



Southeast Harris County Subregional Study



Mike Burns, AICP
Mike Feeney, PE
Steering Committee Meeting 6 – April 28, 2022

Regional Collaboration • Transportation Planning • Multimodal Mobility



Steering Committee - Meeting 5 Agenda

Agenda:

1. Introductions – 5 minutes
2. Schedule – 5 minutes
3. Project Vision / Goals – 5 minutes
4. Outreach Review – 5 minutes
5. Draft Recommendations – 45 minutes
6. Next Steps – 5 minutes
 - Report Comments Due Back **May 6th**
 - Report With H-GAC



Introductions – Steering Committee

Representing	Name	Title
Port Houston	Bruce Mann	Director, Freight Mobility
Harris County	Bryan Brown	Senior Planner - Engineering Dept
Economic Alliance Houston Port Region	Chad Burke	President and CEO
City of Houston Public Works	Donald Buaku	Principal Planner
TXDOT	Jeffrey English	TxDOT
Gulf Coast Rail District	Katherine Parker	Executive Director
Harris County Transit	Ken Fickes	Director - Transit Services
Harris County Precinct 2	Jorge Bustamante	Planning Manager
La Porte Police Dept	Sgt Bennie Boles	Police Sergeant
La Porte	Teresa Vazquez-Evans	Planning & Development Director
City of South Houston	Arthur Olivera	Street and Bridge
Deer Park	Bill Pedersen	DPW Director
Pasadena	Sarah Benavides	Senior Assistant Director, Public Works
Harris County	Loyd Smith	ALTERNATE - Harris County
City of Houston Planning	Sharon Moses-Burnside	ALTERNATE - City of Houston

Schedule



Vision

■ Vision:

- Recommend improvements to address multimodal transportation, development, and economic policy needs in the subregion that align with H-GAC's goals of mobility, safety, economic competitiveness, transportation asset condition, and natural and cultural resources

