



TEXAS DEPARTMENT OF TRANSPORTATION



December 12, 2017

Feasibility Study Stakeholder Engagement

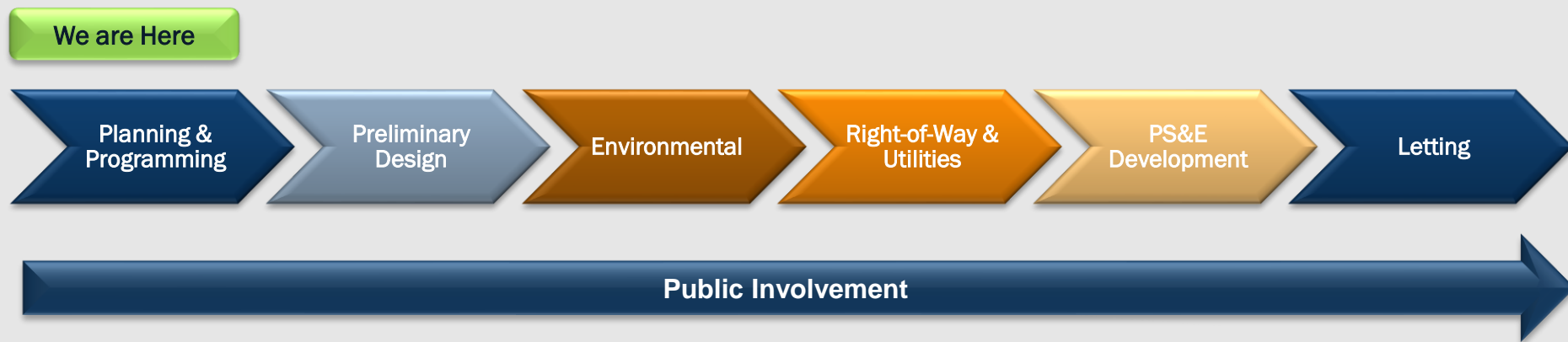
IDENTIFY THE NEEDS AND GOALS FOR IMPROVEMENTS



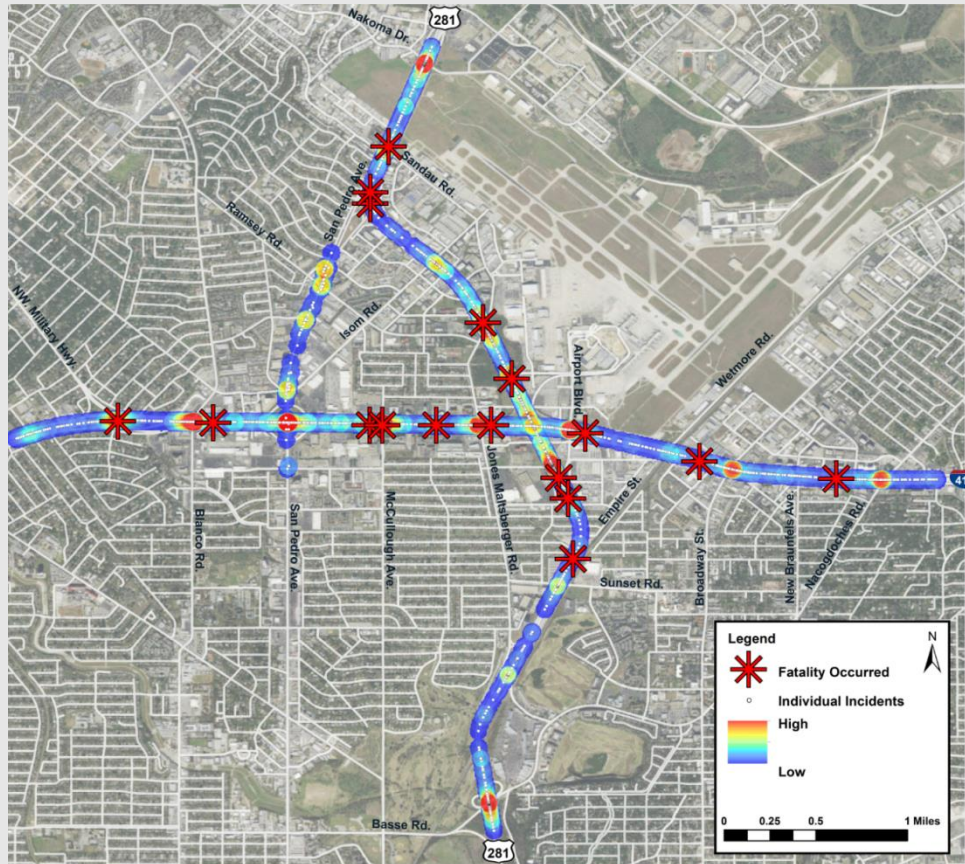
EVALUATE AND REFINE POTENTIAL SOLUTIONS



Project Development & Future Public Involvement



Crash Analysis Summary (2011-2015)



Average of 2.8 crashes/day
3.4 fatal crashes/year

Source: TxDOT 2016

Eastbound I-410 at Ramp from San Pedro Ave (PM)



Westbound I-410 at US 281 DC Entrance Ramp (PM)



Source: Texas A&M Transportation Institute, September 2016

Open House #1: Identify Needs & Possible Solutions

WHAT WE HEARD

■ Traffic Operations

- Merging and Weaving
- Bottlenecks
- Ramps that go from 2 to 1 lane
- Exit/entrance ramps on I-410
- Signal timing & queueing

