



Finding the Money:

Getting Projects Prepped For Funding

In-Person House Rules



Enjoy breakfast – Tacos!



Please raise your hand & turn on microphone to ask a question.



Please mute your microphone until called for questions.



Restrooms – pass the elevator bay, and take a right.



This meeting is being recorded.

Virtual House Rules



Please mute your microphone until called for questions.



Please disable your video unless you are speaking.



Please enter your name and title in the chat.



Please insert questions in chat or raise hand to speak.

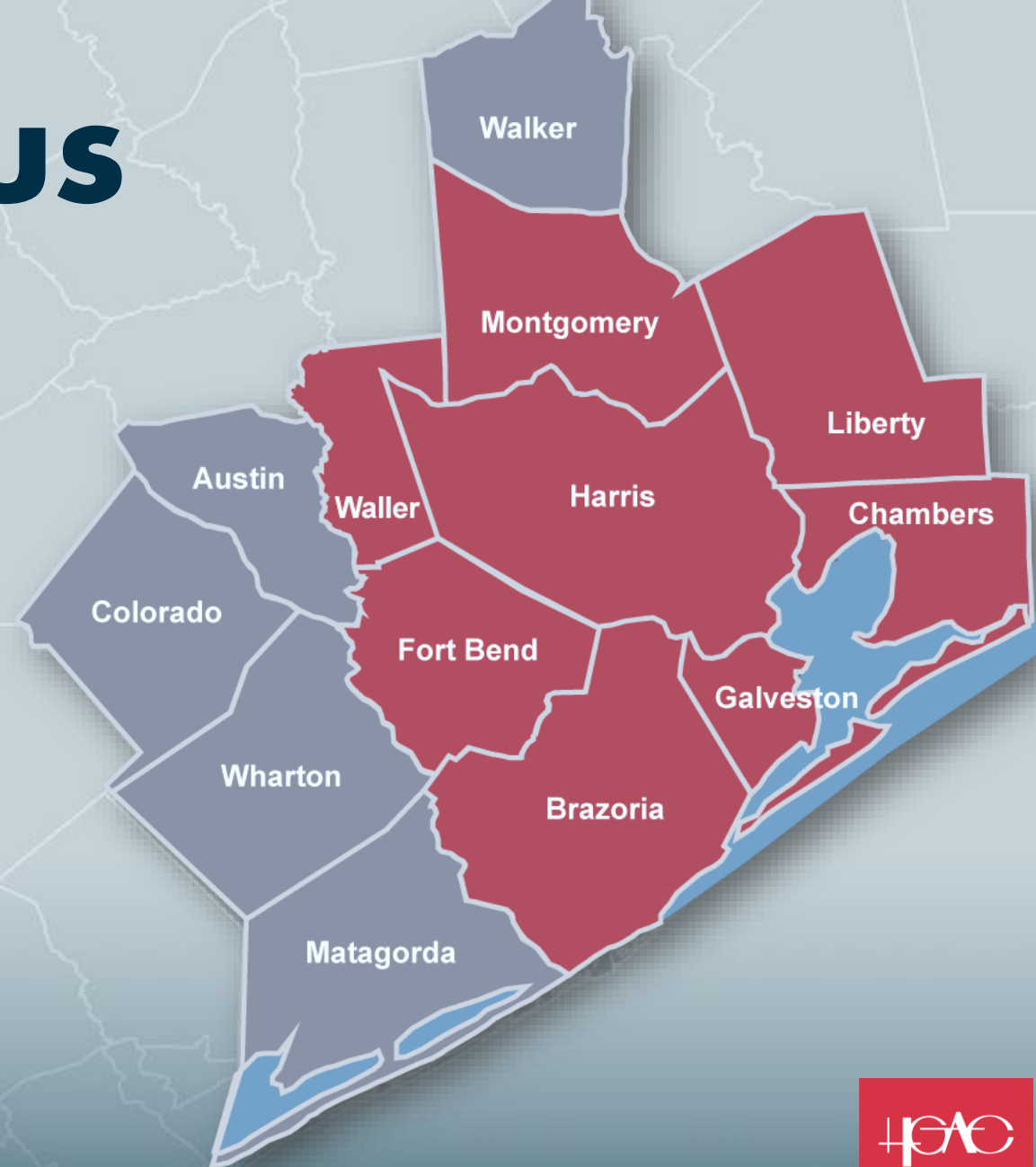


This meeting is being recorded.

Workshop Focus

Active Transportation Focused
Examples

Eligible for 3 AICP CM



Livable Center Study Areas



- Multimodal Transportation Improvements
- Market Analysis
- Develop Concepts
- Implementation Plan
- Public Engagement



PROJECTS

Projects are built, permanent, physical changes.



PROGRAMS

Programs are one-time events or ongoing actions that influence the study area but do not require permanent physical changes.



POLICIES

Policies are legal norms, rules or definitions that control and influence future changes.



STRATEGY



ACTION STEPS



ESTIMATED COST



FUNDING TOOLS



PARTNERS

2021 Summary Update



\$76 Million Increase in New Livable Centers

Projects Over Last 2 Years

	2021	2019
On Track to Full Implementation	90%	75%
Dollar (\$) Implemented	\$543 million	\$467 million

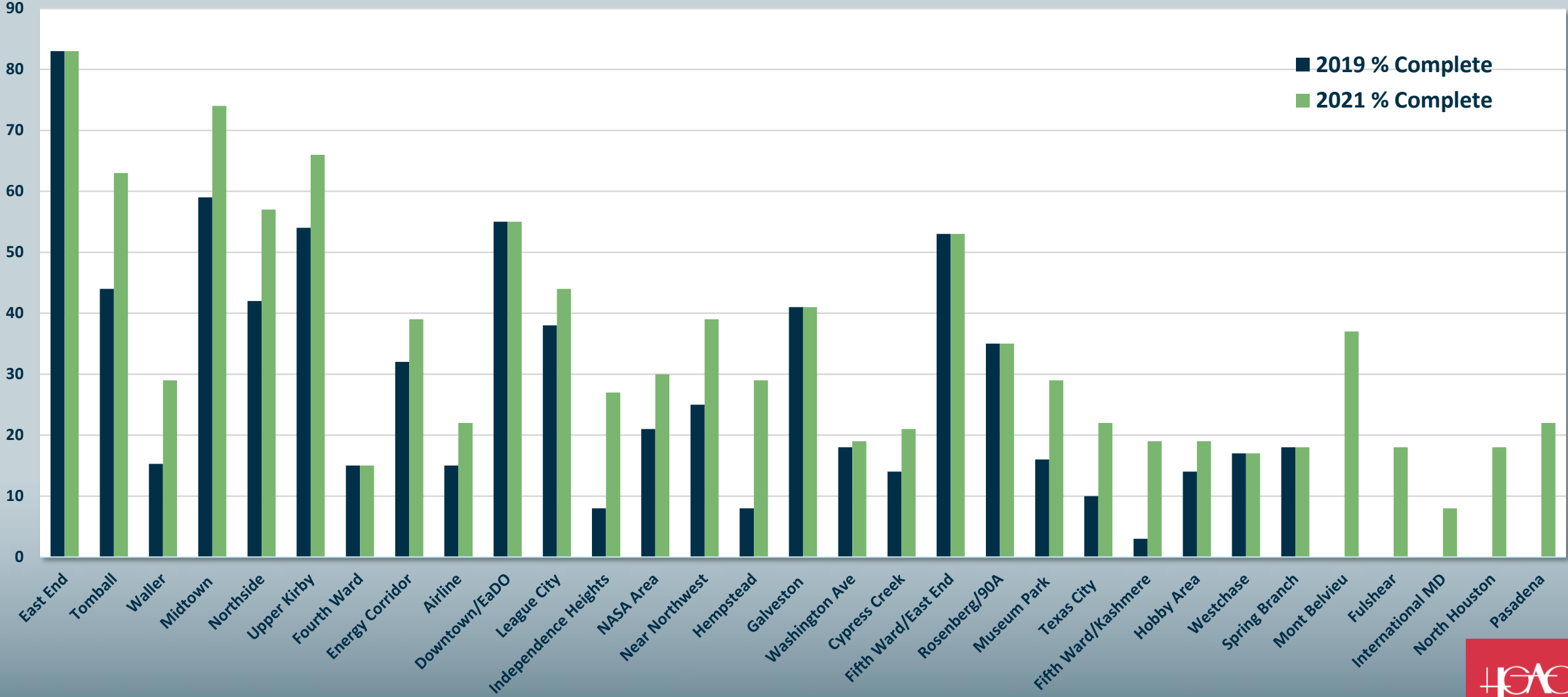
City Of Waller: Complete Projects



STATUS

- **2021** – On Track
- **2019** – Pending Implementation

2021 Livable Centers Update





Growing Innovative Partnerships



Local Sponsor Feedback

Groundwork Completed:

- GIS/Maps of Recommendations
- Program Tracker
- Livable Centers Story Board

2021 Feedback:

- Leverage Resources
- Continuity
- Capacity Building



Workshop Agenda



Performance-Based Criteria:
Identifying & Developing Projects



Monisha Khurana
Chief Operations Officer,
Goodman Corporation

NH Sidewalk Planning:
Post Plan Diversified



Bart Baker
Executive Vice President,
North Houston District

Houston Resilient Sidewalks:
Funding & Critical Paths



Donald Bauku
Urban Design Studio Lead,
Houston Public Works



Mukul Malhorta
Principal & Director,
MIG Company

Agenda Cont...



Mobility Funding
& Self Assessment



Adam Beckom
Manager
H-GAC

Safety Planning Success



David Fink
Manager,
H-GAC

Mobility Count
Program & Transit Pilot
Program



Susan Jaworski
Senior Planner
H-GAC

Future Funding Potential



Allie Isbell
Assistant Director,
H-GAC



LIVABLE CENTERS

FINDING THE MONEY:
Get Projects Prepped for Funding

Performance-Based Planning

Identifying & Developing Projects



Presented by:

Monisha Khurana, AICP

Chief Operations Officer, The Goodman Corporation

PRESENTATION OVERVIEW



AGENDA

- Learn about **processes** used to identify and advance mobility projects from **concept to implementation**.
- Discover how to evaluate projects based on **performance metrics and societal benefits**, including concepts of benefit-cost analyses.
- Understand how to develop projects to be considered for discretionary **funding opportunities**.

OVERVIEW



We live in communities with **more infrastructure needs than public funding available.**

Livable Centers studies present recommendations that often require additional discretionary funding to implement. Thus, important projects and recommendations might be stuck in a “design concept” holding pattern for years.

Using a phased process, the **Performance Based Funding Strategy** prioritizes projects that provide the greatest societal benefits and are most likely to attract outside sources of funding.

GOALS & OUTCOMES



GOALS OF PLANNING EFFORT

- Gather information and feedback from community and stakeholders
- Make wise and data supported decisions
- Examine complexity and need of all projects
- Prioritize projects through key performance measures
- Prepare high ranking projects for implementation
- Pursue supplemental and discretionary resources



OUTCOMES

- Public and stakeholder consensus
- Planning, developing, and delivering needed projects
- Funding partnerships and innovative solutions

PHASE I PROJECT NEEDS ASSESSMENT



- Review **Livable Centers** study, including:
 - Public/stakeholder input
 - Project need
 - Mobility goals and objectives
 - Project scope



Dayton, TX – Existing Conditions



PHASE I PROJECT NEEDS ASSESSMENT

Evaluation criteria for needs-based analysis



Evaluation metrics



Safety

- 5-Year Avg of Pedestrian Crashes
- 5-Year Avg of Bike Crashes
- 5-Year Avg Monetized Values of Injuries (in Millions)
- 5-Year Crash Rate (2016-2020)
- High Injury Network Coverage



Economic Development

- Residential and Commercial Values in Millions
- Acres of Vacant Land Abutting Project
- Number of Employees within 500 ft.
- Share of Project in Opportunity Zone



Mobility

- SOGR/Pavement Condition
- Functional Classification
- 2020 AADT
- 2020 Weighted Average AM VC Ratio
- 2020 Weighted Average PM VC Ratio



Environmental Justice & Equity

- Social Vulnerability Index
- Total Population
- Population Density (Population per square mile)
- Share of Project in Areas of Persistent Poverty
- Households below poverty level
- Minority population
- Households with no vehicles



Access

- Transit Connection
- Average Weekday Daily Activity Per Stop
- Bike Plan Network Coverage
- Number of Schools within 500 ft.
- Number of Title 1 schools (2021 TEA) within 500 ft.
- Number of Parks within 500 ft.
- Number of Ped-Bike Destinations



Public Engagement

- Survey preferences

PHASE I PROJECT NEEDS ASSESSMENT



**What is important to the community?
How are funding partners evaluating selections?**

Example evaluation

Criteria	Evaluation Weight
 Safety	25%
 Mobility	15%
 Access	25%
 Economic Development	10%
 Environmental Justice & Equity	15%
 Public Engagement	10%

PHASE I PROJECT NEEDS ASSESSMENT

(Example) Needs based analysis in Near Northwest Management District



NEED

The segment provides safe bike-ped connections to Turner Park along segments of TC Jester Blvd and De Soto St. This stretch has been identified under Complete Communities Action Plan as a prioritized bike-ped connection that furthers equitable access in the community. Overall, the project needs can be quantified as:

- Storm water
- Safety
- Mobility
- Economic development
- EJ/Equity

Project Type	Project Rank	Storm Water Rank	Safety Rank	Mobility Rank	Economic Development Rank	Enviromental Justice and Equity Rank
Safety	4	5	2	6	2	2
Back of Curb	1	5	6	2	1	3
Reconstruction	3	1	8	15	3	11
Reconstruction	2	2	12	9	9	6
Safety	5	5	4	8	4	9
Shared Use Path	12	5	1	14	6	10
Safety	7	5	13	4	5	5
Reconstruction	10	4	14	10	8	15
Reconstruction	8	5	9	5	12	4
Shared Use Path	11	5	15	12	10	1
Back of Curb	13	5	11	7	7	7
Safety	6	5	3	1	12	14
Safety	14	5	7	13	12	8
Shared Use Path	15	5	5	11	11	13
Back of Curb	9	5	10	3	15	12
New Roadway	16	3	16	16	16	16
Safety	17	5	17	17	17	17

Needs based Analysis – Near Northwest Management District

PHASE II PROJECT DEVELOPMENT

Preliminary Engineering



- Detailed scoping and cost estimates
- Feasibility review
 - Review ROW
 - Utility review
 - Preliminary NEPA review
 - Complexity/barriers to implementation



Preliminary Engineering – Near Northwest Management District

PHASE III PROJECT EVALUATION

Performance Measures



Does the project provide societal benefit?

Benefits include:


- Safety
- Congestion
- Environmental (emissions reduction, reduced automobile cost)
- Health
- Sales and property tax
- State of good repair (life cycle cost analysis)
- Travel time reliability
- Ridership and users (non-motorized modes)
- Access, connectivity and barrier elimination
- Job creation/creation/attention

BENEFIT COST ANALYSIS

Does the project provide societal benefits?



- Certain benefits can be quantified in accordance with USDOT and other guidelines
- BCA needs to be greater than 1 to show societal benefit and cost-effectiveness
- Funding agencies and programs can have varying methodologies



SHEPHERD AND DURHAM MAJOR INVESTMENT PROJECT HOUSTON, TX 2019 BUILD APPLICATION

PROJECT OVERVIEW
The Shepherd and Durham Major Investment Project

TYPE OF PROJECT
Road – Complete Streets

PROJECT LOCATION
The proposed project is located within the City of Houston, Harris County, Texas within the 2nd and 18th Congressional Districts of Texas. (29°48'13.52"North 95°24'40.46"West)

PROJECT SPONSOR
The Memorial Heights Redevelopment Authority, a Political Subdivision of the City of Houston, Texas

PROJECT AREA
The proposed project is located within the Houston urbanized area.

2019 BUILD FUNDING REQUESTED
\$25,000,000 in BUILD funding to be matched by \$25,000,000 in local funding.

- 1 Improve Safety**
Crash Reduction
 - Safety improvements for automobiles, pedestrians and bicyclists
- 2 Manage Infrastructure Assets**
Improved Pavement Condition & Public Utilities
 - Upgrade storm water lines
 - Replace waste and fresh water lines
- 3 Move People and Goods Efficiently**
Improved access, connectivity and multimodal travel choices
 - Improved access management
 - ADA compliant infrastructure
 - Additional demand for pedestrian, bike and transit users due to improved urban streetscape elements and connection to regional shared use path system
- 4 Strengthen Economic Competitiveness**
Improved travel time reliability and increased transit usage
 - Improvement in travel time reliability for automobiles and freight traffic
 - Improved transit shelters and stop accessibility
 - High-frequency fixed route transit corridor that will connect to future regional transit improvements such as the High-Speed Rail terminus
- 5 Protect Resources**
Emissions reductions and environmental impact mitigation
 - Reduced emissions through increased alternative mode choice options
 - Improved regional storm water detention needs
 - Connectivity to other non-motorized infrastructure

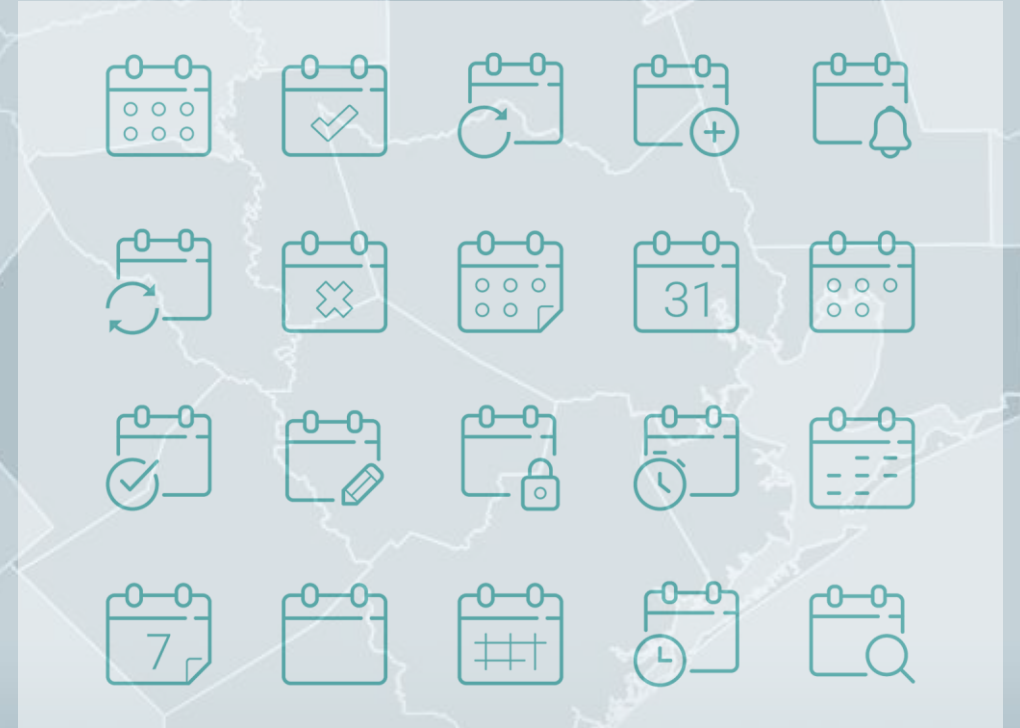
Total Benefits | **Total Costs** | **Benefit Cost Ratio 2.3**

