



TEXAS DEPARTMENT OF TRANSPORTATION

WELCOME!

FARM-TO-MARKET 1488 (FM 1488) ACCESS MANAGEMENT STUDY FROM INTERSTATE 45 (I-45) TO FM 149

Why Am I Here?

- **Learn** about the proposed improvements
- **Ask** questions about improvements
- **Provide** feedback

Mitchell Intermediate School
6800 Alden Bridge Drive, The Woodlands, TX 77382

STUDY PURPOSE AND GOALS



What Problems Are We Trying to Address?

- Traffic congestion
- Higher than average crash rates
- Escalating travel demand

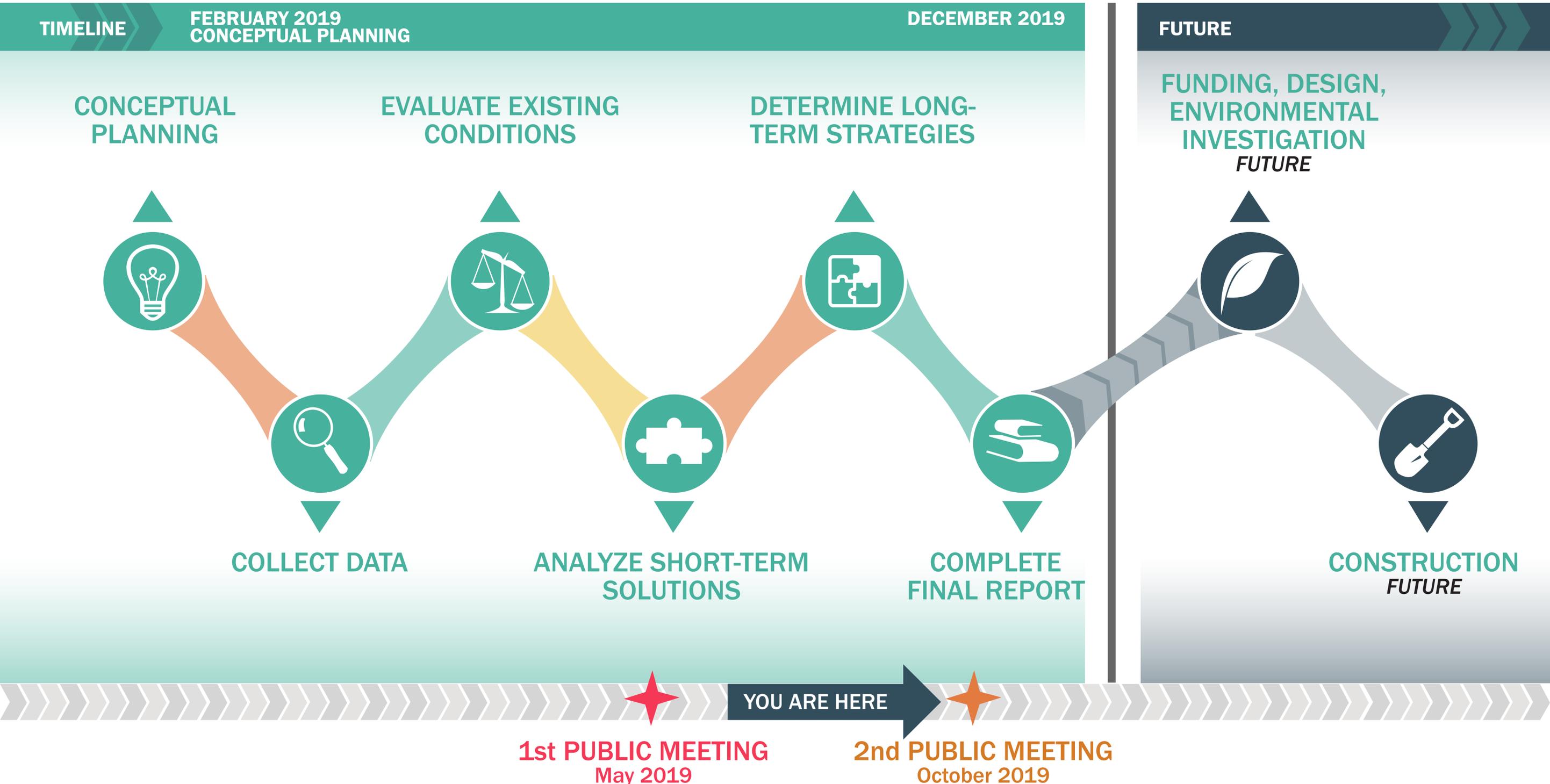


What Are We Trying to Do?

- Improve progression/mobility
- Reduce crashes
- Enhance multimodal connectivity
- Support economic growth

OVERALL STUDY PROCESS

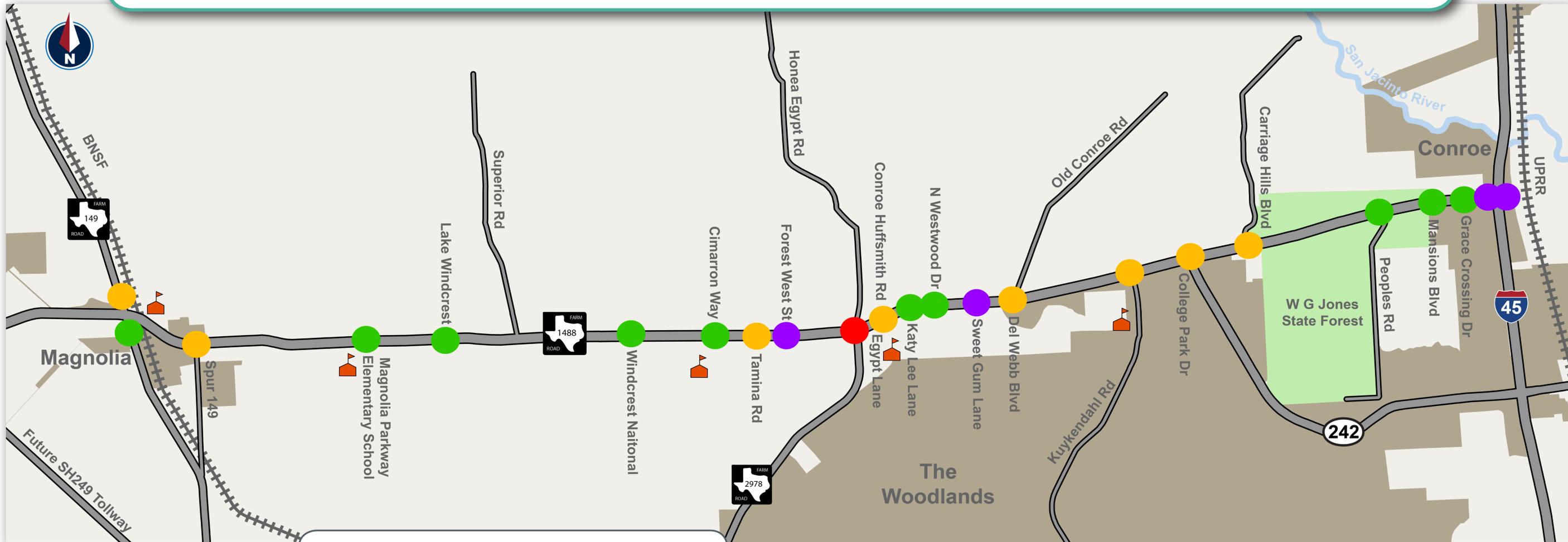
- **Conceptual Planning** is the first step in developing, designing, funding, and constructing future transportation projects.
- The process includes numerous opportunities to get involved.



