Texas Department of Transportation

# WELCOME TO THE OPEN HOUSE

410 / 281 / SAN PEDRO
INTERCHANGE STUDY

## December 8, 2016

- **Please sign in**
- **Explore and interact with the exhibits**
- **Submit a comment form**
- **Ask questions**

We want to hear your feedback.

*A comment form has been provided to you for your convenience.*

*If you do not have one, please ask a study team member.*

# STATION 1

# Background Information

# WHY AM I HERE?

- To learn more about the I-410/US 281/ San Pedro Avenue Interchange Study

- To provide input on:
  - Transportation issues in the Study Area
  - Goals that the potential solutions should accomplish
  - Potential solutions that would benefit you

# STUDY LOCATION MAP

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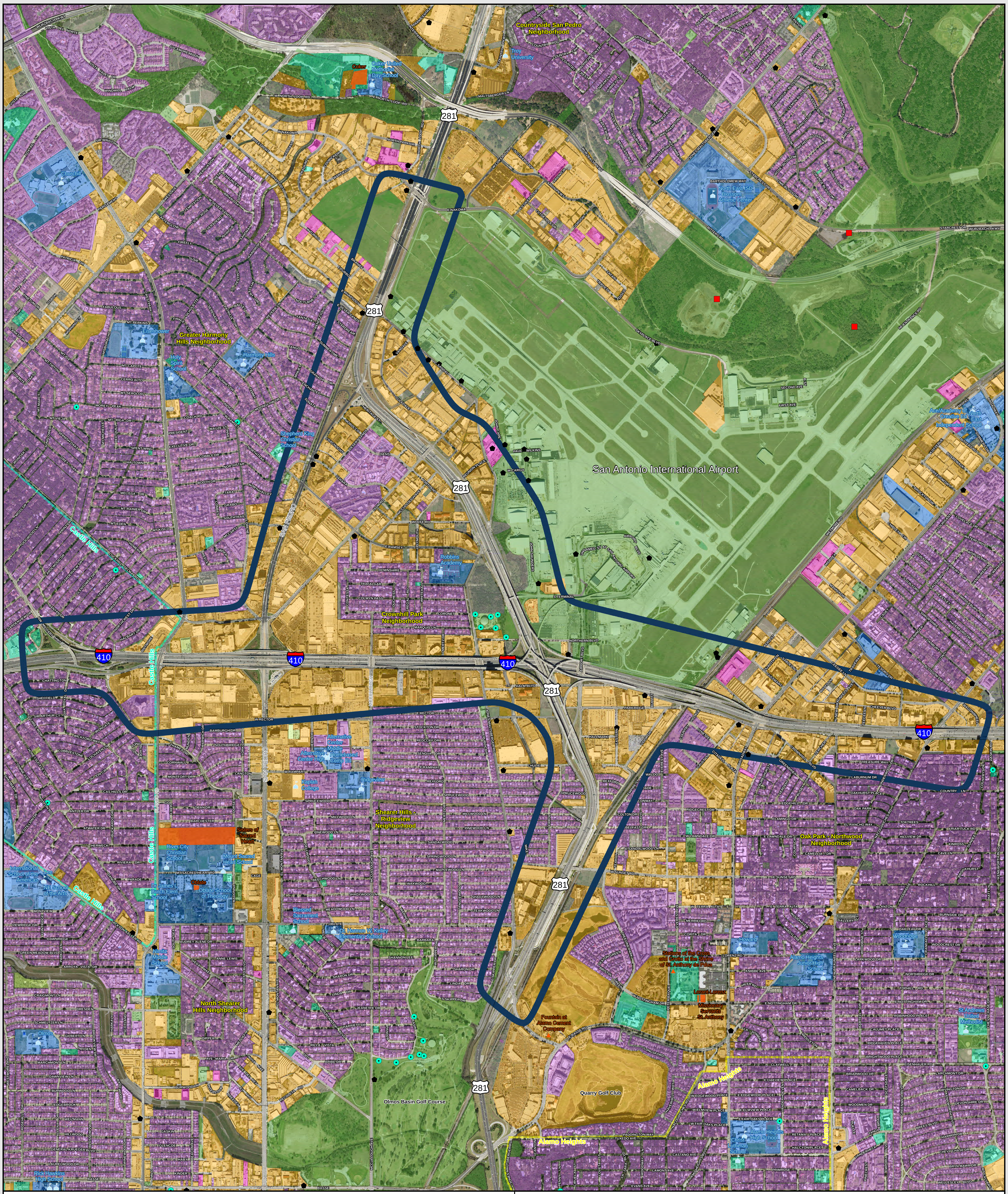
INTERCHANGE STUDY