■ Multimodal

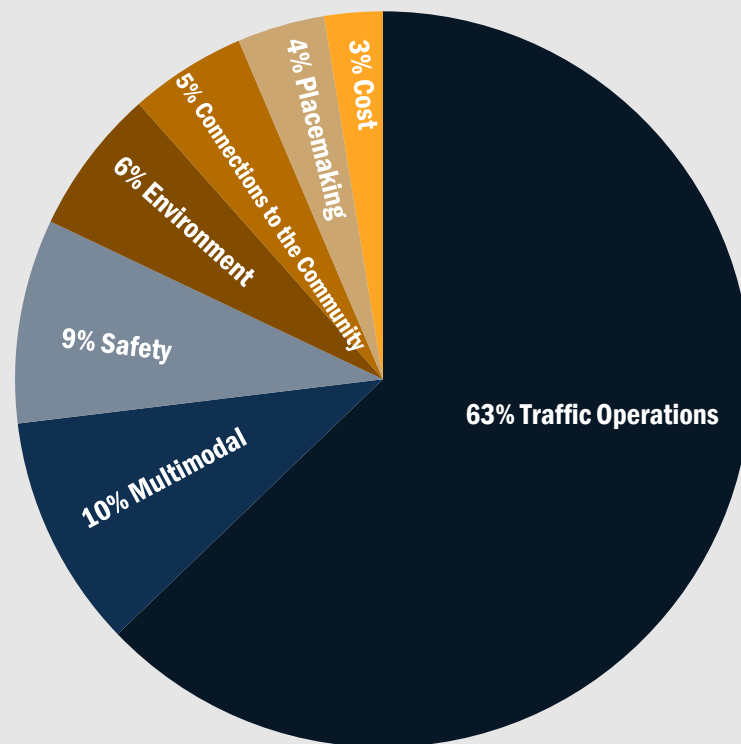
- Options for all users
(transit/bicycle/pedestrian)

■ Safety

- Operational challenges cause safety issues

■ Environment

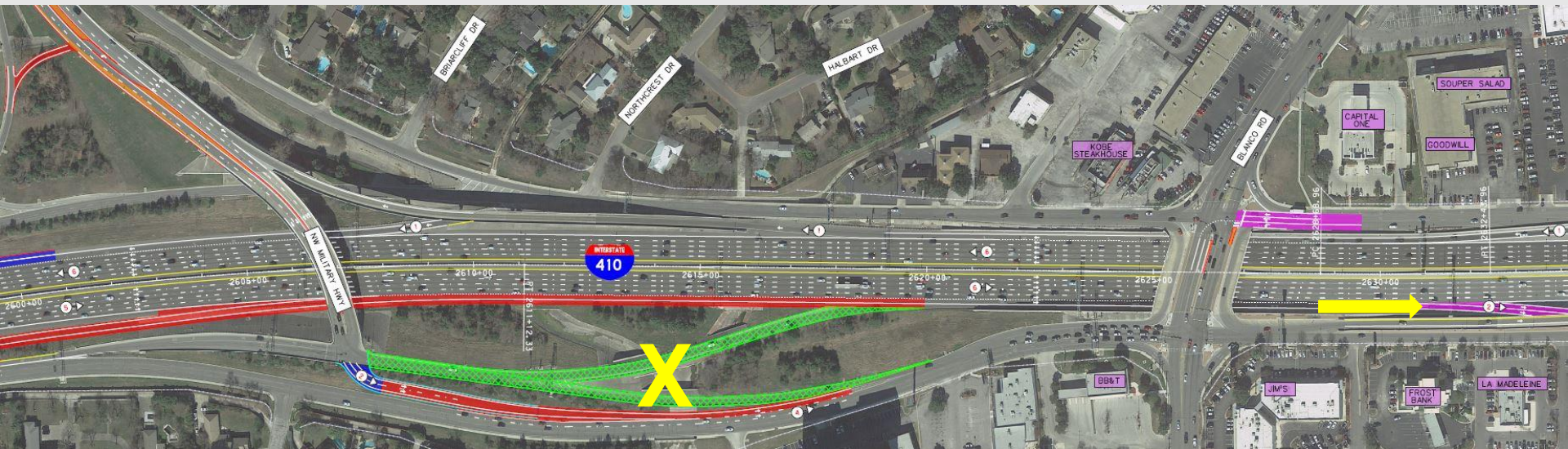
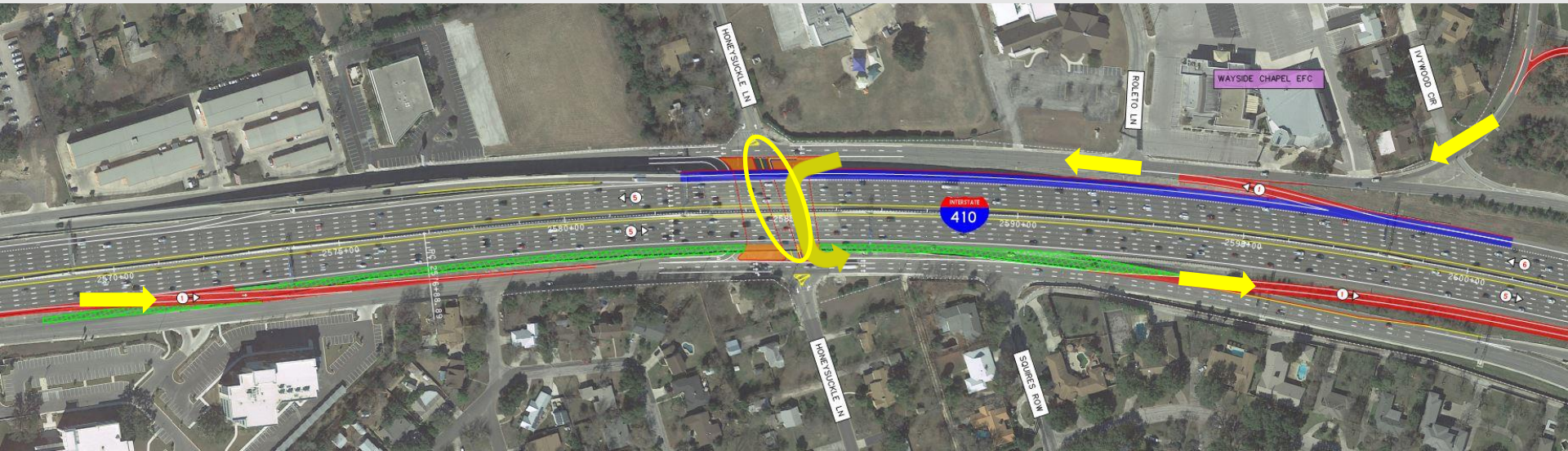
- Air Quality & Traffic Noise