Regional Mobility Trends

90,000

**MORE PEOPLE
IN REGION**

↑ **1%** 7,036,100 in 2019¹
6,946,200 in 2018²

Source: US Census Population Estimates 2019
¹ Rounded to nearest 100



65,000

**NEW JOBS
CREATED**

↑ **2%** 3,094,400 in 2019³
3,029,300 in 2018⁴

Source: US Census LEHD QWI 2019
³ Rounded to nearest 100



199 MILLION

**MILES DRIVEN
EACH DAY**

↑ **3%** in 2019⁵
194 million in 2018

Source: H-GAC Regional Travel Demand Model 2019
⁵ Estimated for VMT growth



Goals

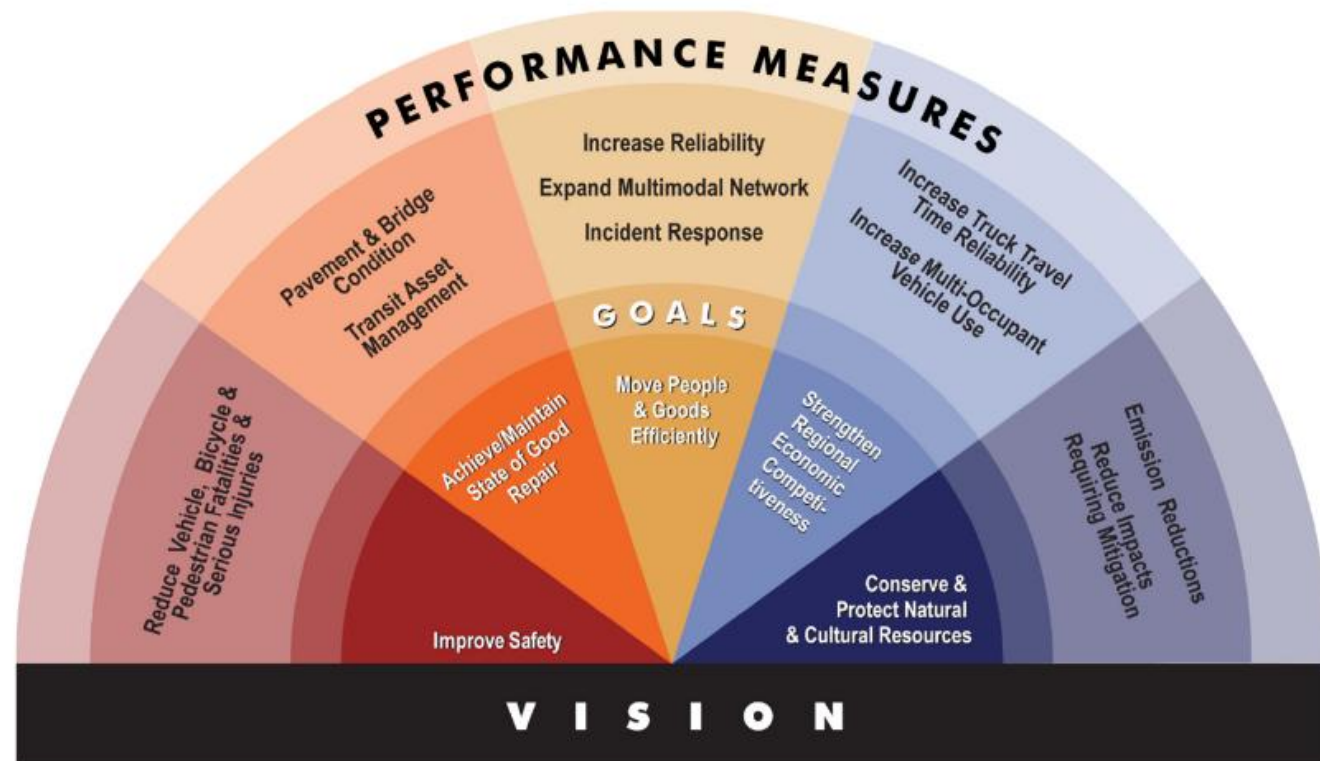
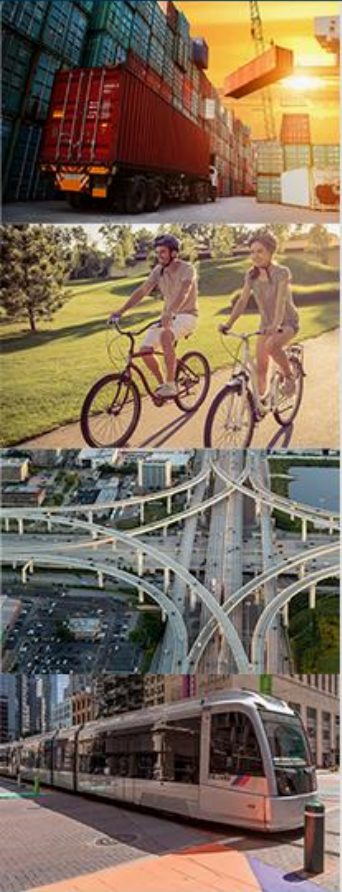


Figure 2-1: 2045 RTP Vision, Goals, and Performance Measures

Outreach Review



Comment #	Comment	Location	Original Item	Revised Item	Response/Action
31	needs a sidewalk along Burke here	Burke Road	Active Modes - Install shared use path on at least one side of the roadway - Improve existing sidewalks and ADA curb ramps	-	"Improve existing sidewalks" implies connecting existing sidewalk segments; no action needed
32	needs a connecting sidewalk along Burke	Burke Road	Active Modes - Install shared use path on at least one side of the roadway - Improve existing sidewalks and ADA curb ramps	-	"Improve existing sidewalks" implies connecting existing sidewalk segments; no action needed
33	repaving (removing the buildup of concrete falling off concrete mixers into the lanes of traffic and hardening)	Genoa Red Bluff Road	Pavement - None	Pavement - Resurface and restripe pavement	Revise Pavement recommendation
34	restriping needed	Genoa Red Bluff Road	Pavement - None	Pavement - Resurface and restripe pavement	Revise Pavement recommendation
35	restriping needed	Genoa Red Bluff Road	Pavement - None	Pavement - Resurface and restripe pavement	Revise Pavement recommendation
36	restriping needed	Genoa Red Bluff Road	Pavement - None	Pavement - Resurface and restripe pavement	Revise Pavement recommendation
37	restriping needed	Genoa Red Bluff Road	Pavement - None	Pavement - Resurface and restripe pavement	Revise Pavement recommendation
38	restriping needed	Spencer Highway	Pavement - Resurface and restripe pavement	-	No action needed
39	resurface	Along Crenshaw Rd. just east of Shaver St	-	-	Crenshaw Rd is not a study corridor, but we can recommend an areawide pavement assessment and indicate that this is a priority location
40	resurface	Near intersection of Crenshaw Rd & 2nd St	-	-	Crenshaw Rd is not a study corridor, but we can recommend an areawide pavement assessment and indicate that this is a priority location