# I-410 / US 281 / San Pedro Avenue Interchange Study
## Bexar County, Texas

## Community Resources

Texas Department of Transportation

CSJ: 0521-04-285

0 0.1 0.2 0.4 0.6 0.8 Miles

Draft - August 11, 2016

**Legend**

- Study Area
- Schools
- National Register Historic Properties
- Water Well
- Municipal Solid Waste Sites
- Petroleum Storage Tank

**Land Use**

- Residential
- Vacant Areas
- Places of Worship
- Community Centers
- Commercial
- Industrial
- Municipal Property
- Utilities/Storm Water
- Schools
- Cemetery

N

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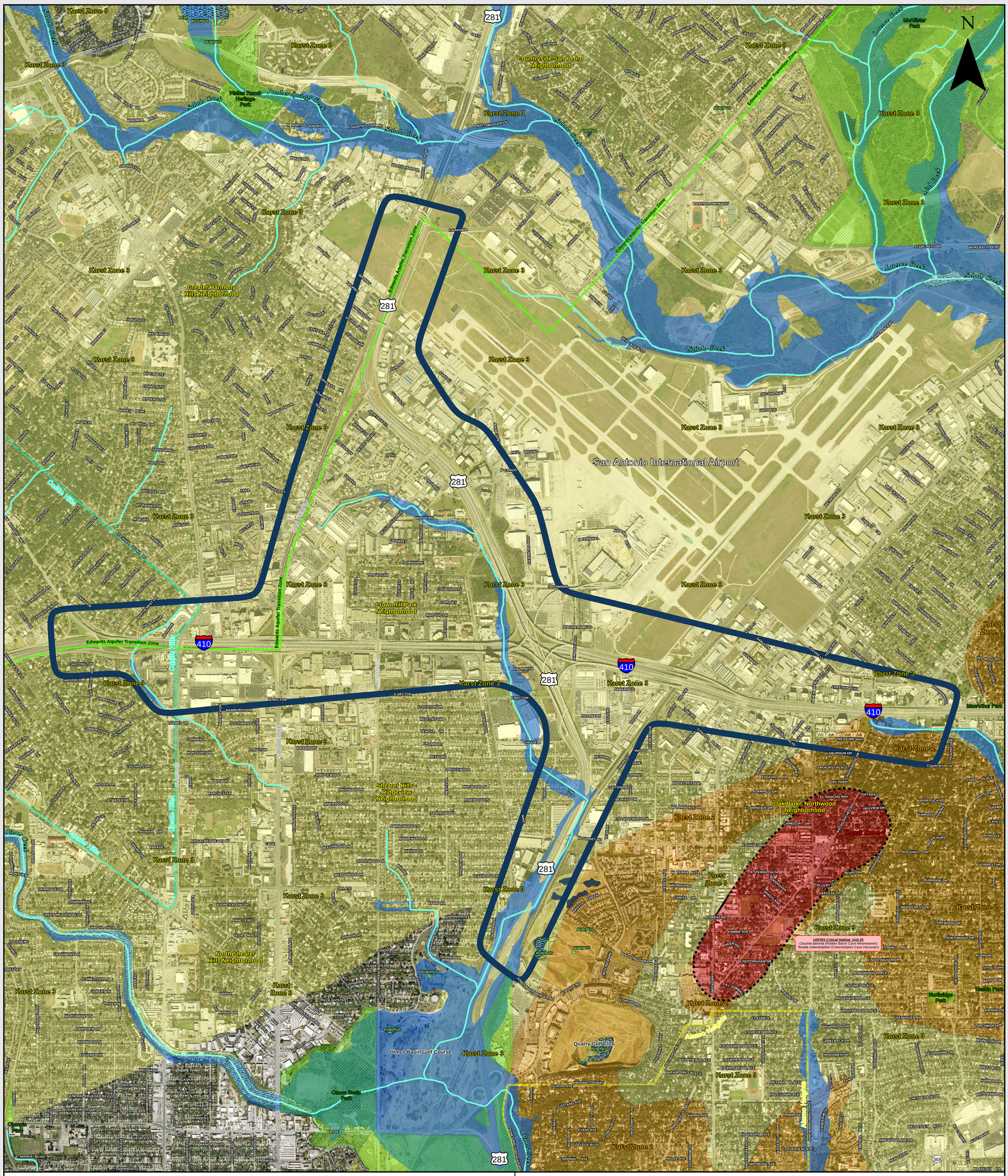


