



# Update on the Southeast Harris County Subregional Study

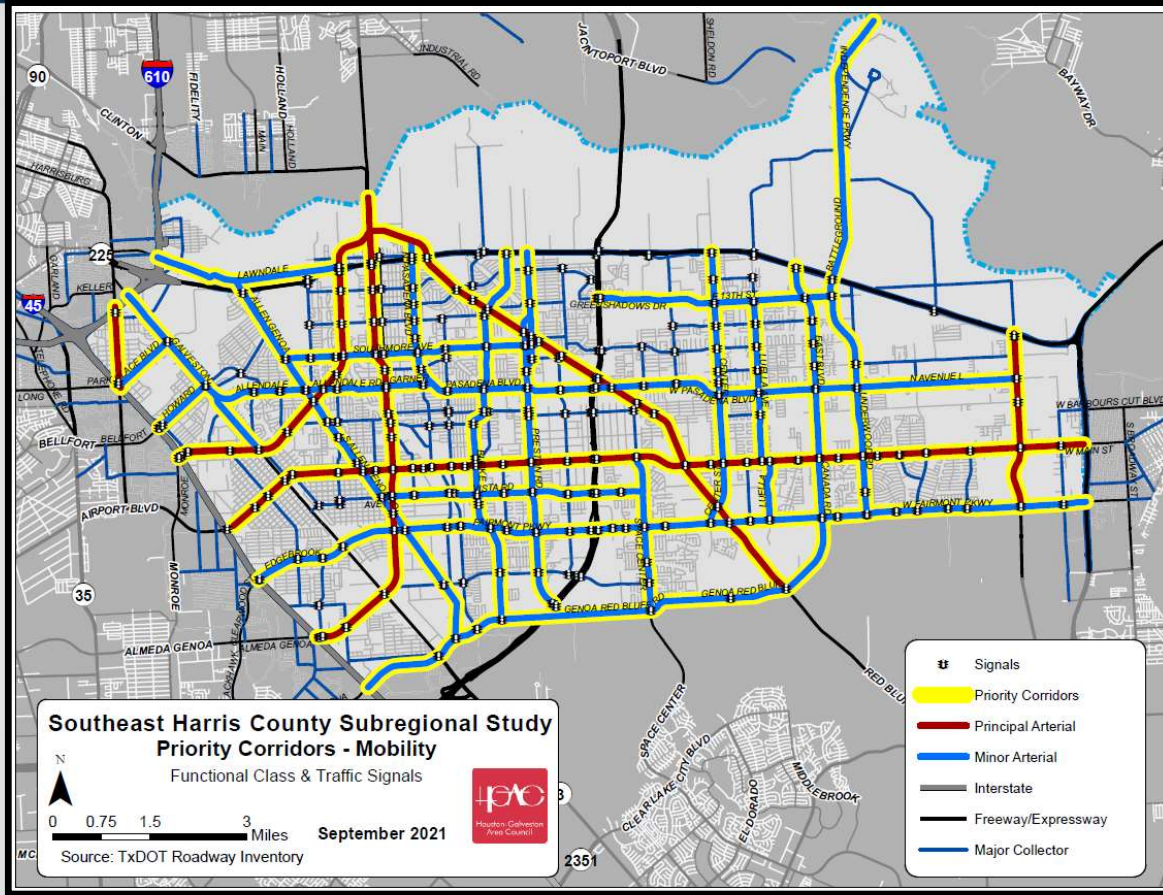


**Mike Burns, AICP**  
**TAC – 10/13/2021**

Regional Collaboration • Transportation Planning • Multimodal Mobility



# Study Area



Regional Collaboration • Transportation Planning • Multimodal Mobility



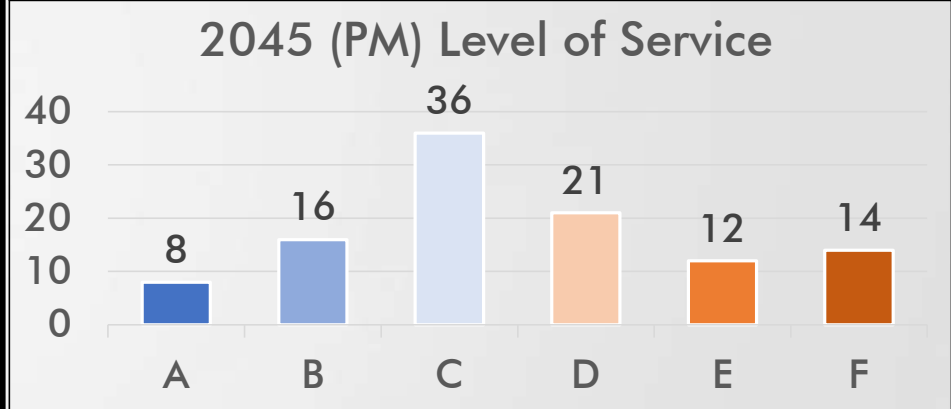
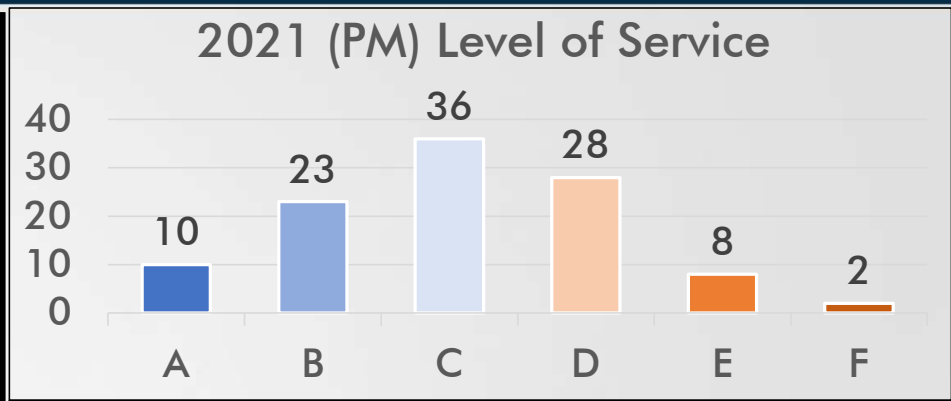
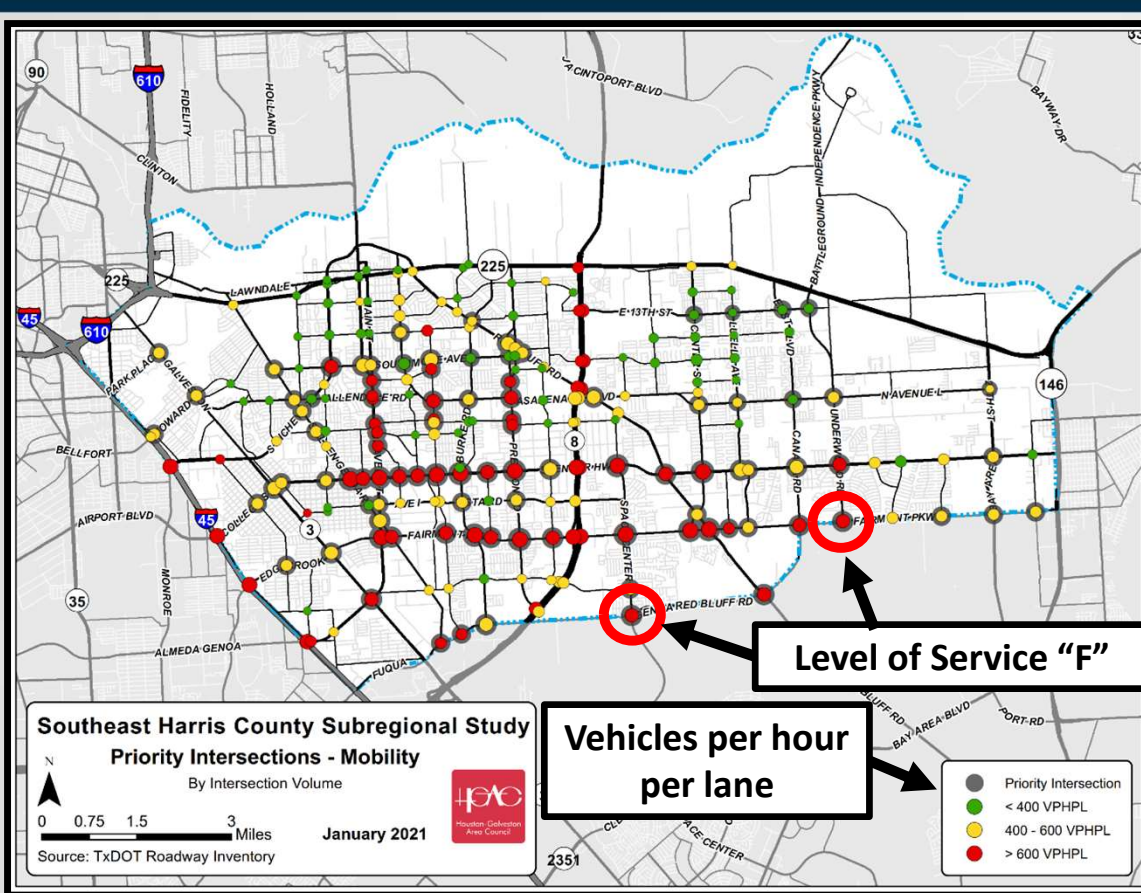
# Introductions – Steering Committee

