Thomas Gray)

Thomas G provided an overview of the High-Capacity Transit (HCT) and both the fiscally unconstrained vision and fiscally constrained priority networks, including updated to the network for the RTP Update to reflect updated costs, modeled ridership, new services, and subregional study recommendations that are not included in the original network. Future studies that would start in 2022 were also summarized for Outer Westpark corridor, US 90A corridor, Dayton/US90 corridor, and a Regional Connector Bus Network to supplement the high-capacity network for outlying areas.

The RTP Subcommittee members were then polled with the following question with the results:

Please select the most important goal for the regional transit network:

Congestion reduction

39%

Improved access to jobs and services

36%

Improved air quality

6%

Improved safety

11%

Improved equity

8%

Improved community health

0%

Other

0%

36 responses

James K asked if outreach included employer groups to connector workers to outlying areas such as Katy-Brookshire area perhaps using a public-private partnership opportunity.

Thomas G responded that outreach would include employer groups and Chambers of Commerce and potential take advantage of any public-private partnerships.

Monique J asked if local jurisdictions will be included in the outreach and is interested in the US 90A study for Sugar Land.

Thomas G responded that local communities will absolutely be involved.

Katherine P mentioned at interest in the US 90A corridor and that there's a need to look at options for that area and wanted to be involved in the process.

Thomas G responded that Gulf Coast Rail will be consulted during the planning process.

Charles A mentioned TxDOT projects along I-10 west and SH 36 and SH 35 and would appreciate continued review of those corridors with TxDOT staff.

Thomas G responded that TxDOT will have representation on stakeholder and steering committee groups during the planning process.

4. Future Meeting Topics:
 - a. Regional Safety Plan
 - b. Airport/Ferries
 - c. Parking Management
 - d. Continued Freight and Congestion Management Process
 - e. Infrastructure Investment and Jobs Act
 - f. Population projections

Mike B discussed the list of topics for discussion at future meetings, such as regional safety for the next RTP Subcommittee meeting. The RTP Subcommittee members were polled with the following question and results:

Which future meeting topic(s) is of most interest to you (select multiple)?

Regional Safety Planning

13%

Airports / Ferries / Waterways

4%

Parking Management / Park and Rides

9%

Demographics and forecasting (population and employment)

13%

Infrastructure Investment and Jobs Act

18%

Public Transportation (continued discussion)

13%

Active Transportation (continued discussion)

9%

Congestion Management Process (continued discussion)

13%

Freight (continued discussion)

6%

Other

0%

27 responses

Bill Z mentioned that Houston Airport System has been working with H-GAC on a travel survey of airport users. The start of the survey and schedule of sharing results is to be determined.

The RTP Subcommittee members were then asked about preference of meeting frequency with a subsequent poll with the following question and results:

How often would you recommend this Subcommittee meet?

Monthly

39%

Bi-monthly

43%

Quarterly

7%

As needed (no set frequency)

11%

28 responses

Morad K mentioned the potential to meet bi-monthly and will work with H-GAC staff on meeting frequency.

5. Announcements

- a. Next TPC Meeting – January 28, 2021 at 9:30AM (Teleconference)
- b. Next RTP Subcommittee Meeting – February 9, 2021 at 1:30PM (Teleconference)
- c. Next TAC Meeting – February 16, 2021 at 9:30AM (Teleconference)

Morad K mentioned upcoming meetings over the next month.

6. Adjourn

Morad K asked for any other comments. Hearing none, the Chair declared the meeting adjourned at 3:46PM.

Minutes submitted by: Mike Burns



Transit Asset Management Performance Measures



Jamila Owens and Chris Whaley
March 9, 2022

Transit Asset Management (TAM)



- **Purpose: Ensure State of Good Repair**
- **Overview:**
 - **Each transit agency has a Transit Asset Management Plan**
 - **Each MPO sets regional targets**
 - **H-GAC sets the regional targets (biennially) for asset management using the information in each Agency's TAM Plan**

Transit Asset Management (TAM)

Asset Category	Performance Measure
Rolling Stock	Age - % of Revenue Vehicles exceeding their Useful Life Benchmark (ULB)
Equipment	Age - % of Non-revenue Vehicles exceeding their Useful Life Benchmark (ULB)
Facilities	Condition - % of Facilities with a condition rating below 3 on the TERM scale (Marginal or Poor)
Infrastructure	Performance - % of Rail track segments, signals and systems with performance restrictions

Transit Asset Management (TAM)



■ **Current Process:**

- **Use updated agency TAM Plans to calculate current performance**
- **Use current performance to set next target**

Regional TAM Performance

Performance Targets and Actuals by Year									
Asset Category	2018	2020			2022			Proposed Targets	
	Baseline	Targets	Actuals	Achieved	Targets	Actuals	Achieved	2024	2026
Rolling Stock (revenue vehicles)	11%	11%	10%	✓	10%	10%	✓	10%	10%
Equipment (non-revenue vehicles)	46%	46%	46%	✓	46%	46%	✓	46%	46%
Facilities (buildings and structures)	55%	55%	55%	✓	54%	45%	✓	45%	45%
Infrastructure (rail tracks, signals & systems)	0%	0%	0%	✓	0%	0%	✓	0%	0%

Note: A lower percentage indicates better conditions of the transit assets.

Transit Investments to Watch



- **Over \$40 million transit investments in the TIP (METRO, City of Conroe, The Woodlands Township)**
- **Fort Bend County – 28 new buses / service to downtown**

TAM Performance Targets – Proposed Timeline

- 2022
 - January – RTCS Information
 - February – RTCS Endorsement
 - **March - RTP & TIP Subcommittee Information**
 - March – 2023-2026 TIP Public Comment & Review Period
 - April - RTP & TIP Endorsement; TAC/TPC Information
 - May– TAC/TPC Action



Discussion/Questions?





Regional Transportation Plan Update



Mike Burns, AICP
RTP Subcommittee – 03/09/2022

RTP Update Schedule

- Current Plan approved by TPC on May 24, 2019
 - Conformity Concurrence August 2, 2019
- Expires: RTP / Conformity: August 2, 2023



RTP Update - Imagery

- Imagery and Messaging for Website, Surveying, and Social Media promotion

Select Language

HGAC Houston-Galveston Area Council Home Q Search mike.burns

Because life is better when we all work and thrive together!

HGAC Houston-Galveston Area Council

Home » 2045 Regional Transportation Plan Update

2045 Regional Transportation Plan Update

[f](#) [t](#) [i](#) [e](#)

The 2045 RTP for the Houston-Galveston area will set investment priorities for the multimodal transportation system that connects people to places where they live, work, play, and efficiently moves goods from, to and through the region.

Updated every four years in coordination with the state, transit providers, local public agencies, freight interests, public and private community organizations, the RTP will:

- Assess demographic trends and transportation demand
- Forecast future demand for regional mobility
- Estimate available funding
- Track progress towards system performance targets

Help us connect the dots and make getting around the region safer and better for generations to come.

Transportation 101 Introduction Video Visioning Phase Survey 3.0 Ideas Survey More »

Discussions: All (0) Open (0)

Register to get involved!

Documents

- 2045 RTP

Shortcuts

- 2045 RTP Documents

RTP Updating Schedule

- Inventory of Assets and Issues**
This consultation is open for contributions.
- Needs Assessment**
Contributions to this consultation are closed for evaluation and review. The project team will report back on key outcomes.
- Scenario Planning
- Review of Draft

RTP Update - Imagery


- Imagery and Messaging for Website, Surveying, and Social Media promotion

Survey starts Finish


All fields marked with an asterisk (*) are required.

6. SAFETY:
Choose the options that best shows which tradeoff you prefer

HIGHER SPEEDS | VELOCIDADES MÁS ALTAS | TỐC ĐỘ CAO HƠN | 更高的速度



FEWER CRASHES | MENOS ACCIDENTES | ÍT SỰ CỐ HƠN | 更少的崩溃



Higher Speeds Fewer Crashes

BACK SAVE & CONTINUE

What do YOU want for the Houston Region?

MORE ROAD LANES



BETTER ROAD QUALITY



Take our digital survey engage.h-gac.com/2045rtpupdate and tell us what you want!



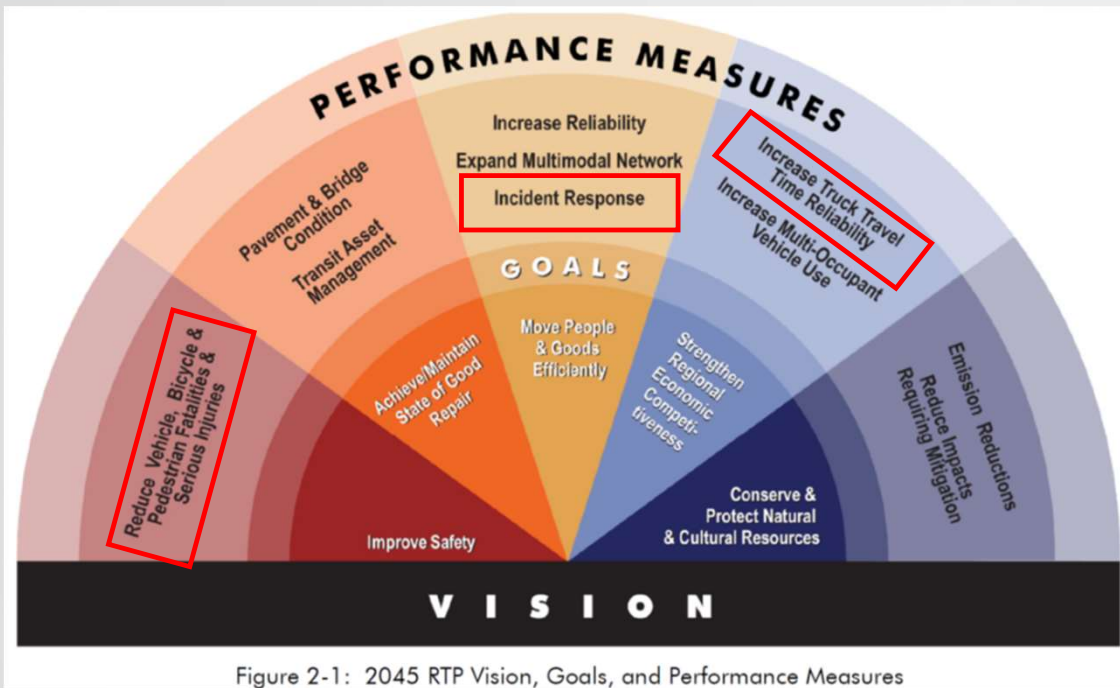


RTP Update – Safety, ITS, Incident Management



David Fink
RTP Subcommittee – 03/09/2022

RTP Goals – Safety, ITS, Incident Management



Other Considerations:

1. Vision Zero:
“The TPC commits to support transportation projects and programs to eliminate traffic fatalities in the region by the year 2050.”
2. Design vs Behavior
 - Aggressive Driving
3. Enforcement Priorities
4. DWI-Related Crashes
 - Texas – highest number of fatalities, 5th highest rate in 2019 (NHTSA)
5. Intersection Crashes (40%)

Data Reporting – Safety

- Fatalities / Serious Injuries - Trends
 - Total crashes vs fatalities
 - Speeding and Motorcycle crash increase

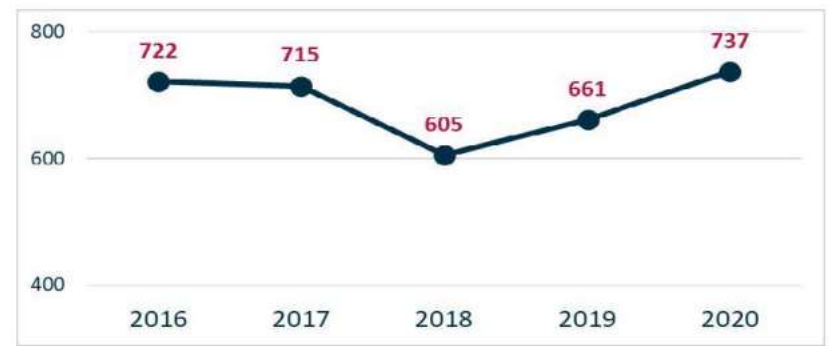


Figure 2: 8-County Annual Traffic Fatalities

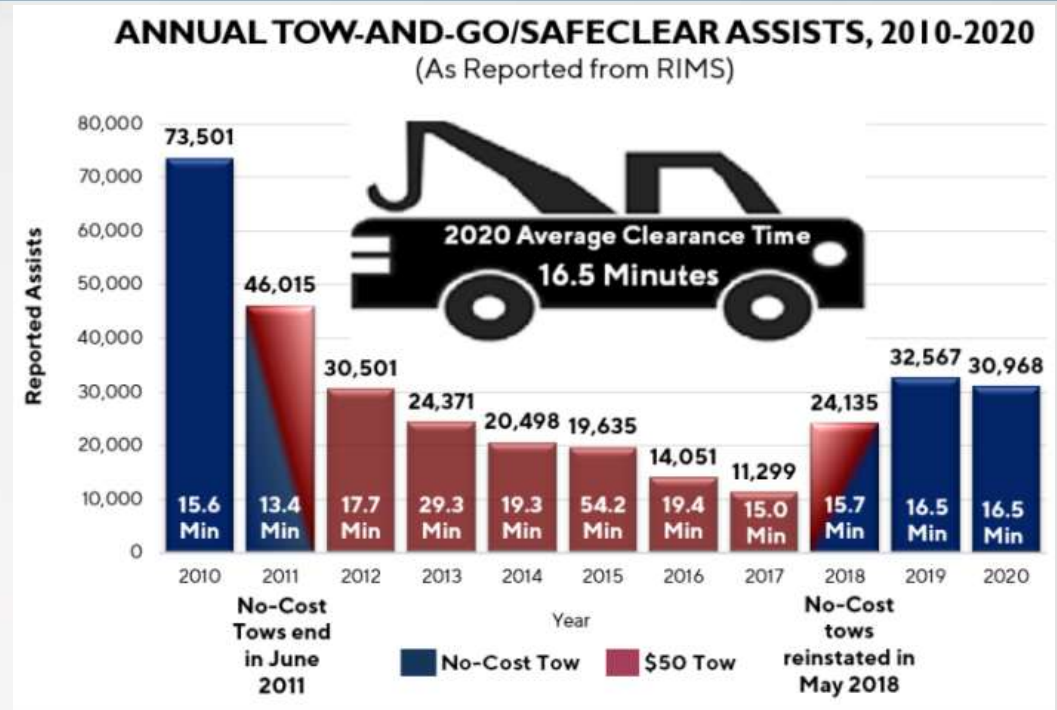
- Top Crash Types – total, serious injuries, fatalities
 - Intersection-related (35% of all crashes)
 - Distracted Drivers (13% of all crashes)
 - Pedestrians (25% of fatalities)
 - Motorcycles (12% of fatalities)

Table 3: Top Traffic Crash Types by Percentage of Fatalities

CRASH TYPE	Percentage of Fatalities
Intersection-related	26%
Pedestrian	25%
Unrestrained	24%
Impaired Driving (DUI)	21%
Speeding	15%
Motorcycles	12%

Data Reporting – ITS / Incident Management

- Crash Clearance
 - 10% target reduction in clearance time
- Address Freight Crashes
 - Truck Parking
 - Clearing / Recovery

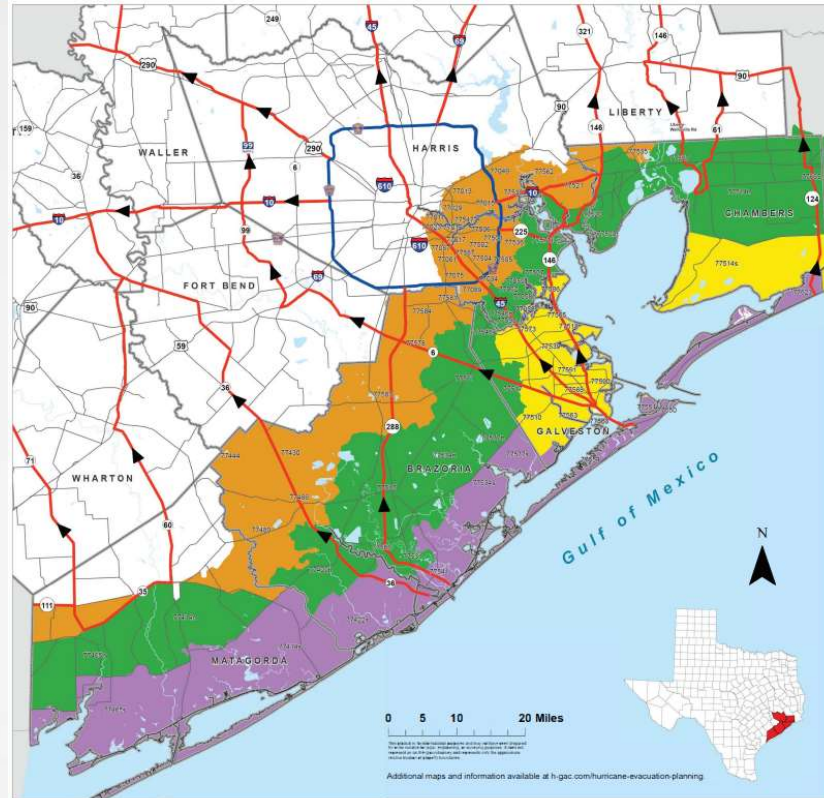


NOTE: 2018 corrected the data collection procedure. Clearance time started when tow truck dispatched to scene and ended after clear time (response + clearance).

Data Reporting – Emergency Management

Emergency Management Activation

- **Flooding**
 - Monitor locations along major roadways (TxDOT) and bayous (Flood Control Districts)
- **Major Events**
 - Increase of storm and flooding events
- **Activations Trend**
 - Hurricanes and Tropical Storms
 - Special Events / Major Sporting Events



Brazoria, Chambers, Galveston, Harris, and Matagorda Hurricane Evacuation Zip-Zones Coastal, A, B, C

ZIP ZONE COASTAL				
77414s	77422s	77485s	77534s	77541
77550	77551	77554	77563	77577s
77623				
ZIP ZONE A				
77058s	77510	77514s	77518	77539
77563	77565	77568	77573	77586
77590	77591			
ZIP ZONE B				
77058n	77059	77062	77414n	77422n
77465n	77507	77511	77514n	77515
77517	77520	77523	77531	77534n
77546n	77548n	77562	77566	77571
77577n	77597	77598	77665	
ZIP ZONE C				
77011	77012	77013	77015	77017
77023	77026	77034	77046	77061
77075	77087	77089	77430	77444
77480	77486	77502	77503	77504
77505	77506	77521	77530	77535
77536	77547	77562	77578	77581
77583	77584	77587		

Some zip codes are split into north (n) and south (s) for evacuation purposes.