# I-410 / US 281 / San Pedro Avenue Interchange Study
## Bexar County, Texas

## Environmental Resources

Texas Department of Transportation

CSJ: 0521-04-285

0 0.125 0.25 0.5 0.75 1 Miles

Draft - August 11, 2016

### Legend

- Study Area
- Streams
- Edwards Aquifer Transition Zone
- USFWS Critical Habitat
- Parks
- FEMA 100-yr Floodplain
- Lakes

**Karst Zones**

- Known To Contain
- High Probability
- Low Probability

**National Wetland Inventory**

- L - Lake
- PEM - Freshwater Emergent Wetland
- PSS/PFO - Freshwater Forested/Shrub Wetland
- PUB/PUS - Freshwater Pond
- R - Riverine

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# STUDY PROCESS & TIMELINE

## 1. IDENTIFY
**Gather and analyze traffic data and engage public in identifying issues and defining goals for improvements**

We are Here

PUBLIC MEETING

## 2. EVALUATE
**Engage public in developing and evaluating potential solutions**

## 3. REFINE
**Refine potential solutions and disseminate for public feedback**

PUBLIC MEETING

## 4. INFORM
**Present study results and identify next steps**

PUBLIC INVOLVEMENT

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# STATION 2

## Need for Improvements

# WHY IS THIS STUDY IMPORTANT?

## I-410 Ranked #72 in Texas' Top 100 Most Congested Roads

*Source: 100 Most Congested Texas Road Sections, Texas A&M Transportation Institute, August 2016*

- Section from US 281 to I-10/US 87
- 153,073 Annual Hours of Delay/Mile
- $14,540,000 Annual Congestion Cost

## 5,183 Total Crashes, 2011 - 2015

- 17 Fatal Crashes
- Crash Rates Exceed Statewide Averages for Similar Facilities
- Average of 2.8 Crashes per Day in the Study Area

## Four Primary Types of Issues

1. Insufficient Capacity
2. Closely Spaced Exit and Entrance Ramps
3. Excessive Lane Changing at Variable Speeds
4. Inadequate Ramp Merging Distance/Capacity

Resulting in cross street, frontage road, main lane and ramp queueing and merging challenges.