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	Milton Rahman	Director of Engineering
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	Adam Ballesteros	City Engineer
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

# Measurable Goals

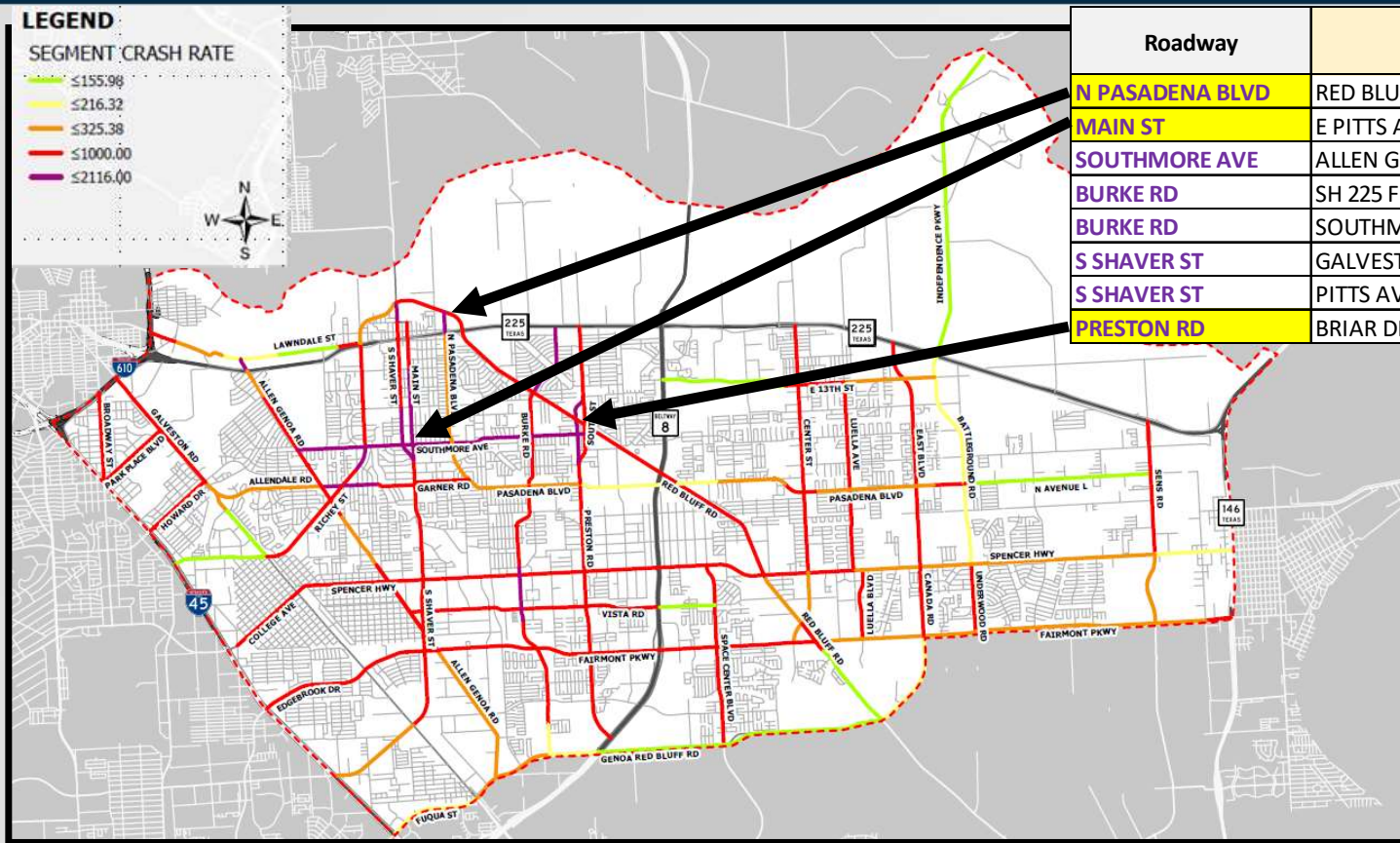
Goal	Description	Measures
Safety	Improve safety on the Vision Zero high-injury network with a goal of zero fatalities	Predicted changes to crash rates, number of conflict points
Mobility	Expand and accommodate all roadway users by incorporating Complete Streets principles, as context-appropriate	Connectivity, gaps, cross section, multimodal
Mobility	Increase operational efficiency and reliability of major intersections and roadways	V/C, LOS, travel time
Economic	Provide mobility options for residents and visitors	Connectivity, cross section, economic impact, broadband
Economic	Increase truck travel time reliability on the regional freight network	Travel time, delay, stops
Maintenance	Achieve a state of good repair for transportation assets	Pavement section & condition, funding, policy
Maintenance	Improve transportation asset resiliency and stormwater capacity	Pavement section, cross section, truck routes, best practices
Natural / Cultural Resources	Reduce transportation emissions	Emissions, delay, stops
Natural / Cultural Resources	Minimize impacts requiring mitigation	ROW required, access

# Existing Condition – Intersection Congestion



Note: 1% Annual Growth Rate

# Existing Conditions – Corridor Safety

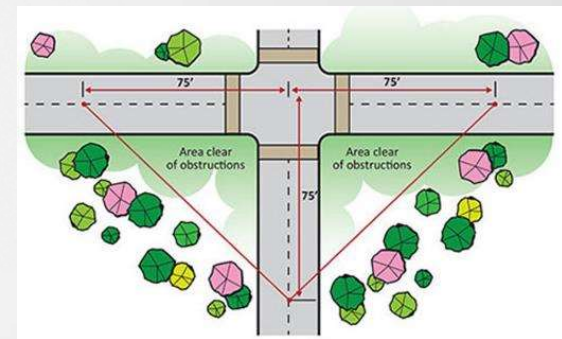


Roadway	From	To	Crash Rate	CrashFactor
N PASADENA BLVD	RED BLUFF RD	SH 225 FRONTAGE RD	1,332.1	4.1
MAIN ST	E PITTS AVE	SHAVER ST	1,310.6	4.0
SOUTHMORE AVE	ALLEN GENOA RD	S RICHEY ST	1,254.3	3.9
BURKE RD	SH 225 FRONTAGE RD	RED BLUFF RD	1,056.1	4.9
BURKE RD	SOUTHMERE AVE	PASADENA BLVD	1,056.1	4.9
S SHAVER ST	GALVESTON RD	HOUSTON AVE	1,055.1	3.2
S SHAVER ST	PITTS AVE	RED BLUFF RD	1,055.1	3.2
PRESTON RD	BRIAR DR	AUSTIN AVE	1,031.7	6.6