Existing Conditions - Traffic Operations



48% (9 of 19) of the signalized intersections in the corridor experience heavy or moderate congestion.



Legend

- Intersections with heavy congestion
- Intersections with moderate congestion
- Intersections with light congestion
- Proposed traffic signal
- School

Existing Conditions - Safety

On FM 1488 from 2015 - 2017 there have been...

1,078
Total Crashes



281
Injury Crashes



7
Crashes
Involve a
Bicycle



6
Crashes
Involve a
Pedestrian

8
Fatal Crashes



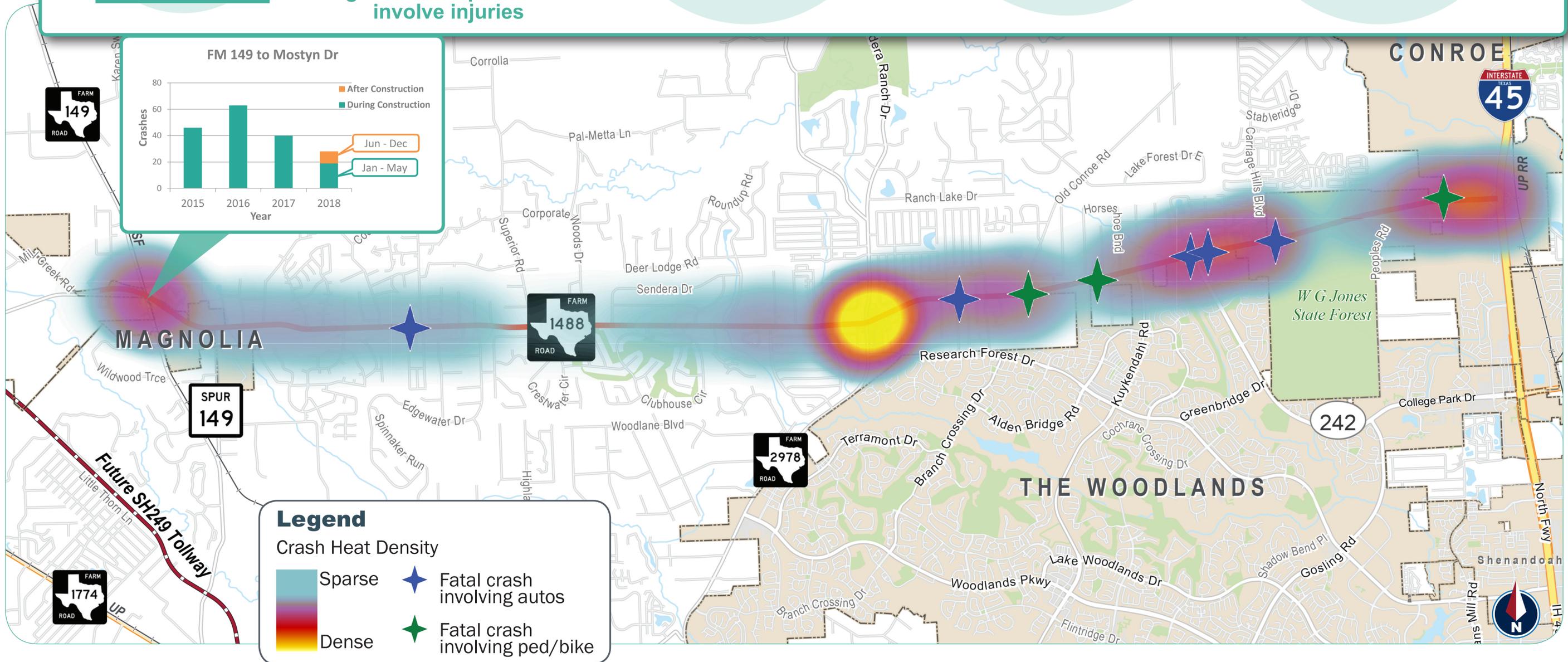
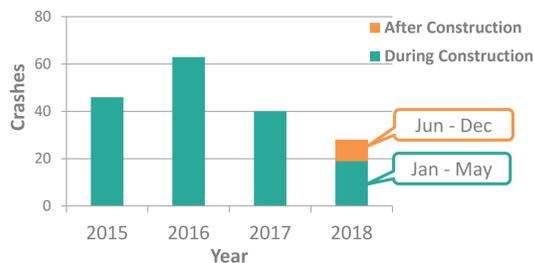
5 + 3
Involve Autos Involve Peds/Bikes