Problem:

Eastbound I-410 merge/weave between NW Military Hwy entrance ramp and San Pedro Ave. exit ramp

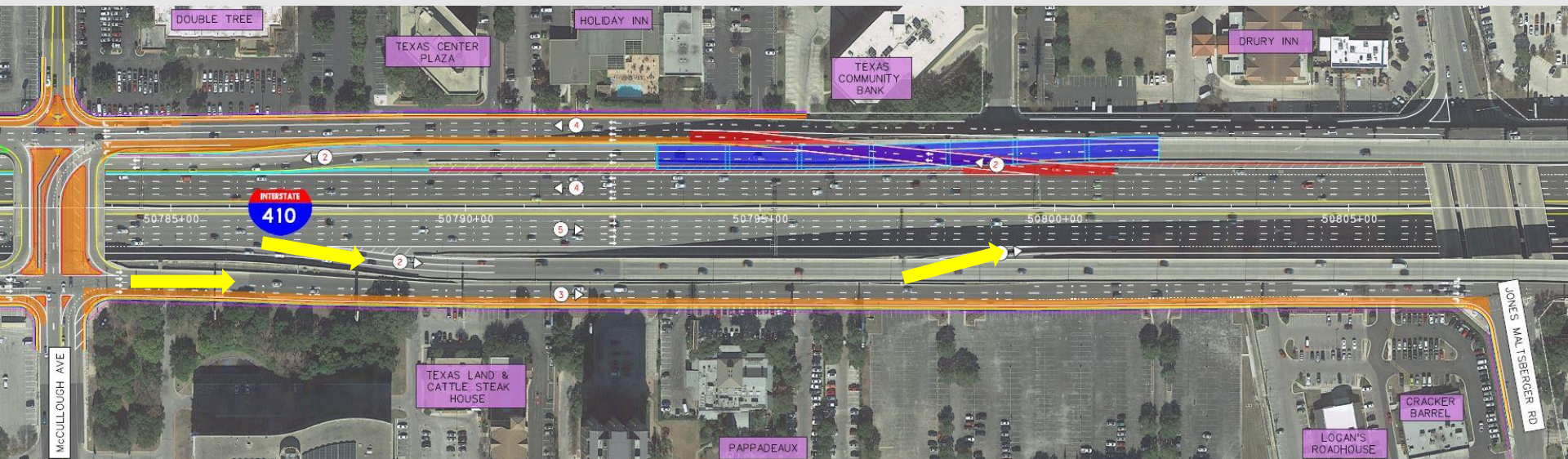
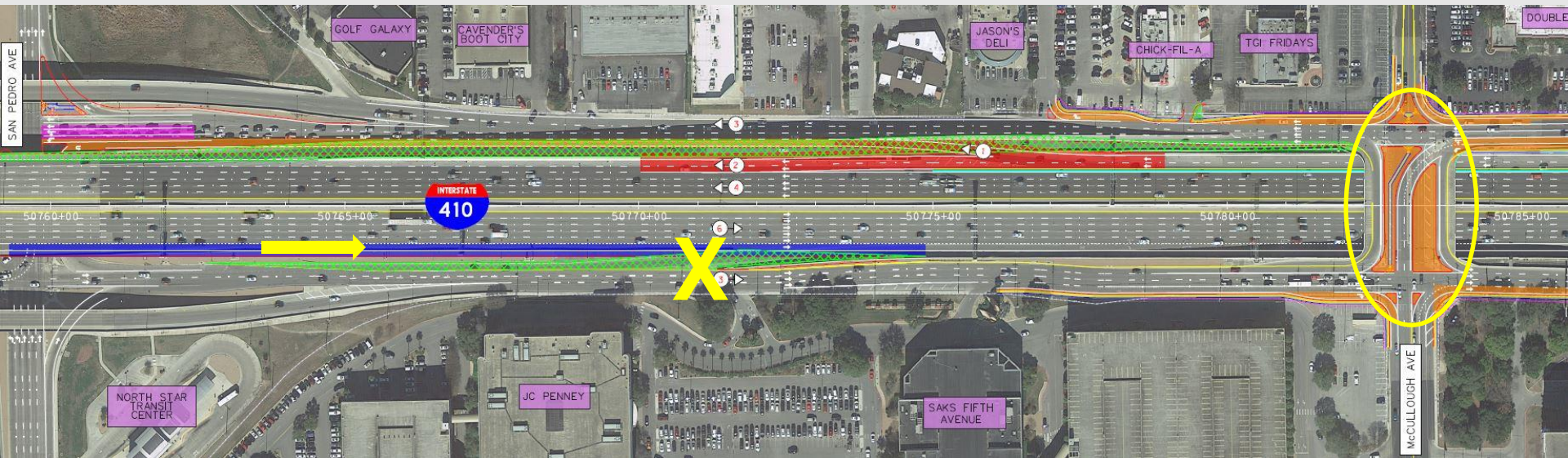
Solution: Eastbound Ramp Modifications