Final Draft Recommendations

Final Draft Recommendations

Provide Comments on:

- Content
- Recommendations
- Formatting Upon Receipt of Comments

Final Draft Recommendations



ACKNOWLEDGMENTS

LEAD AGENCY
Houston-Galveston Area Council (H-GAC)

FUNDING PARTNERS
Brazoria County
Texas Department of Transportation (TxDOT) – Houston District

CONSULTANT TEAM
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In partnership with:
Knudson, LP
HDR, Inc
CJ Hensch & Associates, Inc

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Clay Fortner, Brazoria County Engineering
Kenny Hill, Brazoria County Precinct 1
Josee McCaffrey, Brazoria County Precinct 4
Jorge Reyna, Brazoria County Development Coordinator
Mary Shine, Brazoria County District Attorney's Office
Michelle Milliard, TxDOT, Brazoria Area Office
Kant Burkee, Brazoria County Toll Road Authority

BRAZORIA COUNTY COMMISSIONERS COURT 2019

Hon. L.M. "Matt" Sebesta, Jr., Brazoria County Judge
Hon. Donald "Dude" Payne, Commissioner Precinct 1
Hon. Ryan Cade, Commissioner Precinct 2

H-GAC TRANSPORTATION POLICY COUNCIL MEMBERS 2019

Bert Keller, Chairman, Gulf Coast Rail District
Carrin Paman, Chair, METRO
Hon. Ken Clark, County Commissioner, Galveston County
Hon. David Robinson, Council Member, City of Houston
Hon. Justin Beckendorf, County Commissioner, Waller County
Hon. Tom Reid, Mayor, City of Pearland
Hon. L.M. "Matt" Sebesta, Jr., County Judge, Brazoria County
Hon. Robert Hoskins, Council Member, District 5, City of Baytown
Thomas Woolley, Interim Director of Engineering, City of Conroe
Hon. Craig Brown, Council Member, City of Galveston

H-GAC PROJECT MANAGERS

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Jeffrey English, TxDOT, Houston Area Office
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Final Draft Recommendations

EXECUTIVE SUMMARY

The Houston-Galveston Area Council (H-GAC), in partnership with Brazoria County and the Texas Department of Transportation (TxDOT), updated the Brazoria County Thoroughfare Plan (BCTP). The purpose of the 2020 BCTP is to provide the County with a long-term template to plan for future transportation while making short-term decisions related to roadway funding and new development approvals. This guidance will allow the County to provide a proactive plan for future roadway improvements.

A primary focus in development of the thoroughfare plan was to engage the public and develop a plan for citizen input. The planning process coordinated with and incorporated existing thoroughfare plans of the neighboring counties and cities. In developing the 2020 Brazoria County Thoroughfare Plan, a public engagement process, an overarching vision, and six goals guided its creation.

Vision

The vision of the Brazoria County Thoroughfare Plan is to establish guidelines and policies to develop a safe, well-connected and efficient county-wide transportation system that provides adequate mobility for people, goods and services and promotes orderly growth and redevelopment throughout the County.

The corresponding goals are to:

- Preserve adequate rights-of-way
- Establish countywide design standards
- Institute policies/procedures to coordinate/optimize transportation investments in the County
- Collaborate with the development community
- Preserve wetlands and wildlife areas within the County
- Develop a well-connected multimodal transportation system

Plan Development

Existing Conditions included data for the County's population, employment, transportation networks, and environmental characteristics. Existing conditions demonstrated the current conditions and provided forecasted conditions for 2045, which demonstrate the need for an updated thoroughfare plan.