Route Designation
 Evacuation Corridors
 Evacuation Connections
 Other Roads
 County Boundary



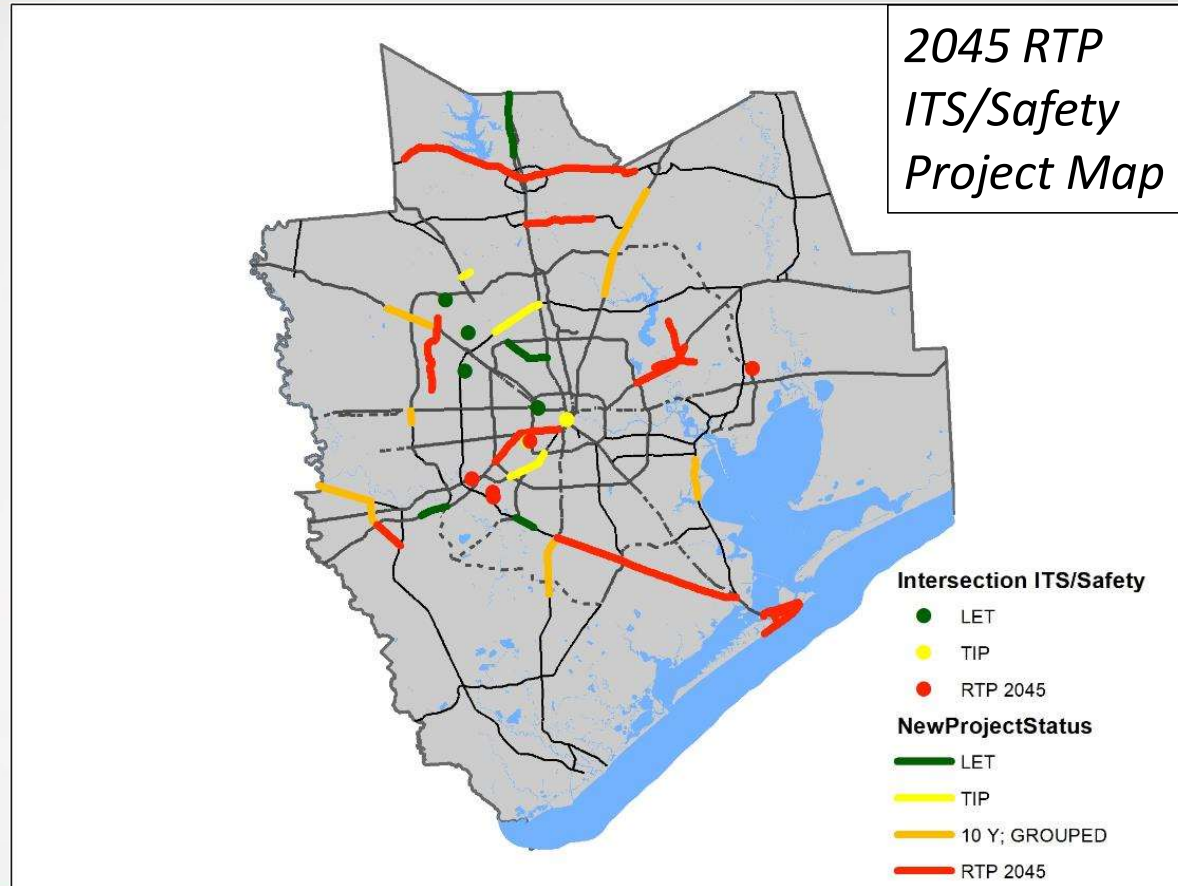
Revision Date: March 19, 2021
 Expiration Date: December 31, 2021
 Map Created by:
 Houston-Galveston Area Council



Strategies – Improve Safety

■ Capital Improvements

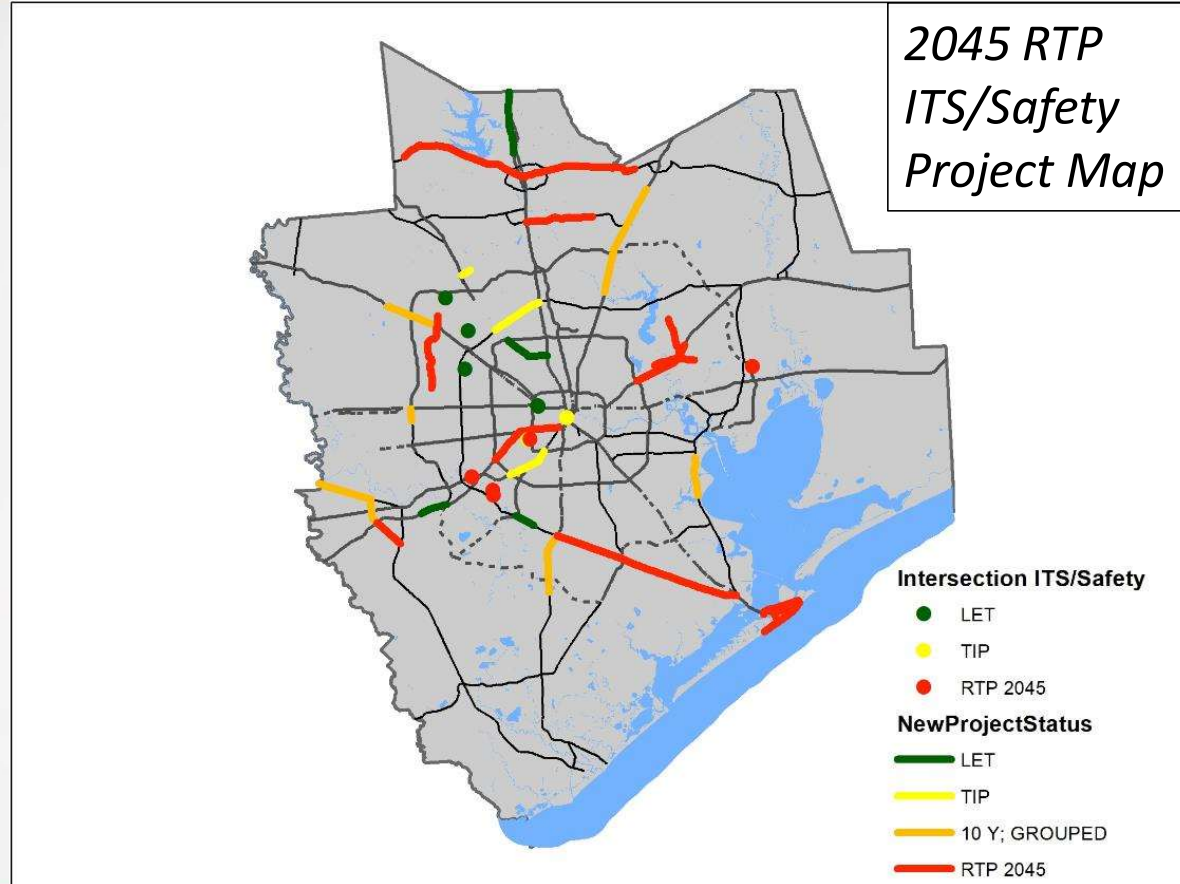
- Cost-benefit analysis
- Regional Safety Plan's Safety Countermeasures
 - Subregional Studies
 - Intersection Safety Assessment
 - Bicycle-Pedestrian and roadway countermeasures



Strategies – Improve Safety

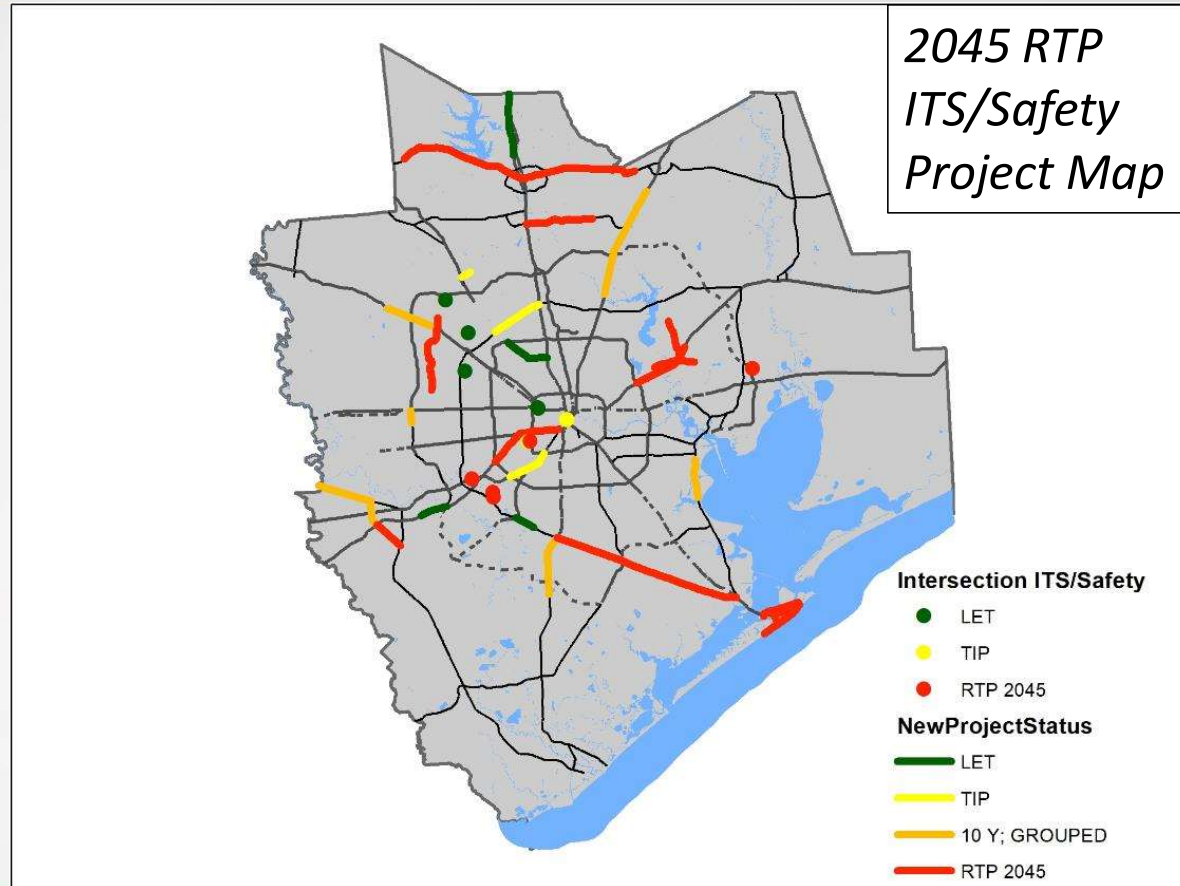
Education and Enforcement

- TxDOT's DWI / Speeding / Seat Belt Enforcement Task Forces
- Teen and Mature (65+) drivers
- Bicycle / Pedestrian safety
- Reduce red light running