Benefit Cost Analysis Overview – BUILD Grant Application

PHASE IV PROJECT READINESS



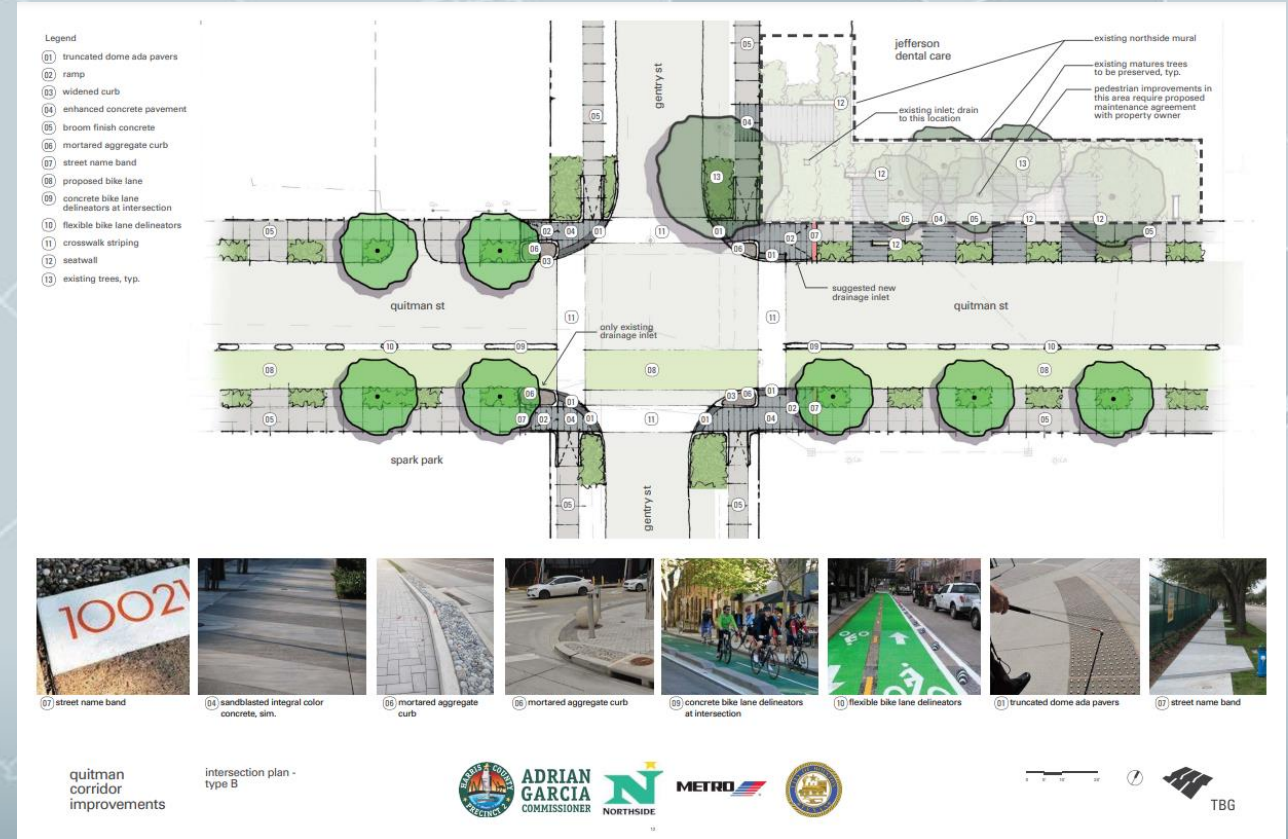
- Establish ROW & Utility Agreements
- Secure Financial Commitments
- Complete Coordination and Agreements
- Develop Project Schedules
- Attain Environmental Clearance
- Complete PER / 30% design
- Letter of No Prejudice (if applicable)



PHASE V PROJECT IMPLEMENTATION



- Discuss Projects with Local, Regional, State, and Federal Officials
- Coordinate with special districts and private development interests
- Monitor Federal Register for Funding Opportunities
- Pursue Federal, State, MPO and Other Funding



Quitman Corridor Improvements – Public Meeting Presentation

FUNDING SOURCES

Bridges

Bridge Investment Program - USDOT

Clean Air

Texas Clean Fleet Program - TCEQ

Economic Development Infrastructure

Mobility Infrastructure

Multimodal/Multimodal Planning

Rail

Railroad Crossing Elimination Program - FRA

Resiliency

Consolidated Rail Infrastructure and Safety Improvements - FRA

Safety

Building Resilient Infrastructure and Communities - FEMA

Transit

Water/Wastewater/Stormwater

Passenger Ferry Grant Program - FTA
 Bus and Bus Facilities - FTA
 Low or No Emission Bus Grant Program - FTA
 Transit Infrastructure Projects - FTA
 Transit Oriented Development Pilot - FTA
 Areas of Persistent Poverty - FTA

Public Works Program - EDA
 Disaster Supplemental Programs - EDA
 Economic Development Initiatives - HUD
 TxCDBG Program - TxAg
 Rural Innovation Stronger Economy Program - USDA

Highway Infrastructure Projects - FHWA
 Reconnecting Communities - USDOT
 Infrastructure for Rebuilding America - USDOT
 Rural Surface Transportation Grant Program - USDOT
 RAISE Program - USDOT

Congestion Mitigation Air Quality - H-GAC
 Surface Transportation Block Grant - H-GAC
 Transportation Alternatives - H-GAC & TxDOT
 Recreational Trails Program - TPWD
 Unified Planning Work Program - H-GAC
 Livable Centers Program - H-GAC

(Off-System) Highway Safety Improvement Program - TxDOT
 Safe Roads and Streets for All - USDOT


Flood Mitigation Assistance - FEMA
 Flood Infrastructure Fund - TWDB
 Clean Water State Revolving Fund - TWDB
 Drinking Water State Revolving Fund - TWDB
 Economically Distressed Areas Program - TWDB
 State and Tribal Assistance Program - EPA

SELECT EXAMPLE: DAYTON, TX

Finding projects to fit the need

- **2018 H-GAC Call for Projects**
 - Waco St. RTP Designation
- **2019 TxDOT TA/SRTS Program Call**
- **2019 Downtown Revitalization (CDBG)**
- **2020 Consolidated Rail Infrastructure Safety Initiatives (CRISI)**

1A NORTH SOUTH SIDEWALK CONNECTION



PROJECT PURPOSE
This project will enhance pedestrian connectivity in the City of Dayton through filling in gaps in the sidewalk network. This project will provide alternative transportation that is safe, accessible and healthy for school children traveling to and from the Kimmie M. Brown Elementary School and Dayton Community Center. A dedicated, contiguous sidewalk would provide a safe path for pedestrians.

PROJECT NEED
Dayton lacks north-south connectivity for pedestrians south of US90, and existing sidewalks have gaps that do not allow for a contiguous path to and from the downtown area to the Kimmie M. Brown Elementary School. Currently, elementary school students are not allowed to walk to school for safety reasons. Cars travel at high speeds along Winfree Street, resulting in unsafe conditions for any pedestrians who currently walk along the roadway.

PROJECT LOCATION & SCOPE
The project will add a 6-foot concrete sidewalk along various segments including the west side of S. Cleveland Street between W. Houston Street to Lovers Lane; the north side of Lovers Lane between S. Cleveland Street and FM1409 and the west side of FM1409 between Lovers Lane and Kimmie Brown Elementary School. The total project length is approximately 0.64 of a mile. ADA ramps and crosswalks will be added or restriped as part of this project.

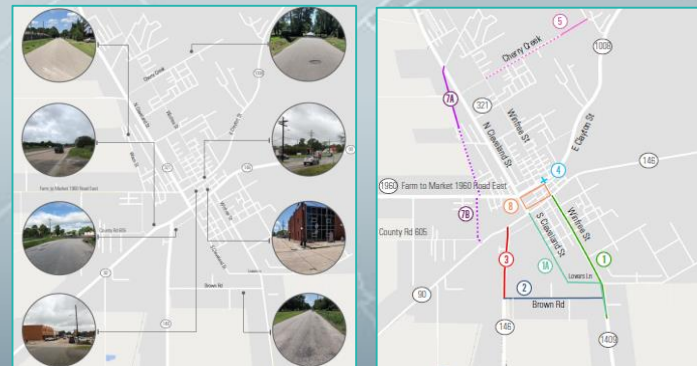
PROJECT CONNECTIVITY

- 2 churches
- Along the Brazos Transit District route (Liberty & Dayton Community Circular)
- Jones Public Library
- 2 schools (Kimmie M. Brown Elementary and Nottingham Middle School)
- Dayton Community Center

CONSTRUCTION COST
\$403,000

SOFT COSTS
\$222,000

TOTAL COST
\$625,000



SELECT EXAMPLE: **WALLER, TX**



Livable Centers Study Implementation

2022: **A revitalized downtown and improved connectivity**

2009 Livable Centers Study



SELECT EXAMPLE: INTERNATIONAL MANAGEMENT DISTRICT

A Project in Progress

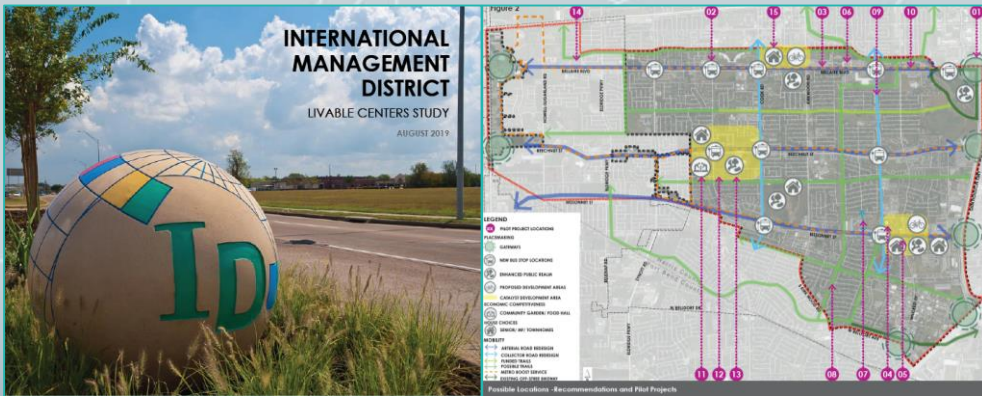
2019 Livable Centers Study



Existing Intersection at Bellaire Blvd and Metro Blvd

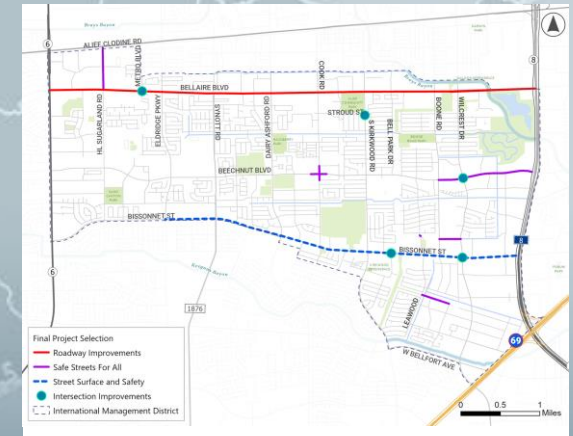
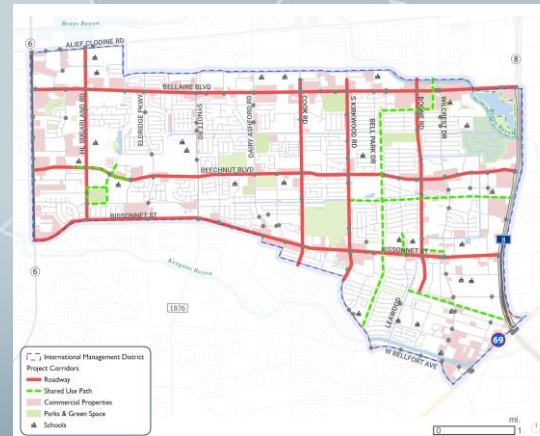


Proposed Intersection improvements at Bellaire Blvd and Metro Blvd



Prepared By Stantec

A COLLABORATION



THANK YOU!



CONNECTING CAPITAL TO COMMUNITIES SINCE 1980

We solve mobility and infrastructure challenges that impact communities. TGC connects planning, engineering and policy expertise to deliver projects when local capital is scarce.



Monisha Khurana, AICP
Chief Operations Officer, The Goodman Corporation
mkhurana@thegoodmancorp.com
(713) 951-7951
Houston + Austin, TX

Questions?



Getting Projects Prepped For Funding



North Houston Sidewalk Kickoff: Post Plan Diversified

**Bart Baker Executive Vice President & COO
North Houston District**

North Houston/Greenspoint Livable Centers Study



NORTH HOUSTON GREENSPOINT

Livable Centers Study

- Year: 2020
- Partner/Sponsor: North Houston District
- Cost of Study: \$218,250
- Projects Built/Invested: \$75K
- Projects Planned/Programmed: \$80K
- Capacity to Implement: MEDIUM
 - CIP Sidewalk and bikeways, 2021 & 2022
 - Continue Gateway & Landscaping improvements
 - Flood Recovery & Resilient Neighborhood study

ON TRACK

18%
complete

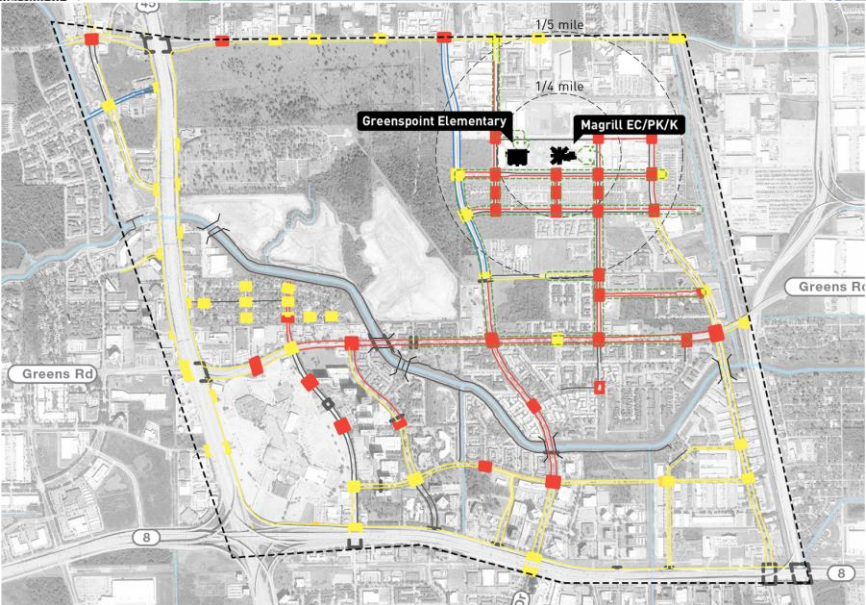
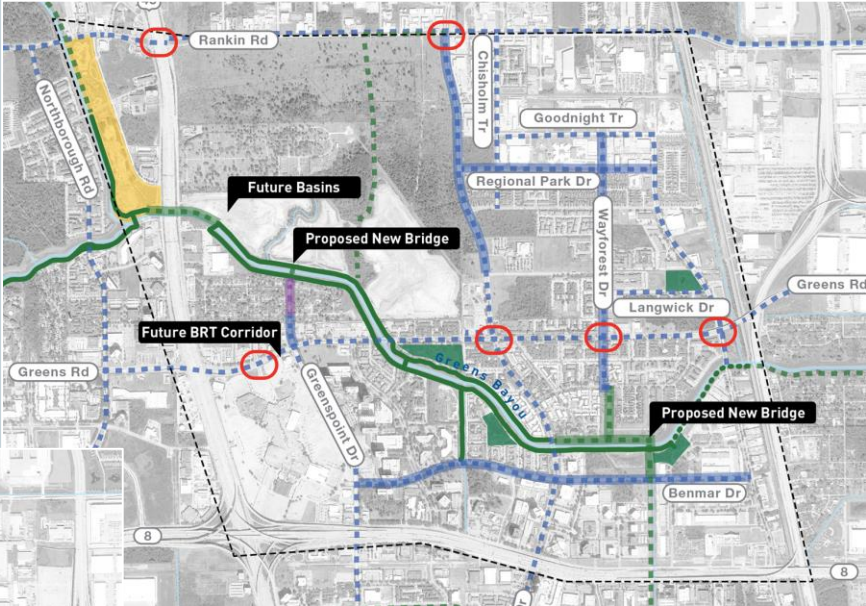
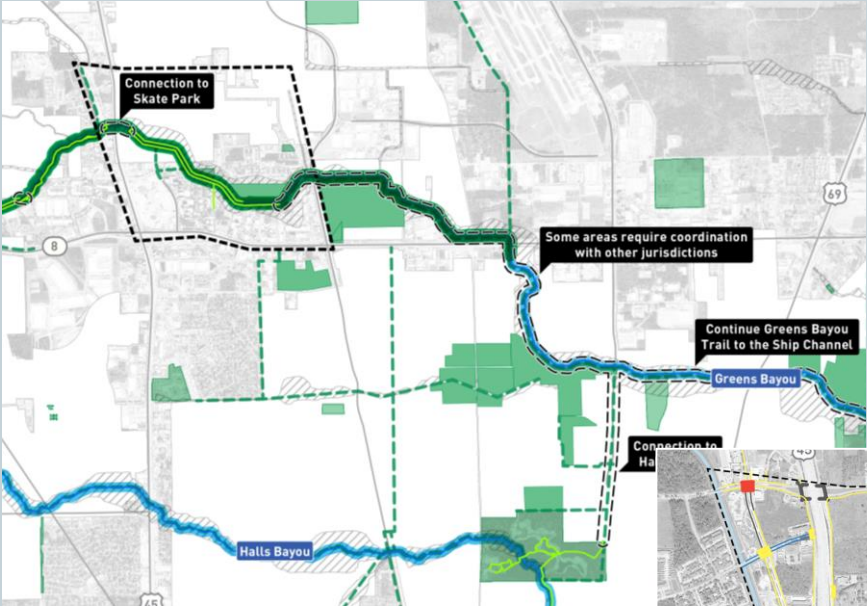
“ Study offers solutions to many of the challenges in our area and builds on strategies we’ve been working on for many years. We look forward to continuing working with the City of Houston, Harris County and our other partners to implement these recommended projects. ”

Bart Baker
North Houston District
Executive VP & Chief Operating Officer

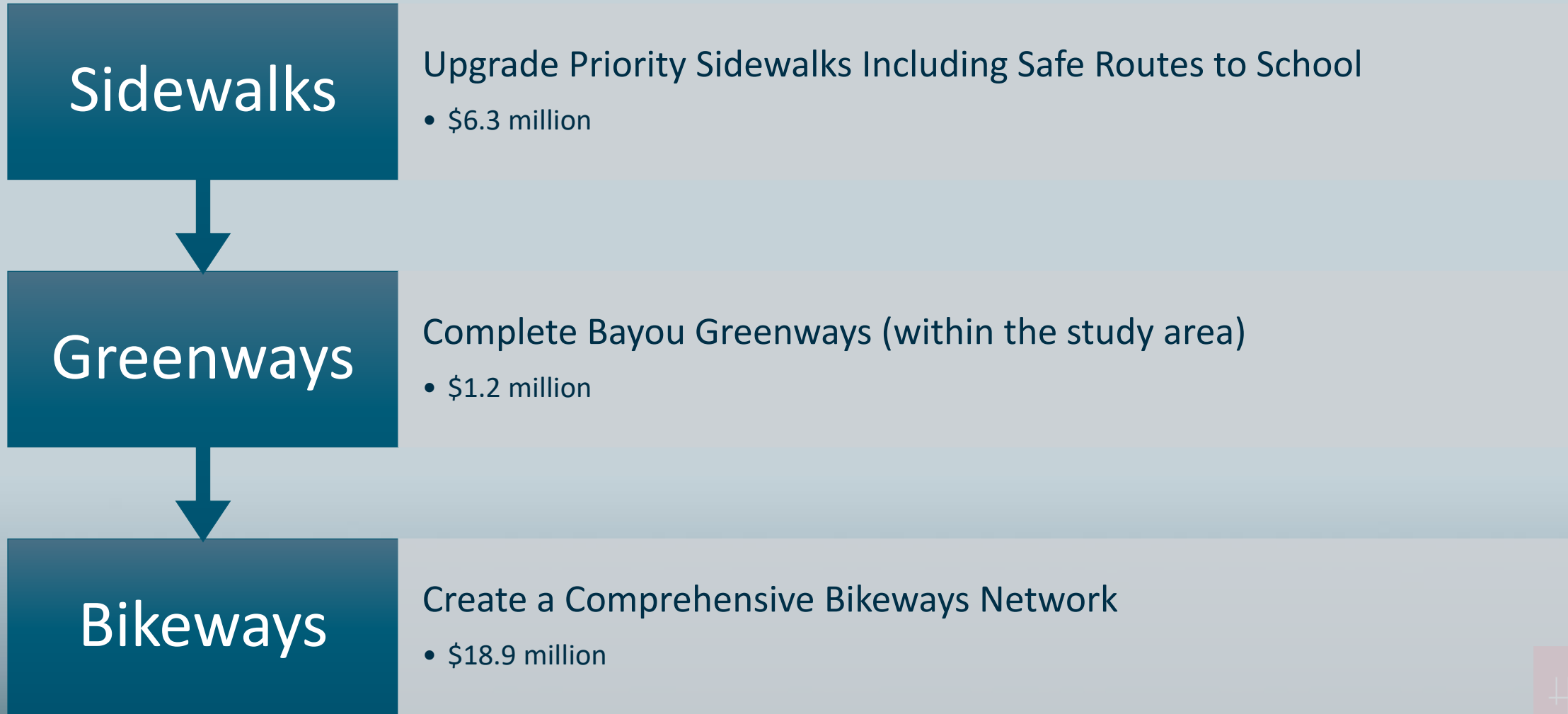
NHD Livable Center Study Goals

- Be the Local – Regional – International Hub of Houston
- Be a Model for Safe Places to Walk and Bike
- Be defined by a Central Park that Holds Floodwater
- Be a Place that Offers Accessible, Affordable Housing for the Region