ES-1

2020 Brazoria County Thoroughfare Plan



E5 - Key Intersections for Additional ROW

Recommendations

According to the outputs from all steps in the plan development, recommendations include implementation of the roadways on the BCTP map (E6), including right-of-way (ROW) width, number of travel lanes, and general alignment.

In general, 1000 roadways were added, 10 roadways were removed, 150 roadways were realigned, and 30 roadways were reclassified.

In addition, policy changes should accompany the implementation of these roadway changes. These policy change recommendations will ensure that regulations are updated to sufficiently accommodate future growth.

Regulatory documents to be affected are the Subdivision Regulations, the Roadway Safety and Road Preservation Standards for Work Conducted in Brazoria County Rights of Way, and the Drainage Criteria Manual. General categories of recommendations include:

- Changes to roadway classifications – update verbiage and general requirements to match new roadway typology; re-evaluate access and building line requirements to best serve incoming growth
- Drainage/detention – provide full update to sections that apply to roadway construction and development within floodplain
- Access considerations/building lines – re-evaluate requirements to best serve incoming growth
- Heavy truck traffic – create special design criteria for roadways that experience heavy truck traffic for better long-term roadway investment near port areas
- Coordination with municipalities – establish a quarterly meeting with all jurisdictions under the leadership of Brazoria County to discuss roadway project updates; future/ongoing planning efforts; national, statewide and local transportation policy updates; and potential funding opportunities

ES-3

2020 Brazoria County Thoroughfare Plan

Each classification was provided a variety of typical cross-sections, except for Limited Access Highway, as these roadways are generally constructed and maintained by TxDOT.

Eighteen intersections were identified to be examined for future additional ROW width needs. These locations include potential grade-separation, major accident locations, and high-volume roadways during peak periods. The 18 intersections are shown in E5.

In addition to these intersections, rail crossings and streams, in general, need additional ROW to provide a safe vehicle buffer zone or accommodate the future need to construct grade-separated crossings at certain locations.

Compared to the previous Thoroughfare Plan, the 2020 Plan added...

- 1002 miles of *road* roadways
- 30 miles of *Limited Access Highways*
- 16 miles of *Principal Thoroughfares*
- 651 miles of *Major Thoroughfares*
- 305 miles of *Major Collectors*

In addition, the 2020 Thoroughfare Plan...

- Improved north-south and east-west connectivity throughout the County, while preserving right-of-way in future developable areas
- Removed 10 roadways that were previously proposed to cross existing barriers or flood-prone areas
- Realigned 150 roadways and reclassified 30 roadways to better coordinate with municipality plans and ensure regional connectivity
- Added 4 crossings of the Brazos River

Participants were also asked to rank key elements of a successful transportation system; each participant was asked to rank their top 3 choices. Figure 25 shows which elements the respondents thought were important for Brazoria County. Some highlights from this exercise include:

- "Safety and evacuation" ranked in the top 3 choices most often, and when it was ranked, it received the highest average score
- "Operational efficiency" came as a close second in both frequency ranked and the intensity of the responses
- "Inter-county" and "intra-county travel" ranked third and fourth most often in the top 3 preferences, but they received the lowest average intensity scores
- "Environment" ranked in the top 3 least often; when ranked, it received a mid-level score



"Safety and Evacuation" was ranked in the top 3 choices the most often. Respondents who chose this category indicated things to focus on when planning corridors, including:

- Providing more options for evacuation routes
- Separating truck travel from other travelers on the roadway
- Reducing emergency response times
- Providing roadway improvements (more lanes, wider shoulders, super 2, center turn lanes, alternative to 288, more overpasses, safer pavement – when wet)
- Reducing congestion (public transportation, limit growth)
- Addressing known safety issues and speeding

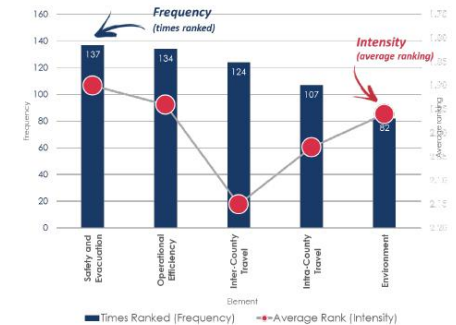


Figure 25 - Priority Ranking

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2020 Brazoria County Thoroughfare Plan

Final Draft Recommendations

project updates; future/ongoing planning efforts; national, statewide and local transportation policy updates; and potential funding opportunities. This coordination will lead to more effective conversations with adjacent counties and the development community to better prepare for regional growth.