Problem:

Eastbound I-410 merge/weave between
San Pedro Ave. entrance ramp and US 281
Direct Connectors

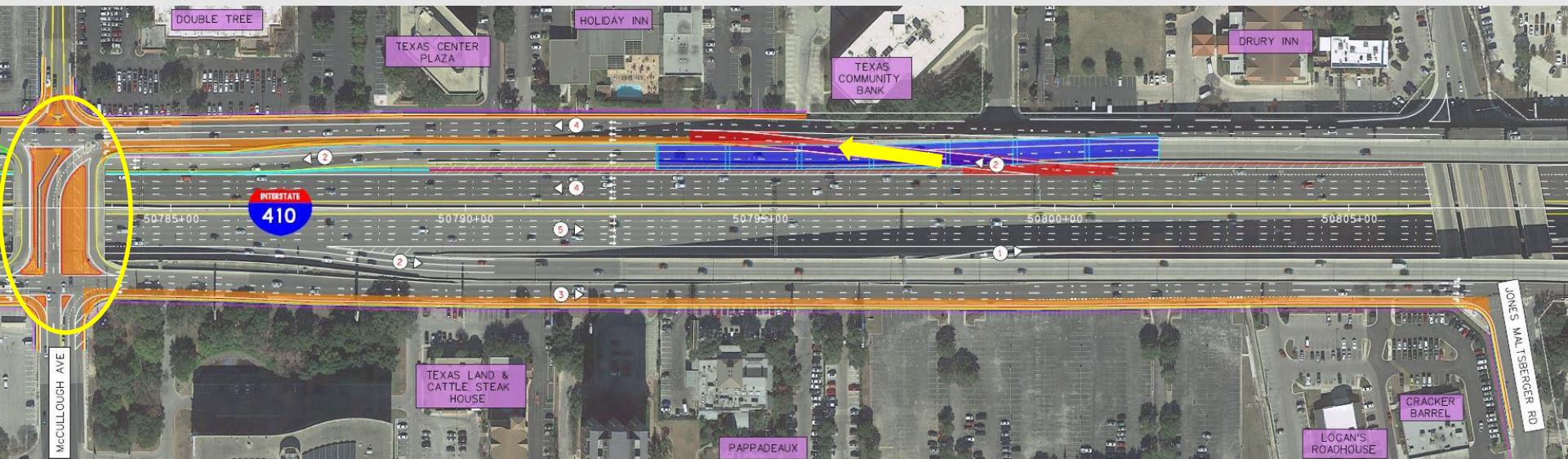
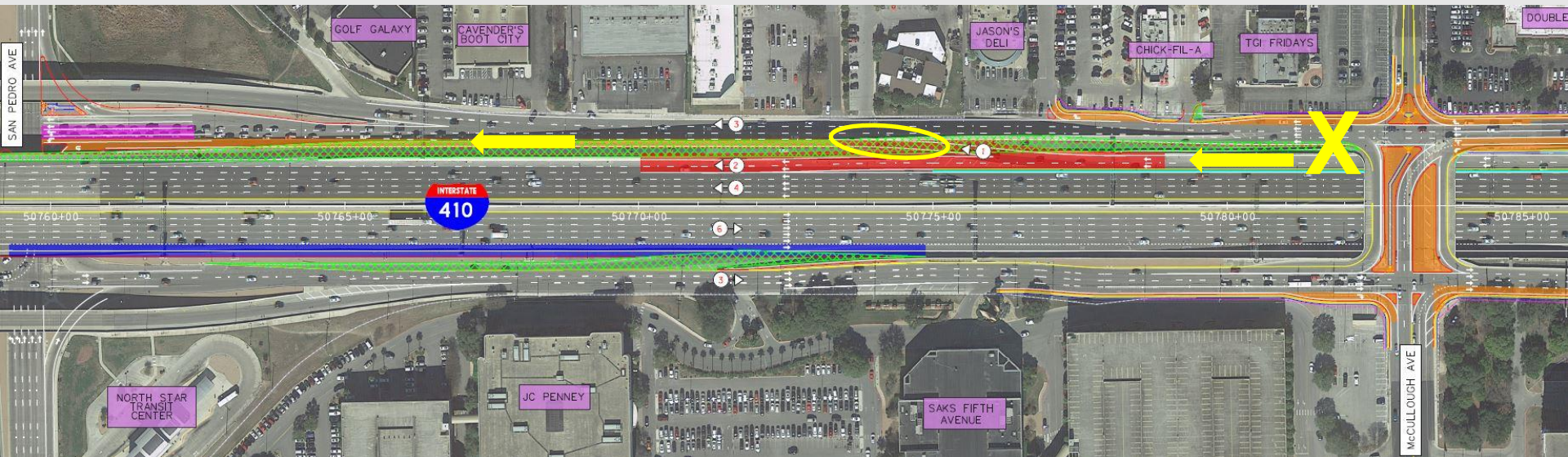
Solution: Eastbound Ramp Modifications



Problem:

Westbound I-410 merge/weave between
US 281 Direct Connectors and San Pedro Ave.
exit ramp