2
Involve Wrong
Way Driving

Speeding
contributed to
about
20%
of crashes

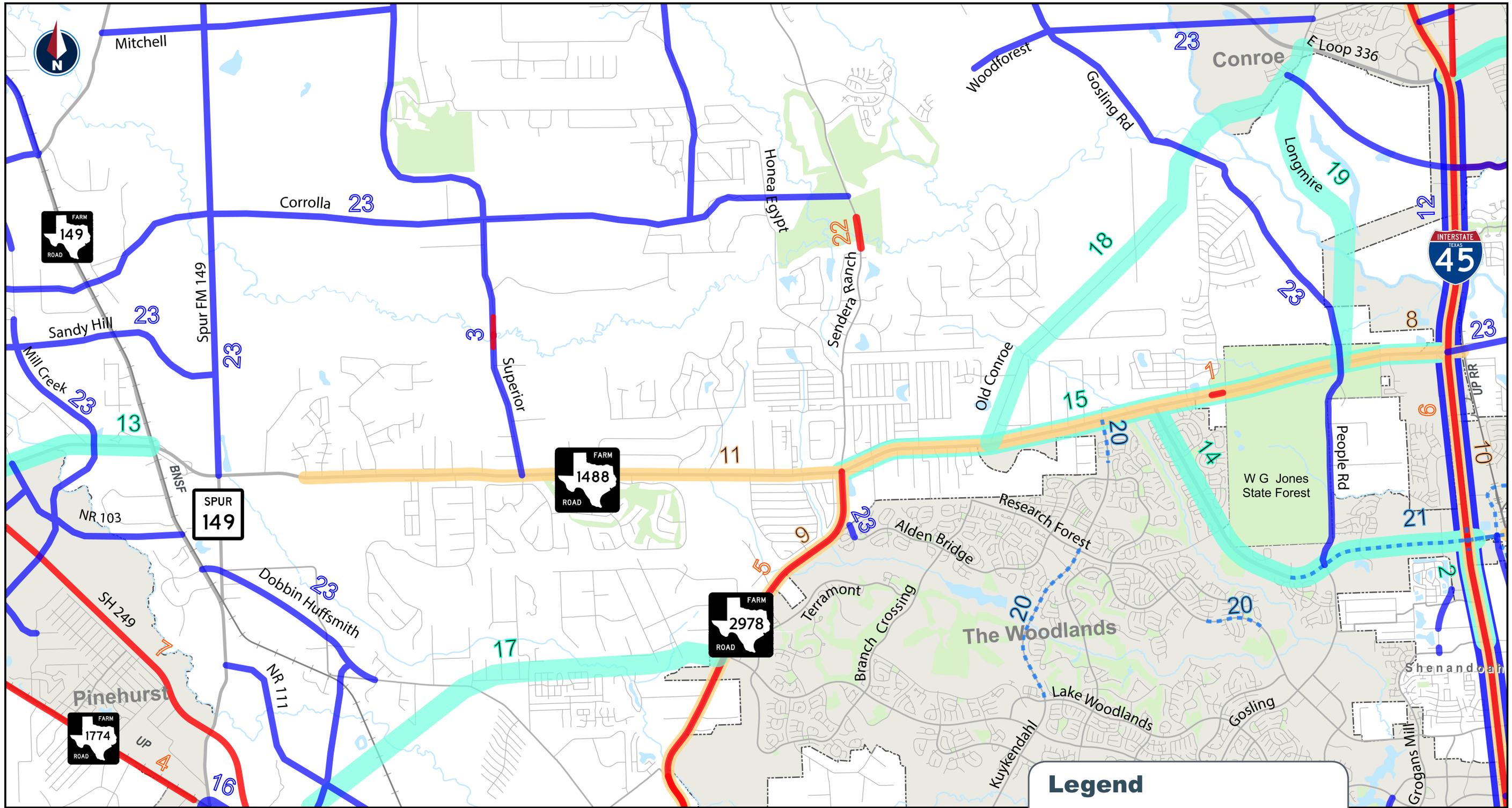


FM 149 to Mostyn Dr





Regional Planned Projects



ID	Roadway	Description	Let Year
1	FM 1488	Add Right Turn Lane at Carriage Hills	2018
2	I-45	Intersection and Drainage Improvements	2026
3	Superior Rd	Replace Bridge and Approaches at Lake Creek	2018
4	FM 1774	Widen to 4-Lane with Two Way Left Turn Lane	2014
5	FM 2978	Widen from 2 to 4 Lanes	2016
6	I-45	Landscape Development	2015
7	SH 249	Construct 4 Lane Tollway In Sections	2017
8	FM 1488	Intersection Improvements	2020
9	FM 2978	Install New Fiber/Radio Systems	2020
10	I-45	Scenic Enhancements	2019
11	FM 1488	Install Raised Median	2022
12	I-45	Preliminary Environmental Linkage (PEL) Study	2030

ID	Roadway	Description	Let Year
13	FM 1488	Reconstruct Pavement 2 Lanes to 4-Lane Divided Rural	2022
14	SH 242	Widen from 4 to 6 Lanes	2022
15	FM 1488	Widen to 6 Lanes	2024
16	SH 249	Widen from 4 to 6 Lane Tollway	2030
17	Future Roadway	Construct New 2-Lane Divided	2023
18	Old Conroe Rd	Widen to 4-Lanes and Extend Roadway to SL 336 S	2024
19	Longmire Rd	Construct New 4-Lane Road	2023
20	Multiple	The Woodlands Township Safe School Access Project	-
21	College Park Dr	Install Shared-Use Path	-
22	Sendera Ranch Dr	Construct Lake Creek Bridge Expansion	2018
23	Multiple	Future Thoroughfare/Roadway Improvements	-

Legend

- - - Unconstrained
- Construction Scheduled
- Finalizing for Construction
- Under Development
- Long Term Planning