Funding

The funding programs listed below in Table 9 are intended as a toolbox to assist in the implementation of the 2020 BCTP. These programs are related to development, redevelopment, and general transportation improvements, including general roadway improvements, overpasses, freight corridors, transit, and trails. The toolbox can be used by Brazoria County, its partnering local government entities, and H-GAC. The toolbox provides a wide variety of potential funding mechanisms for future improvements. Individual improvements that are identified in the local CIP processes should be analyzed for which toolbox funding items will be applicable.

It is recommended that all entities work in coordination when applying for state and federal funding, to more effectively leverage funding. Brazoria County should work with all potential funding partners to create a funding plan for the next several years, with the first item being an application to the H-GAC Transportation Improvement Program (TIP) Call for Projects for 2021/2022.

More specific information on funding implementation methods is included in Appendix D. Also included in this appendix is specific information on funding for freight and port activity that may be helpful in future planning.



Program Type	Program Function	Statutory Authority	Applicable Jurisdiction	Transportation and Mobility Project Type
Texas Enterprise Zone	State sales and use tax refund program designed to promote business development.	CH 2303 Local Government Code	Governor's Office, but requires municipal application	It encourages job creation and capital investment in areas of economic distress by removing governmental regulatory barriers to economic growth and provides tax incentives and economic development benefits.
Texas Port Capital Program	Future funding requested to fund port-related projects	Port Authority Advisory Committee (PAAC) and The Maritime Division of TxDOT	Port Authorities	Port-related transportation improvements
Port Authority Advisory Committee		Texas Transportation Code 55.006	Port Authorities	Provides a direct line of communication between the Ports and Texas Transportation Commission. The Port Authority Advisory Committee is responsible for reviewing prospective projects for funding via the Port Access Account Fund.
Transportation Infrastructure Zone (TIZ)	Public Improvement Finance	CH 173 Transportation Code	City	Local match for right-of-way acquisition in local government's territory or design, construction, operation, or maintenance of transportation facilities.
Neighborhood Empowerment Zone	Redevelopment	CH 378 Local Government Code	City	Project types include revitalization, relocation, job creation and retention, affordable housing. It may include waiving development and permit fees related to the construction of buildings, including impact fees. It may refund municipal sales tax related to improvements, which can include transportation-related improvements.
County Assistance District (CAD)	Public Service and Improvement Finance	CH 387 Local Government Code	County	Funds can be used for construction, maintenance or improvement of roads or highways. It can also be used for public benefit: law enforcement, maintenance or improvement of libraries, museums, parks or recreational facilities, economic development, and tourism and services.
Chapter 380/381 Development Agreements	It can be used to reimburse property owners, developers who advance funding for property improvements including on site and off site improvements (to be reimbursed from new real property increment generated by increased new real property values).	CH 380 & CH 381 Local Government Code	Municipality/County	Project types include programs to promote business development and commercial activity to promote local economic development.
Tax Increment Reinvestment Zone (TIRZ)	Tax Increment Reinvestment Zones (TIRZ or TIF) allows for a portion of city or county tax revenue increment to be applied to an area or project improvement.	CH 311 Tax Code	City or County	Public improvements promote new or redevelopment of specifically designated zones or projects; can include transportation and any public improvement a city or county can fund.

Table 9 – Funding Toolbox 1: Function and Application

Final Draft Recommendations

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Table 9 – Funding Toolbox 1: Function and Application

Final Draft Recommendations

EXECUTIVE SUMMARY

OVERVIEW

The State Highway 146 Subregional Study was commissioned by the Houston-Galveston Area Council (H-GAC), and funded by the Texas Department of Transportation (TxDOT) and the cities of Baytown and Mont Belvieu. SH 146 is an important regional corridor that serves as a major north-south thoroughfare, freight route, and hurricane evacuation route. Areas surrounding SH 146 are a rapidly growing part of the greater Houston-Galveston region in terms of population, employment, freight movement and traffic.