Trail, Bikeway and Sidewalk Connectivity



Livable Centers Project Cost Estimates



Sidewalk & Intersection Assessment & Implementation Plan

Sidewalks were prioritized by the following criteria by Gauge Engineering:



Safe School Access



Transit Access



Greens Bayou Access



Complexity of construction due to constraints

Additional Study Goals

- ✓ Coordination with the City and County
- ✓ Typical Sections of recommended sidewalks
- ✓ Opinion of Probable Construction Cost

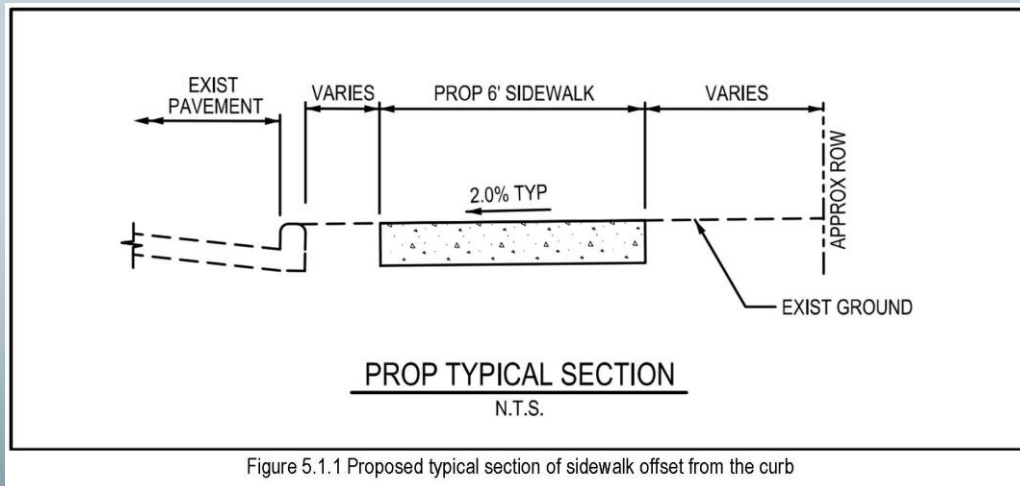


Figure 5.1.1 Proposed typical section of sidewalk offset from the curb

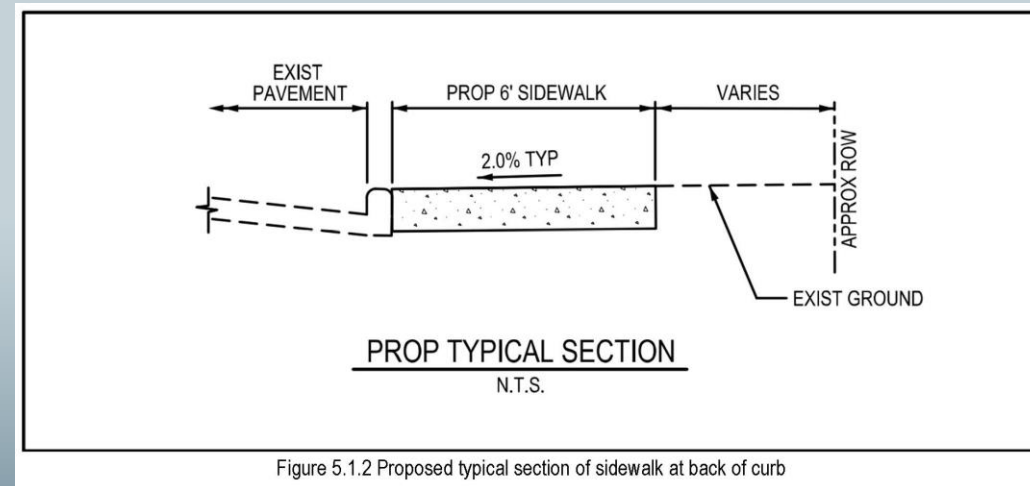
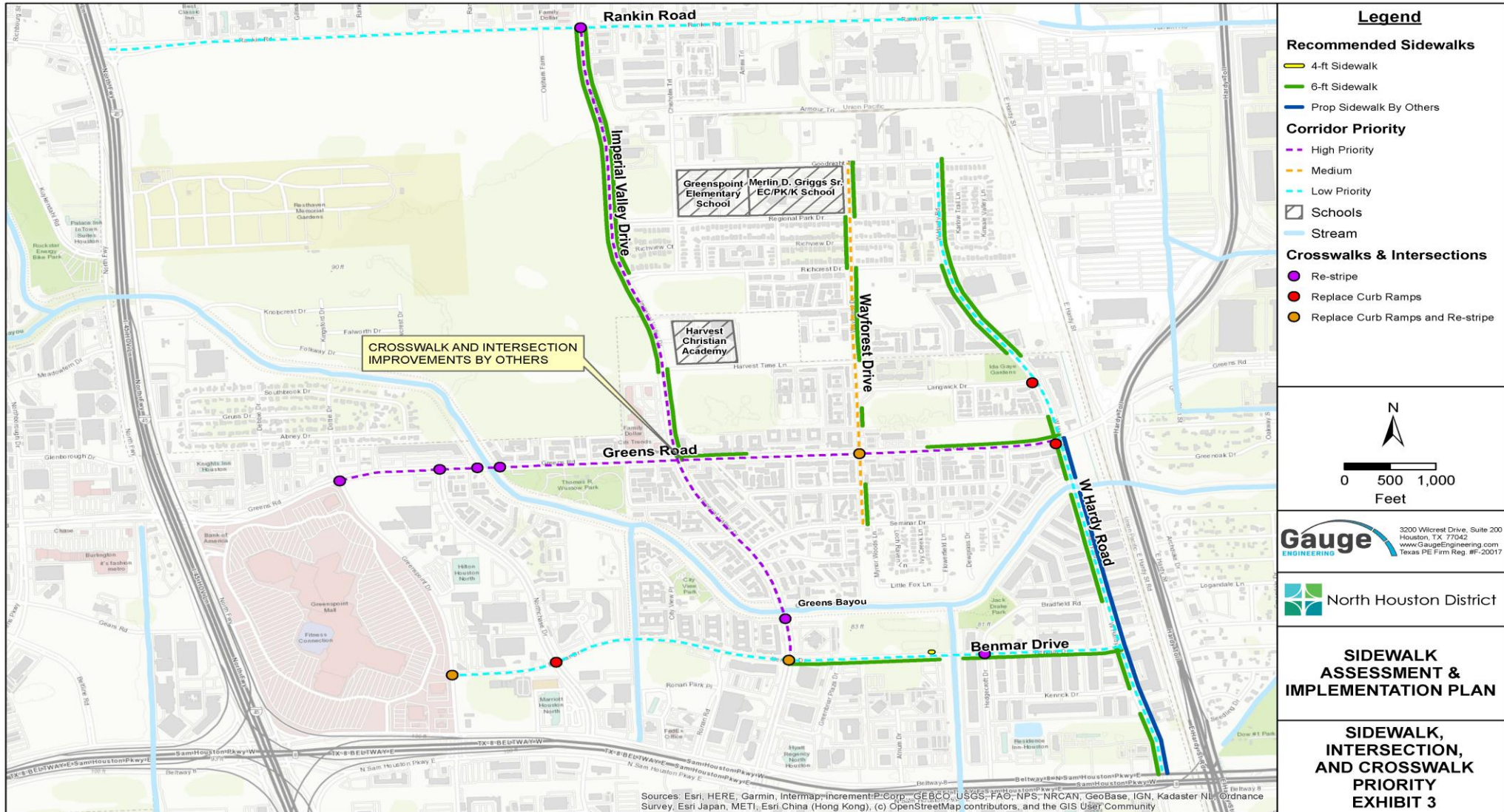


Figure 5.1.2 Proposed typical section of sidewalk at back of curb

Sidewalk and Intersection Priorities



Preparing for Grant Opportunities

- **Urban Partnerships Community Development Corporation (UPCDC):**
 - Identify Mobility Projects: Based on NHD resources and jurisdiction
 - Identify Grants: Based on mobility project identification, assist in application and management of grants.
- **Two Primary Ways to Diversify Potential Funding:**
 - Federal Grantee status
 - Prepare for TIP Call for Projects in partnership with Traffic Engineers Inc. (TEI)

Federal Grantee Status

- Allows NHD to apply for grants directly through the TIP process and fully execute the grant when awarded.
- Gives greater opportunity for NHD to submit a grant application to specifically fit the needs and priorities of the district; procuring and overseeing the design and engineering of the project; and procuring and overseeing the GC to build the projects.
- Requirements include Title VI Plan, EEO Plan, DBE Plan and procurement manuals

HGAC TIP Call For Projects

- UPCDC and TEI developed a project package of a community multimodal spine that consists of sidewalk, intersection and transit improvements along Imperial Valley Drive and Greens Road.
- Project will connect transit, schools, parks, and trails with mobility options. These improvements will form an initial grid of safe and comfortable connections for people to get to work, school, recreation, or other daily needs in the North Houston District.
- This project is a crucial early step in implementing the Livable Centers Plan.

TIP Statement of Project Interest

- **Imperial Valley Walking & Biking Improvements**
 - \$2.8 million
- **Wayforest to Seminar Safety & Access Improvements**
 - \$776,000
- **I-45 Trail Connector**
 - \$1.3 million
- **Jack Drake Park to West Hardy Trail Connector**
 - \$390,000

Thank you

Bart Baker
Executive Vice President,
North Houston District
bbaker@northhouston.org





Houston Resilient Sidewalks

Donald Buaku, City of Houston | Mukul Malhotra, MIG Inc.

Quick Background

Houston Public Works Sidewalk Program constructs new sidewalks and ramps along streets leading to schools, major thoroughfares and improves accessibility for people with disabilities*.

*The Pedestrian Accessibility Review process is managed through the Mayor's Office for People with Disabilities

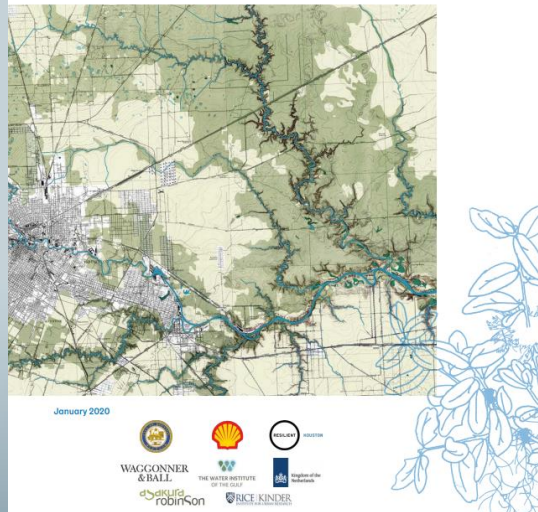
CODE
The Sidewalk Program is governed by [Code of Ordinances Article III, Sections 40-83 & 84](#)

PROGRAMS
The Sidewalk Program has three types of requests.

PROGRAM REQUEST	SIDEWALK UP TO	ELIGIBILITY
Pedestrian Accessibility Review	1,500 feet	Person with disability has no safe path to travel to: <ul style="list-style-type: none"> - bank - bus stop - educational facility - employment - grocery store - place of worship - home - medical facility - METROLift - pharmacy - vehicle
School Sidewalk	4 blocks	Used by students to walk to school Not around school perimeter Not on dead-end street
Major Thoroughfare	4 blocks	Along designated thoroughfare No existing sidewalk Evidence of pedestrian traffic no future reconstruction or improvements planned within the next 5 years

Pedestrian Accessibility Review
The highest priority projects come from the Mayor's Office for People with Disabilities Pedestrian Accessibility Review process. The request provides up to 1,500 feet of improved sidewalk accessibility for people with disabilities to safely travel to the bank, bus stop, educational facility,

Living With Water™ Houston



RESILIENT HOUSTON

HOAC **LIVABLE CENTERS STUDY**
PREPARED BY ASAKURA ROBINSON WITH: GOLDBER & ASSOCIATES

City of Houston, Texas, Ordinance No. 2020 - 684

AN ORDINANCE AMENDING CHAPTER 1, CHAPTER 10, CHAPTER 26, CHAPTER 33, CHAPTER 40, AND CHAPTER 42 OF THE CODE OF ORDINANCES, HOUSTON, TEXAS, RELATING TO ESTABLISHING STANDARDS FOR WALKABLE PLACES IN THE CITY AND AMENDING RELATED PROVISIONS FOR TRANSIT ORIENTED DEVELOPMENT; ESTABLISHING FEES; PROVIDING FOR SEVERABILITY; ESTABLISHING AN EFFECTIVE DATE; CONTAINING FINDINGS AND OTHER PROVISIONS RELATED TO THE FOREGOING SUBJECT; AND DECLARING AN EMERGENCY.

WHEREAS, the City of Houston, Texas, (the "City") in the exercise of its lawful authority may enact police power ordinances to promote and protect the health, safety, and welfare of the public; and

WHEREAS, the City is a municipal corporation and home rule city organized under the Constitution and the general and special laws of the State of Texas, and thereby

Walkable Places Rules

Learn how you can create a Walkable Place



CITY OF HOUSTON HOUSTON PUBLIC WORKS

INFRASTRUCTURE DESIGN MANUAL

CAROL ELLINGER HADDOCK, P.E., DIRECTOR

HOJIN LIM, P.E., CFM, CITY ENGINEER

JULY 2020 **HOUSTON PUBLIC WORKS**

KASHMERE GARDENS COMPLETE COMMUNITIES ACTION PLAN

HEALTHY LIVING MATTERS

BUILT ENVIRONMENT & FOOD

Connecting Policy to the Future
A Healthy Living Centers Checklist (Open-Process Collaboration)

KASHMERE GARDENS COMPLETE COMMUNITIES ACTION PLAN

Mayor Sylvester Turner
City of Houston
Planning and Development Department
December 2020

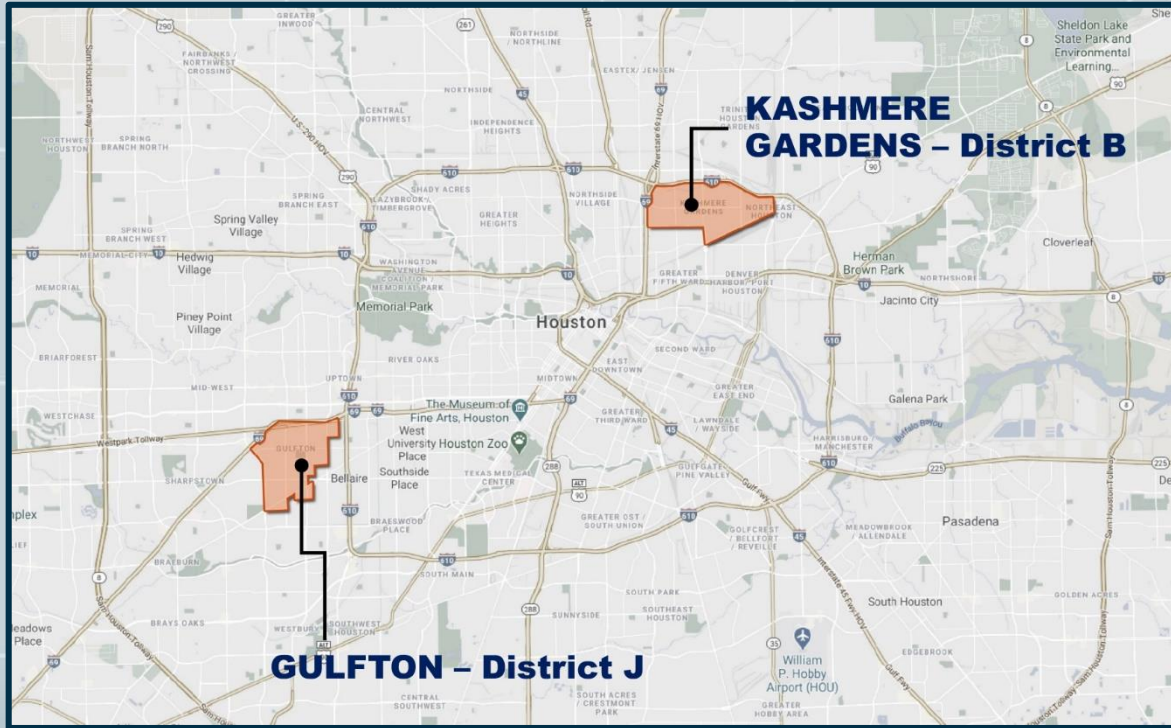
Quick Background



- **August 2017:** Hurricane Harvey devastates Houston
- **CDBG DR 17** (Disaster Recovery) funding received by COH for planning activities.
 - 6 Resilience Planning Studies,
 - 1 modeling effort,
 - 1 Hazard Mitigation Plan, and
 - 3 Housing planning support initiatives



Project Description



- Two Neighborhood Sidewalk Plans
 - Kashmere Gardens
 - Gulfton
- City-wide toolkit.
- Address safety, drainage, accessibility, alternative materials, innovative design, **funding**, maintenance requirements, etc.

Project Description



- Planning level study
- Examine sidewalks for mobility and drainage
- Create a menu of options
- Contribute to a **Resilient Pedestrian Network**

Timeline



RESILIENT SIDEWALKS | CITY-WIDE TOOLKIT TIMELINE



STAKEHOLDER MEETINGS

#1

Kick-off meeting to discuss project goals, project schedule and overall components of the City-wide tool kit.

#2

Sidewalk mobility framework, for existing and new sidewalks – systems, connectivity, accessibility, ADA, interaction with other transportation/mobility systems.

#3

Resiliency, green stormwater Infrastructure, drainage, and flood mitigation, open ditch integration, with Houston-relevant solutions.

#4

Constructability, materials, innovative techniques, and Houston-relevant solutions.

#5

Funding mechanisms, legal implications, cost-benefit implications, potential City policy changes.

#6

Coordination with the City's Infrastructure Design Manual (IDM), phasing, implementation strategies, coordination with external agencies, overlay with other City initiatives and plans, potential city policy changes.