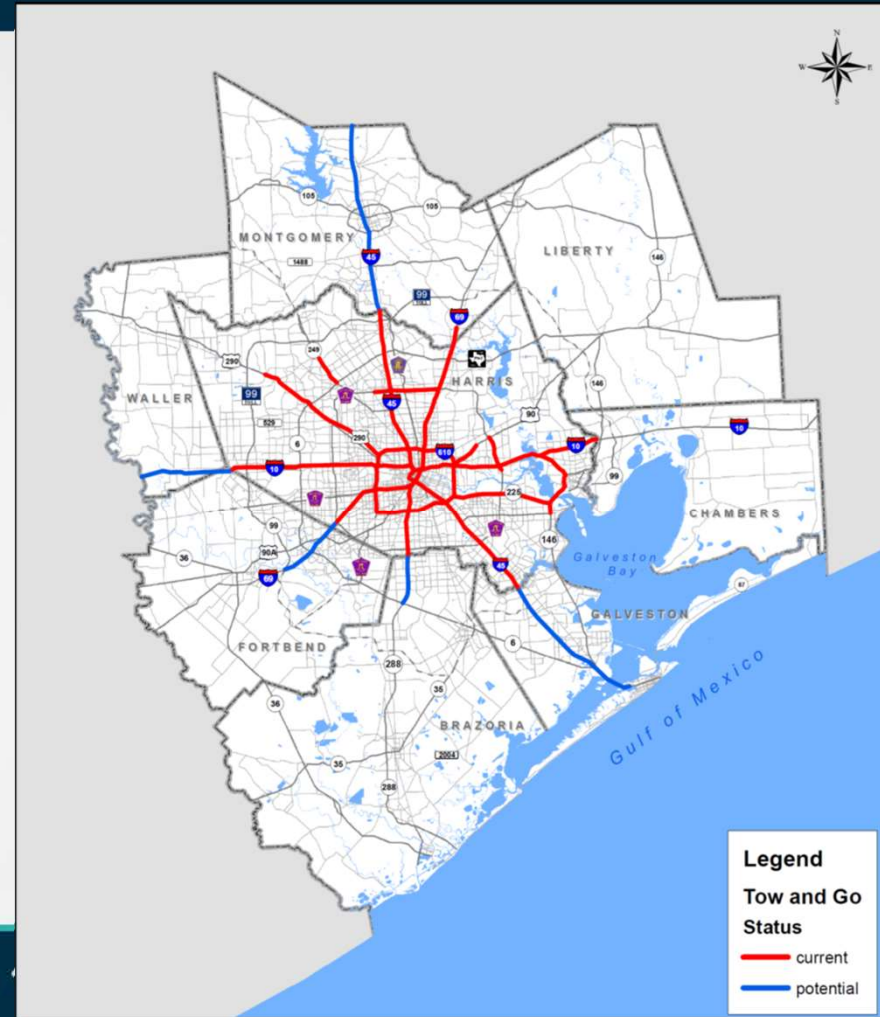
Strategies – Improve Safety

- Performance Monitoring
 - Congestion Management Process (Tow and Go, ITS)
 - Annual State of Safety Report
 - Performance Evaluation Report to TxDOT (online at H-GAC's Performance Measure website)



Strategies – Mobility and Economy

- Regional ITS Plan
 - Build network
 - Provide redundancy
 - Urban/rural ITS deployments
 - Traffic signal operations
- Tow and Go Network
 - Expand Network
 - 244 Miles Existing Centerline Miles of Freeway

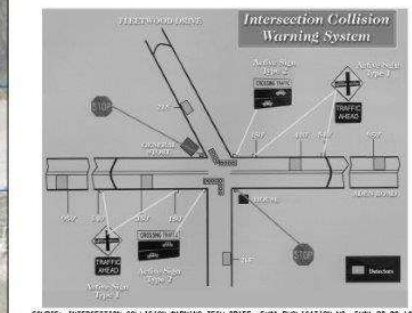


RTP Update – Next Steps

- On-going / Anticipated Studies
 - Intersection Safety Assessment
 - Subregional Studies – Crash Analysis and Safety Countermeasures
- TIP Projects
 - Safety/ITS funding
- Future Studies and Projects
 - Roadway Safety Audits (FY 2023)
 - Safety Countermeasures
 - Education and enforcement programs
 - Form a Safety Task Force through TPC
 - Add additional Performance Measures



Improvement	Time
12 Add advanced intersection warning signs on FM 2855	Short
12 Install Intersection Collision Warning System (ICWS)	Short
12 Install safety lighting at intersections	Short
12 Reserve real estate signs on NW corner	Short
12 Move EB stop bar closer to edge of travel way	Short
12 Add 'Cross Traffic Does Not Stop' plaques to stop signs on EB & WB approaches	Short
12 Add object markers to culverts on E and W legs of intersection	Short
12 Add retroreflective backplates to flashing beacon	Short
12 Improve existing variable message signs on EB and WB approaches	Short
12 Widen roadway to provide NB and SB dedicated left-turn lanes	Mid



SOURCE: INTERSECTION COLLISION WARNING TECH BRIEF, FHWA PUBLICATION NO. FHWA-RD-99-105

WALLER COUNTY
INTERSECTION SAFETY ASSESSMENTS

MORTON ROAD
FM 2855

DATE: 12/15/2021 EXHIBIT: WB PAGE:



Regional Goods Movement Plan Update



Veronica Green
RTP Subcommittee – 03/09/2022

Project Team



**Veronica
Green**
Project Manager



Allie Isbell
Program Manager



**Keith
Bucklew**
Project Manager



**Reddy
Edulakanti**
Deputy
Project Manager



What is The Regional Goods Movement Plan?

The Regional Goods Movement Plan is a long-range plan for the goods movement system in the Houston-Galveston Region

- First iteration of the Regional Goods Movement Plan was published in 2013
- Prioritizes freight-related activities

Vision & Goals

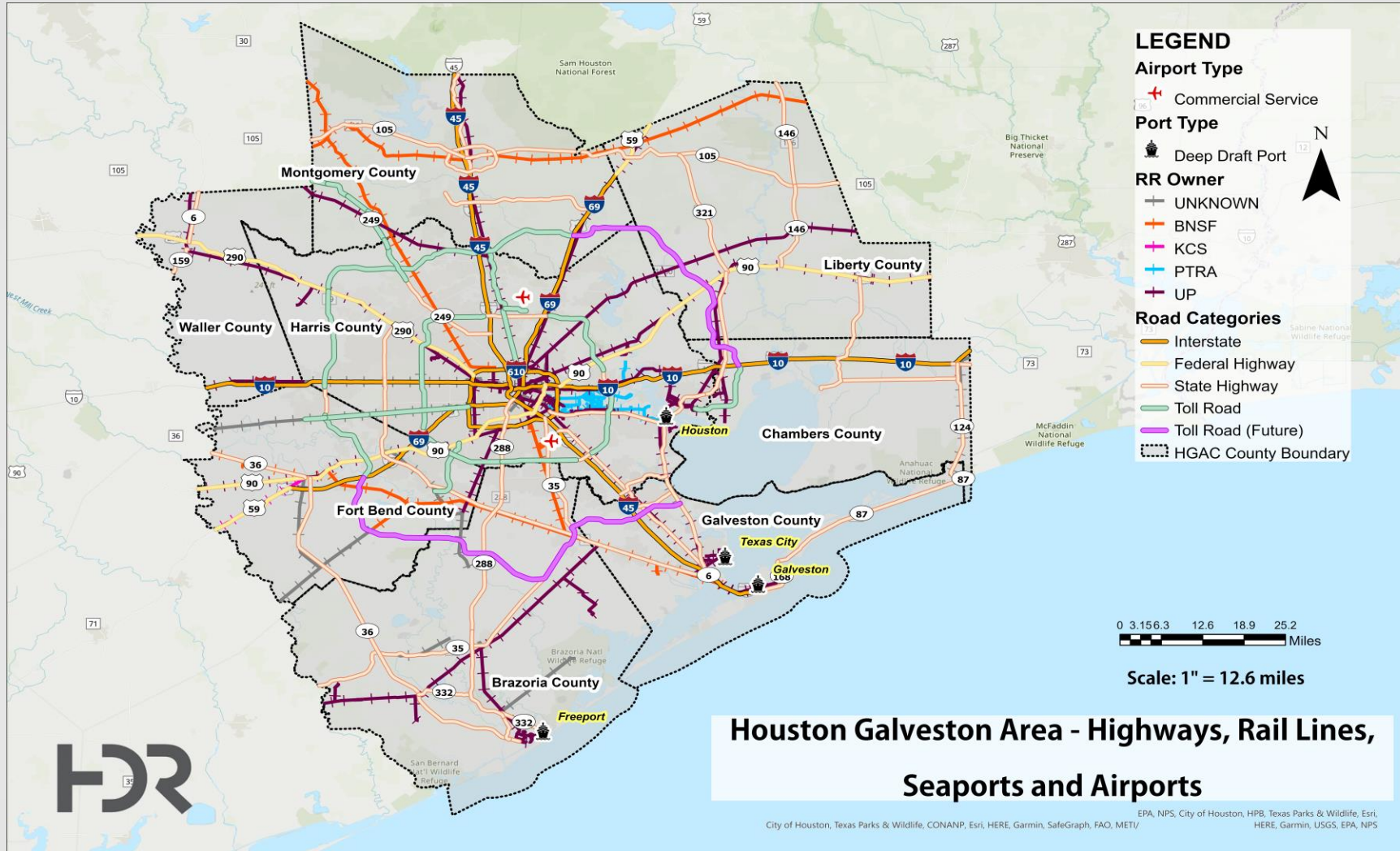
VISION

A multimodal freight transportation system that is efficient, reliable, and safe, that supports the economy, the environment, and equity.