**6,246 total crashes 2015-2019**

- Pedestrian 54
- Bicyclist 27
- Speeding 1,158
- Poor surface conditions 1,030

# Safety – Mitigation “Toolbox”



Improve driver vision and awareness  
Reduce conflict points

# *Safety – Median Improvements*



***Two-Way Left-Turn Lane  
(TWLTL)***



***Raised Median***



# Safety – Median Improvements



**Road Diet**

# Safety – Median Improvements



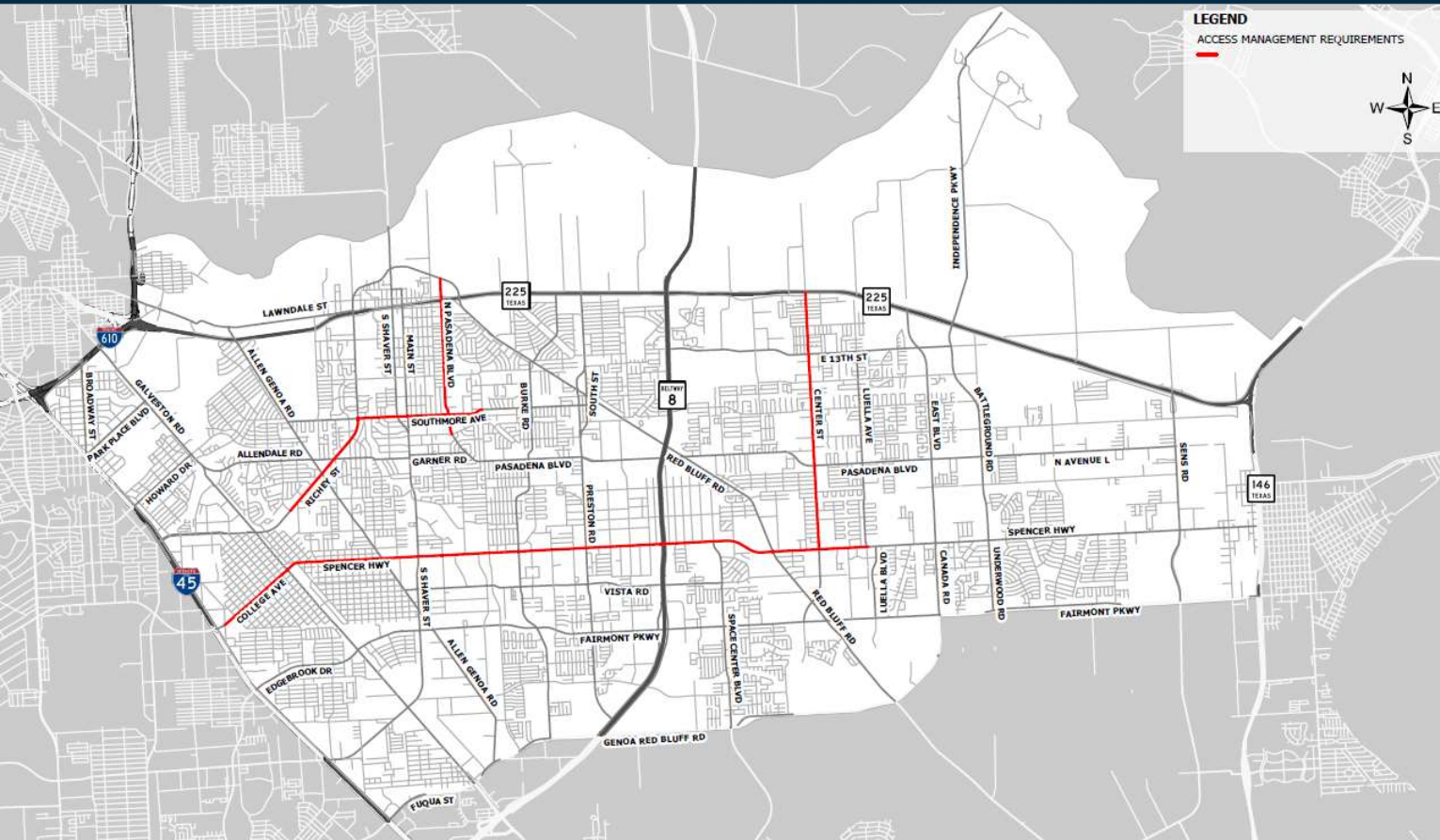
- **Considerations**
  - Crash data
  - Turning traffic
  - Land uses
  - Number of driveways
  - Right of way
- **Recommendations**
  - Raised median – 25 miles
  - Two-way Left Turn Lane – 13 miles
  - Road diet – 4 miles
  - Reconstruct raised median – 2 miles