# STAKEHOLDER ENGAGEMENT

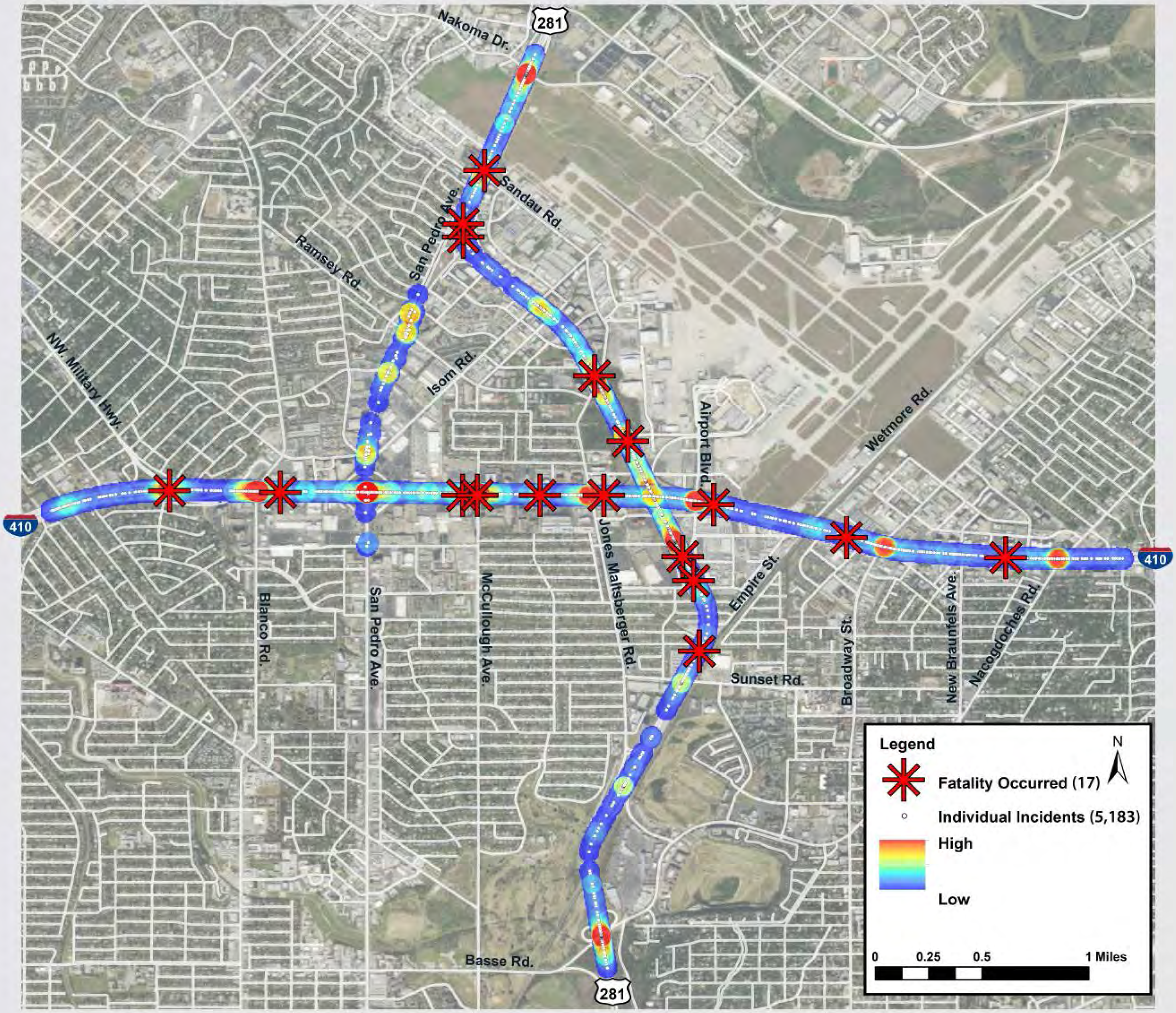
## 9 Stakeholder Meetings to Date

- City of San Antonio
- City of Castle Hills
- VIA Metropolitan Transit Authority
- Alamo Heights Independent School District
- North East Independent School District
- North Star Mall
- Park North Shopping Center
- San Antonio International Airport
- Crownhill Park Neighborhood

## What We've Heard

- *Stakeholders were not surprised that the study is being conducted*
- *There are numerous bottlenecks in the study area*
- *Congestion is a problem on ramps and main lanes*
- *Traffic conditions on San Pedro Avenue are not too bad*
- *Safety improvements and better signage would help*
- *Consider reducing the number of ramps and frontage road driveways*