Solution: Westbound Ramp Modifications



Anticipated Benefits: Reduced Crash Rates

I-410 Annual Crash Rates*

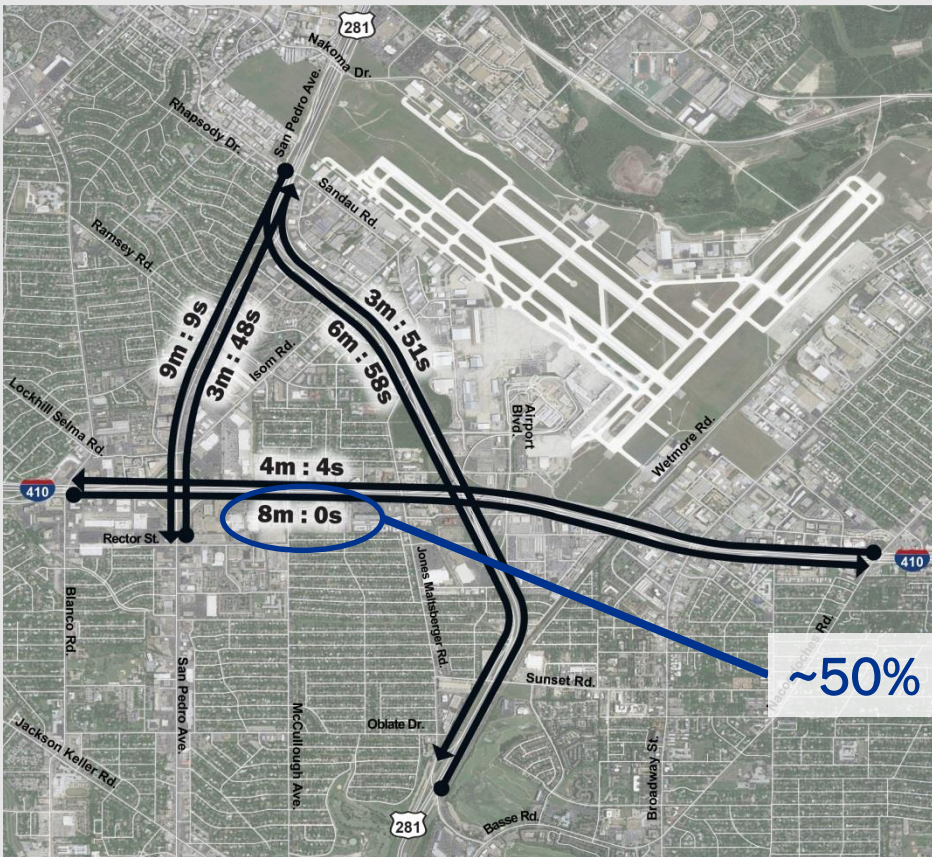
Section	Existing	Technically Preferred Concept**	Change
Mainlanes	185	168	9.2% reduction
Frontage Roads	480	477	0.6% reduction

* Crash rates are measured as the number of crashes per 100 million vehicle miles of travel.

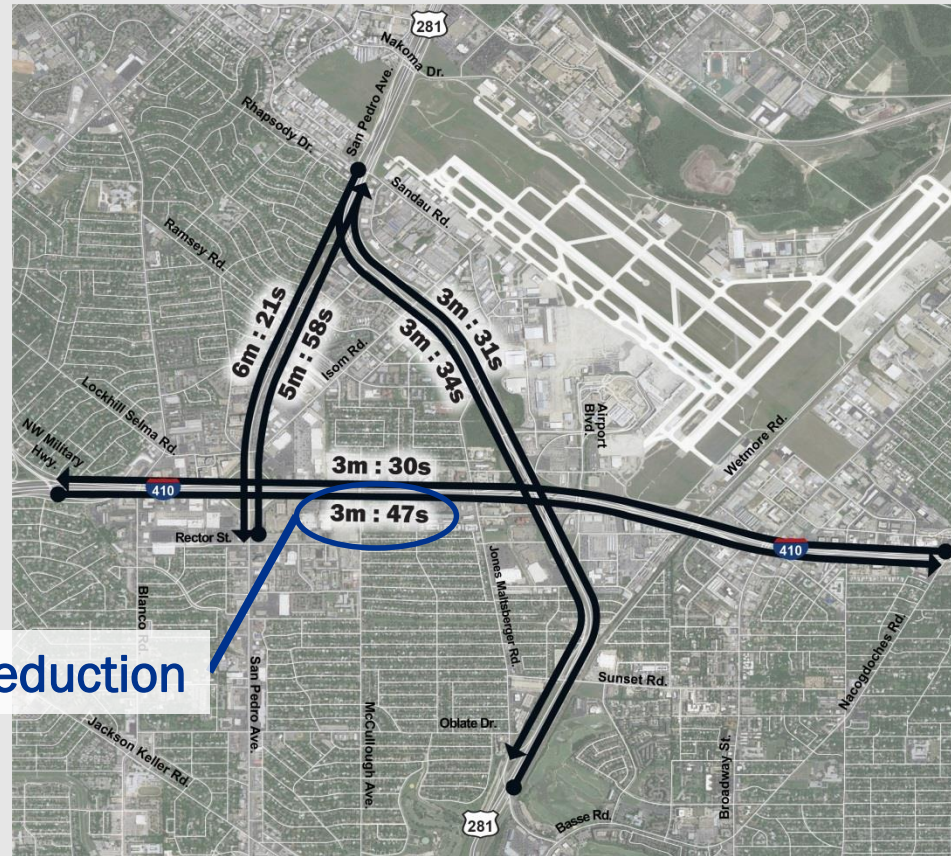
** The crash rates for the Technically Preferred Concept are based on the Highway Safety Manual's predictive crash rate methodology.