# Safety – Driveway Consolidation



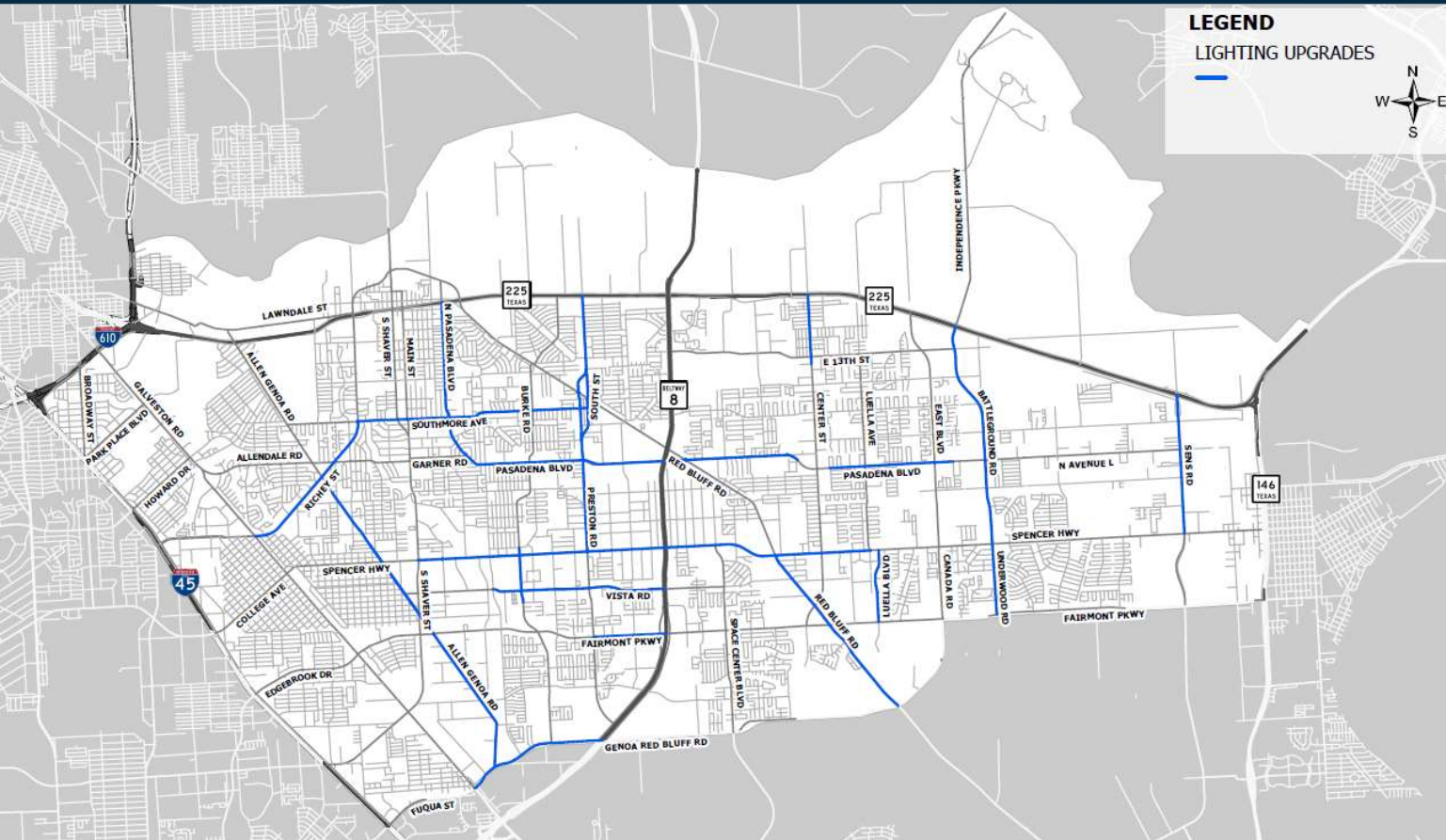
**Driveway Consolidation**

# Safety – Access Management



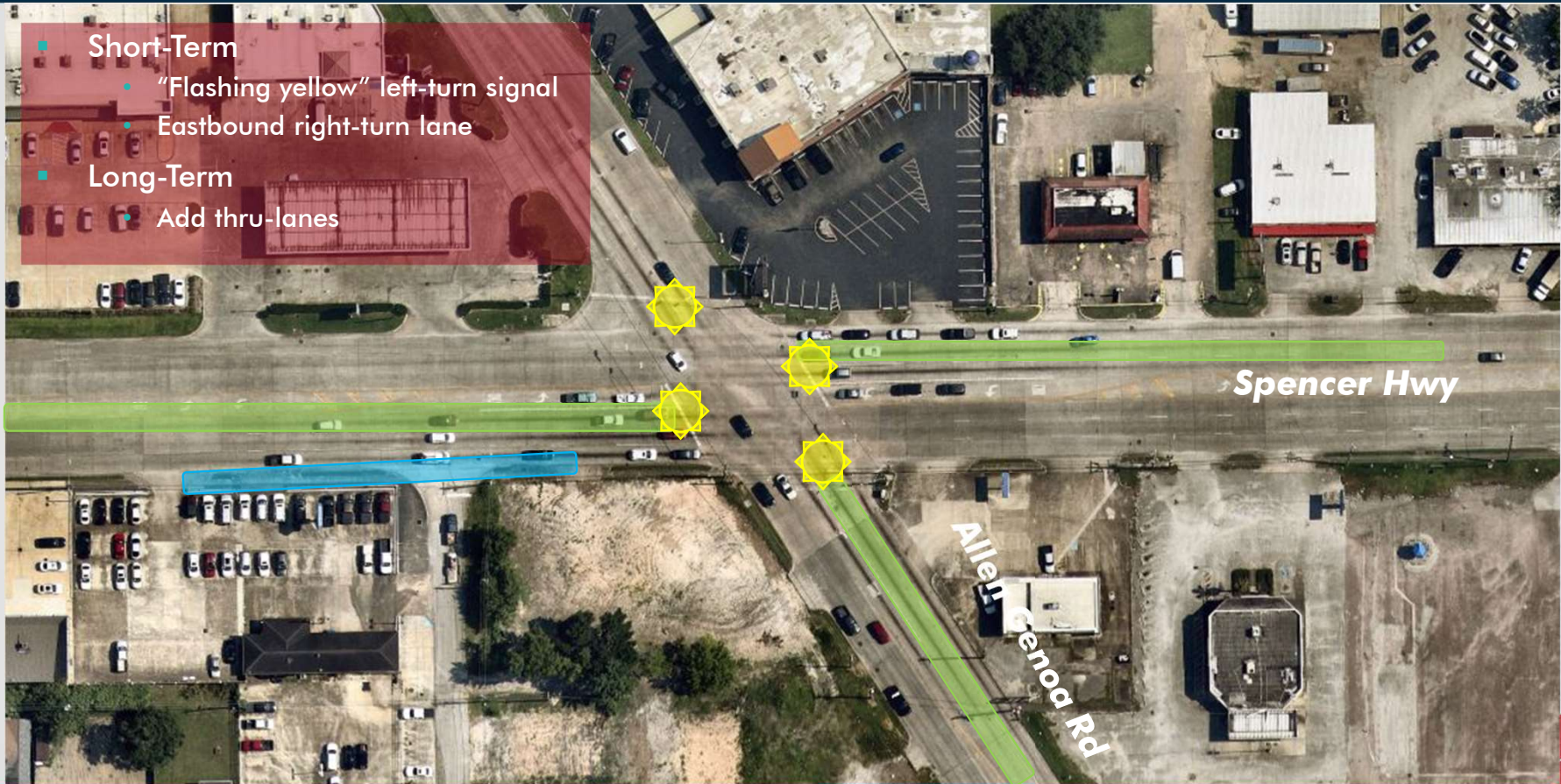
- **17 miles of corridors**
- Consolidate driveways
- Reduce access points
- Prevent cut-through traffic

# Lighting Improvements



- Study corridors with inadequate lighting
- 44 miles (32%)

# Capacity – Example Mitigations



# Level of Service with Improvements (2045 PM)

## LOS Before and After



# Mobility - Traffic Signal Improvements

## Mid-Block Pedestrian Crossing



Pine Mill Ranch Drive, Katy, TX

**Rectangular Rapid  
Flashing Beacon  
(RRFB)**



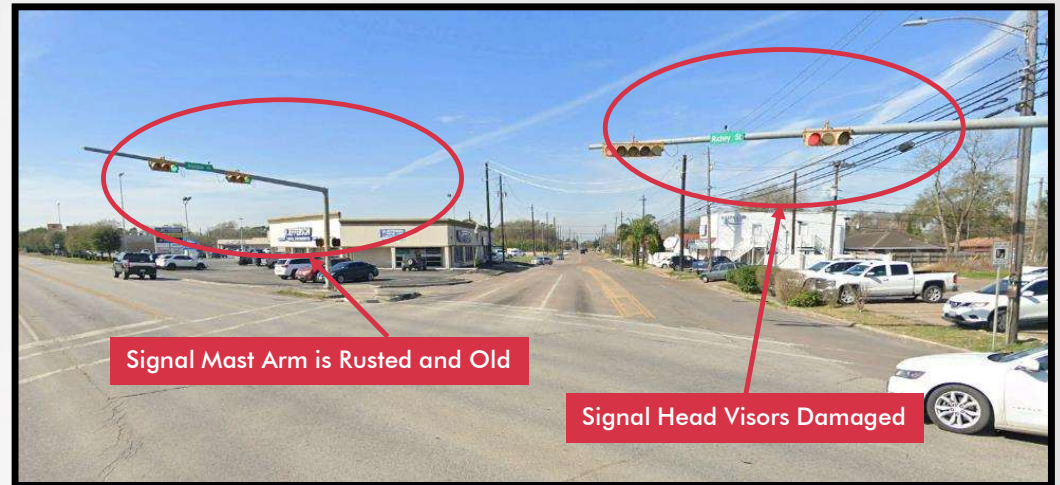
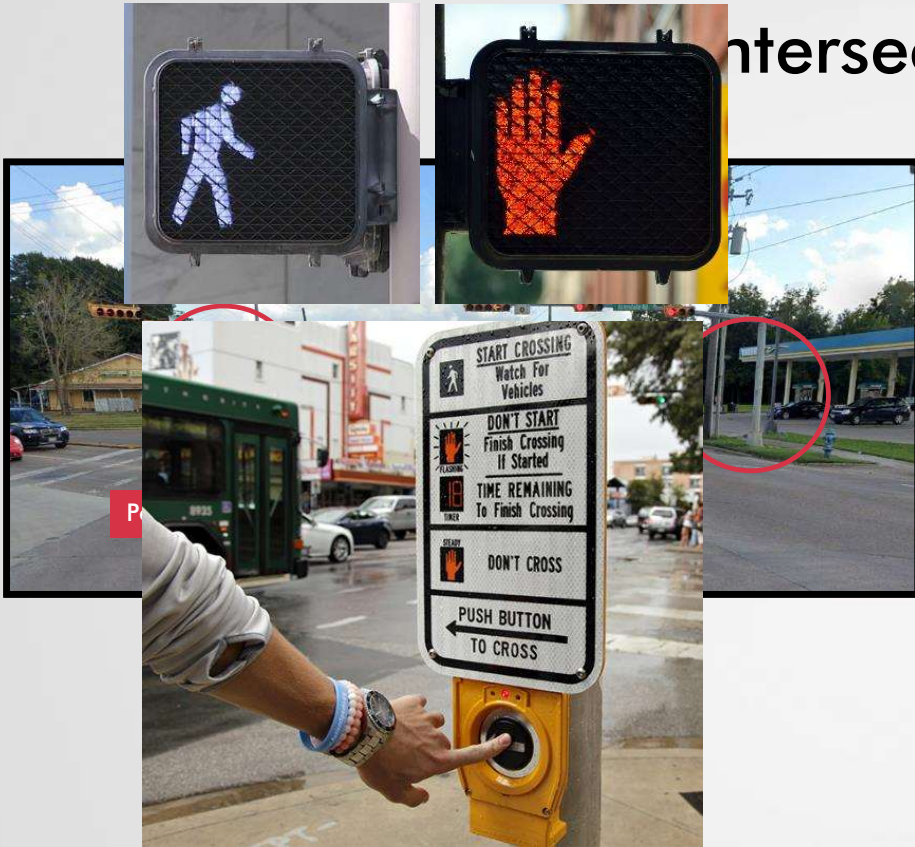
Roesner Rd, Katy, TX