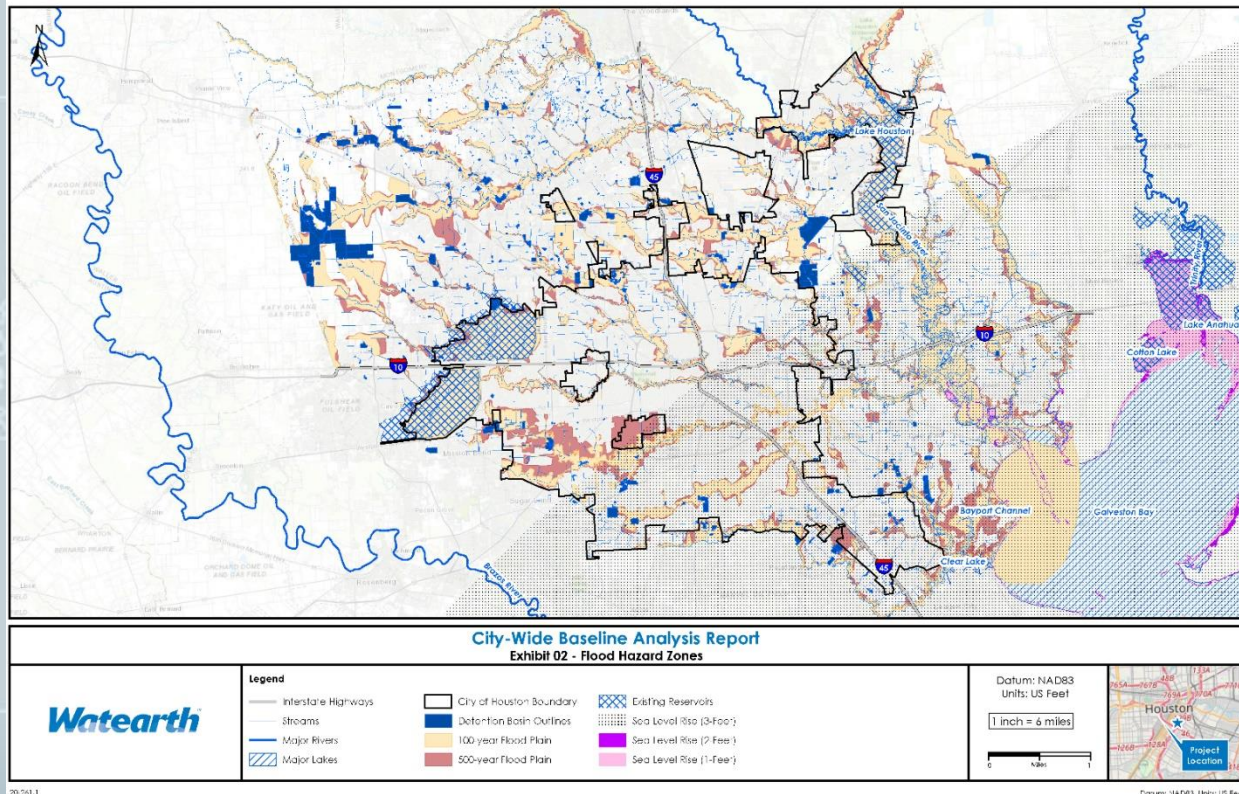
#7

Review the Draft City-Wide Tool Kit.

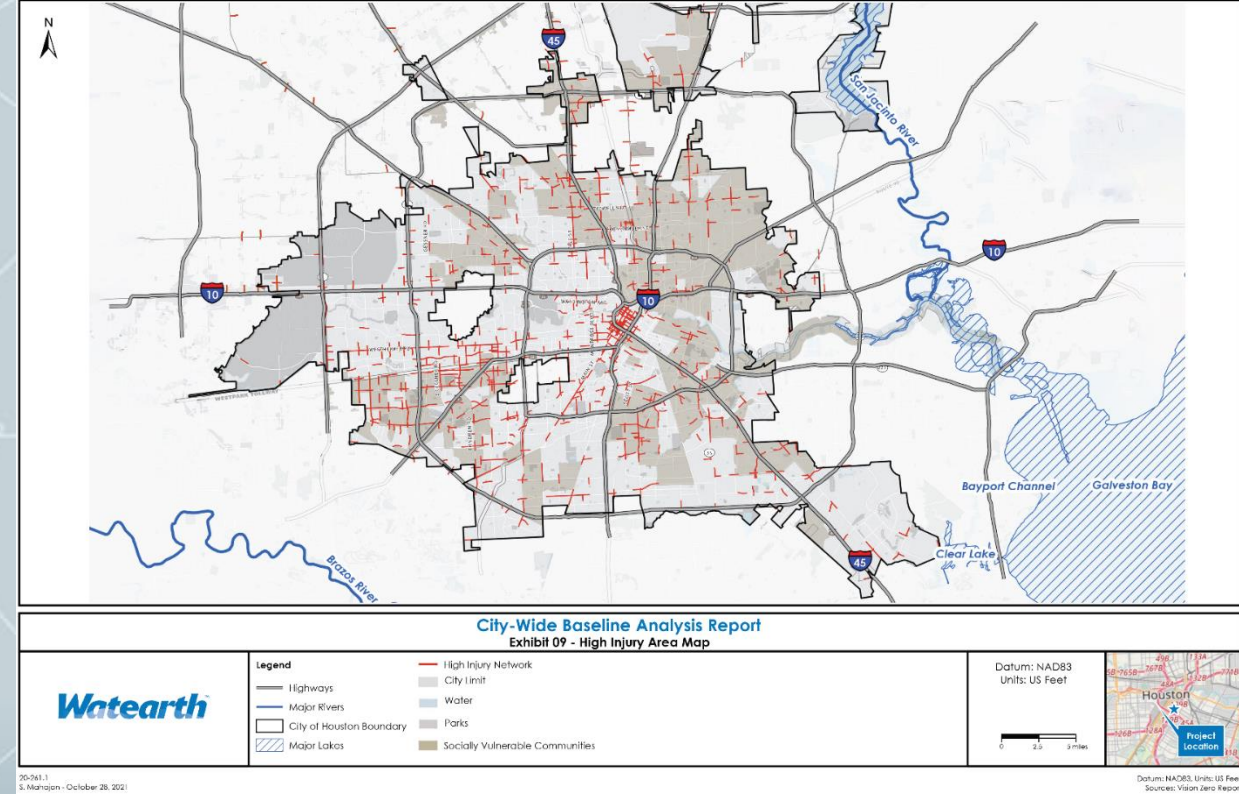
Key Milestones:

- o City-Wide Existing Conditions Analysis: Winter 2021
- o City-Wide Preliminary Concepts: Spring 2022
- o City-Wide Refined Concepts and Strategies: Summer 2022
- o City-Wide Draft and Final Report Documentation: Winter 2022

Regional Connection



Regional Flood Hazard Zones



High Injury Network (Vision Zero)

Community Involvement

Walking Improvements

- 85% Wider and Unobstructed Sidewalks
- 79% Improved Existing Crosswalks
- 57% New and More Frequent Opportunities to Cross the Street
- 72% Street Trees for Shade and to Help Calm Down Traffic
- 74% Street and Sidewalks that are Safe and Clear for the community clearly
- 70% Improved Bus Stops with Shelter and Lighting



Over
800
Respondents!

Existing Conditions

Open Ditch Existing Conditions

Legend

Drainage Conditions:

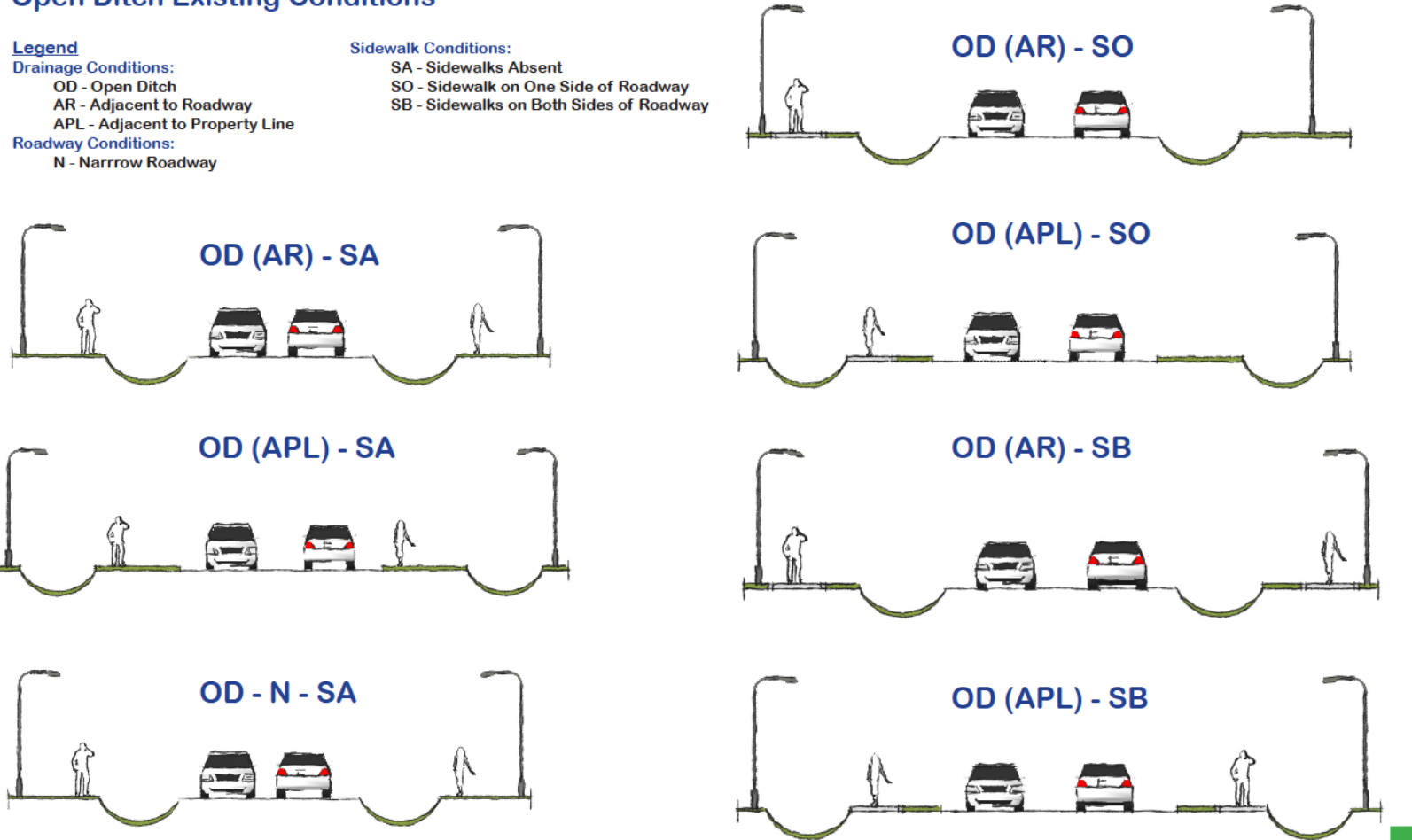
- OD - Open Ditch
- AR - Adjacent to Roadway
- APL - Adjacent to Property Line

Roadway Conditions:

- N - Narrow Roadway

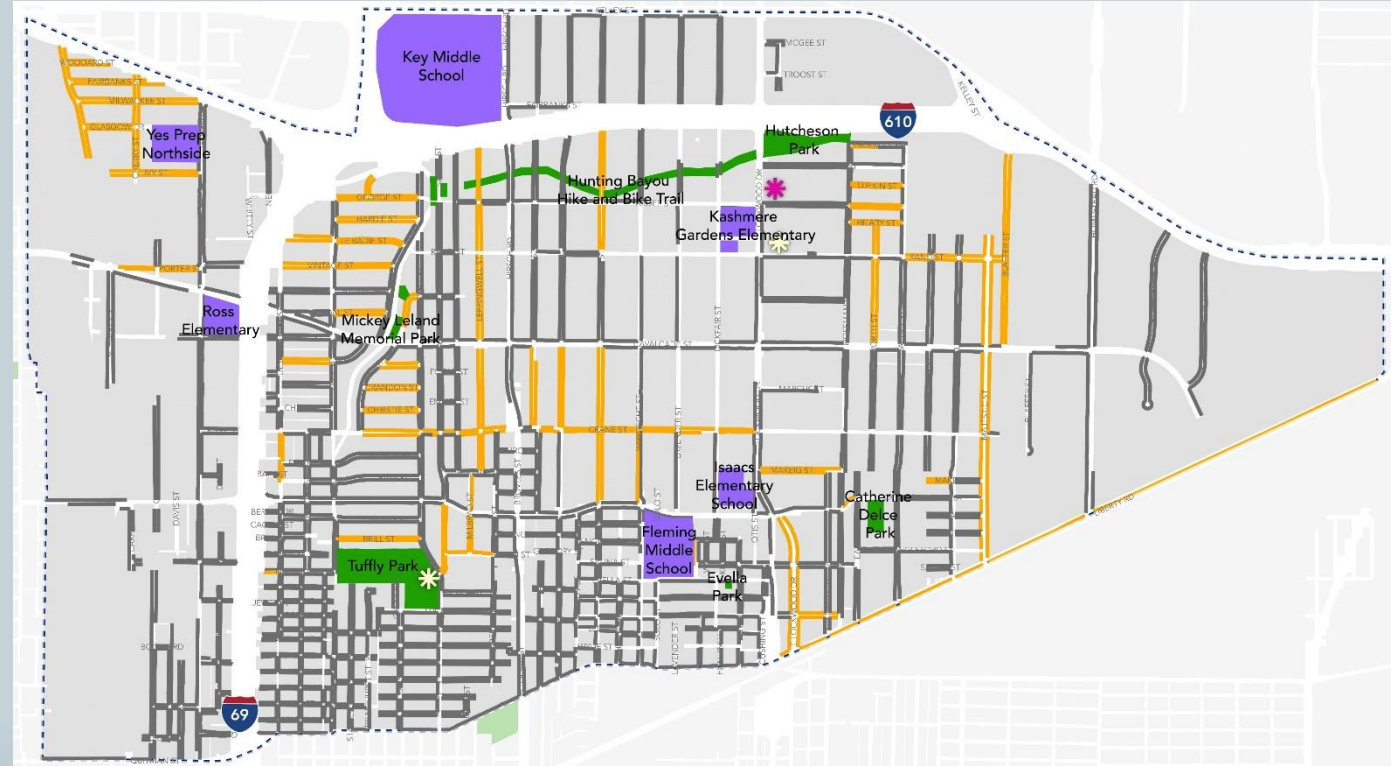
Sidewalk Conditions:

- SA - Sidewalks Absent
- SO - Sidewalk on One Side of Roadway
- SB - Sidewalks on Both Sides of Roadway



OD

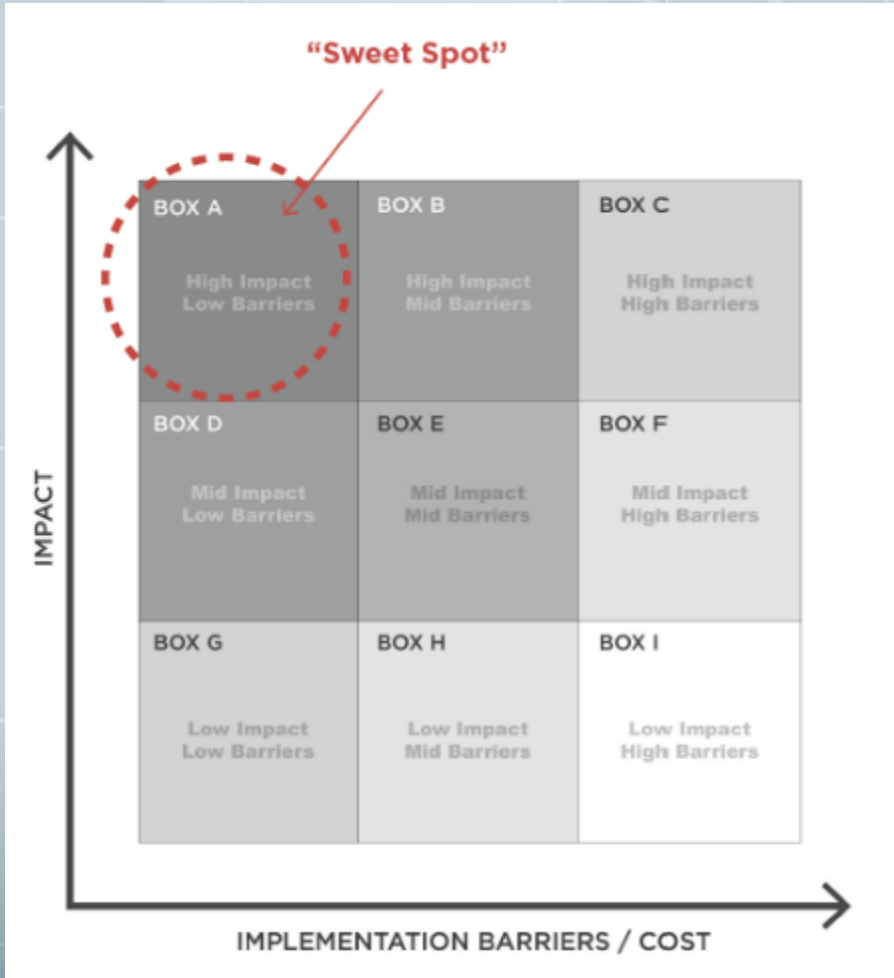
Emerging Concepts



Emerging Concepts



Prioritization & Phasing



- Develop a prioritization matrix to identify sidewalk scenarios/corridors that can be implemented first
- Identify ways to phase sidewalk projects to offer immediate mobility
 - Near Term – safe & accessible tactical solutions
 - Long Term – permanent capital projects as more funding becomes available

Available Local Funding

- Sidewalk Program (TDO-HPW-PDB)
 - Pedestrian Accessibility Review Program (MOPD & TDO-HPW-PDB)
 - School Sidewalk Program (HPW)
 - Major Thoroughfare Program (HPW)
- Council District Service Fund (CDSF) Program (TDO-HPW-PDB)
- Complete Communities Improvement Fund (Mayors Office)



Available Regional Funding

- Transportation Alternatives Set Aside (TA) Program (TxDOT H-GAC)
- Congestion Mitigation and Air Quality Improvement (CMAQ) (TxDOT H-GAC)
- Community Development Block Grant (CDBG) (HUD)
- Safe Streets and Roads for All (SS4A) Grant Program (USDOT)
- Management Districts
- Tax Increment Reinvestment Zones



- METRO General Mobility Program (METRO)
- Unified Transportation Program (UTP) (TxDOT)

Resiliency is Funding First!



↑
MOBILITY

↑
DRAINAGE

↑
FUNDING

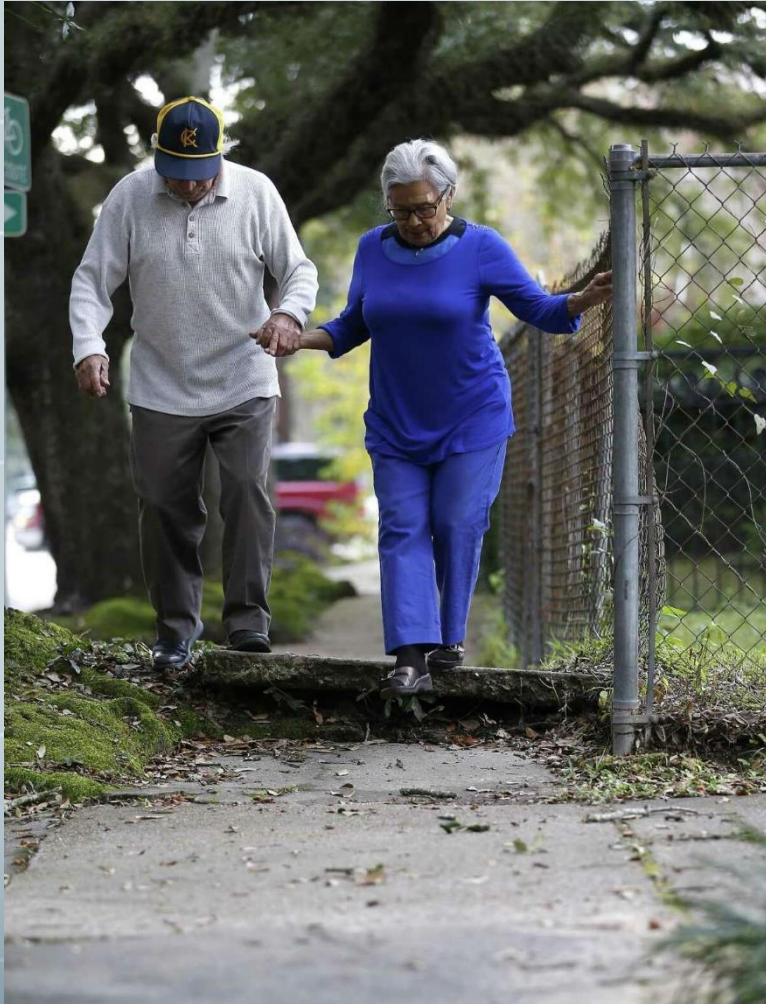
“While our toolkit will produce an actionable plan, without funding,... implementation is not likely.”

“We have to elevate the many barriers observed, including but not limited to, lack of neighborhood scale funding mechanisms, for further action.”

Resiliency is Funding First!