Anticipated Benefits: Shorter Travel Times

PM Peak Hour – Through Traffic Comparison (2020)



2020 Do Nothing

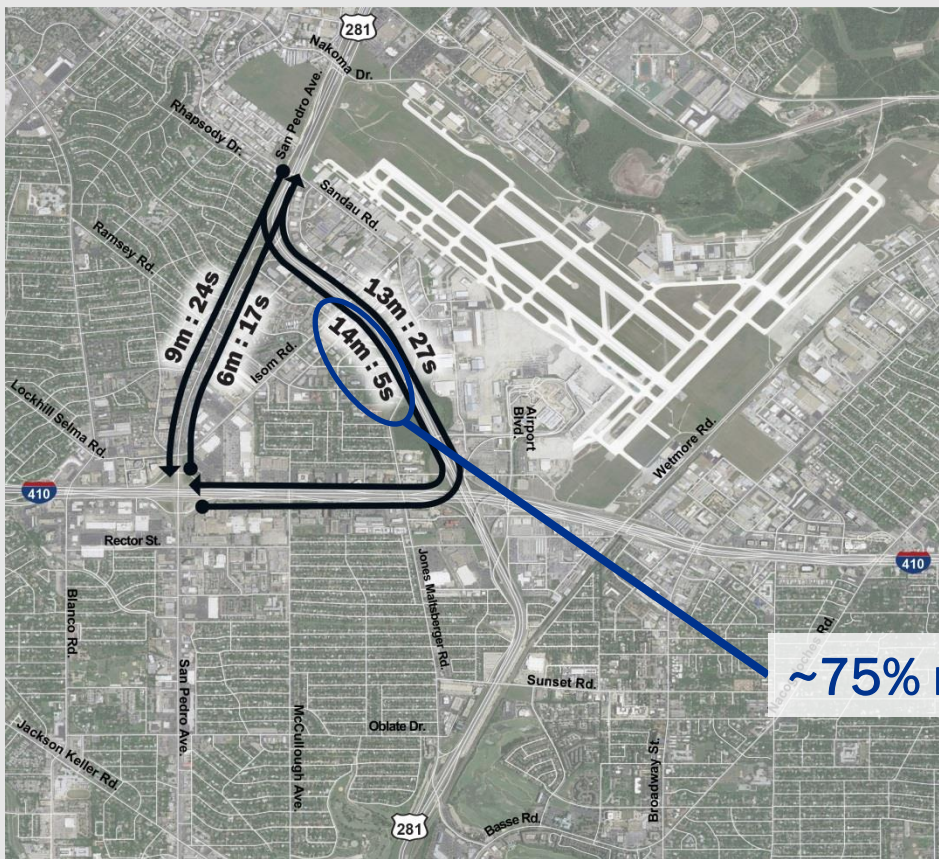


2020 Technically Preferred Concept

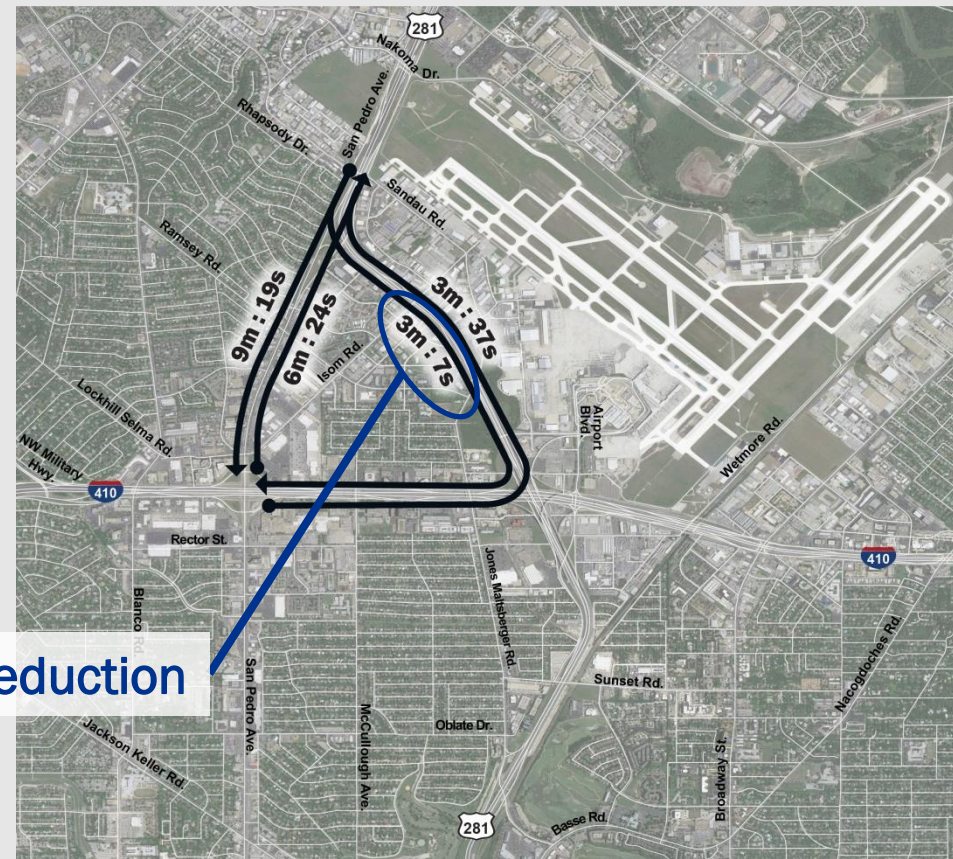
~50% reduction

Source: Study Team 2017

PM Peak Hour – Alternate Routes Comparison (2020)