**High Intensity  
Activated Crosswalk  
(HAWK)**



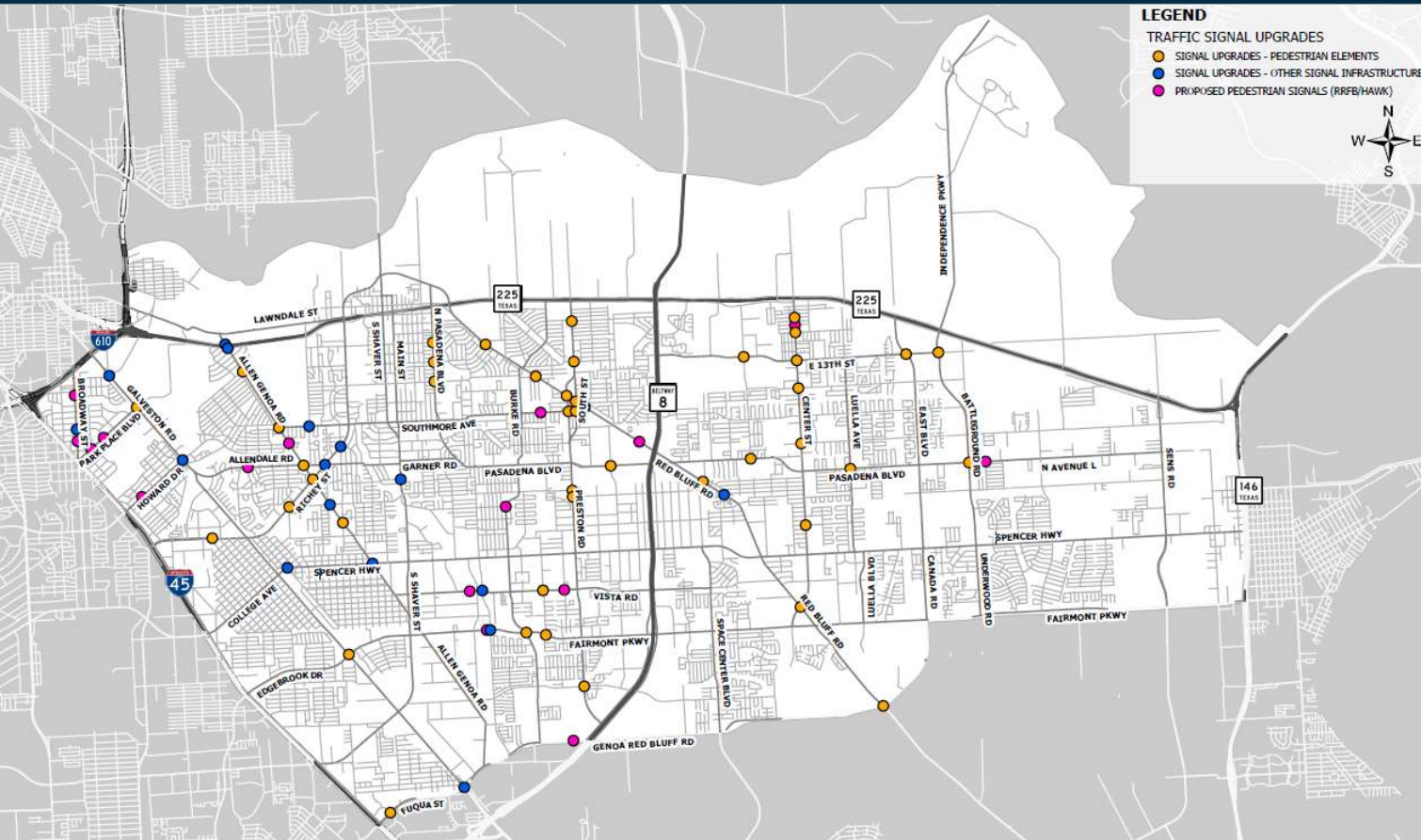
# Mobility - Traffic Signal Improvements

## Intersection Facilities



**Motor Vehicle Traffic  
Signal Equipment**

# Mobility - Traffic Signal Improvements



- Mid-block pedestrian crossings
  - 16 crossings
- Pedestrian facilities at intersections
  - 41 signals
- Traffic signal upgrades / repairs
  - 16 signals

# Mobility - Curb Ramp Improvements



- **470 intersections** along study corridors short-listed for improvements
- **174 intersections** within a 5-minute walking distance of schools (along study corridors)



# Sidewalk Improvements



**Damage**

[BUCHHEITCONCRETE.COM](http://BUCHHEITCONCRETE.COM)



**Obstructions**

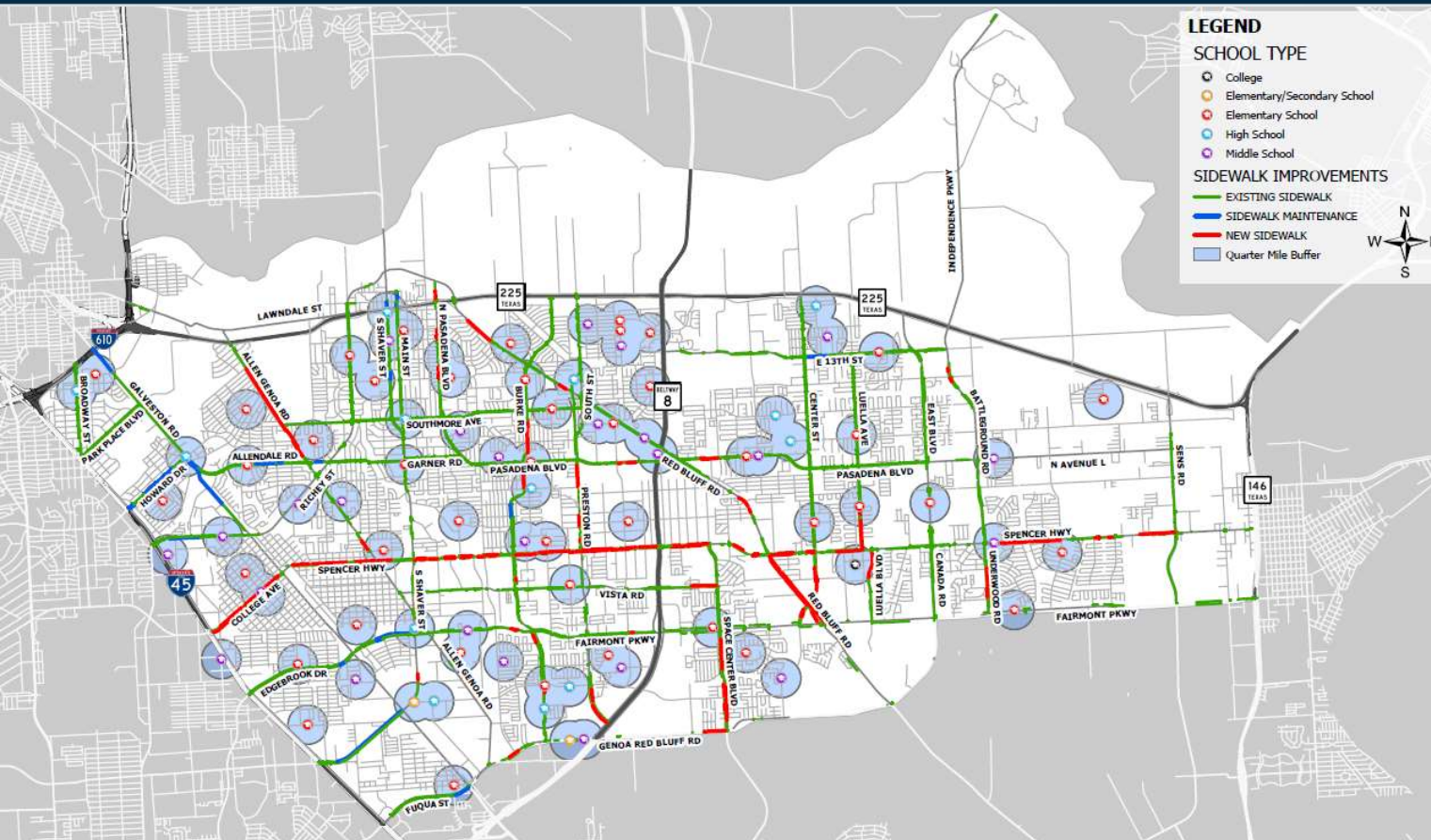
[PLANNING.ORG](http://PLANNING.ORG)