Source: TxDOT, H-GAC, Montgomery County Thoroughfare Plan

General Facts

Connects

I-45 to future
SH 249

4 lanes

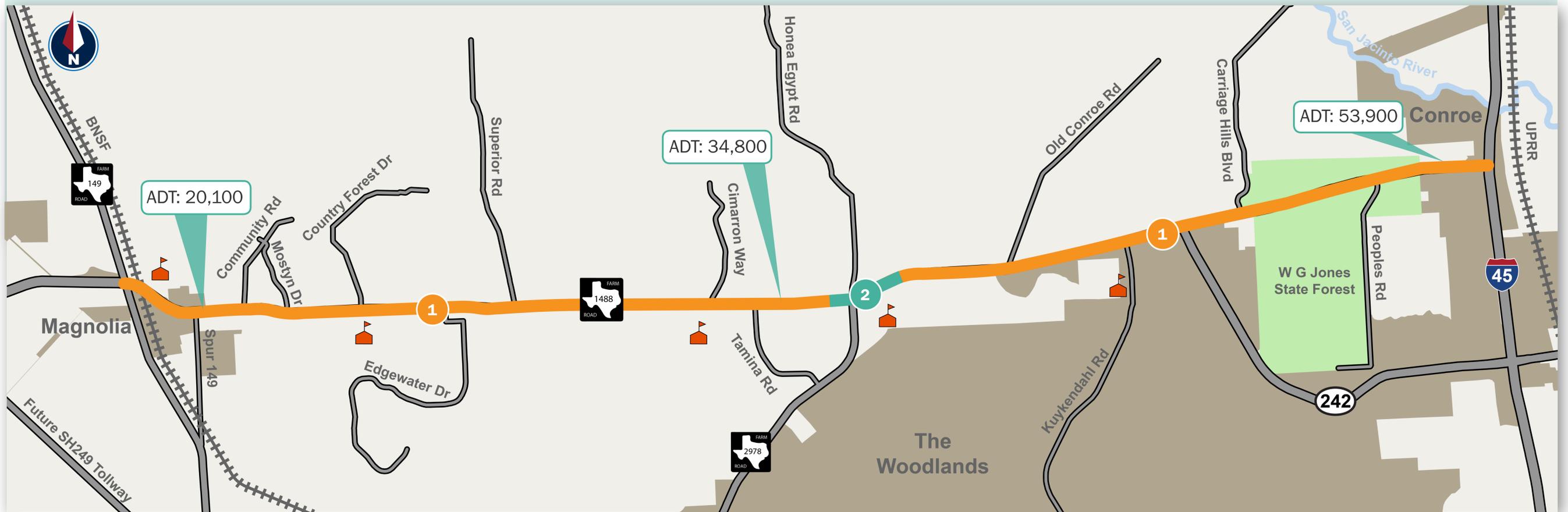
with center
turn lane

4% - 8%
trucks

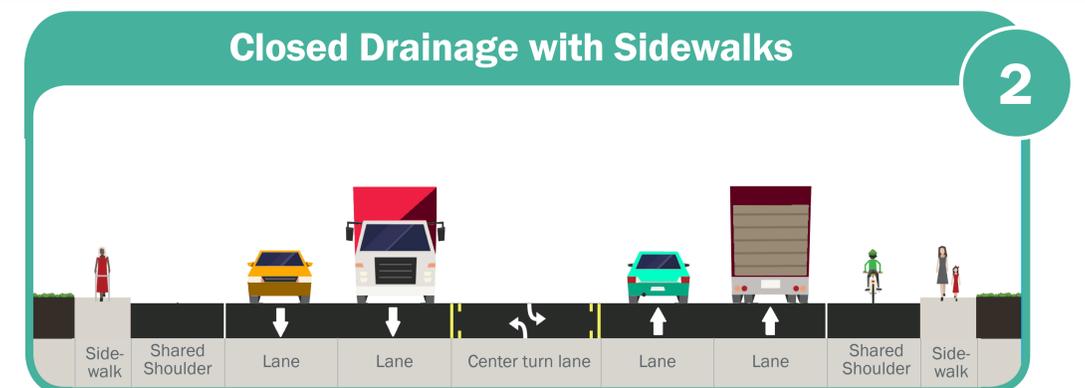
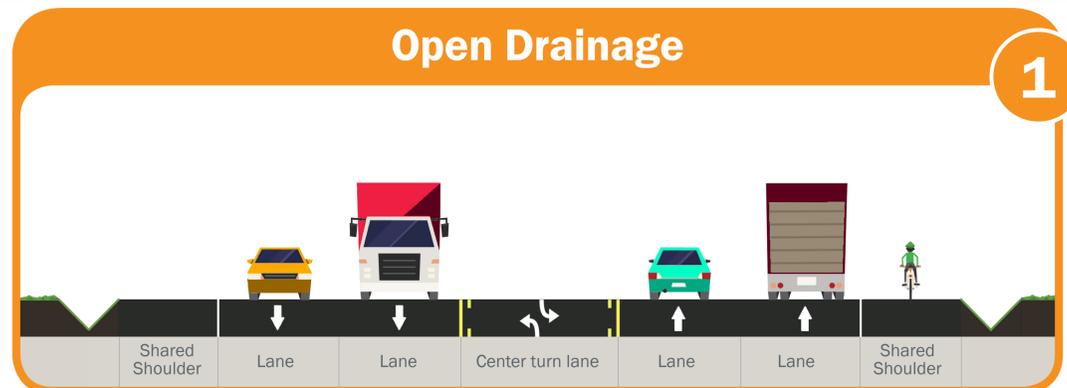
**120 -
175 ft**
typical right-of-way

45 - 50 mph

posted speed limit
with two school zones



Existing Typical Sections



First Public Meeting: Public Input



Public Participation Summary

- 102 members of the public attended
- More than 1,000 online engagement survey participants
- Over 2,500 individual comments received from online engagement survey
- Majority of the public meeting attendees supported improvements along FM 1488

*First Public Meeting held on May 23, 2019

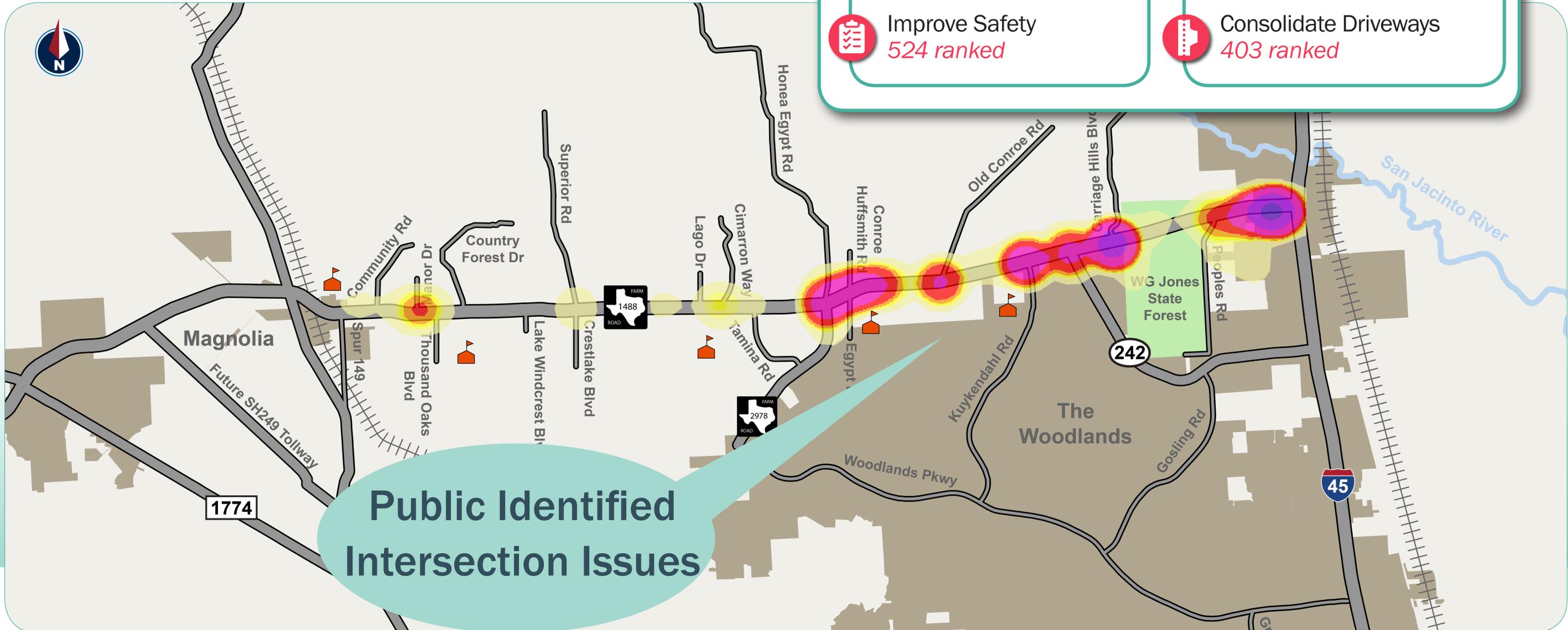
Online Engagement Survey - Priority Ranking

Top 3 Roadway Priorities

- Improve Traffic Flow
777 ranked
- Reduce Delay at Signals
600 ranked
- Improve Safety
524 ranked

Top 3 Access Management Priorities

- Signal Timing
729 ranked
- Intersection Turn Lanes
597 ranked
- Consolidate Driveways
403 ranked