2020 Do Nothing



2020 Technically Preferred Concept

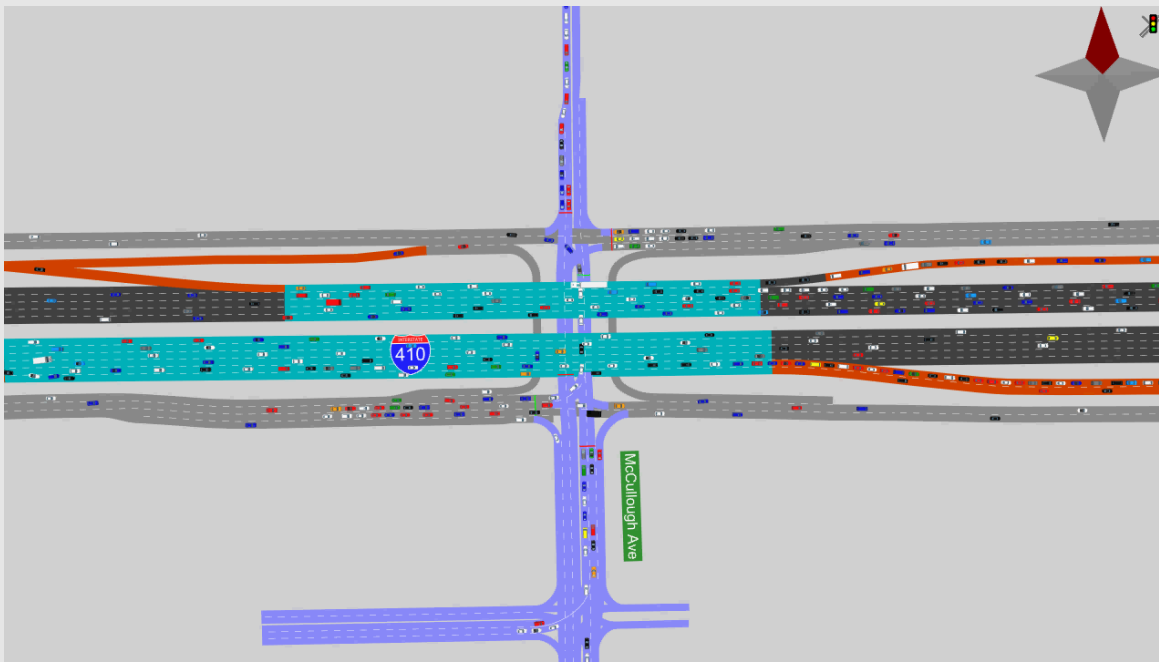
Source: Study Team 2017

Anticipated Benefits: Consistent Speed

I-410 Speed Comparison (2020)

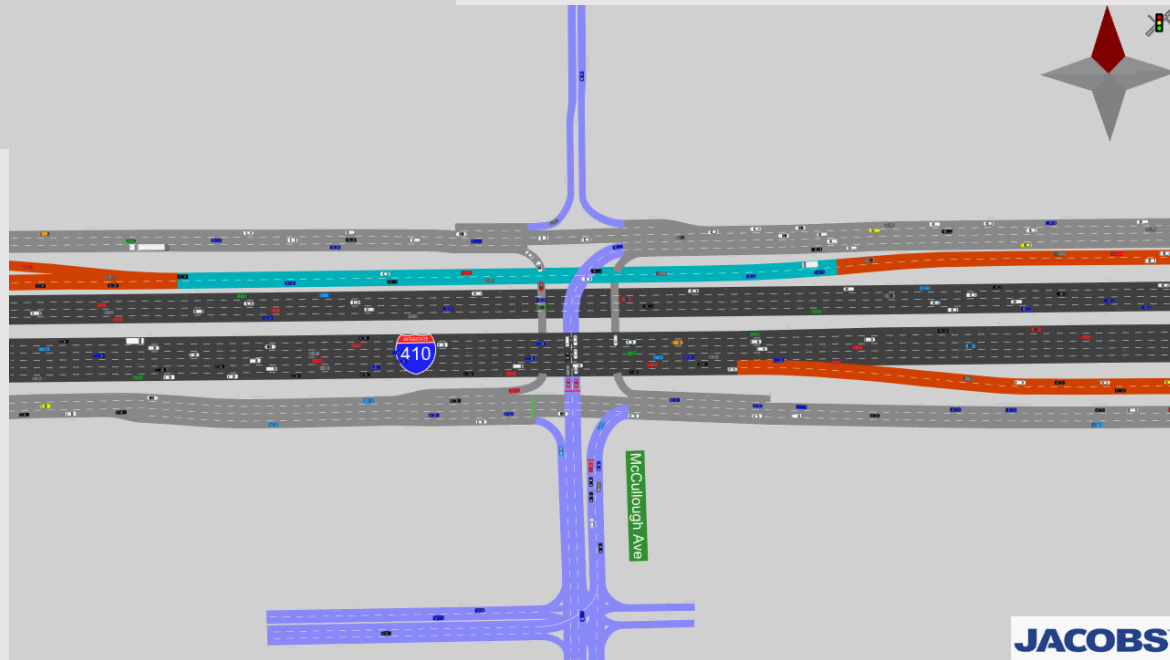
Direction	Segment		Do Nothing (mph)		Technically Preferred Concept (mph)	
	From	To	AM	PM	AM	PM
Eastbound	Honeysuckle Lane	US 281 exit	31	14	64	56
Eastbound	US 281 exit	Nacogdoches Rd	65	65	63	58
Westbound	Nacogdoches Road	Entrance from US 281	62	55	62	60
Westbound	Entrance from US 281	Honeysuckle Lane	58	58	59	57