**Overgrown Grass**

[HOUSTONPUBLICMEDIA.ORG](http://HOUSTONPUBLICMEDIA.ORG)

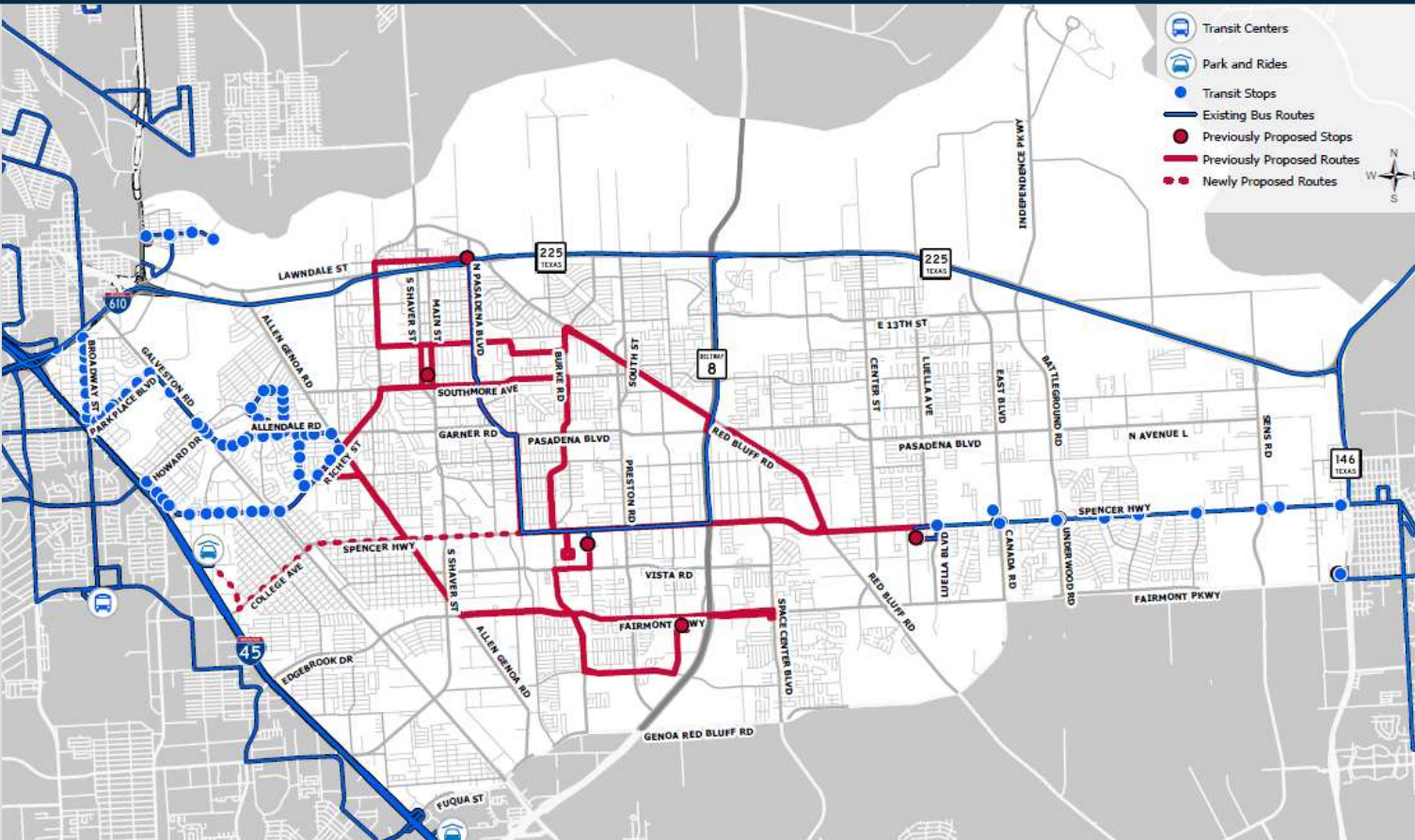
# Mobility - Sidewalk Improvements



- Total existing sidewalk
  - 132 miles
  - May be substandard width
- Maintenance needed
  - 7 miles
- New sidewalks
  - 20 miles

Note: only along study corridors

# Mobility - Transit Recommendations



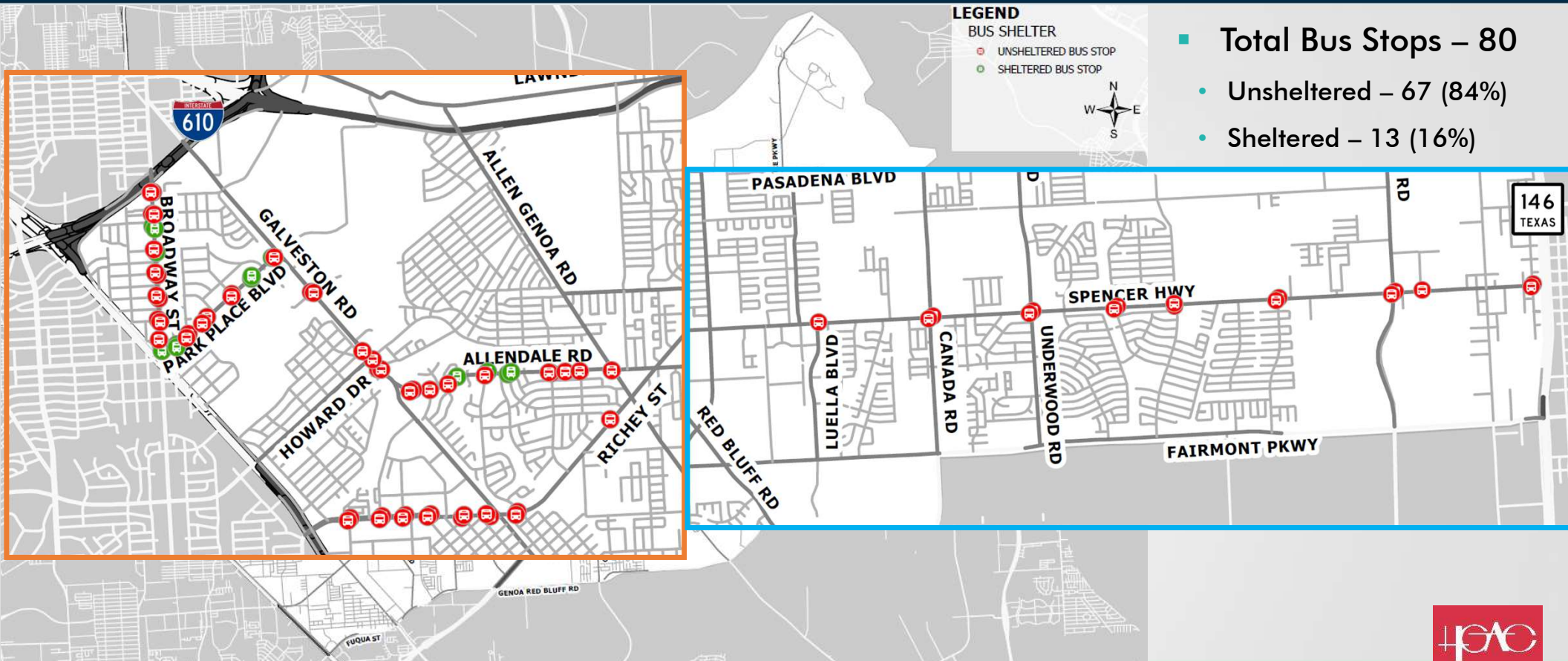
- Documents previous Harris County Transit recommendations
  - Completed using ridership data and public outreach
- Proposes one new connection to park and ride