Public Identified Intersection Issues

Proposed Improvements: Corridor-Wide

Corridor Improvements



Install raised medians



Signal retiming, coordination, and equipment upgrades



Improve intersection turn lanes and provide continuity for bicycles



Install advance street name signs



Add signing and striping for bikes

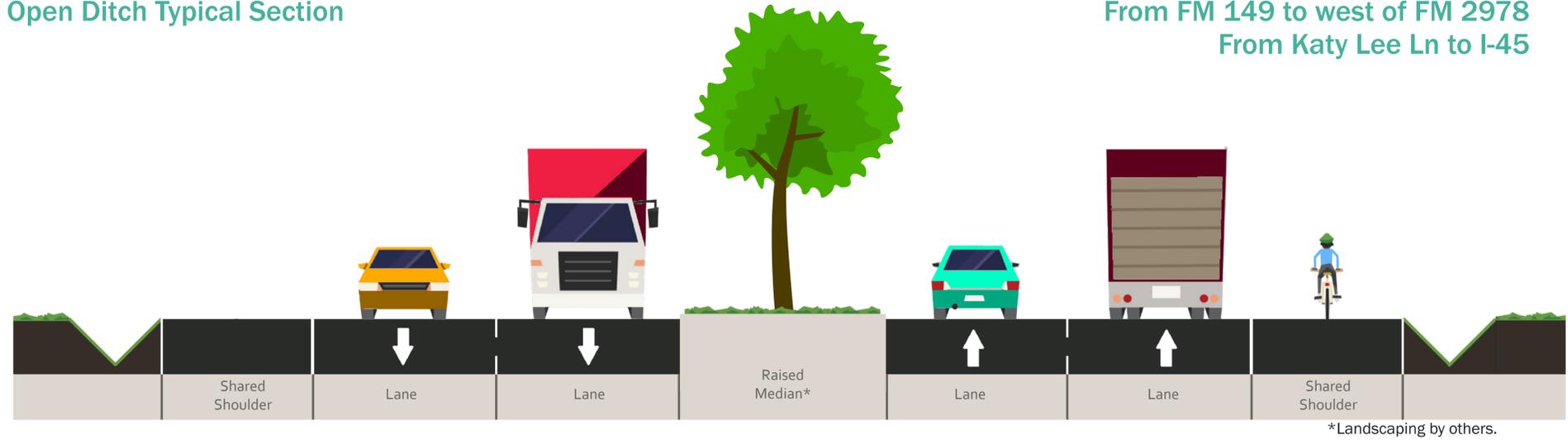


Provide ADA compliant pedestrian crossings at intersections

Proposed

Open Ditch Typical Section

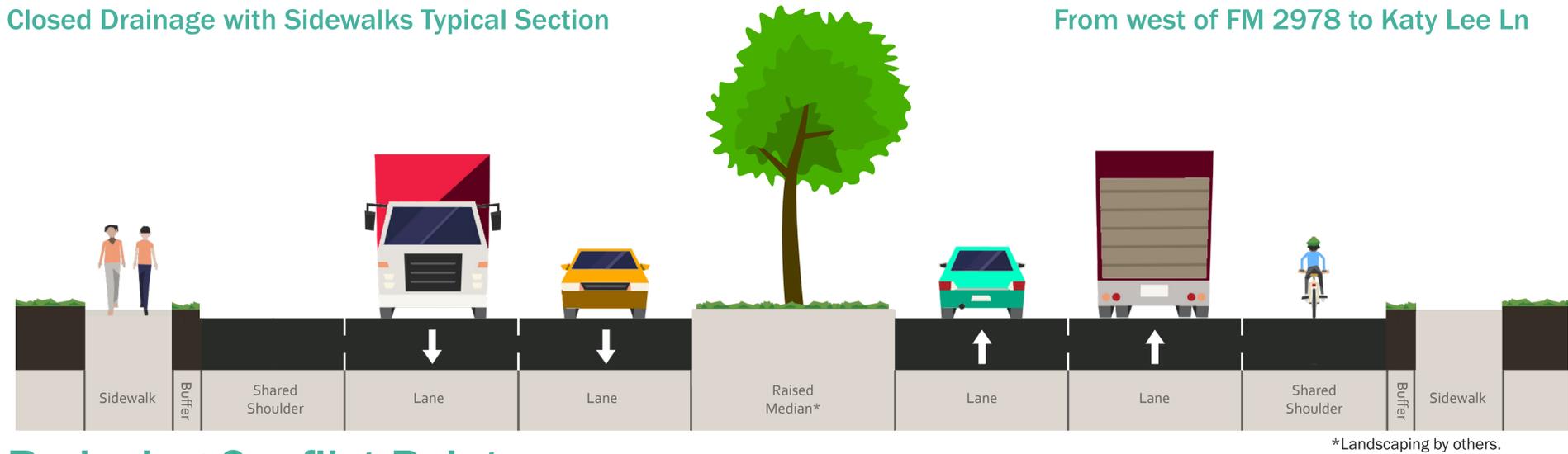
From FM 149 to west of FM 2978
From Katy Lee Ln to I-45



Proposed

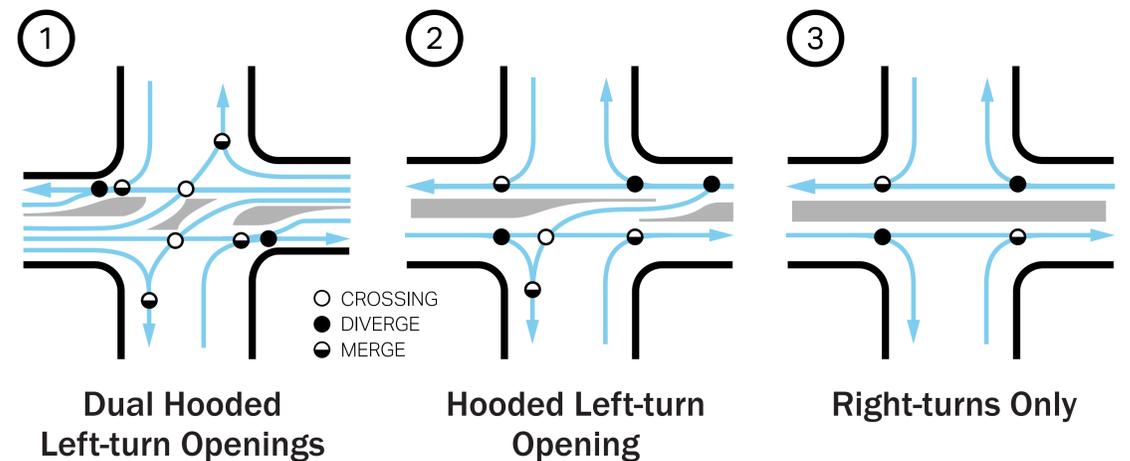
Closed Drainage with Sidewalks Typical Section