- The case of “Funding Deserts”



Actionable Next Steps



- Wrap up this Plan with an actionable toolkit
 - Plug into city docs like the IDM
 - Create a working document
 - Menu of options for all to work with
- Piggy-back on upcoming sidewalk inventory; create a priority list
- Identify grant funding and partnerships

Future Funding Strategies - COH



- Sidewalk Fee-in-Lieu (COH)
 - Developers of new construction to pay a fee instead of providing sidewalks
 - Projected revenue of \$1.8m
 - City divided into sidewalk service areas – 70% spent in area, rest City-wide
- Target Infrastructure Grants (IRA, IIJA)
- Other Strategies...?

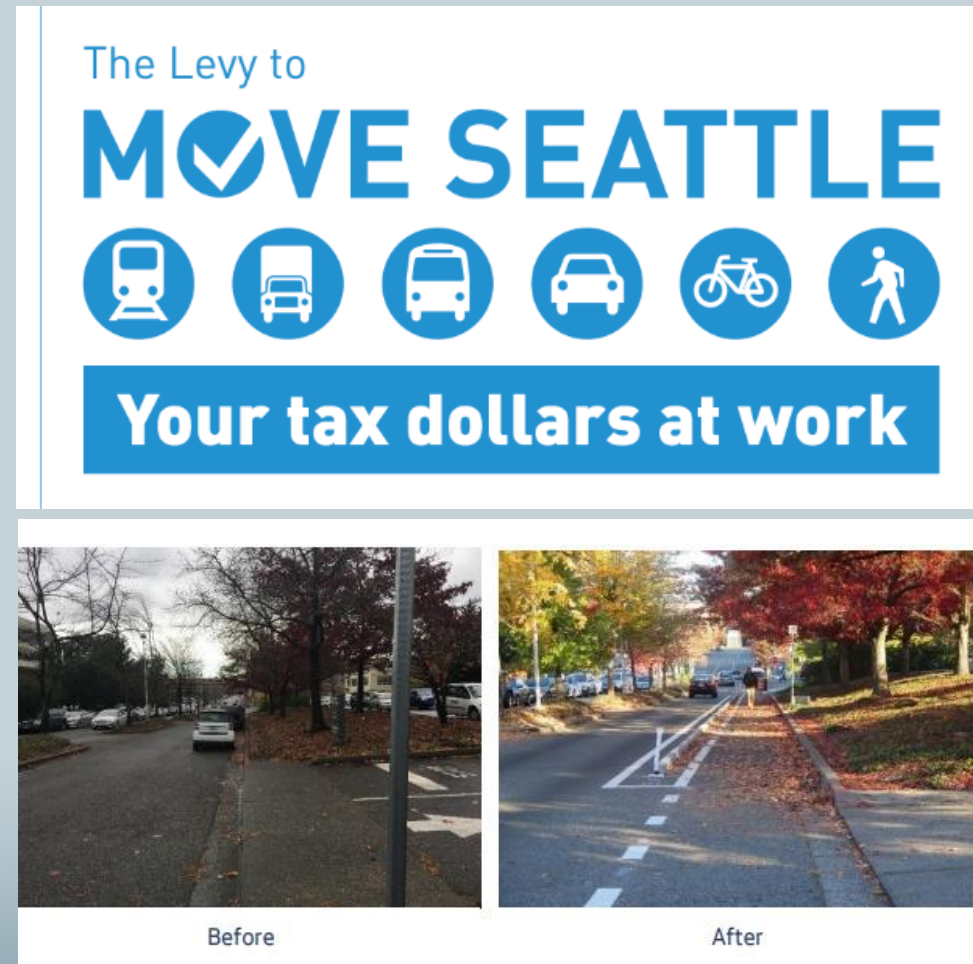
Precedents – City & State Wide Tools

CITY-WIDE TOOLS

- Sidewalk Mileage Tax (Ann Arbor)
- Utility Tax (Corvallis, Cheney)
- Vehicle License Fees (Seattle)
- Red Light Camera Revenue (Fort Worth)

STATE WIDE TOOLS

- State Gas Tax (North Carolina, Arizona)
- State Aid Funds (Maine, Massachusetts)



Precedents

Bond Measures



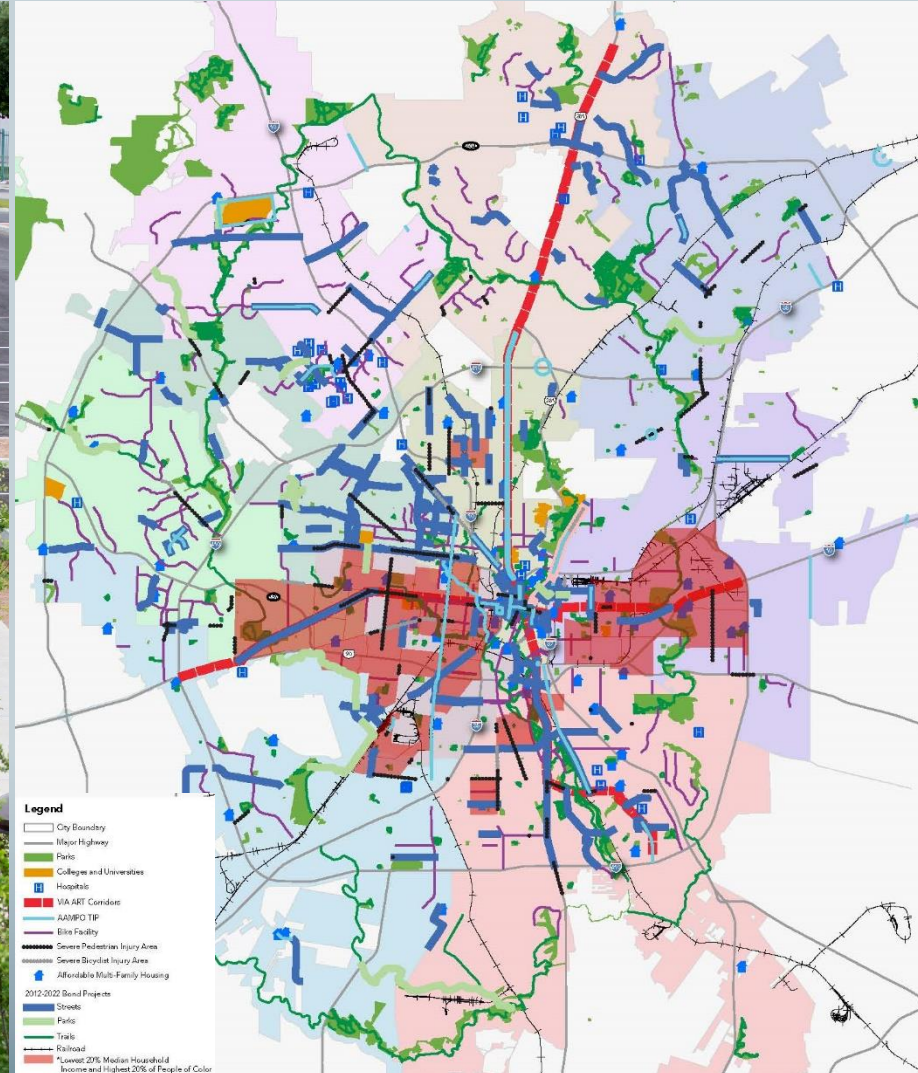
Partnership Programs



Federal Funding



Precedents – Bond Measures



Precedents – Neighborhood Partnering Programs



Englewood Sidewalk

NPP partnered with Public Green and Wild to install a sidewalk on Englewood Drive from Orlando Boulevard to Philco Drive in 2022. The new path extends the existing sidewalk connection to St. Elmo Elementary School and Park.



Sidewalk on San Antonio Street between 22nd Street and MLK

Completed in 2011 NPP Partnered with Girl Scouts Brownie Troop 591 to repair a sidewalk and do landscape work on a sidewalk between 22nd street and MLK sidewalk

Precedents – Federal Funding



Thank you

Donald Bauku
Urban Design Studio Lead,
Houston Public Works
Donald.Buaku@houstontx.gov



Mukul Malhorta
Principal & Director,
MIG Company
mukulm@migcom.com



Questions?



Getting Projects Prepped For Funding

Break:



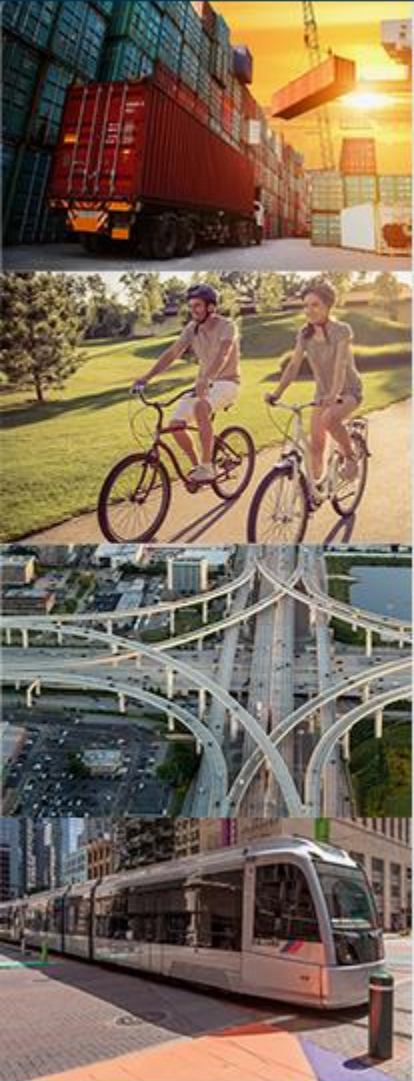
Getting Projects Prepped For Funding



H-GAC Resources

Getting Projects Prepped For Funding

Mobility Funding



20+ Year Regional Transportation Plan

H-GAC Planning

+

H-GAC Programs

Projects

Congestion Mitigation Air Quality Funding

Surface Transportation Block Grant Funds

Transportation Alternative Set-Aside Fund (TASA)

USDOT Discretionary Grants (i.e. RAISE or BUILD)

Plans and Programs for Project Programming



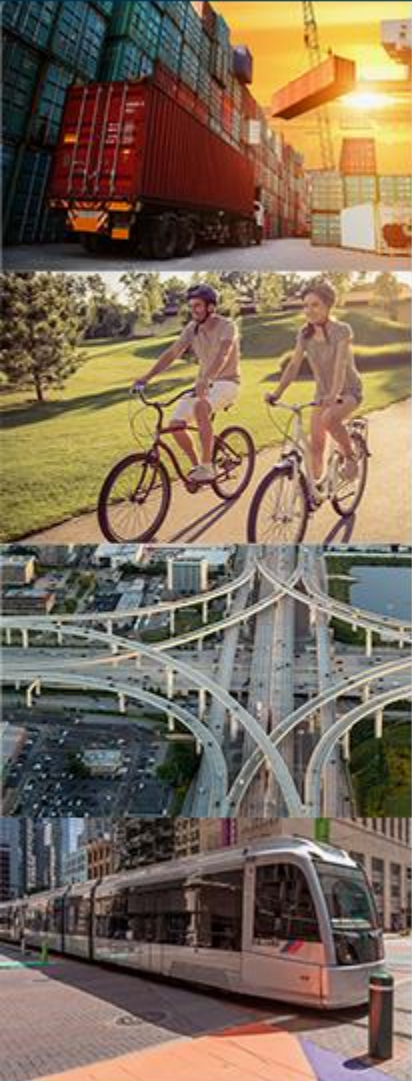
Statewide Long-Range Transportation Plan

20+ Year Regional Transportation Plan
(2045 RTP)

H-GAC Ten Year Plan/
TxDOT Unified Transportation Program
(UTP)

4 Year TIP
(2023-2026 TIP)

Self-Screening & Preparation Projects



1. Is this a transportation-based project?
2. Has your project completed its environmental assessment?
3. Is your project designed and engineered?
4. Does the location of your project qualify for federal funding?

Texas Statewide System (TSSM)

https://www.txdot.gov/apps/statewide_mapping/StatewidePlanningMap.html.

Search: **H-GAC, Transportation Improvement Program**

Mobility Strategy

H-GAC Planning

Livable Centers Studies

Focused Livable Centers Studies

Safety Planning Studies

Subregional Mobility Plans

Active Transportation Plans

H-GAC Programs

Connect Smart/
Commute Solutions

Safe Routes to School

Mobile Counter Program

Commuter and Transit Pilot
Program

Bike Safety Training

Houston-Galveston Area Council Perspective on Safety

David Fink, P.E.

Program Manager Safety and Regional Incident Management

TxDOT Planning Conference

May 4, 2022

Regional Safety Plan

- Adopted in August 2018
- Focus Areas
 - Impaired Driving
 - Distracted Driving
 - Speeding
 - Intersections Safety Audits
 - Bicycle and Pedestrian Safety



Regional Safety Campaign

- Digital Advertising
 - Website
 - Social Media
 - Email blasts
 - Streaming Services
 - Social Media
- Radio Advertising
- Billboards





Text iDrive to 1-888-825-1346 for TDS and safety text messages.



LOW SAFETY BELT USE

SEAT BELT USE CONTINUES TO BE LOWEST AMONG BACK SEAT PASSENGERS.

The problem of low safety belt use:

- A safety belt does not protect you when it's not worn properly².
- You can be ticketed for not wearing a safety belt – even if you are sitting in the back seat. If you are in a state that does not have a primary seat belt law (police can't pull you over just for not wearing a seat belt) check to verify if there is a law that requires anyone under the age of 18 to be buckled up. [Visit here for more seat belt laws.](#)
- Seat belts saved an estimated 14,955 lives in 2017 and an additional 2,549 lives could have been saved with 100% seatbelt use.¹.
- Roughly 2 out of every 4 teenagers involved in a fatal crash were not wearing a seat belt including drivers and passengers¹.
- In fatal crashes, teen drivers were more likely to be buckled up than teen passengers (49% vs 35%). Overall, passengers have lower rates of seat belt use for all ages¹.



READ ABOUT ALL TEEN DRIVING RISKS

Distracted Driving

Nighttime and Drowsy Driving

Speeding and Street Racing

Low Safety Belt Use

Impaired Driving

Teen Passenger Risks

Respect the Rig – Large Truck and Bus Safety

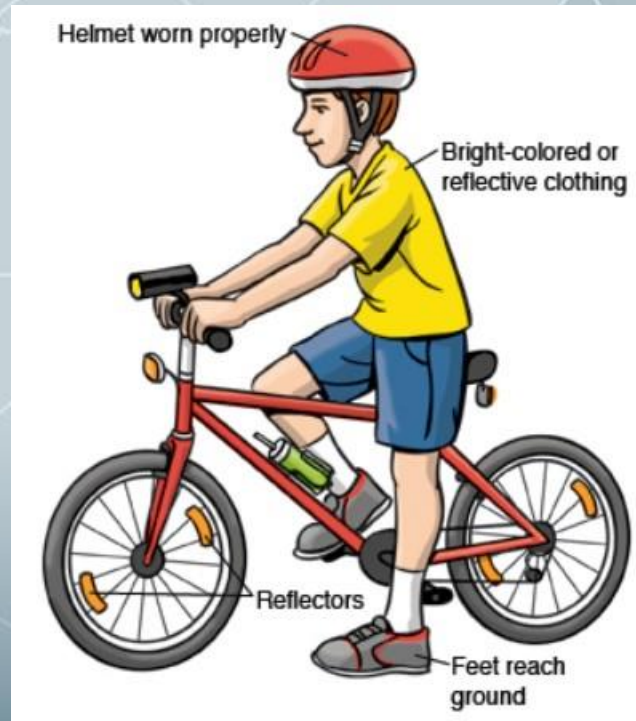
Pedestrian and Bicycle Safety

Additional Links and Resources

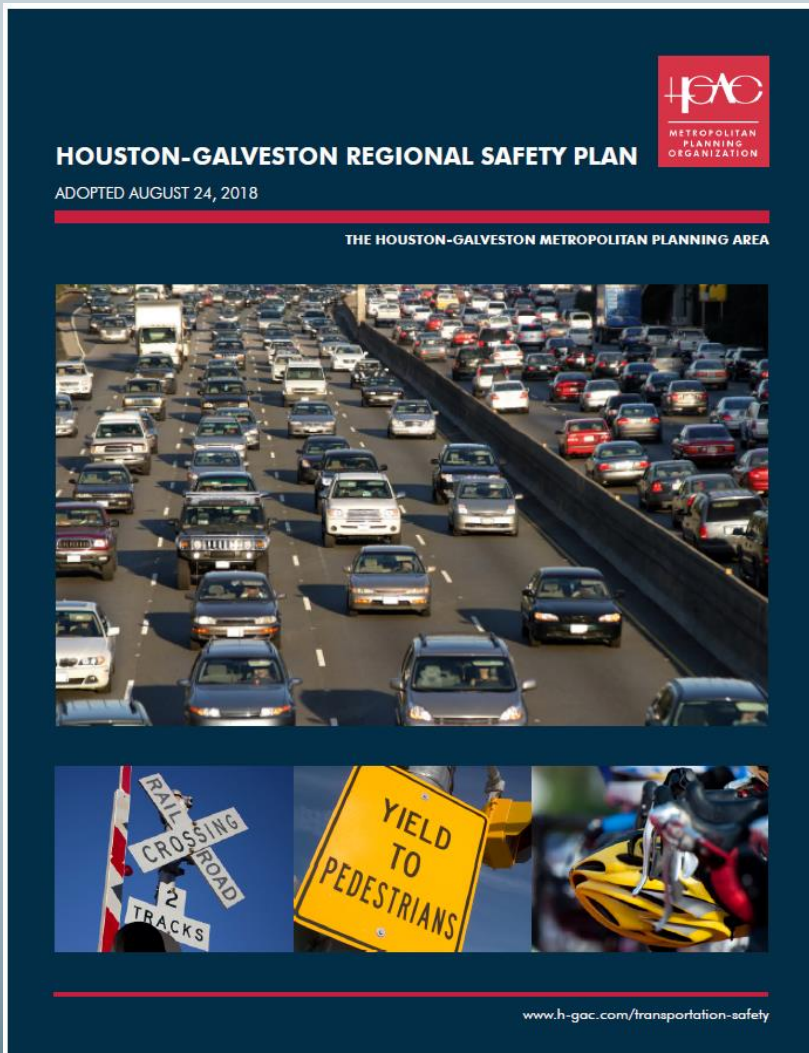
Children's Safety



**Texas Children's
Hospital®**







Intersection Safety Audits



H-GAC
METROPOLITAN PLANNING ORGANIZATION

HOUSTON-GALVESTON REGIONAL SAFETY PLAN
ADOPTED AUGUST 24, 2018

THE HOUSTON-GALVESTON METROPOLITAN PLANNING AREA

www.h-gac.com/transportation-safety

Within the H-GAC region, nearly 40% of all crashes and more than 25% of fatalities occur at intersections.