*Note: Feasibility study is recommended*

# Mobility - Bus Stop Shelters



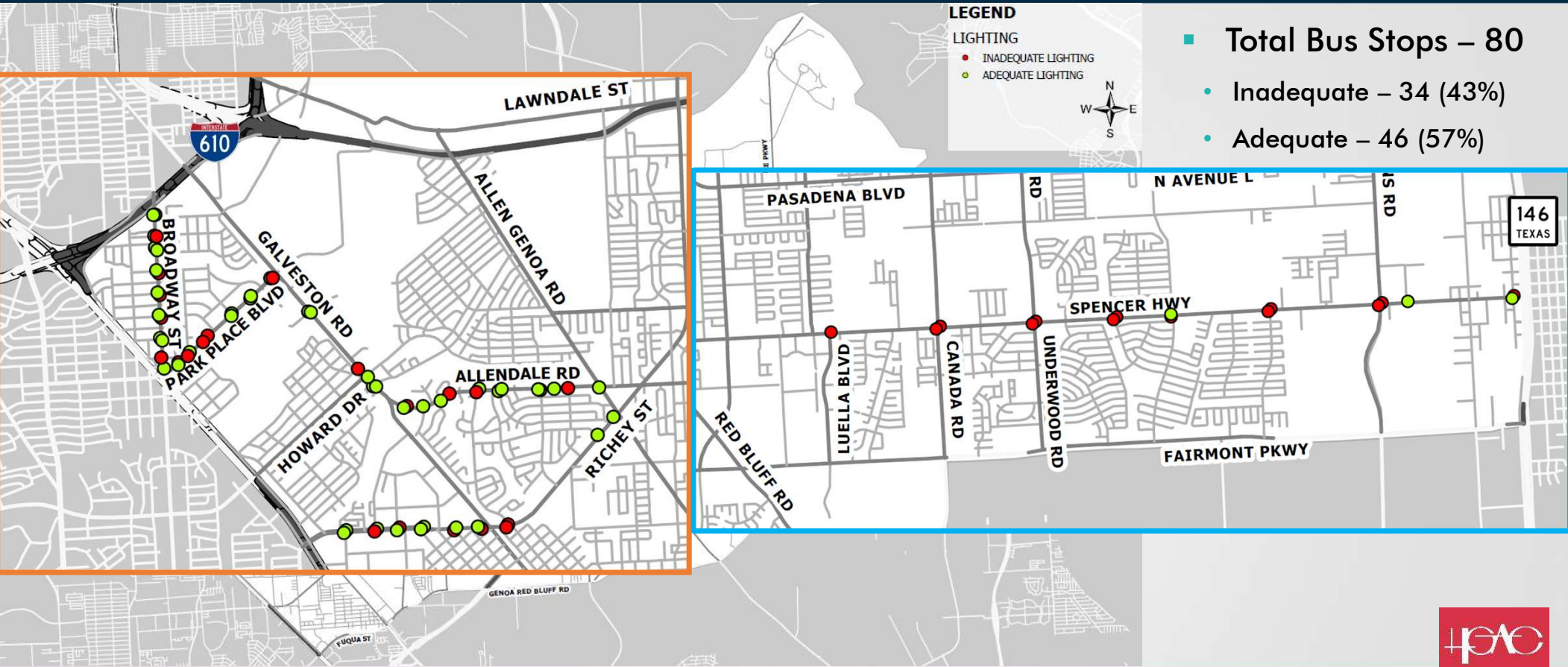
# Mobility - Bus Stop Shelters



- Total Bus Stops – 80
- Unsheltered – 67 (84%)
- Sheltered – 13 (16%)