From west of FM 2978 to Katy Lee Ln



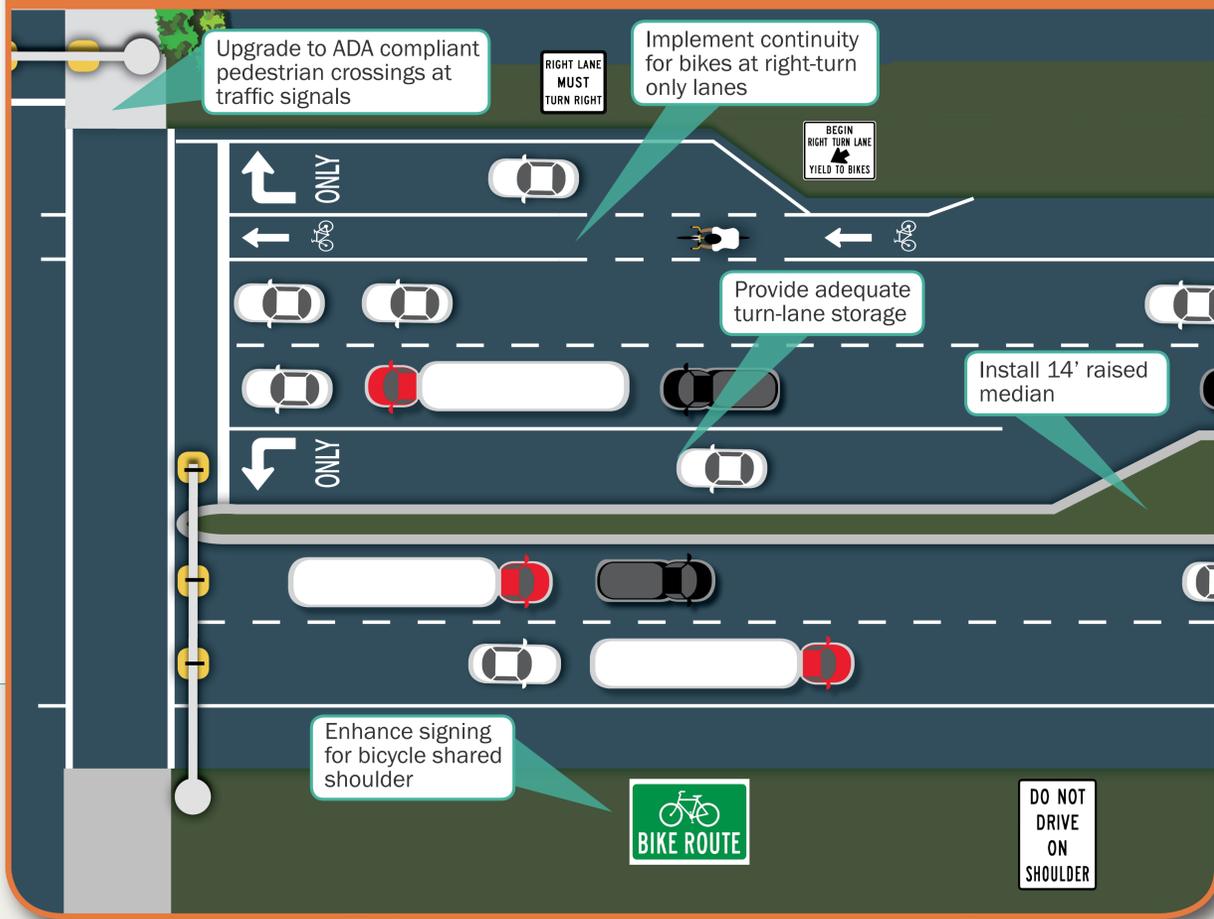
Reducing Conflict Points

Reducing conflict points can potentially reduce crashes. By adding raised medians in appropriate places, the proposed improvements can potentially reduce the number of conflict points on the corridor by 80%.



Proposed Improvements: Intersections

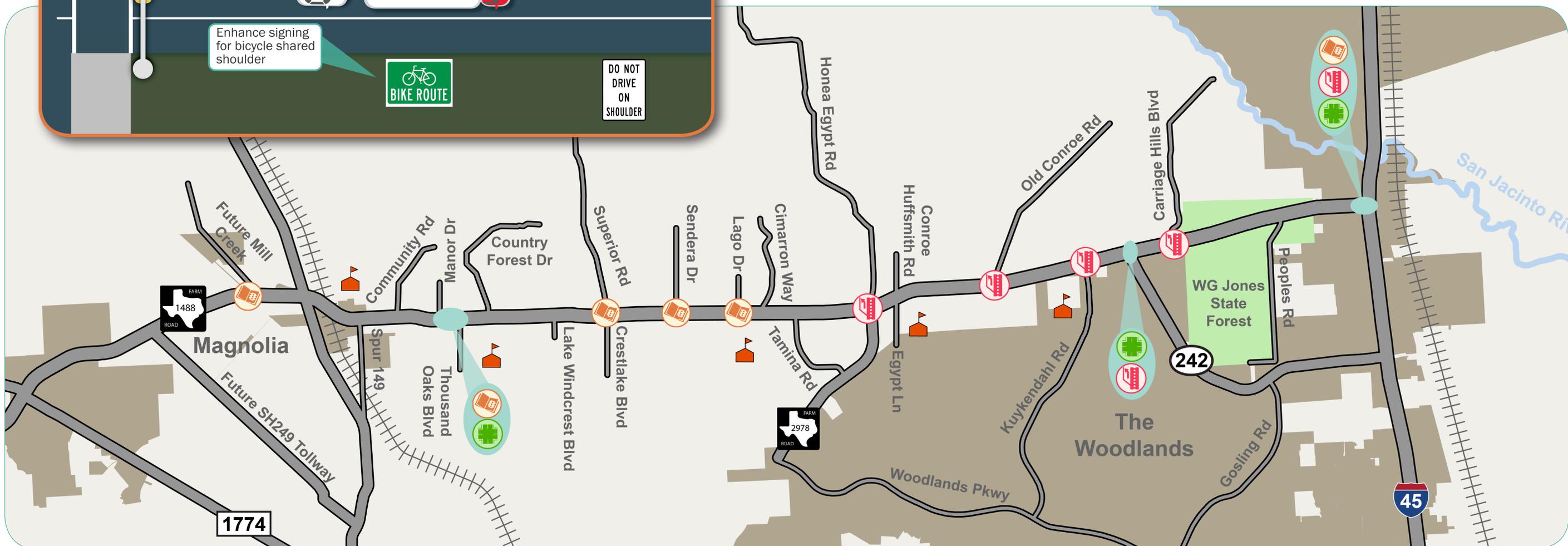
Intersection Improvements



Legend



- Dual left turn lanes
- Traffic signal warrant analysis
- Reconfigure intersection
- School

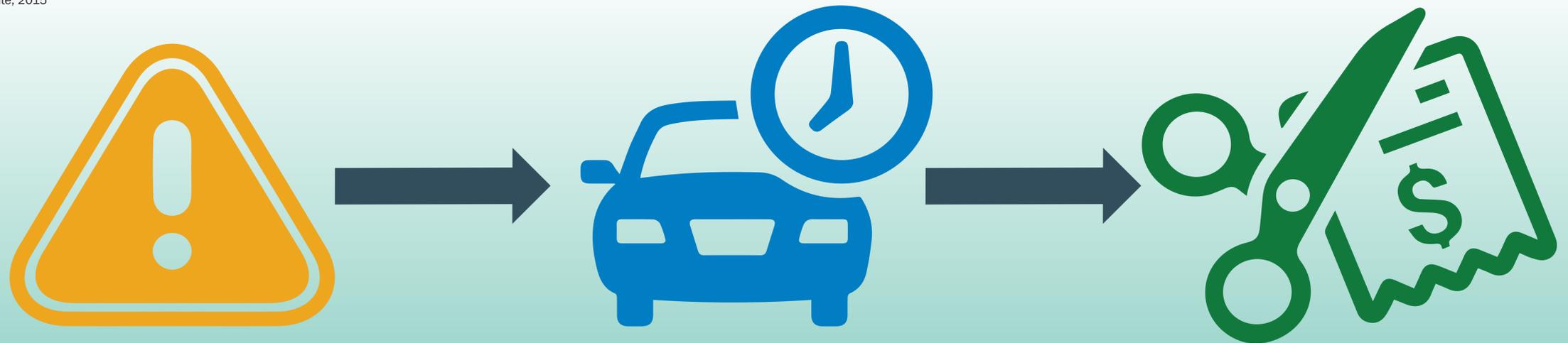


Proposed Short-Range Improvement Benefits

Access Management Benefit	Percent Improvement	Savings
Safety	28% reduction in total crashes ¹ 46% reduction in pedestrian crashes ²	\$3.3 million per year ³
Travel time	39% reduction with intersection improvements and raised median ⁴	32 hours of time per year per roadway user \$700 per year per roadway user ⁵ \$54.1 million per year for all users ⁵