Source: FHWA-SA-21-048



Safety Benefits:
10-60%
reduction in total crashes.¹

Source: H-GAC Regional Safety Plan, Emphasis Areas

SHSP Emphasis Areas	Regional Safety Plan Focus Areas
Impaired Driving	Impaired Driving
Distracted Driving	Distracted Driving
Speeding	Speeding
Intersection	Intersection
Pedestrian Safety	Bicycle & Pedestrian Safety
Older Drivers	
Roadway Departure	

Source: H-GAC Regional Safety Plan, Intersection Strategy

Intersections	
Action	Goal
Conduct safety audits at high frequency intersection crash locations	2 audits per year

2021 Crash Statistics

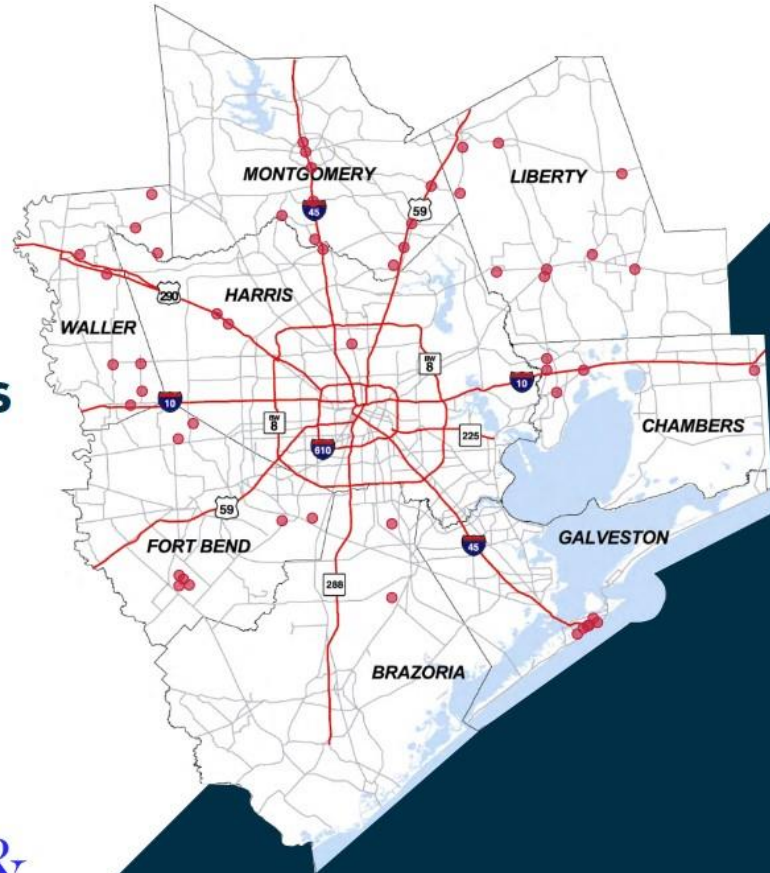
- 26% of Fatalities occurred at Intersections
- 39% of Crashes are Intersection Related



PREPARED FOR



H-GAC REGIONAL INTERSECTION SAFETY ASSESSMENTS

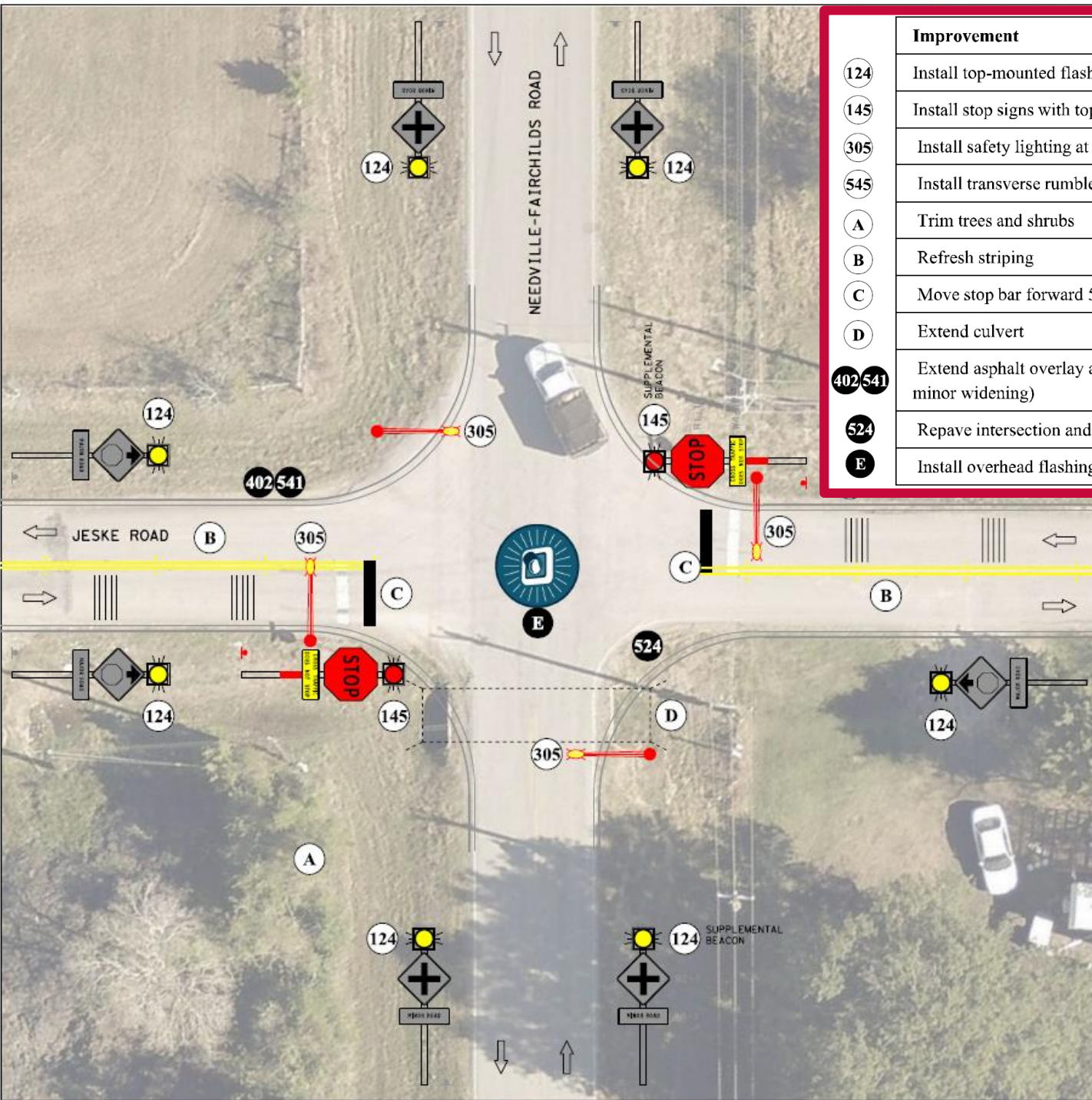


County	Number of Intersections
Brazoria	2
Chambers	5
Fort Bend	8
Galveston(City of Galveston)	10
Harris	4
Liberty	10
Montgomery	10
Waller	9
Total	58

PREPARED BY



Intersection Improvements



Improvement	Time
124 Install top-mounted flashers on advanced warning signs	Short
145 Install stop signs with top-mounted flashers (include reflective stripes on sign post)	Short
305 Install safety lighting at intersection	Short
545 Install transverse rumble strips (two sets)	Short
A Trim trees and shrubs	Short
B Refresh striping	Short
C Move stop bar forward 5' (to be 20' from travel way)	Short
D Extend culvert	Short
402/541 Extend asphalt overlay and restripe Jeske Road to include edge line (requires minor widening)	Mid
524 Repave intersection and increase radius (30' min)	Mid
E Install overhead flashing beacon	Mid

Kimley-Horn
 11700 Katy Freeway, Suite 800 Houston, Texas 77054
 Phone: 281.965.4000 Fax: 281.965.4002

FORT BEND COUNTY INTERSECTION SAFETY ASSESSMENTS		
JESKE ROAD @ NEEDVILLE-FAIRCHILDS ROAD		
DATE	EXHIBIT	PAGE
1/13/2022	F2	

Project Deliverables

- Intersection Safety Assessment Report
- Executive Summary
- Benefit-Cost Analysis Methodology
- Safety Toolbox
- Field Review Observations
- Intersection Improvements
- Improvement Costs & Benefits
- Implementation Plan

Funding Sources for Safety Improvements

- H-GAC Transportation Improvement Program Call
- Developer-funded improvement Projects (381 Agreements)
- TxDOT Selective Traffic Enforcement Program
- TxDOT Highway Safety Improvement Program
- Federal Grants
 - Safe Streets for All (SS4A)
 - Reconnecting Communities Pilot Program



H-GAC Safety

Getting Projects Prepped For Funding

Safety Task Force

1. Goals:

- Examine Safety Problems and Solutions likely to work.
- Identify new and comprehensive approaches to Transportation Safety to achieve improvements.

2. Proposed Topics:

- Safety Performance measures and targets
- “Safe Systems” approach
- New, aggressive strategies
- Potential for dedicated Transportation Safety Program funding
- Other Issues

Surface Transportation Block Grant Safety Programs Funding

Task	Description	Budgeted Amount
Roadway Safety Audits (RSA)	Safety audits at High Crash Roadways and Training for Transportation Professionals to do RSA	\$500,000.00
Driver Education	Teens in the Driver Seat and Driver Workshops	\$360,000.00
Youth Occupant Safety and Bicycle Safety Education	Educational materials and workshops for child occupant safety, youth bike safety education and bike helmets; heatstroke prevention	\$290,000.00
Transportation Safety Campaign	Regional Safety Plan focus areas: Speeding, Distracted driving, Impaired Driving, Pedestrian & bicycle safety	\$1,000,000.00
Adult Bicycle Training	Adult Bicycle Safety Training Courses and Bicycle Friendly Driver Education	\$167,500.00
Total		\$2,317,500.00

Safe Streets for All (SS4A) Grant Program

- Announced in May of 2022
- 5 years of Funding
- 1st Year of Grant Proposal due September 15, 2022
- \$1 Billion per fiscal year

Thank you

David Fink

Manger, Houston-Galveston Area Council

David.Fink@h-gac.com

713-993-4558



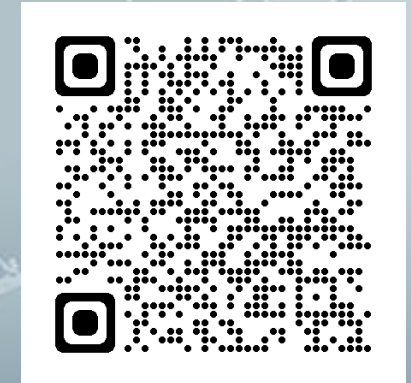


Commuter and Transit Pilot Program

Susan Jaworski, Senior Planner

Guidelines

- Open Request for Applications
- Closes **December 31, 2022**
- Funded through Congestion Mitigation and Air Quality Funds Received by Region
- Commuter Transit and supporting First/Last Mile and Midday Solutions that make taking transit possible
- The project sponsor must be a public agency or nonprofit
- Application –Available at <https://www.h-gac.com/procurement/solicitations/trn18-06>

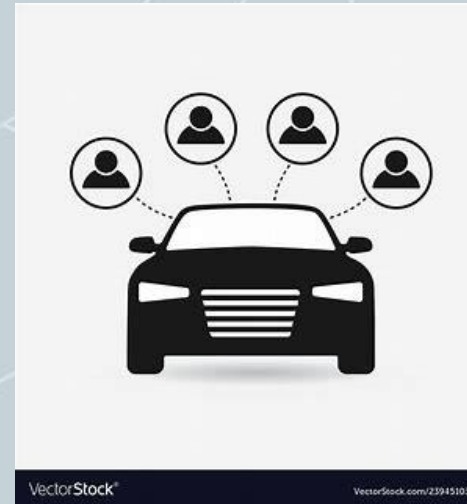


Selected Past Projects

- Energy Corridor District Carshare

COMMUTER BUS SERVICES

- Fort Bend County to Medical Center and expansion pilot (additional runs)
- Baytown to Houston Central Business District (CBD)
- League City to Galveston
- Woodlands (Research Forest) to Central Houston



Current Projects



- Conroe Connection Commuter Transit– Conroe to Downtown and Medical Center (launched 2019)
- Woodlands Express – Woodlands to Energy Corridor District (launched 2021)



Eligible Projects



- Must provide an air quality benefit
- Must provide new or expanded service
- Must provide transit or **access to transit**

- Microtransit
- Coach Bus/Cutaway Bus
- Vans/Vanpool
- First/Last Mile and Mid-Day Support

- **Bike Share**
- **E-bike Share**
- **E-Scooters**
- Shuttles
- Carshare



- Project award \$150,000 - \$2,000,000 over three years

Frequently Asked Questions



- If my pilot isn't successful, do I have to continue all three years?
 - No, we issue one-year renewable contracts, and at any time you can give a 30-day notice to stop the project.
- Can I continue beyond three years?
 - Yes, we can take the amount reserved for your third year and spread it to cover the fourth and fifth year as well.
- Are internal combustion vehicles allowed?
 - Yes, but zero emissions vehicles provide a greater air quality benefit to make your application more competitive.
- Can a private entity apply for a grant?
 - No, only government agencies and non-profits

Technical Assistance



Alan Rodenstein, Senior Planner
Houston-Galveston Area Council
Alan.Rodenstein@h-gac.com
713-993-2407

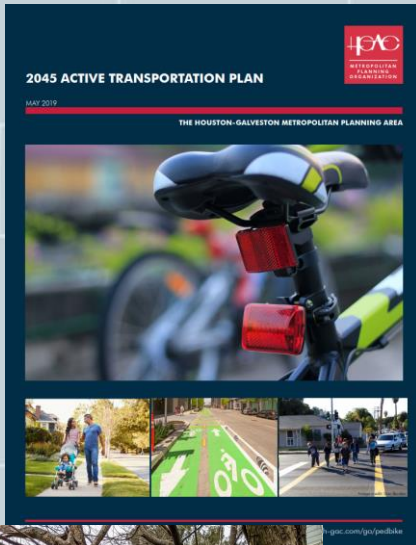




Mobile Counter Program & Ped/Bike Analyses Using ACE

Susan Jaworski, AICP

What does the Ped/Bike section do?



- Long Range Planning and Policy Development
- Ped/Bike Permanent Counters and Mobile Counter Loan Program
- Ped/Bike Subcommittee under TAC
- Adult Bike Safety Program
- Local Active Transportation Studies
- Technical support and training



Pedestrian/Bike Mobile Counter Program

- Provides data to support existing need
- Provides data for before and after studies and monitoring
- Useful for grant applications to support project



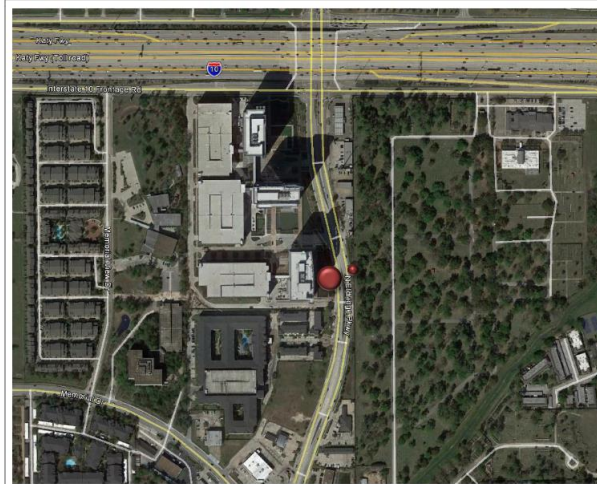
BAYOU GREENWAYS TRAIL USAGE DATA

MAY – JULY 2020

Counters Provided by



Location Information: Map



Location Information: Photos

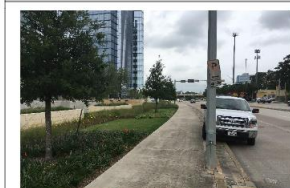


Image 5: Sidewalk along Eldridge Parkway Southbound at Energy Center IV Facing North



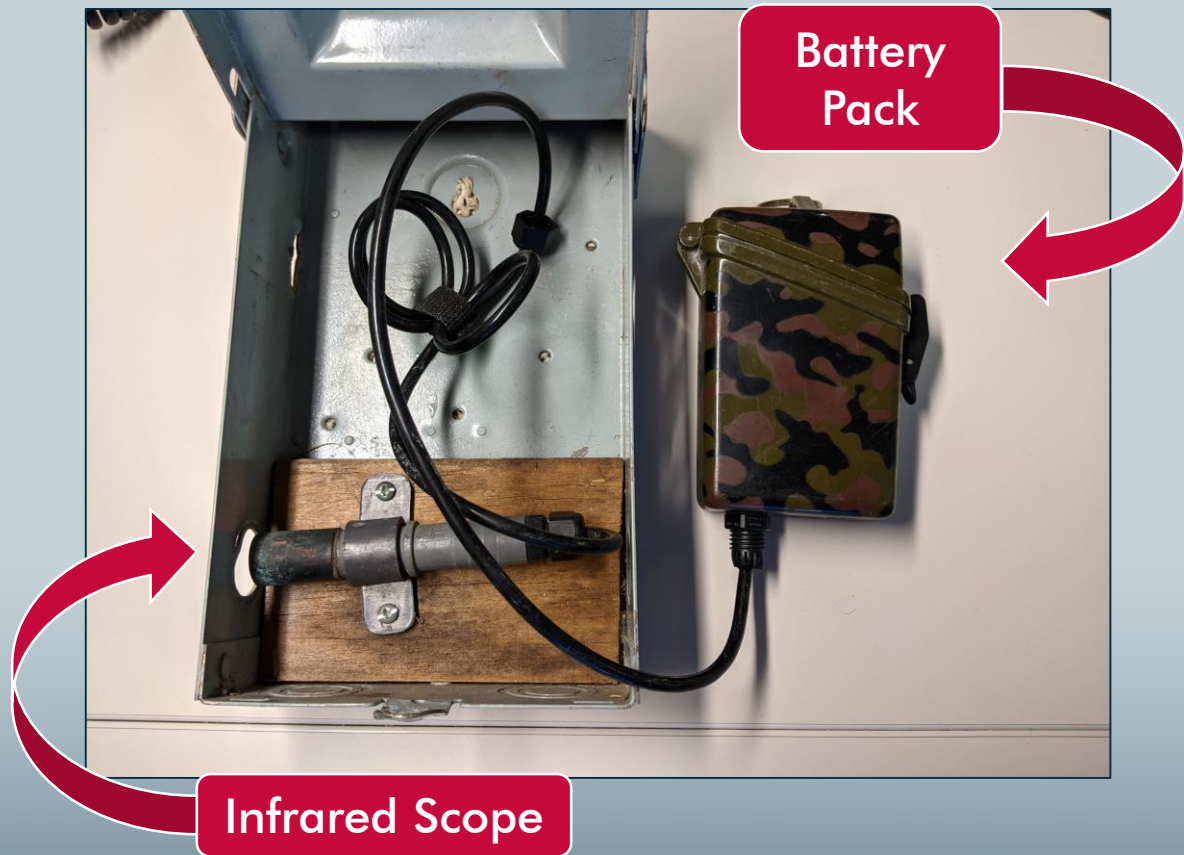
Image 6: Sidewalk along Eldridge Parkway Southbound at Energy Center IV Facing South