# Mobility - Bus Stop Lighting Improvements

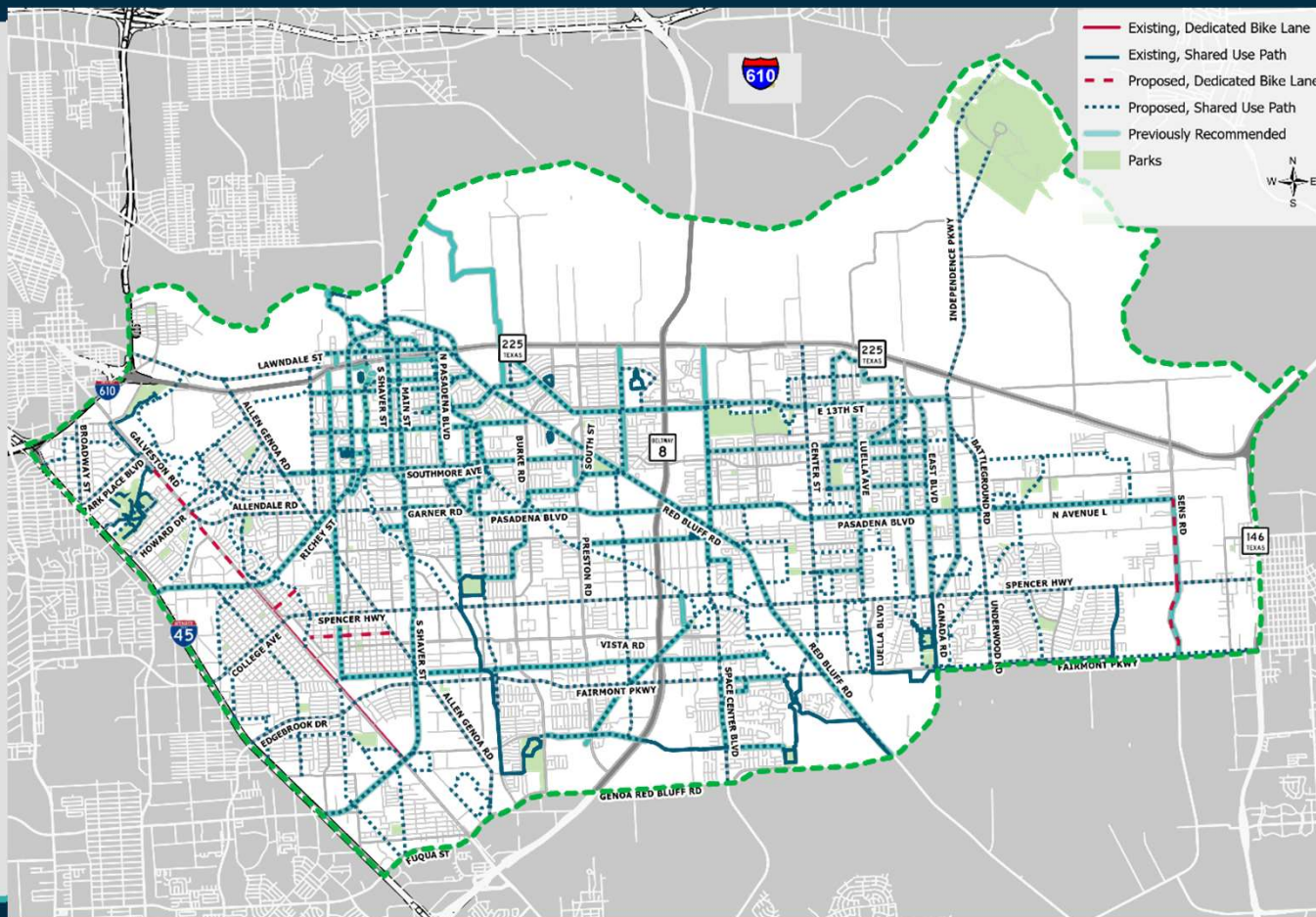


# Shared Use Path



- Separated from motor vehicle traffic
- Comfortable for a wide range of users
- Provides connectivity to other bicycle / pedestrian facilities
  - not always direct connectivity to destinations

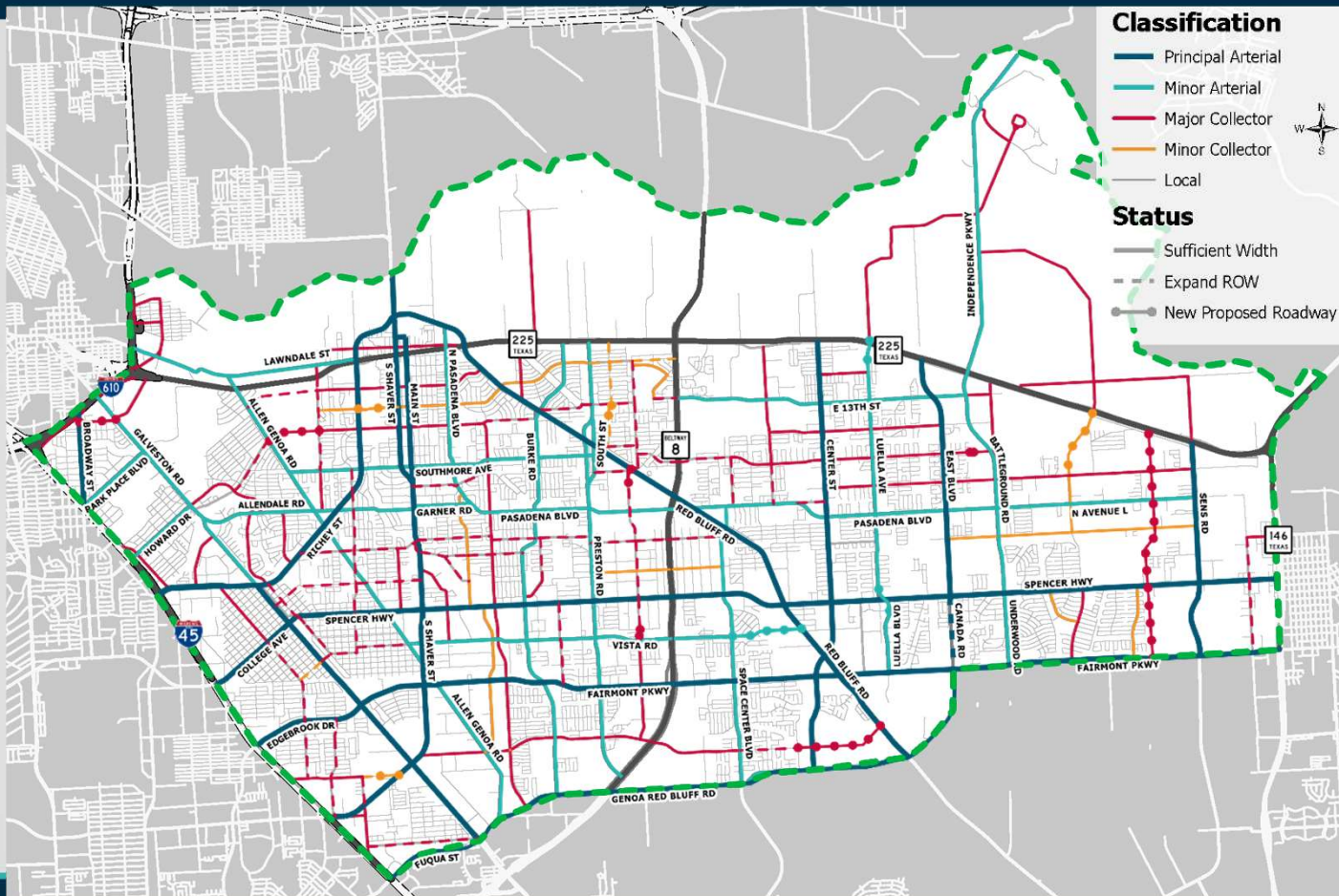
# Active Modes Recommendations



- Documents existing facilities (91 miles)
- Uses proposed facilities from other planning efforts
- Proposes high comfort bicycle facilities (244 miles)

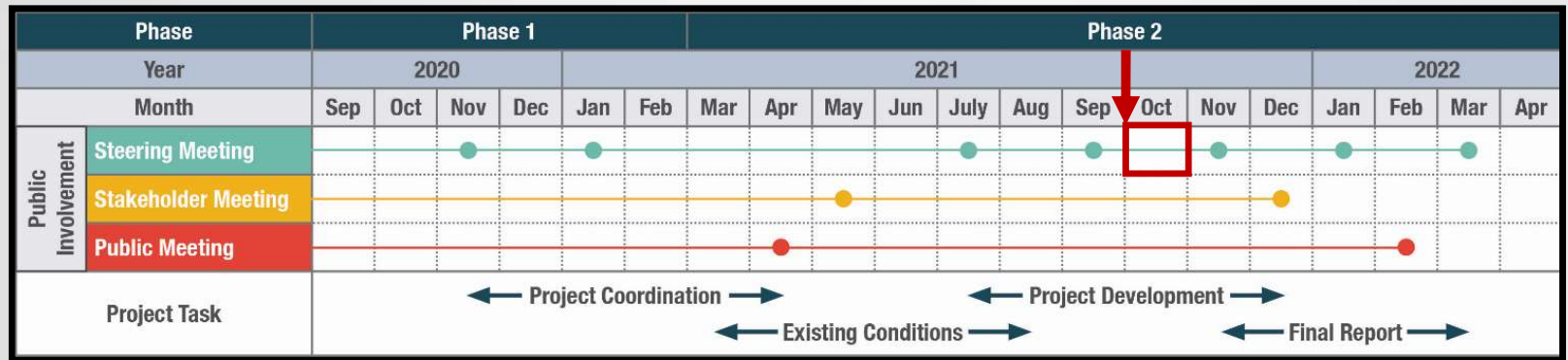
*Note: Additional design-level analysis is needed; ROW may be required*

# Thoroughfare Recommendations



- Right of Way Demand
  - Shared Use Path
  - Travel/Turn Lanes
- Future Connections
- Intersection Realignments

# Schedule



# Next Steps



- Follow Up Meetings
- H-GAC Modeling Results
- Revised Draft Improvements
- Steering Committee Review

- Stakeholder Meetings Part II
- Public Meeting
- Steering Committee Review

- Draft Final Improvements
- Steering Committee Review
- Final Improvements

- Draft Report
- Steering Committee Review
- Final Report



# Thank You!



## For More Information:

- [www.engage.h-gac.com](http://www.engage.h-gac.com)
- Mike Burns, AICP
  - [Mike.Burns@h-gac.com](mailto:Mike.Burns@h-gac.com)
- Allie Isbell, AICP
  - [Allie.Isbell@h-gac.com](mailto:Allie.Isbell@h-gac.com)