GOALS

- Mobility
- Safety
- Infrastructure – new projects & maintain existing assets
- Economic development
- Environment
- Equity

Study Area



Roadmap to Regional Goods





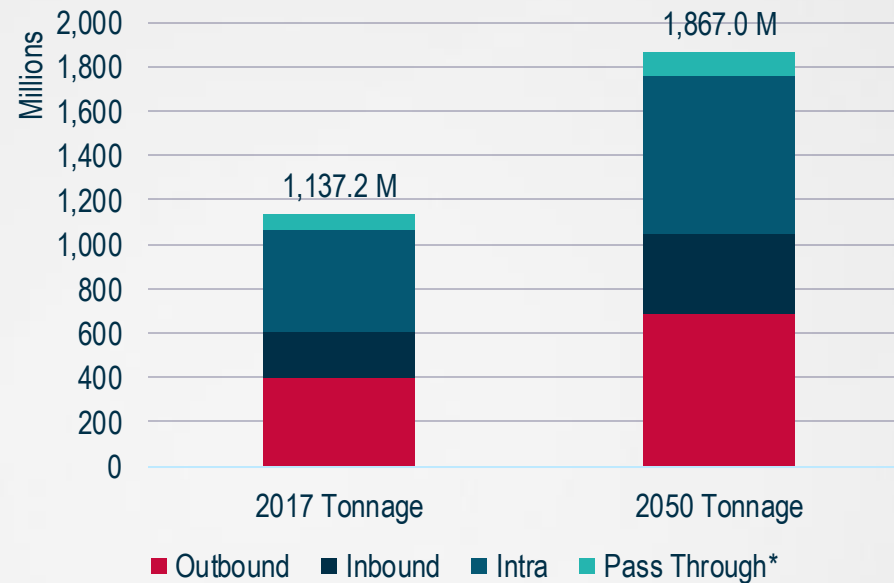
Commodity Flow Analysis

Forecast of Tonnages



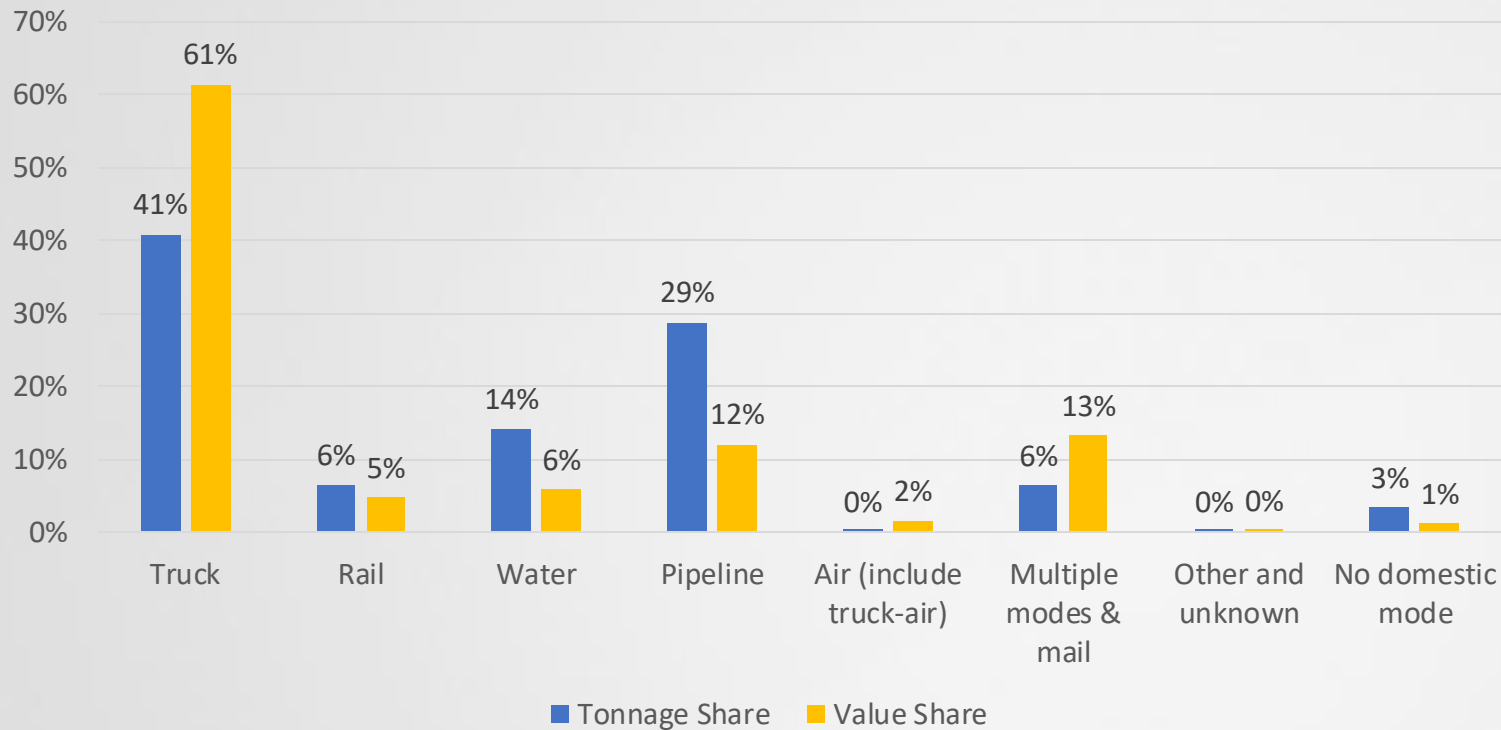
The FAF unconstrained forecast for the Houston BEA is a 64% increase in tonnage (1.5% annual growth) from 2017 to 2050

Forecast of Tonnages by Direction, 2017 - 2050



Source: Freight Analysis Framework Version 5.2 (FAF5.2) 2017 Data.
Note: "Pass through" flows (not included in FAF5.2) were additionally estimated by the consultant team based on likely origin-destination path routings for US traffic flows.

Modal Share by Tonnage and Value



Trucks move the most freight by tonnage share (41%) and freight value (61%)



Pipelines account for the second largest share of freight tonnage (29%) and third largest share of freight value (12%) by moving primarily crude petroleum and coal not-elsewhere-classified

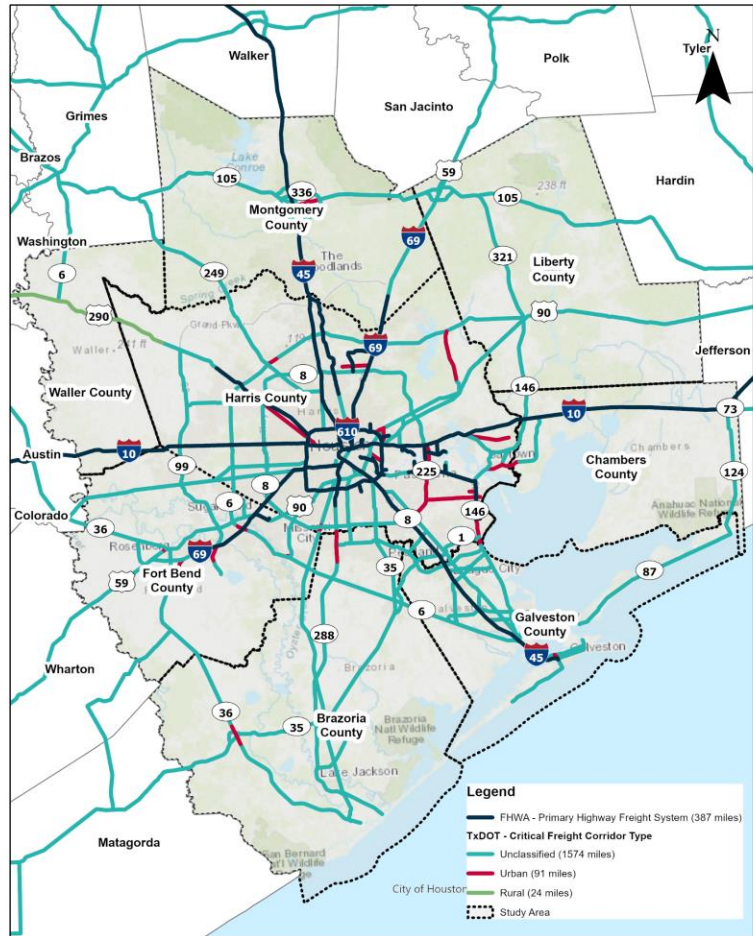
Source: Freight Analysis Framework Version 5.2 (FAF5.2) 2017 Data.

Note: "Pass through" flows (not included in FAF5.2) were additionally estimated by the consultant team based on likely origin-destination path routings for US traffic flows.



Existing Conditions

Freight Network



0 2 4 8 12 16
Miles
Scale: 1" = 15 miles

**Regional Goods Movement Plan
Freight Network**

- FHWA Primary Highway Freight System: 387 miles in the H-GAC eight-county region
- Texas Highway Freight Network: 1 689 miles in the H-GAC eight-county region
- Critical Urban Freight Corridor (CUFC) - In 2017, 91 miles of corridors were identified as CUFC by H-GAC
- Critical Rural Freight Corridor (CRFC) – 24 miles of corridors identified as CRFC primarily in Waller County

Source: National Highway Freight Network Shapefile and Data Description, FHWA, Date: 02/27/2020

Texas Highway Freight Network Shapefile and Data Description,
TxDOT, Date: 09/10/2020



TxDOT CUFC Criteria

CUFCs are required to meet one or more of the following criteria:

1. A public roadway that Connects an Intermodal facility to:
 - The Primary Highway Freight System (PHFS)
 - The Interstate System
 - An intermodal freight facility
2. Located within a corridor of a route on the PHFS and provides an alternative highway option important to goods movement
3. Serves a major freight generator, logistic center, or manufacturing and warehouse industrial land
4. Important to the movement of freight within the region, as determined by the MPO or the state

Source: Texas Freight Mobility Plan, TxDOT, Date: 03/07/2018

H-GAC Criteria

- In addition to the above, whether there are projects planned in the next five years