Houston-Galveston Area Council

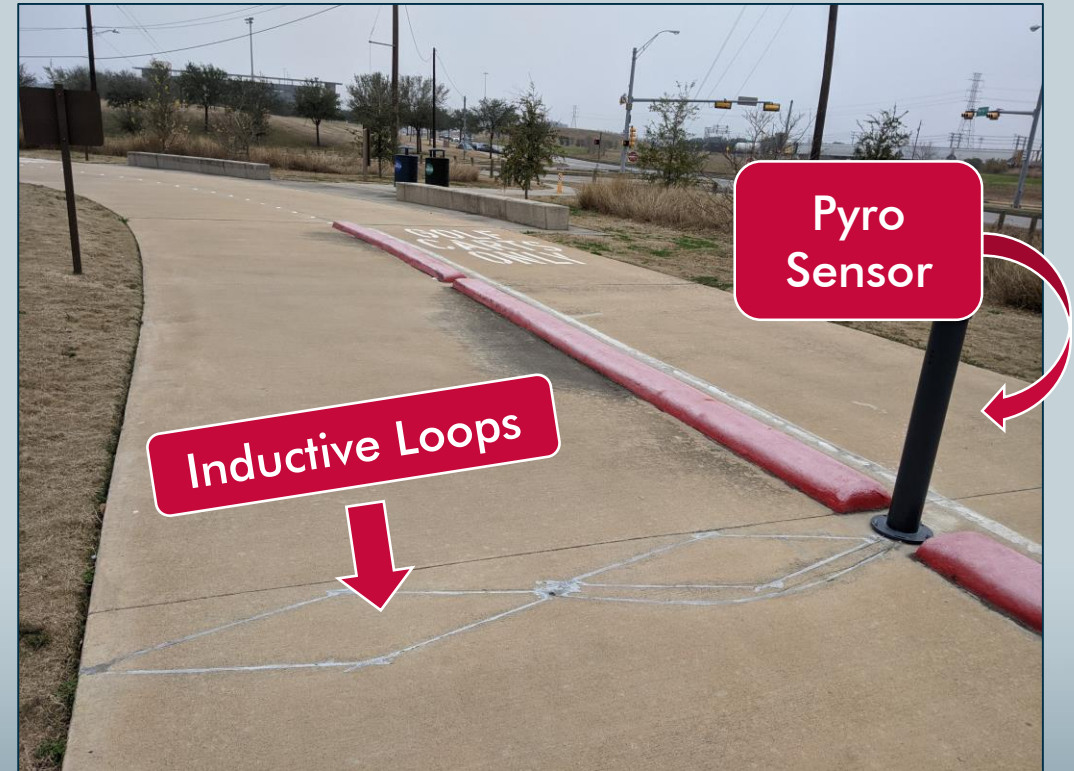


Counter Equipment Overview

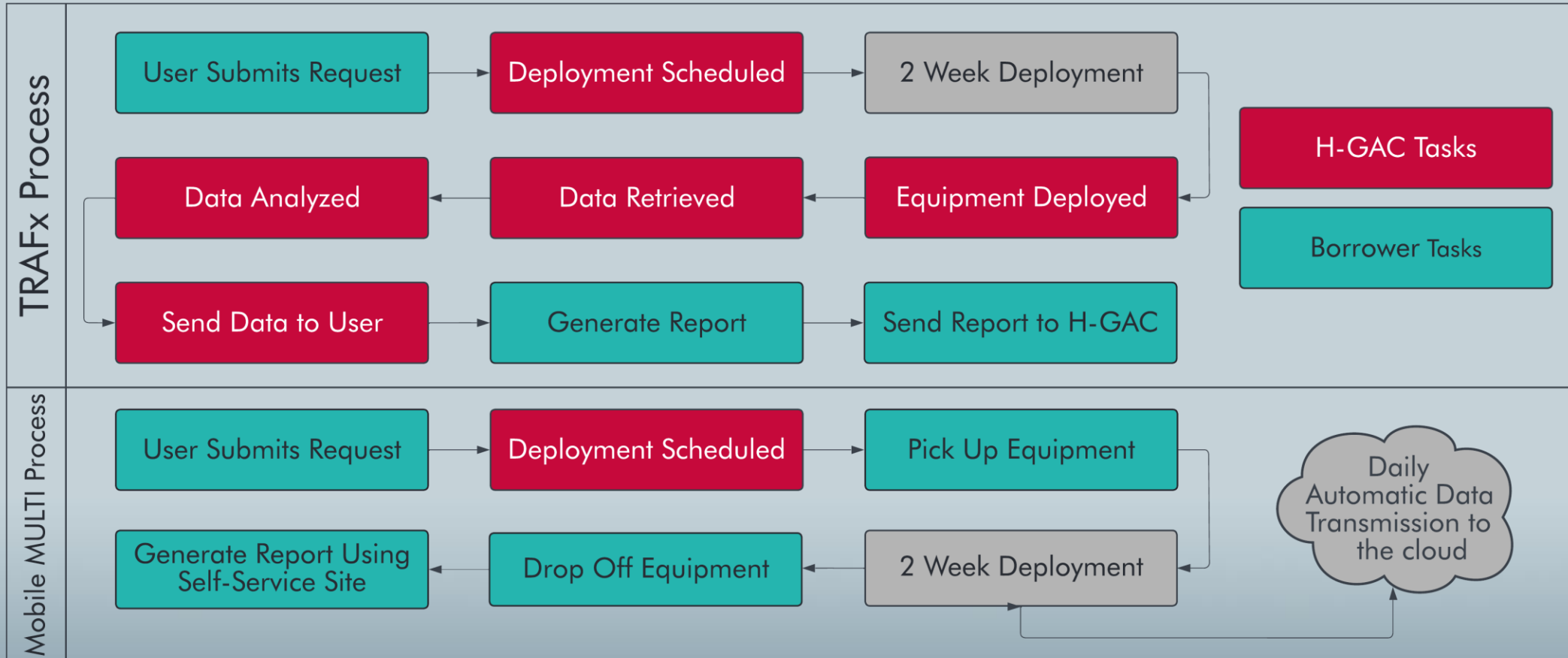
Mobile Counters



Permanent Counters



TRAFx vs Mobile MULTI Comparison

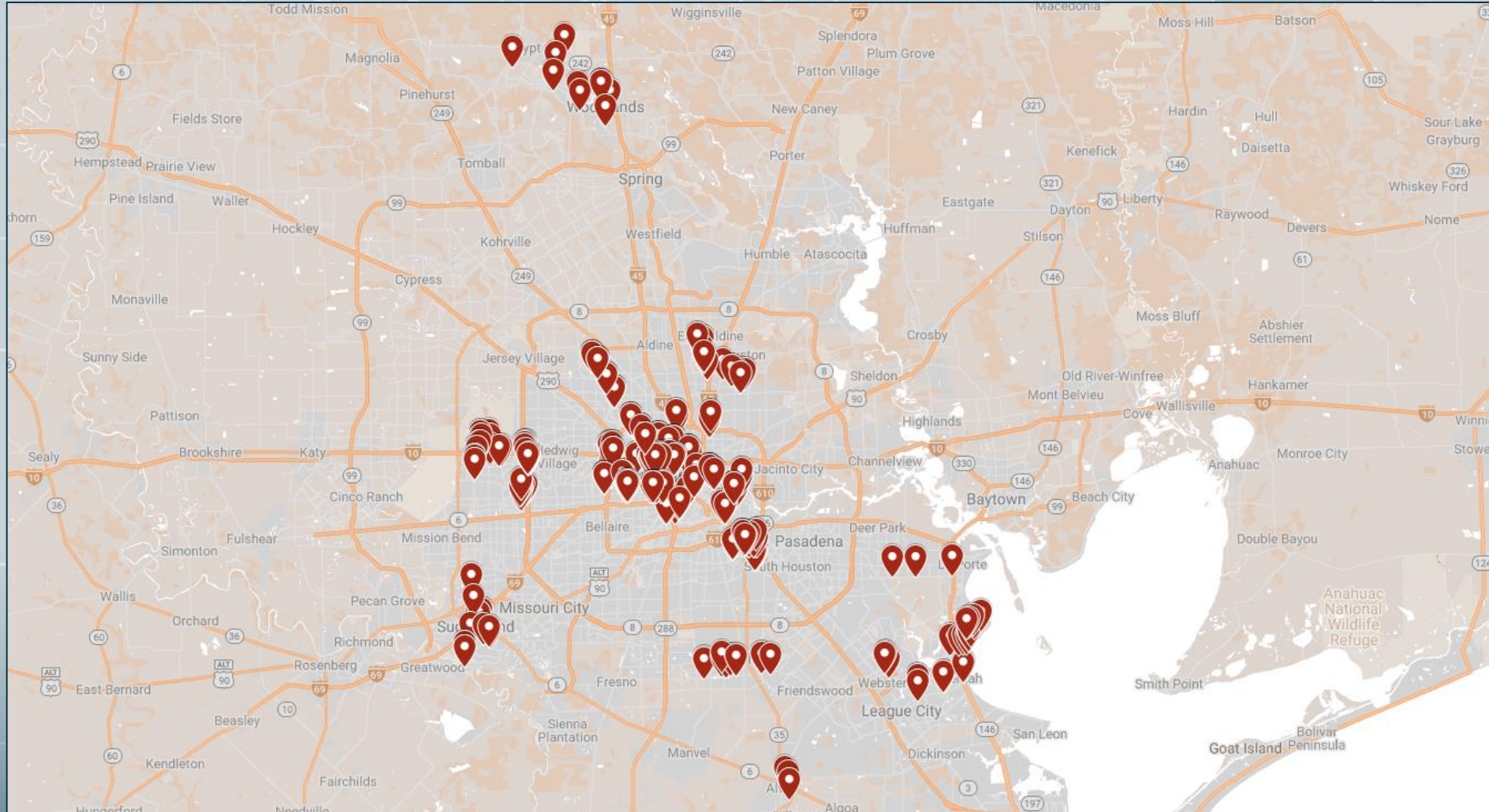


Counter Data Location and Loan Forms

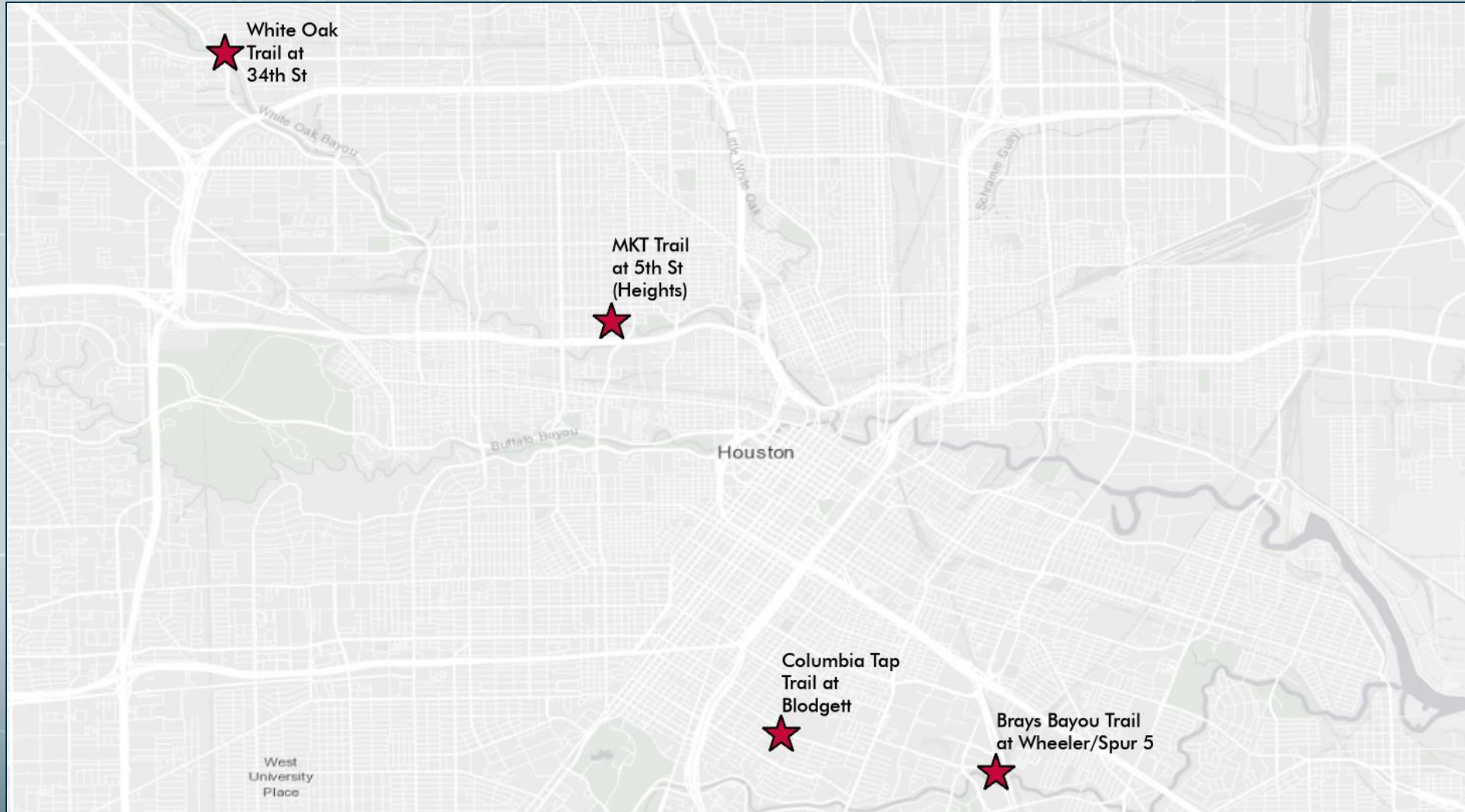
- 6 TRAFx counters for short term (2 week) counts
- Can fill out form at:
 - bit.ly/hgac-counters
- Permanent & mobile counter reports published at:
 - h-gac.com/pedestrian-bicyclist-planning/counters



Mobile Counter Deployment Locations

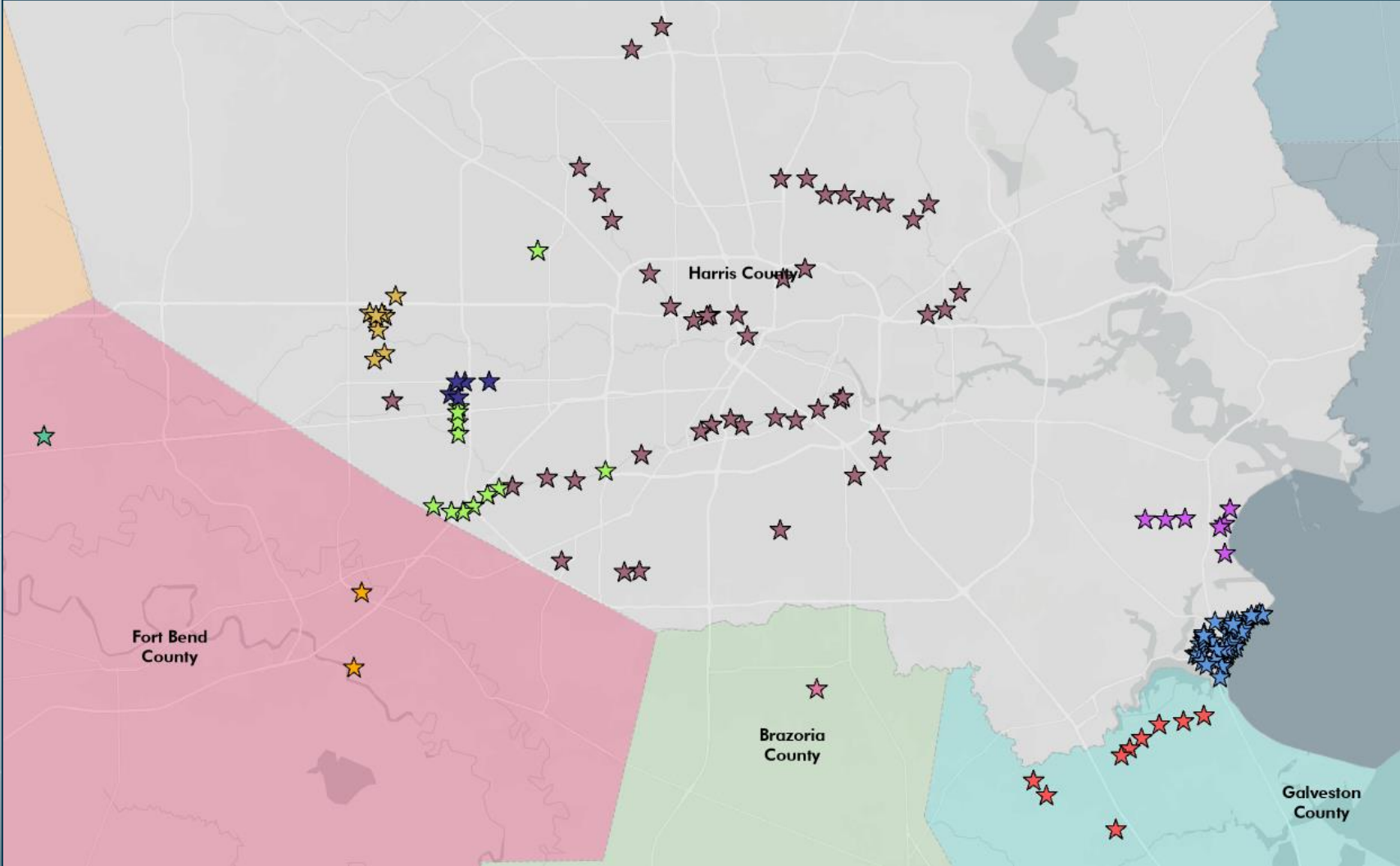


Existing Permanent Counter Locations



Potential Future Sites Map

- ★ City of Fulshear
- ★ City of La Porte
- ★ City of League City
- ★ City of Seabrook
- ★ Energy Corridor District
- ★ Houston Parks Board
- ★ Neighborhoods to Trails Southwest
- ★ Westchase District
- ★ City of Pearland
- ★ City of Sugar Land



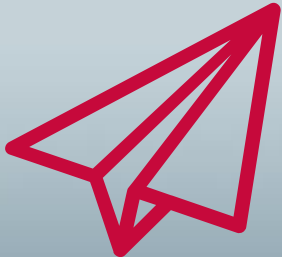
Comments/Questions?

Chris Whaley

H-GAC Pedestrian/Bicycle Planner



713-993-2439

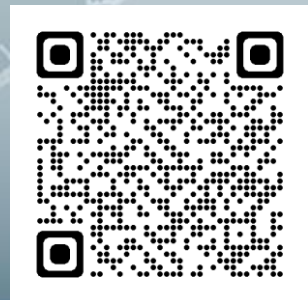


christopher.whaley@h-gac.com

What is the Activity-Connectivity Explorer (ACE)?

- ACE is a map application to identify existing activity center(s) based on density and connectivity index using a hexagonal grid system.
- What are some of the layers are incorporated into ACE?
 - H-GAC Regional Bikeways
 - H-GAC Sidewalk Inventory
 - Regional Public Transit & METRO Transit Facilities
 - Livable Centers
 - Land Use
- How to access ACE?

<https://www.h-gac.com/interactive-web-applications>



What Ped/Bike Analyses can be run in ACE?

Accessibility Score

- Activity Index
- Connectivity Index
- Amenity Index

Sidewalk Density Index


- Sidewalk Density

Ped/Bike Commuter Analysis

- Pedestrian Mode Shift
- Bicyclist Mode Shift
- VMT Reduction

Livable Centers Need Index (LCNI)

- Weighted LCNI
- Vulnerable population demographics



Detailed
instructions
in Handouts

Ped/Bike Analyses Using ACE



Provides data analysis that can be used to bolster your grant applications

Provides key insight if project functions as intended when used in a before and after study

Provides data regarding potential need (latent demand)

Provides supporting information to assist with corridor and alternative development

Free to use by all

Easy to use

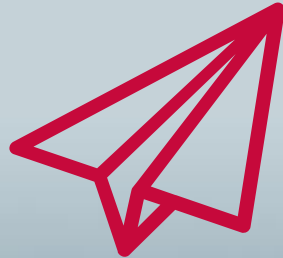
Comments/Questions?

Susan Jaworski, AICP

H-GAC Pedestrian/Bicycle Senior Planner



832-681-2565



susan.jaworski@h-gac.com

Questions?