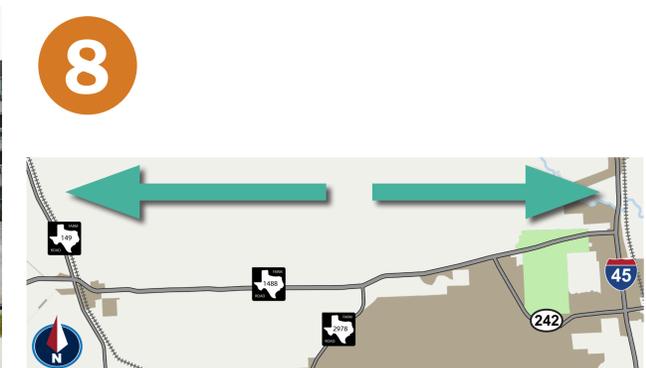
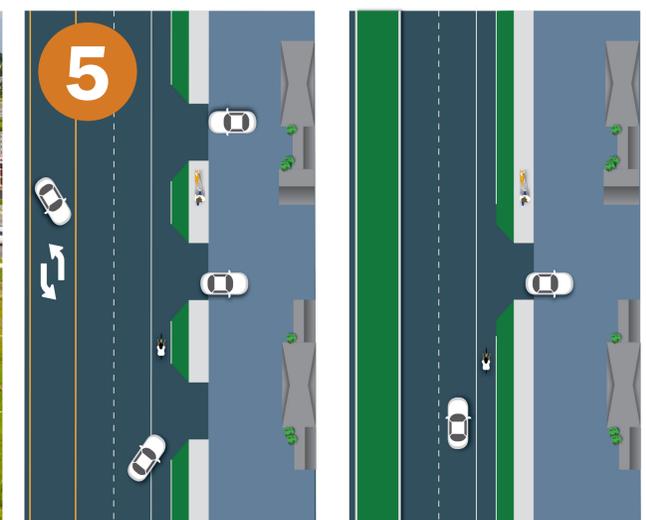
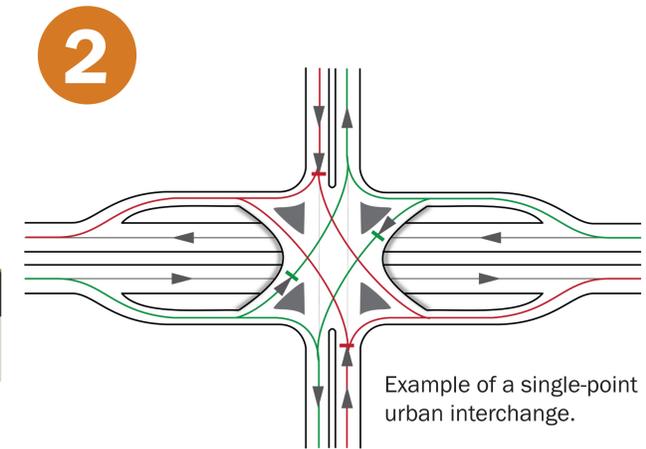
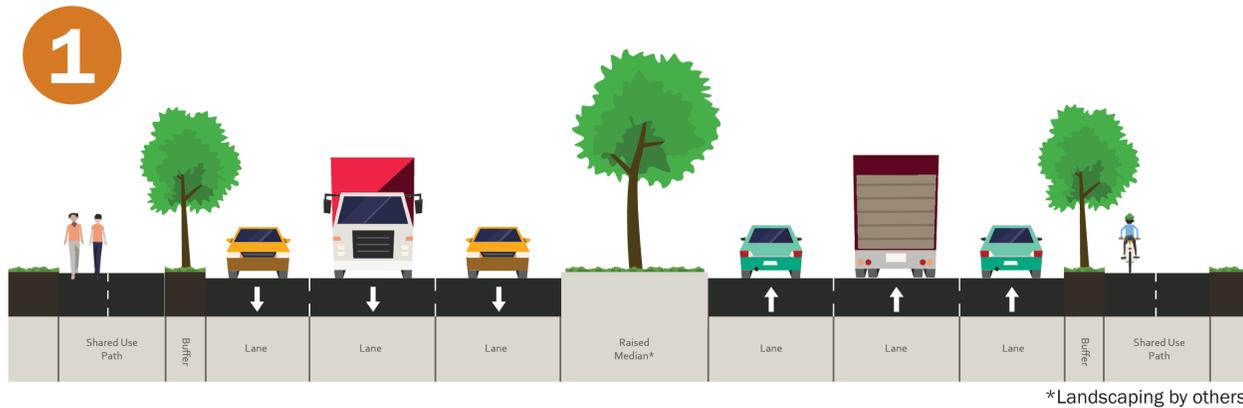
Sources:

1. The Crash Modification Factors Clearinghouse
2. Safety Benefits of Raised Medians and Pedestrian Refuge Areas, FHWA, 2010
3. Costs based on 2017 Nation Safety Council cost by injury severity or crash
4. TRB Access Management Manual, Transportation Research Board, 2004
5. 2015 Urban Mobility Scorecard, Texas A&M Transportation Institute, 2015



Potential Improvement Opportunities

1. Widen to 6-lanes
2. Innovative intersections
3. Align off-set intersections
4. Drainage study
5. Driveway consolidation
6. Continuous lighting (restrictions within forest)
7. Enhance bike and ped accommodations with a 10-foot shared use path
8. Provide parallel routes for enhanced connectivity





Corridor Implementation and Cost

FM 1488 Access Management Study Planning-Level Implementation and Improvement Cost Estimates