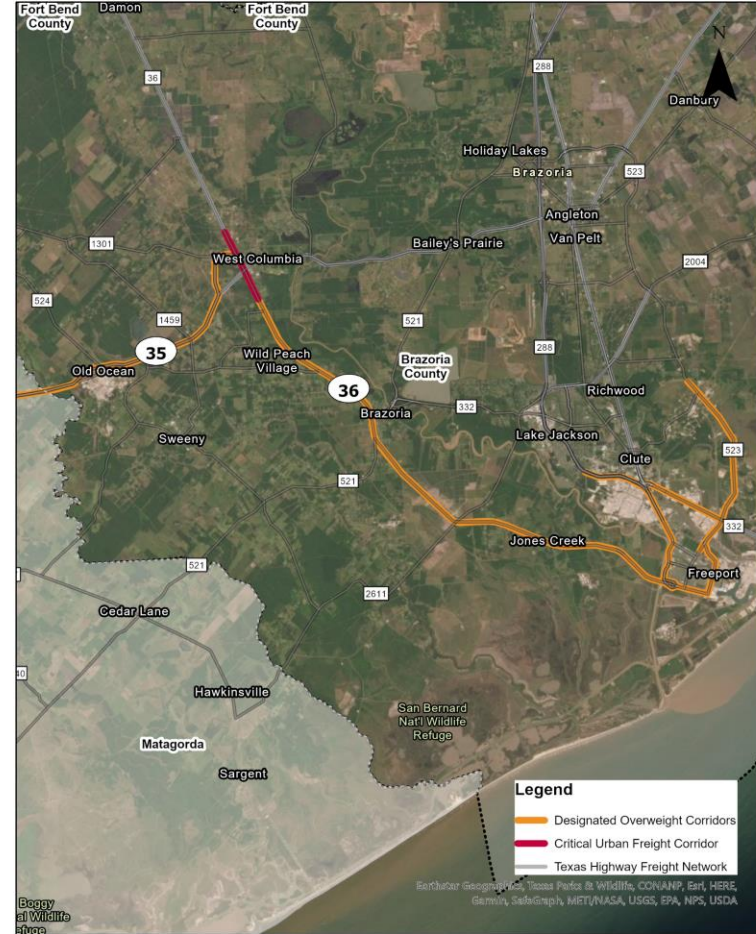
Overweight Corridors



0 0.5 1 Miles
Scale: 1" = 1 mile

Regional Goods Movement Plan
Chambers County - Overweight Corridors

Source: Chambers County, <https://texas.promiles.com/chambers/>, Date 02/16/2022

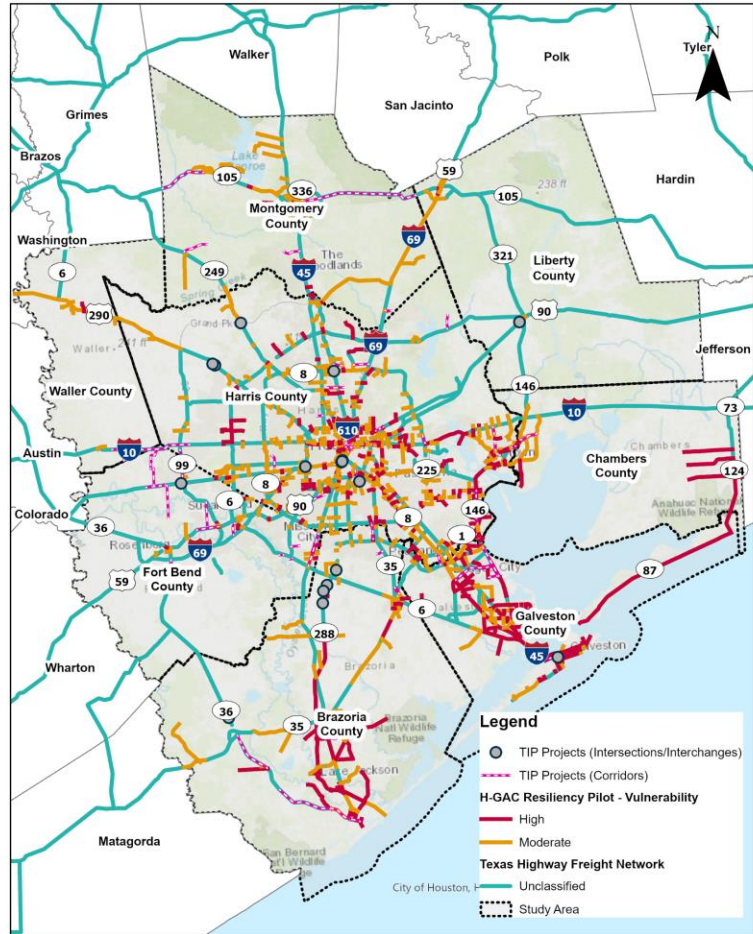


0 2 4 Miles
Scale: 1" = 4 miles

Regional Goods Movement Plan
Port of Freeport - Overweight Corridors

Source: Port of Freeport, <https://texas.promiles.com/PortFreeport/>, Date 02/16/2022

Resiliency and Future Projects



0 2 4 8 12 16
Miles
Scale: 1" = 15 miles

**Regional Goods Movement Plan
Resiliency Pilot and TIP Projects**

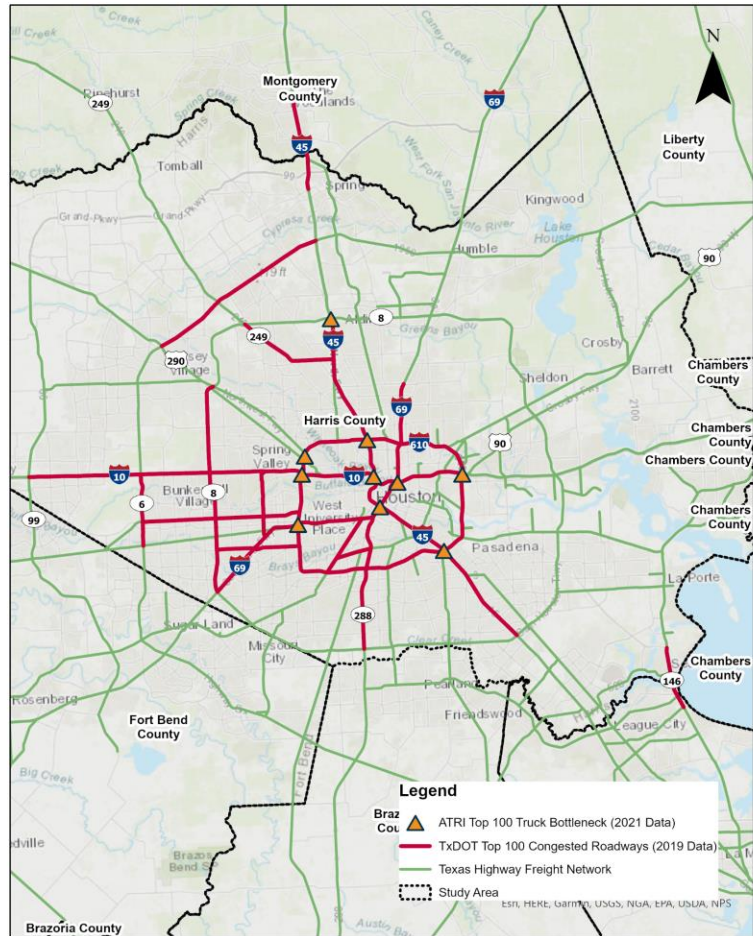
- H-GAC resiliency pilot classifies the corridors in the region based on the vulnerability and criticality risk
- Segments along the freight network(not currently CUFC) with an overall vulnerability risk of “High” or “Moderate” were identified
- H-GAC Transportation Improvement Program (TIP) projects along the freight network(not currently CUFC) were also identified

Source: HGAC



Safety

Congestion



0 1 2 4 6 8
Miles
Scale: 1" = 7 miles

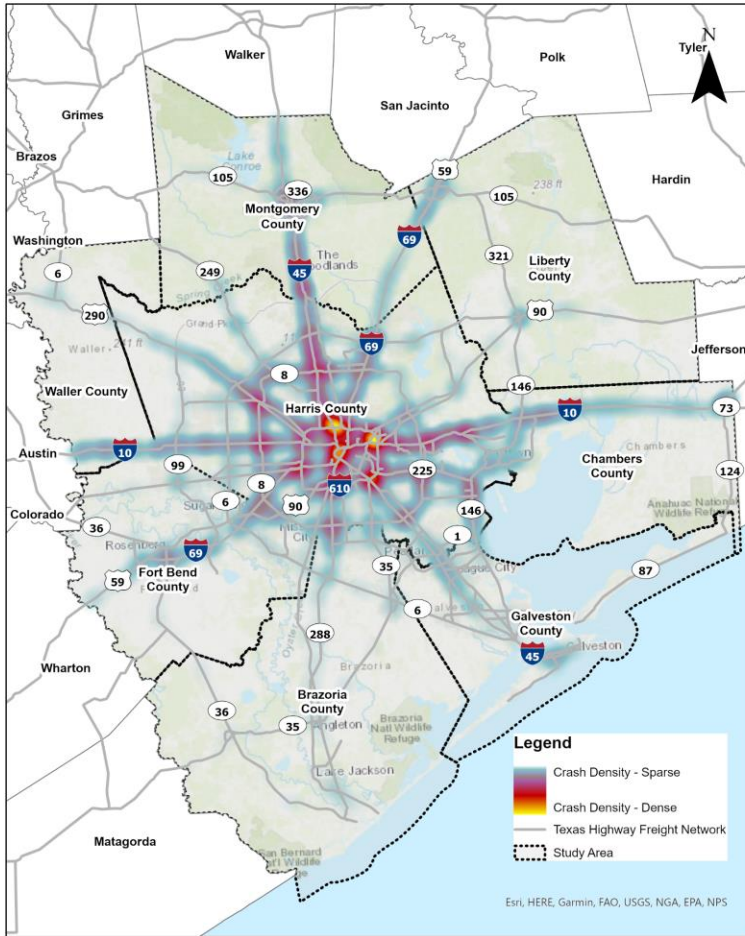
Regional Goods Movement Plan
Congestion Map