Getting Projects Prepped For Funding



H-GAC Future Potential

Allie Isbell, Assistant Director, H-GAC Transportation

Infrastructure Investment Jobs Act (IIJA)

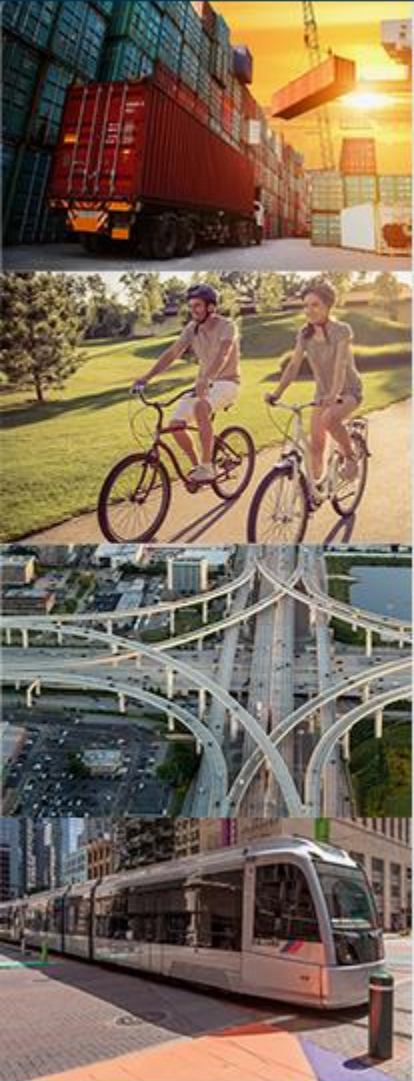
- Signed into law: Monday, November 15
- \$1.2 trillion total spending
 - \$550 billion new spending
 - 5-year FAST Act Reauthorization
 - Beyond transportation: power, water, broadband, and more
- New programs, policies, requirements
- Three types of funding
 - Highway Trust Fund
 - Guaranteed appropriations
 - General Fund (requires Appropriations)

Bipartisan Infrastructure Law

Funding Available to a Range of Recipients

Program Examples	State	MPO	Local	Tribe	PA*	Territory	FLMA*
Apportioned programs (formula)	✓						
Bridge Program (formula)	✓			✓			
National Electric Vehicle Formula Program	✓		✓				
Safe Streets and Roads for All program		✓	✓	✓			
PROTECT Grants (discretionary)	✓	✓	✓	✓	✓		✓
Charging and Fueling Infrastructure Program	✓	✓	✓	✓	✓	✓	
Congestion Relief Program	✓	✓	✓				
Bridge Investment Program (discretionary)	✓	✓	✓	✓	✓		✓
Reconnecting Communities Pilot Program	✓	✓	✓	✓			
Rural Surface Transportation Grants	✓		✓	✓			
INFRA	✓	✓	✓	✓	✓		✓
<u>Nat'l</u> Infra. Project Assistance	✓	✓	✓	✓	✓		
Local and Regional Project Assistance	✓	✓	✓	✓	✓	✓	

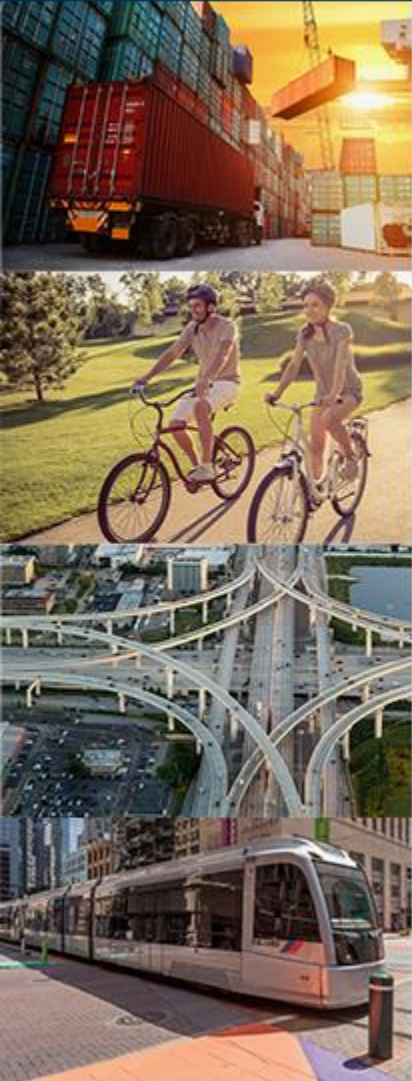
Safe Streets and Roads for All (SS4A)



	FAST Act Extension	Bipartisan Infrastructure Law (BIL)				
Fiscal Year	2021	2022	2023	2024	2025	2026
Total BIL Funding		\$1.000 B	\$1.000 B	\$1.000 B	\$1.000 B	\$1.000 B

- Funds for local initiatives to prevent death and serious injury on roads and streets – “Vision Zero” initiatives
- Cap of 15% awarded to eligible projects in a single state per fiscal year
- Funds to be used within 5 years of grant award
- Federal share not to exceed 80%
- Eligible Activities: develop Safety Action Plans, conduct planning, design, and development activities identified in the Safety Action Plan, or carry out projects and strategies identified in the Safety Action Plan
- MPOs are eligible applicants

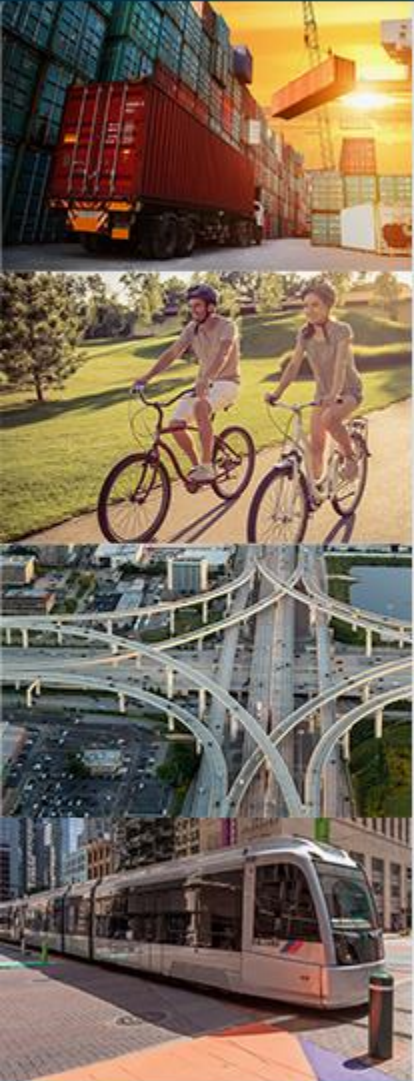
Railway-Highway Crossing Program



	FAST Act Extension	Bipartisan Infrastructure Law (BIL)				
Fiscal Year	2021	2022	2023	2024	2025	2026
Contract Authority	\$ 245 M	\$ 245 M	\$ 245 M	\$ 245 M	\$ 245 M	\$ 245 M

- Funds for safety improvements to reduce the number of fatalities, injuries, and crashes at public railway-highway grade crossings
- Funded through the Highway Safety Improvement Program
- State apportionments are based on Surface Transportation Program under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and ratio of public railway-highway crossings in the State to public railway-highway crossings in all States
- Requirement to set aside 50% of RHCP funds for installation of protective devices removed in BIL
- elimination of hazards, the installation of protective devices at railway-highway crossings, the replacement of functionally obsolete warning devices, and for projects to reduce pedestrian fatalities and injuries from trespassing at grade crossings
- BIL increases Federal share from 90% under FAST Act to 100%
- Data analysis limitation increased from 2% under FAST Act to 8%

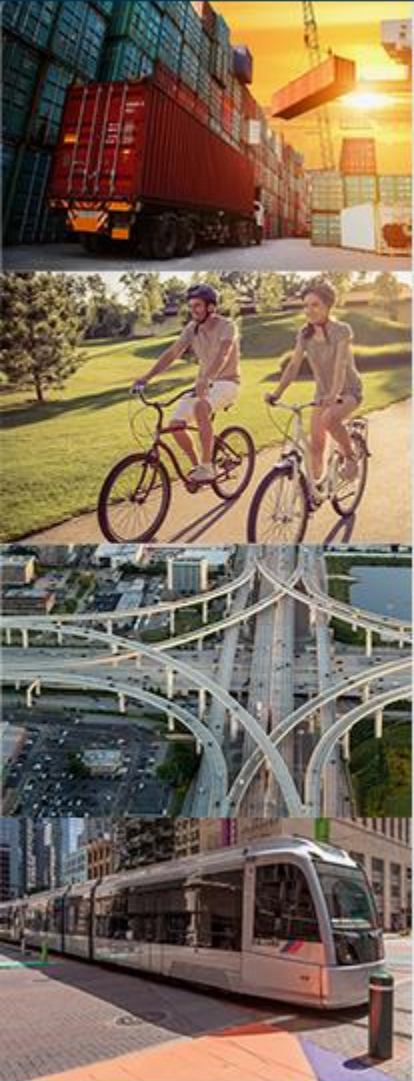
National Highway Freight Program



	FAST Act Extension	Bipartisan Infrastructure Law (BIL)				
Fiscal Year	2021	2022	2023	2024	2025	2026
Contract Authority	\$ 1.487 B	\$1.374 B	\$1.401 B	\$1.429 B	\$1.458 B	\$1.487 B

- Funds for improving efficient movement of freight on the National Highway Freight Network
- Funded through the Highway Trust Fund
- NHFP funding increased from 10% under FAST Act to 30% on the amount of funding that a state can use on freight intermodal or freight rail projects
- Increases the maximum number of miles of highway that a state can designate as Critical Rural Freight Corridors (based on state population density per square mile)
- Increases the maximum number of miles of highway that a state can designate as Critical Urban Freight Corridors to 150 miles or 10% of the Primary Highway Freight System state mileage

PROTECT Formula Program



	FAST Act Extension	Bipartisan Infrastructure Law (BIL)				
Fiscal Year	2021	2022	2023	2024	2025	2026
Contract Authority		\$1.40 B	\$1.43 B	\$1.46 B	\$1.49 B	\$1.52 B

- Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Formula Program
- funding is available to states over five years
- make transportation infrastructure more resilient to future weather events and other natural disasters by focusing on:
 - resilience planning,
 - making resilience improvements to existing transportation assets and evacuation routes,
 - and addressing at-risk highway infrastructure
- At-Risk Coastal Infrastructure activities to strengthen, stabilize, harden, elevate, relocate or otherwise enhance the resilience of highway and non-rail infrastructure, **including: bridges, roads, pedestrian walkways, and bicycle lanes**, and associated infrastructure...

Questions?



Getting Projects Prepped For Funding



H-GAC Tools

Anita Hollmann, H-GAC, Principal Planner

Literally – We're Online! Grants.

Commuting Patterns-

Understanding Regional Commute
(Origin-Destination)

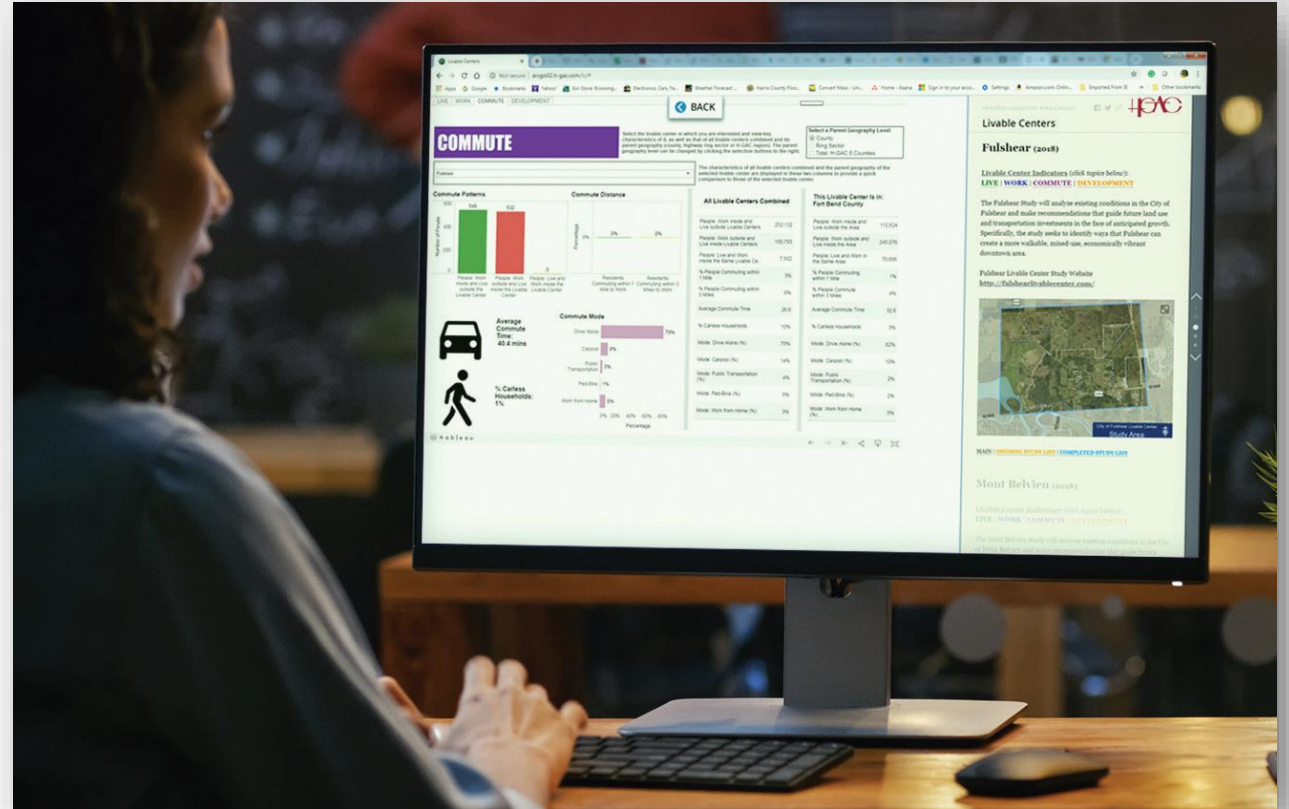
Activity Connectivity Explorer (ACE)-

Measuring Regional Accessibility

- Draw your own boundary
- Demographics
- Activity/connectivity
- Intersection Density

Interactive Planning Tool –

- Live
- Work
- Commute
- Develop



<http://arccgis02.h-gac.com/lc/>

Livable Centers Indicators Tools-Commute

← BACK

LIVE

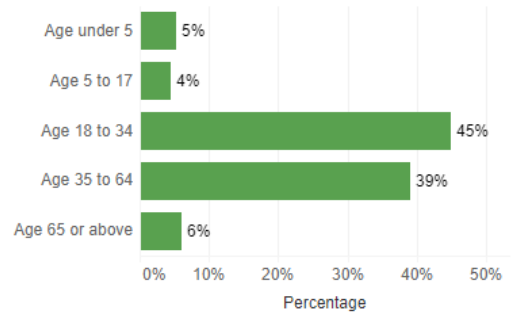
Select the livable center in which you are interested and view key characteristics of it, as well as that of all livable centers combined and its parent geography (county, highway ring sector or H-GAC region). The parent geography level can be changed by clicking the selection buttons to the right.

Select a Parent Geography Level
 County
 Ring Sector
 Total: H-GAC 8 Counties

Washington Avenue

The characteristics of all livable centers combined and the parent geography of the selected livable center are displayed in these two columns to provide a quick comparison to those of the selected livable center.

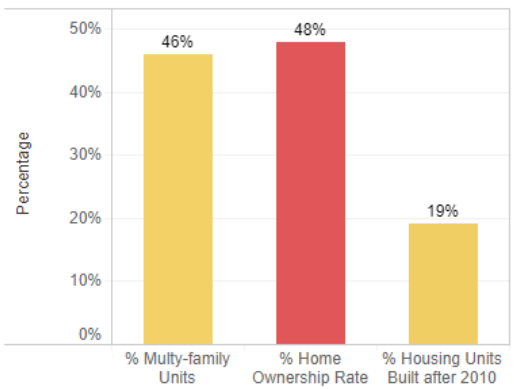
Age Composition (2017)



Total Population: 24,195

Population Change (2010-2017): 45%

Housing Characteristics (2017)



Total Housing Units: 14,232

Median Household Income: \$116,991

All Livable Centers Combined

Total Population	390,407
Population Change: 2010-2017	12%
Age: under 5	8%
Age: 5 to 17	18%
Age: 18 to 34	29%
Age: 35 to 64	37%
Age: above 65	9%
Total Housing Units	161,703
% Multi-Family Units	53%
% Home Ownership Rate	39%
% New Units Built after 2010	5%
Median Household Income	\$53,779

This Livable Center Is in: Harris County

Total Population	4,525,519
Population Change: 2010-2017	15%
Age: under 5	8%
Age: 15 to 17	19%
Age: 18 to 34	25%
Age: 35 to 64	37%
Age: above 65	9%
Total Housing Units	1,714,340
% Multi-Family Units	38%
% Home Ownership Rate	55%
% New Units Built after 2010	6%
Median Household Income	\$57,791



Livable Centers

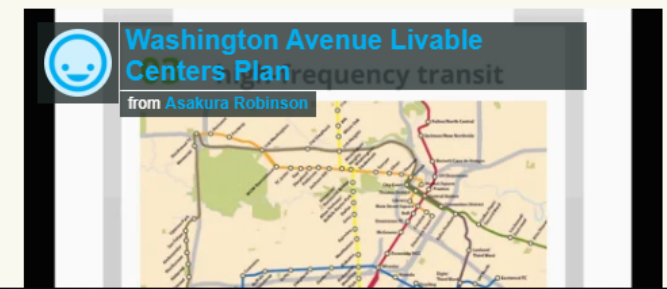
Washington Avenue (2012)

Livable Center Indicators (click topics below):
[LIVE](#) | [WORK](#) | [COMMUTE](#) | [DEVELOPMENT](#)

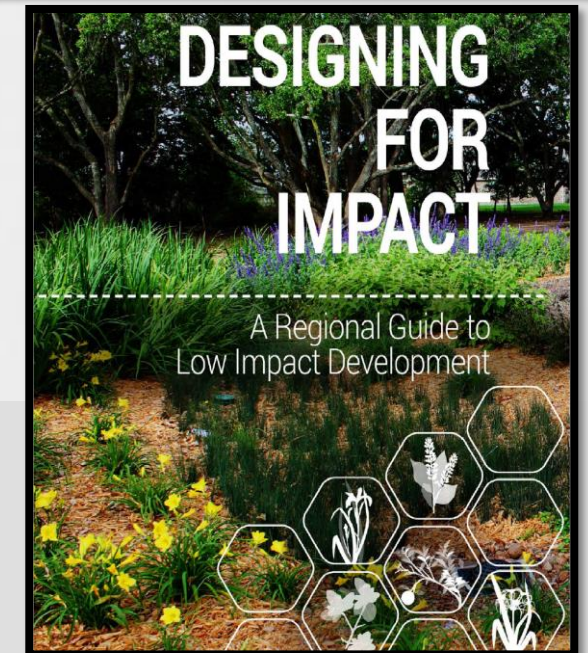
Project goals include:

- Develop a framework for the development of a mixed-use, multi-modal and unique community that supports its residents, employers and visitors regardless of life-stage, race or income.
- Provide more transportation choices, especially for modes that are historically underutilized, that improve the overall environment and that are focused on the needs of the community.
- Encourage the continued development of the Washington Avenue Corridor as a shopping, dining and entertainment destination in a way that respects the needs of area residents.
- Ensure that community members have increasing and ongoing methods to have their voices heard and have an active role in shaping their community.
- Focus on implementation, ensuring that the community's desires become on the ground realities.

Washington Avenue Livable Centers Study Report



We're Sharing Knowledge



Sharing Knowledge, Today!

Self-Screening & Preparation

The following list of questions are not exhaustive and instead intended to represent an initial approach to self-screening and preparation for funding opportunities.

To learn more about the program, visit [h-gac.com](https://www.h-gac.com).

1. Is this project eligible for funding?
2. Has your project been identified as a priority project?
3. Is your project in a high-priority area?
4. Does your project meet the program's requirements?

How to Access the Activity-Connectivity Explorer (ACE)?

Finding the Money: Getting Projects Prepped For Funding
September 16, 2022

Program	Qualifying CMAQ Category	Defined	Examples
CMAQ Commuter and Transit Pilot Program	Innovative		
Clean Vehicles	Transport Measure		
Commuter and Transit Pilot Program	Transport Measure		
Commuter and Transit Pilot Program	Travel Demand Management		
Commuter and Transit Pilot Program	Transit		

FUNDING SOURCES

- Bridges** → Bridge Investment Program - USDOT
- Clean Air** → Texas Clean Fleet Program - TCEQ
- Economic Development Infrastructure** → Highway Infrastructure Projects - FHWA; Reconnecting Communities - USDOT; Infrastructure for Rebuilding America - USDOT; Rural Surface Transportation Grant Program - USDOT; RAISE Program - USDOT
- Mobility Infrastructure** → Congestion Mitigation Air Quality - H-GAC; Surface Transportation Block Grant - H-GAC & TxDOT; Transportation Alternatives - H-GAC & TxDOT; Recreational Trails Program - TPWD; Unified Planning Work Program - H-GAC; Livable Centers Program - H-GAC
- Multimodal/Multimodal Planning** → (Off-System) Highway Safety Improvement Program - TxDOT; Safe Roads and Streets for All - USDOT
- Rail** → Railroad Crossing Elimination Program - FRA; Consolidated Rail Infrastructure and Safety Improvements - FRA
- Resiliency** → Building Resilient Infrastructure and Communities - FEMA
- Safety** → Flood Mitigation Assistance - FEMA; Flood Infrastructure Fund - TWDB; Clean Water State Revolving Fund - TWDB; Drinking Water State Revolving Fund - TWDB; Economically Distressed Areas Program - TWDB; State and Tribal Assistance Program - EPA
- Transit** → Passenger Ferry Grant Program - FTA; Bus and Bus Facilities - FTA; Low or No Emission Bus Grant Program - FTA; Transit Infrastructure Projects - FTA; Transit Oriented Development Pilot - FTA; Areas of Persistent Poverty - FTA
- Water/Wastewater/Stormwater** → Flood Mitigation Assistance - FEMA; Flood Infrastructure Fund - TWDB; Clean Water State Revolving Fund - TWDB; Drinking Water State Revolving Fund - TWDB; Economically Distressed Areas Program - TWDB; State and Tribal Assistance Program - EPA

Finding the Money:
Getting Projects Prepped For Funding
H-GAC Land Use & Transportation Annual Workshop
September 16, 2022

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Thank you!

- **Eligible for 3 AICP CM**



- **Direct Link & QR Code**



[Finding the Money: Get Projects Prepped for Funding \(planning.org\)](https://www.planning.org/finding-the-money)