The vision of the SH 146 Subregional Plan is to improve mobility and safety of the roadway network for all users.

To realize this vision, a set of project goals were developed to further define the expectations of the participating agencies and to provide guidelines for the recommendations.

GOALS

- Enhance safety by addressing the needs of all users
- Mitigate congestion
- Mitigate mobility barriers
- Address commercial vehicle issues
- Increase connectivity for all modes of transportation
- Enhance streetscapes
- Engage the public in decision making process

STUDY AREA

The study area includes the City of Mont Belvieu and the eastern portion of the City of Baytown. This area is experiencing a growing amount of commuter, residential, and industrial traffic as the petrochemical and manufacturing plants continue to expand. These expansions have added thousands of short-term workers to the area as well as hundreds of new permanent employees. In addition to shift change traffic, major industrial and manufacturing companies located within the area contribute to growing traffic and safety issues. The study area is shown in Figure 1.

Recommended physical improvements focus primarily on two distinct zones: along the SH 146 Corridor and the Peripheral Intersections. The SH 146 Corridor extends roughly eight miles along SH 146 from the Liberty-Chambers County line to Cedar Bayou, approximately 1,000 feet north of Massey-Tompkins Road. The Peripheral Intersections studied are comprised of 19 major intersections located within and around the study area.



Figure 1 – Study Area

Major Issues	Steering	Stakeholders	Public	Data
SH 146 Congestion	X	X	X	X
Signal Timings	X	X	X	X
Driveway Consolidation	X			X
School Zones (Safety)	X	X	X	X
Underutilization of SH 99	X	X	X	X
Heavy Haul Traffic	X	X	X	X
Additional Road Connections	X	X	X	X
Railroad Crossings	X	X	X	X
Bike / Pedestrian Facilities		X	X	
Aesthetics	X	X	X	X
Hurricane Evacuation Route	X	X	X	X
Cedar Bayou Crossing	X	X	X	X
Hazardous Material Hauling			X	
FM 565 & FM 3180 Congestion	X	X	X	X

Table 1 – Common Issues

PUBLIC INVOLVEMENT

An important aspect of this study was to actively engage the public early in the process and to continue to gather feedback throughout the life of the project. Feedback was received from three different groups: a steering committee, area stakeholder groups, and the public. Table 1 summarizes the major issues that were identified by each group. The "Data" column indicates if field investigations, previous studies, or traffic analyses have identified the issue as a concern.

A steering committee was created to gather input from local agencies within the study area, provide guidance and technical expertise throughout the study. Stakeholder groups were comprised of local business owners, industry representatives, elected officials, emergency responders, and leaders from the surrounding schools and faith communities. Two public meetings were held for the project, both of which were well attended by a diverse mix of people from the surrounding area.

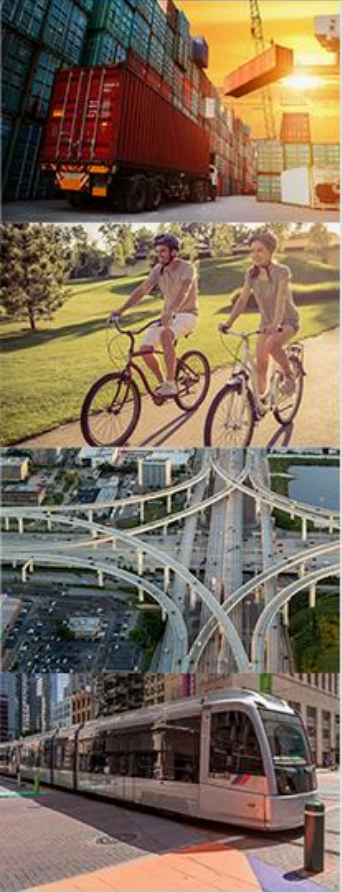
Next Steps

Next Steps



- Receive Steering Committee Comments - **May 6th**
- Revise Content Based on Comments - May 11th
- Format Report (InDesign) - May 18th
- H-GAC Final Review – May 23rd
- Final Report – May 27th

Thank You!



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