- American Transportation Research Institute (ATRI) Top 100 Truck Bottlenecks in 2021 – **10 bottlenecks in the study area, all in Harris County**
- Top 100 most congested roadways in Texas for the Year 2019 (pre-pandemic) – **Most of the congested roadways in study area located in Harris County**
- **34% of the Texas Highway Freight Network in Harris County is congested**

Source: American Transportation Research Institute,
<https://truckingresearch.org/2022/02/08/top-100-truck-bottlenecks-2022/>, Date 02/16/2022

TxDOT Top 100 Most Congested Roadways,
https://gis-txdot.opendata.arcgis.com/datasets/7f23449889f94a539a24ce4f0ac143a8_0/about,
Date 02/07/2021

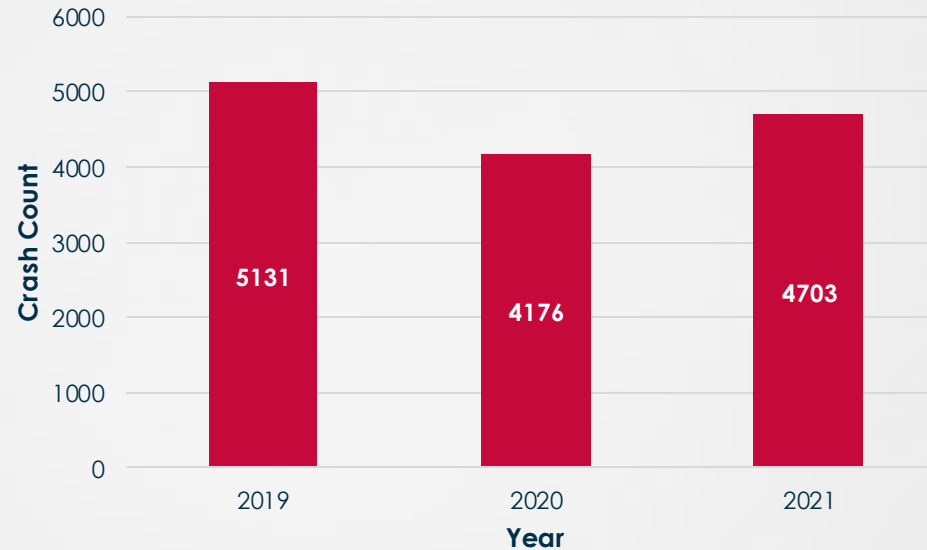
Truck Related Crashes



0 2 4 8 12 16 Miles
 Scale: 1" = 15 miles
Regional Goods Movement Plan
Truck Related Crashes (2019-2021)

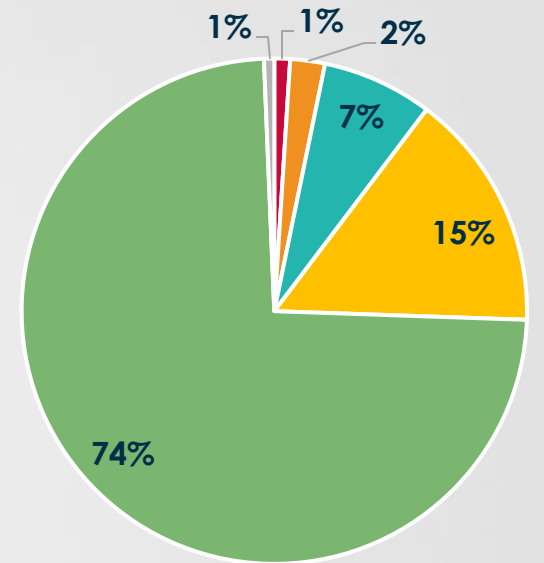
- 14,010 truck related crashes were observed in the 3-year period (2019 – 2021)
- The hotspots for these crashes are primarily located on the IH 610 interchanges

Crash Count By Year



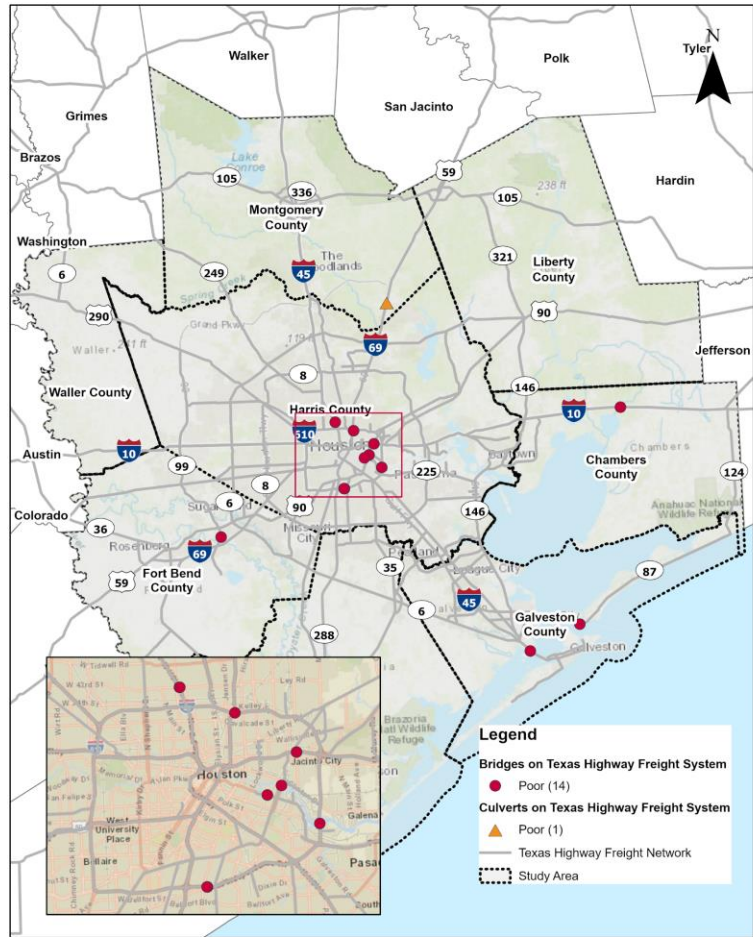
Source: TxDOT CRIS Data, 2019-2021

Crash Severity



- K - Fatal Injury (141)
- A - Suspected Serious Injury (311)
- B - Suspected Minor Injury (991)
- C - Possible Injury (2136)
- O - Property Damage Only (10339)
- Unknown (92)

Bridge Conditions



0 2 4 8 12 16
Miles
Scale: 1" = 15 miles

**Regional Goods Movement Plan
Bridge Conditions Map**

Legend
 ● Bridges on Texas Highway Freight System
 ● Poor (14)
 ▲ Culverts on Texas Highway Freight System
 ▲ Poor (1)
 — Texas Highway Freight Network
 - - - Study Area

- 14 bridges on Texas Highway Freight Network are in poor condition

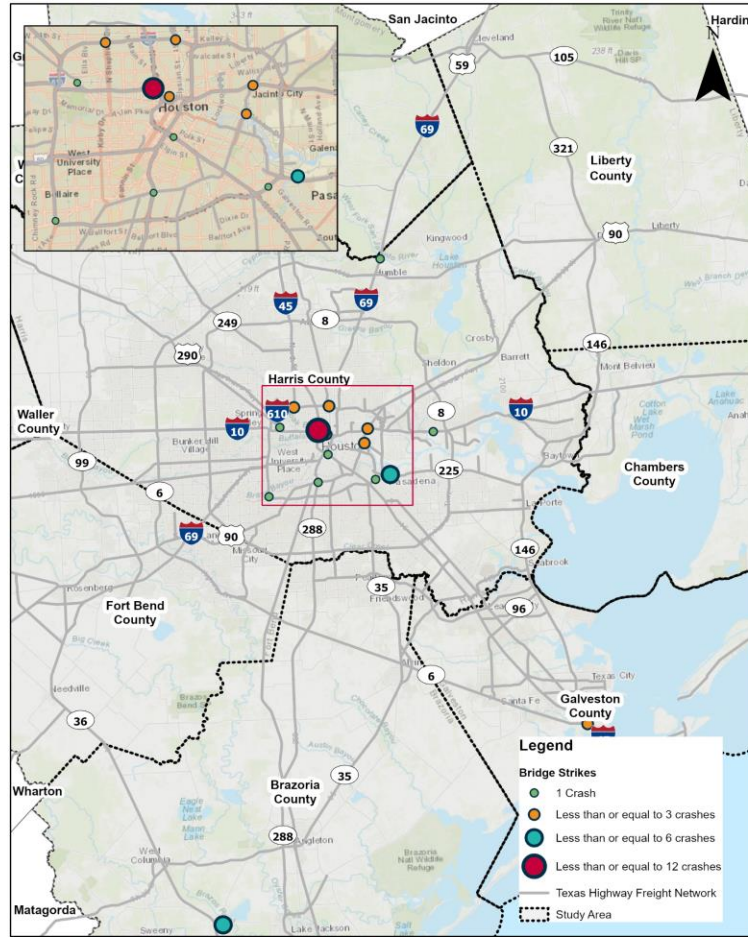
BRIDGE LOCATION	COUNTY
IH 10 at Turtle Bayou	Chambers
Navigation Blvd. at Mack Rd.	Harris
IH 10 WB at McCarty St/US 90A	Harris
IH 45 SB at Crosstimbers St.	Harris
IH 45 NB at Crosstimbers St.	Harris
IH 610 WB at Holmes Rd.	Harris
IH 610 EB at Holmes Rd.	Harris
IH 610 at Houston Ship Channel	Harris
US 59 SB/IH 610 EB Interchange	Harris
US 90A SB at Buffalo Bayou	Harris
IH 45 SB at BNSF RR	Galveston
IH 45 NB at BNSF RR	Galveston
SH 87 Ferry N Slp 4 at Galveston Bay	Galveston
SH 99 at Brazos River	Fort Bend

Source: TxDOT Bridges, TxDOT, Date: 01/21/2022

Bridge/Culvert Condition is determined by the lowest rating of condition ratings for Deck, Superstructure, Substructure, or Culvert. If it is less than or equal to 4, the classification is Poor

Bridge Collisions (2019-2021)