Period	Primary Funding Source >>				Total Cost	TxDOT Cost	Montgomery Cost	City of Conroe Cost	TOTALS (In Millions)	
	Improvement	Quantity	Unit	Unit Cost						
SHORT-RANGE	CORRIDOR-WIDE IMPROVEMENTS:								\$19.53	
	Add raised median	15	MI	\$336,000	\$5,040,000	\$5,040,000				
	Add truck loons (to facilitate midblock u-turns)	1	LS	\$804,000	\$804,000	\$804,000				
	Add advance street name signs	1	LS	\$60,000	\$60,000	\$60,000				
	Maintenance (minor)	12	MO	\$8,400	\$100,800	\$100,800				
	INTERSECTION IMPROVEMENTS:									
	Improve signal timing and synchronization	21	EA	\$12,000	\$252,000	\$192,000		\$60,000		
	Widen for intersection turn lanes	1	LS	\$1,644,000	\$1,644,000	\$1,644,000				
	Modify traffic signals (street name signs, audible pedestrian signals)	17	EA	\$151,200	\$2,570,400	\$2,116,800		\$453,600		
	Perform traffic signal warrant analysis studies	6	EA	\$36,000	\$216,000	\$216,000				
	Install continuous green T intersections	4	EA	\$456,000	\$1,824,000	\$1,824,000				
	Extend access road west of FM 149	1	LS	\$564,000	\$564,000	\$564,000				
	Install flashing signal	5	EA	\$300,000	\$1,500,000	\$1,500,000				
	Add safety lighting at FM 149 access roads	1	LS	\$48,000	\$48,000	\$48,000				
	Reconfigure I-45 Interchange	1	LS	\$1,164,000	\$1,164,000	\$1,164,000				
	PEDESTRIAN / BICYCLE IMPROVEMENTS:									
	Add ADA accessible pedestrian crossings at traffic signals	1	EA	\$960,000	\$960,000	\$960,000				
	Install signing and new shoulder stripe for bicycle shared shoulder	15	MI	\$24,000	\$360,000	\$360,000				
	Improve connectivity to existing sidewalks (limited locations)	1	LS	\$396,000	\$396,000	\$396,000				
	Add edgeline rumble strips (narrow design with bicycle gaps)	15	MI	\$2,400.00	\$36,000	\$36,000				
BARRICADES, SIGNS, TRAFFIC CONTROL:										
MOBILIZATION (at 10% of Total Cost):		LS		\$1,708,320	\$1,656,960		\$51,360			
TOTAL FOR SHORT-RANGE IMPROVEMENTS					\$19,530,720	\$18,965,760	\$-	\$564,960		
MEDIUM-RANGE	CORRIDOR-WIDE IMPROVEMENTS:								\$7.25	
	Widen FM 1488 to 6 lanes from I-45 to FM 2978	6.9	MI	To Be Determined						
	- Add separated 10' SUP	6.9	MI	\$408,000	\$2,815,200	\$2,815,200				
	- Consolidate and share driveways	1	LS	\$576,000	\$576,000	\$576,000				
	Widen Carriage Hills	1	LS	\$408,000	\$408,000		\$408,000			
	Connect bicycle routes	1	LS	\$276,000	\$276,000	\$276,000				
	BARRICADES, SIGNS, TRAFFIC CONTROL:									
	MOBILIZATION (at 10% of Total Cost):		LS		\$659,520	\$618,720	\$40,800			
	TOTAL FOR MEDIUM-RANGE IMPROVEMENTS					\$7,254,720	\$6,805,920	\$448,800		\$-
	LONG-RANGE	CORRIDOR-WIDE IMPROVEMENTS:								
Widen FM 1488 to 6 lanes from FM 2978 to Mill Creek		6.5	MI	To Be Determined						
- Add separated 10' SUP		6.5	MI	\$408,000	\$2,652,000	\$2,652,000				
- Consolidate and share driveways		1	LS	\$1,020,000	\$1,020,000	\$1,020,000				
Drainage study along FM 1488		1	LS	\$600,000	\$600,000	\$600,000				
I-45 Southbound Ramp Reversals near FM 1488 (4 ramps)		1	LS	\$1,680,000	\$1,680,000	\$1,680,000				
Grade separation at FM 2978		1	LS	\$36,000,000	\$36,000,000	\$36,000,000				
Add continuous street lighting		13.4	MI	\$276,000	\$3,698,400	\$3,698,400				
BARRICADES, SIGNS, TRAFFIC CONTROL:										
MOBILIZATION (at 10% of Total Cost):			LS		\$4,853,040	\$4,853,040				
TOTAL FOR LONG-RANGE IMPROVEMENTS / OPPORTUNITIES					\$53,383,440	\$53,383,440	\$-	\$-		

NOTES:

1. These are planning-level cost estimates only, and are subject to change.
2. Funding and construction coordination will be required between TxDOT and the following entities: Montgomery County, City of Conroe, City of Magnolia, and potential partners.
3. Joint funding may occur for several improvements including traffic signals, illumination, driveway consolidation, and landscaping.
4. Some improvements such as widening, sidewalks, and lighting are listed under medium-range or long-range since they are driven by funding, construction schedule, and additional study.
5. Cost estimates are based on unit costs as of August 2019 from various sources, primarily TxDOT. Contingencies have been included in all costs.
6. Abbreviations: LS - Lump Sum; LF - Linear Feet; SY - Square Yards; MI - Mile; EA - Each; MO - Month
7. Estimates do not include ROW acquisitions.



Your Input will Help Refine Improvements

- Review public and stakeholder feedback
- Refine improvements as applicable
- Study will be completed in December 2019



Please send any questions or comments to:

Address:

Public Information Office
P.O. Box 1386
Houston, Texas 77251-1386
Phone: (713) 802-5022

Email:

fm1488-accessmanagement@txdot.gov

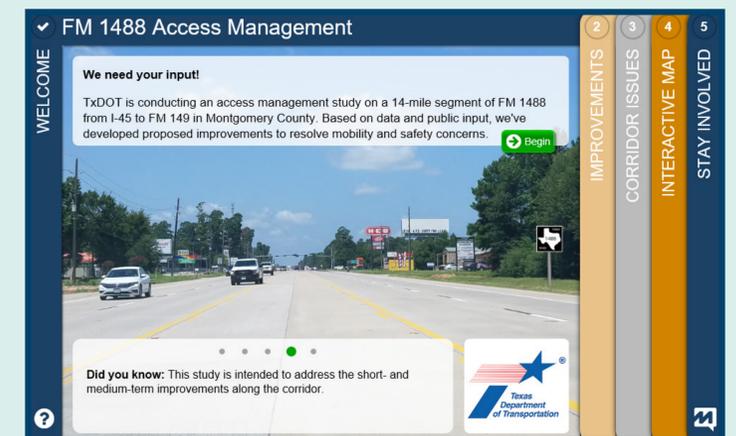
Website:

Go to: www.txdot.gov

Search: FM 1488 Access Management

We Need Your Help!

Take the online survey here and then share with others



Online survey is available on the FM 1488 project web page



You can also scan this Quick Response (QR) code with your phone/tablet to access

Engage Station: Take the Online Survey Here



- Fill out the online survey here
- Use your phone to fill out the survey at: www.txdot.gov
Search: FM 1488 Access Management
- Access the survey immediately by scanning this Quick Response (QR) code with your phone or tablet reader.



Once completed:

Please help us gain more feedback and share the link via email or social media!

Necesitamos sus comentarios, participe en la encuesta interactiva que está disponible en inglés y español.