McCullough Avenue at I-410



2020 Do Nothing

2020 Technically Preferred Concept



JACOBS

Proposed Honeysuckle Modification

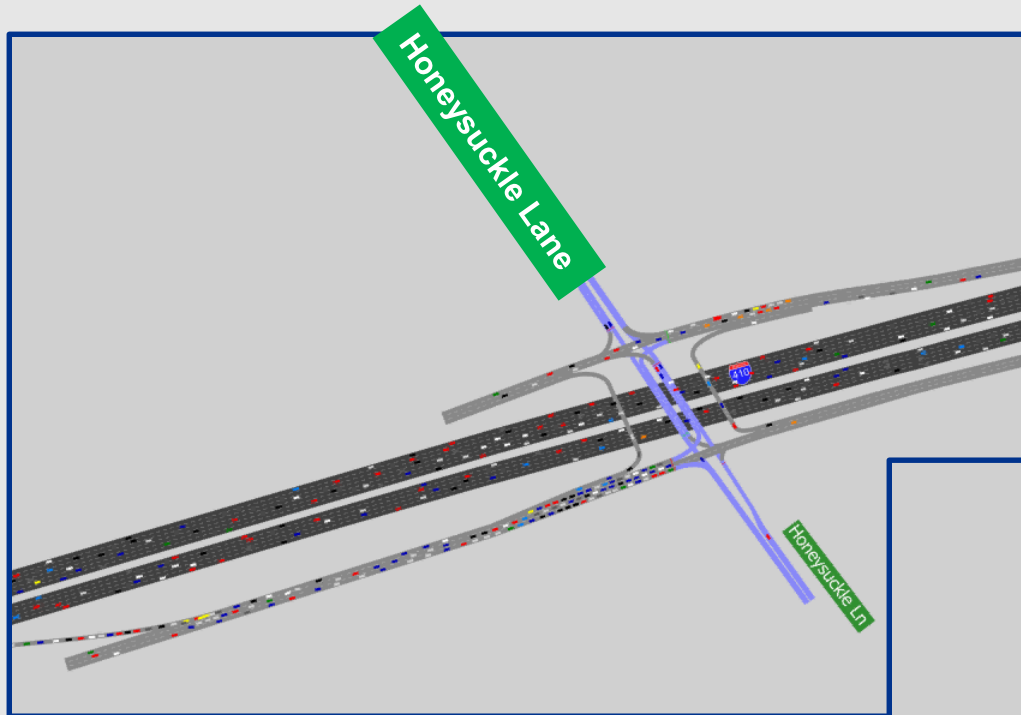




Folding Bollards

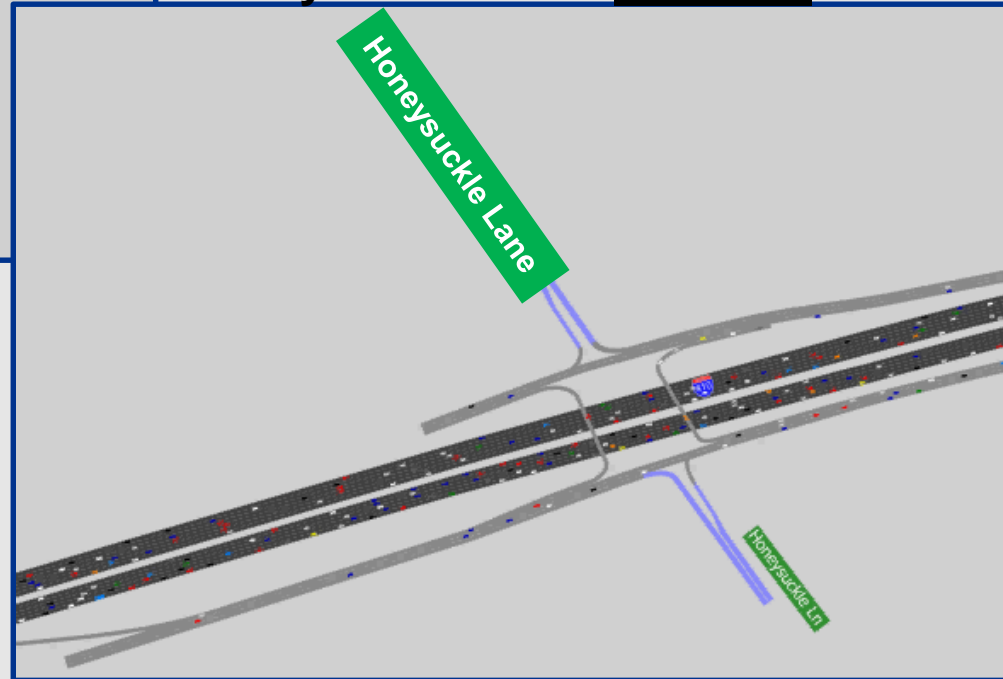


Honeysuckle Lane at I-410



Honeysuckle Lane Open at I-410

Honeysuckle Lane Modified at I-410



Alternate Routes across I-410

Honeysuckle Lane Area

		TRAVEL TIMES	
From	To	Existing	Proposed
South of I-410	North of I-410	3 min	4 min
North of I-410	South of I-410	3 min	4 min

McCullough Avenue Area

		TRAVEL TIMES	
From	To	Existing	Proposed
South of I-410	North of I-410	5 min	5 min
North of I-410	South of I-410	5 min	5 min

**THANK YOU FOR YOUR PARTICIPATION IN
THIS REGIONALLY IMPORTANT PROJECT.**

Please send your comments to:

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Web Page – www.txdot.gov, keyword “I-410 US281”