- Commercial Motor Vehicle crashes between 2019-2021 involving bridge strikes were identified. Any bridge with clearance less than 16 ft is summarized below



0 2.5 5 10 Miles
Scale: 1" = 10 miles

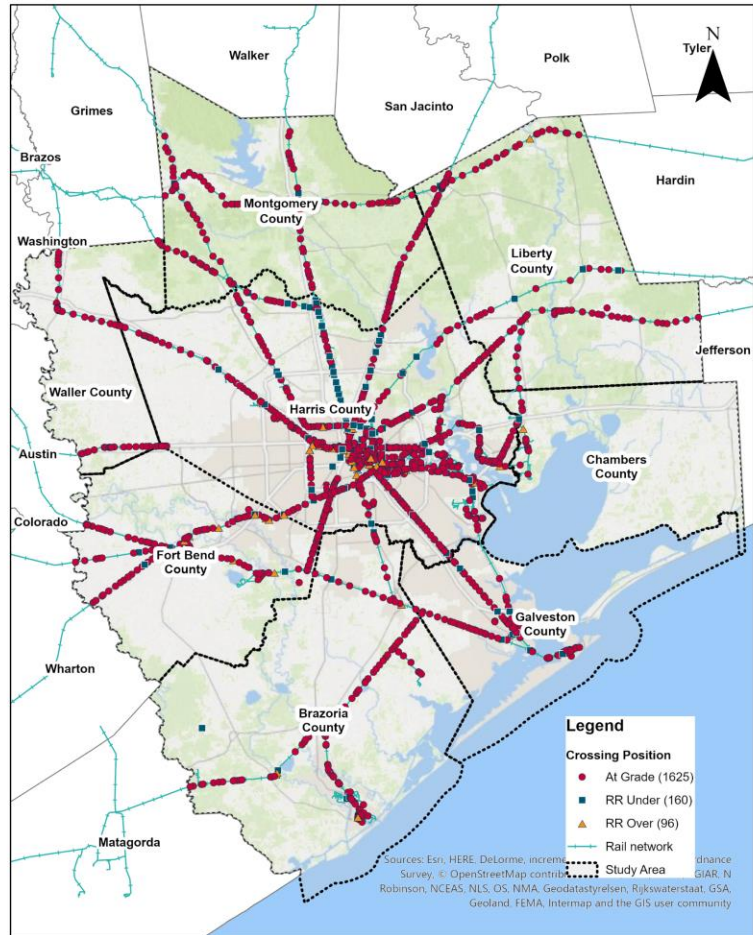
Regional Goods Movement Plan
Bridge Strikes Map (2019-2021)

LOCATION	# OF CRASHES	MIN. CLEARANCE	COUNTY	RR BRIDGE
IH 10 at Houston Ave.	12	14 FT 3 IN	Harris	-
Lawndale St. at UP RR Bridge	6	13 FT 0 IN	Harris	Y
County Rd. 400 at UP RR Bridge	5	12 FT 0 IN	Brazoria	Y
IH 610 at Hardy St.	3	13 FT 5 IN	Harris	-
IH 10 at UP RR Bridge	3	14 FT 6 IN	Harris	Y
Clinton Dr at UP RR Bridge	3	13 FT 9 IN	Harris	Y
IH 45 at SH 146	2	14 FT 3 IN	Galveston	-
IH 610 at Durham Dr.	2	13 FT 4 IN	Harris	-
Judge Alfred Hernandez Tunnel Bridge	2	12 FT 9 IN	Harris	-
Hamblen Rd. U-Turn at IH 69/US 59	1	13 FT 0 IN	Harris	-
IH 610 at Broadway St.	1	14 FT 1 IN	Harris	-
SH 288 at US 90 A	1	15 FT 7 IN	Harris	-
IH 610 at N Braeswood Blvd.	1	15 FT 2 IN	Harris	-
IH 10 at Freeport St.	1	14 FT 2 IN	Harris	-
Hempstead Rd at UP RR Bridge	1	13 FT 10 IN	Harris	Y
IH 45 at Jefferson St.	1	15 FT 5 IN	Harris	-

Source: TxDOT CRIS Data, 2019-2021



Railroad Crossings



0 2 4 8 12 16
Miles
Scale: 1" = 15 miles

Regional Goods Movement Plan
Railroad Crossings Map

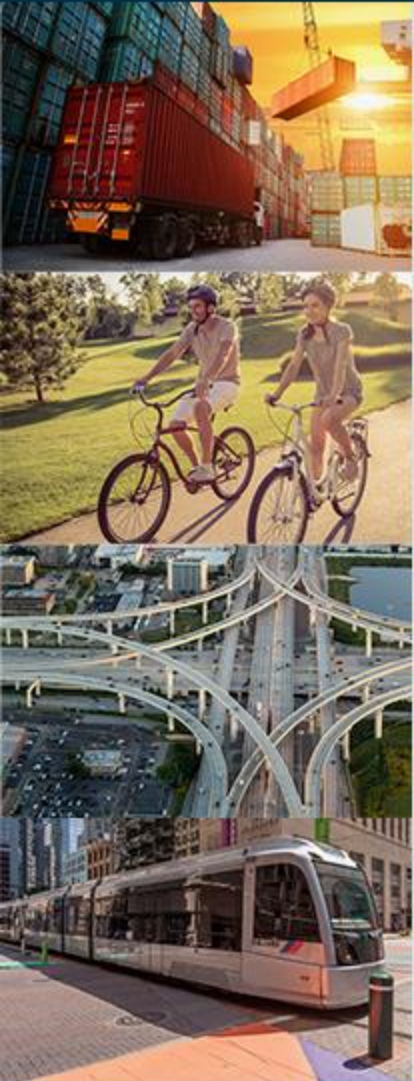
- Railroad Crossings in the H-GAC eight-county region was identified.
- The 3 Major Class I Railroads identified were UP, BNSF, and KCS (only in Fort Bend County)
- A total of **1881 crossings** were observed in the H-GAC eight-county region
- **85% of the crossings are at-grade crossings**

Source: Federal Railroad Administration, USDOT, <https://railroads.dot.gov/>

Next Steps

1. Acquire and review Transearch dataset to identify Commodity Flows in and out of the region
2. Review and use H-GAC's Activity Based Model to establish truck origin-destination trends and validate against the land use information
3. Dive deep into existing conditions datasets and previous reports to identify issues and challenges
4. Identify Critical Urban Freight Corridors using the information summarized in previous three steps

Public Engagement and Data Tools

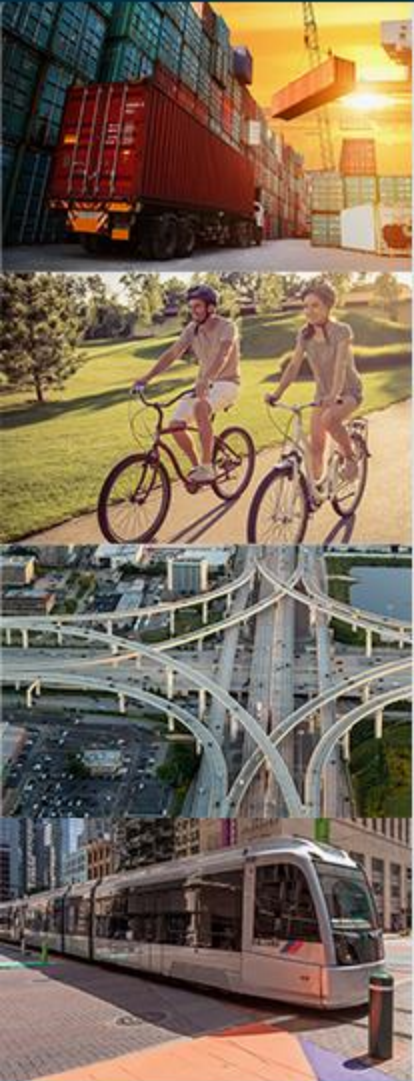


Regional Goods Movement Update

<https://engage.h-gac.com/regional-goods>

- Access links to the data tools
 - [H-GAC Region FAF Data Tool](#)
 - [Regional Goods Movement Plan Update Storyboard](#)
- Subscribe to meeting updates
- Access to previous meeting
- Review meeting materials

Contact For Questions



Veronica Green
Veronica.green@h-gac.com

Allie Isbell
Allie.Isbell@h-gac.com

PUBLIC MEETINGS -- TRANSPORTATION IMPROVEMENT PROGRAM (TIP)



Houston-Galveston
Area Council

**Our region is growing. Our residents' needs are evolving.
Our transportation system must grow and evolve too!**

The 2023-2026 TIP update includes more than \$7 billion regionally-significant transportation infrastructure projects and programs anticipated for implementation over four years. They include:

- Roadway upgrades and widening projects to help mitigate congestion and facilitate freight movement
- Bus-rapid transit and multimodal street developments for high-occupancy vehicles, bicyclists, and pedestrians
- Critical safety improvements
- Air quality improvement projects

VIRTUAL PUBLIC MEETINGS
March 22, 2022
2 P.M. OR 5:30P.M.

H-GAC will also accept public comments March 4 - April 4, 2022. To submit a comment:

- Email comments to: PublicComments@h-gac.com
- Submit comments by phone: 1-855-363-2516

Register and learn more at:
www.h-gac.com/transportation-improvement-program

PROJECTS INCLUDED IN 2023-2026 TIP UPDATE:

Harris County - Inner Katy BRT
(multimodal dedicated bus-rapid transit
(BRT) busway) | \$316 M

Brazoria/ Galveston County - FM 517
Reconstruction and Widening Project |
\$122 M

Galveston County - IH 45 South
Reconstruction and Widening | \$125 M

Montgomery County - SH 105
Reconstruction and Widening | \$175 M

Liberty County - US 90 Grade
Separation at UPRR | \$69 M



H-GAC will provide a Spanish interpreter and an American Sign Language interpreter for the hearing impaired. Additional language or accommodation requests can be made by calling 832-681-2583 or emailing Robyn.Egbert@h-gac.com within 48 hours of the event.

2023 - 2026 TIP