# CRASH ANALYSIS SUMMARY (2011-2015)




Source: TxDOT 2016

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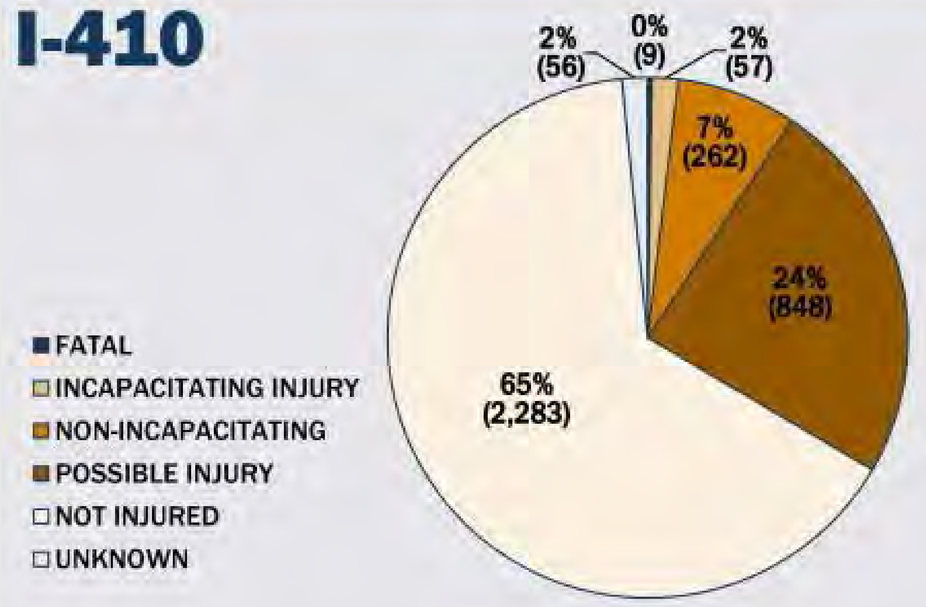
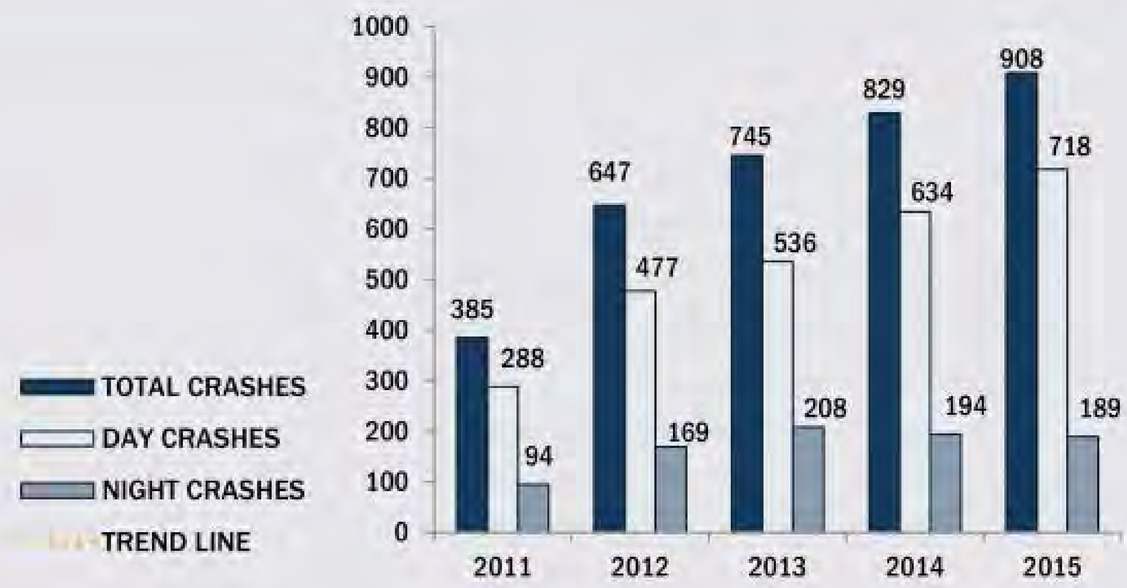
# CRASH ANALYSIS SUMMARY (2011-2015)

## I-410

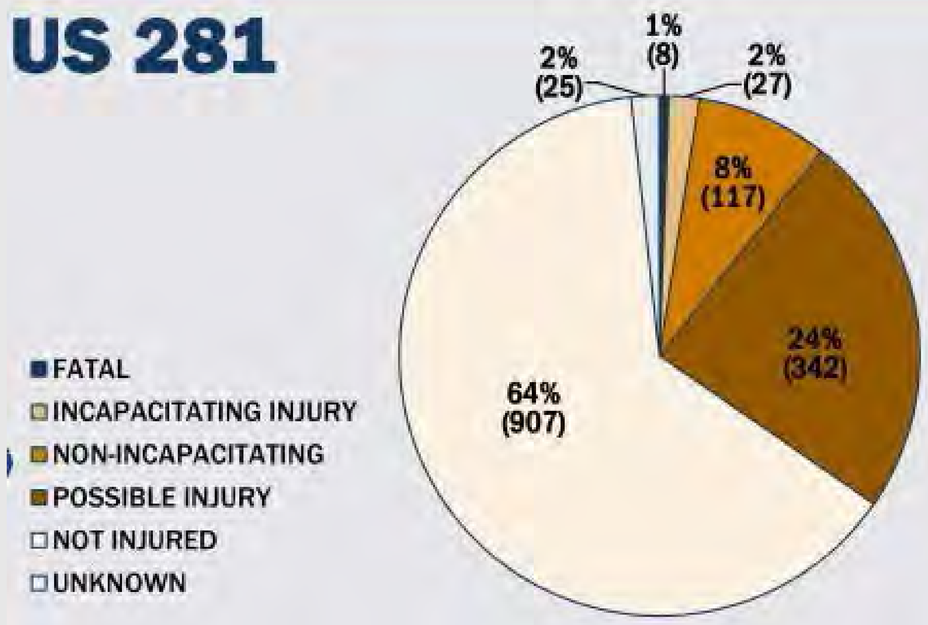
Total Crashes by Collision Type

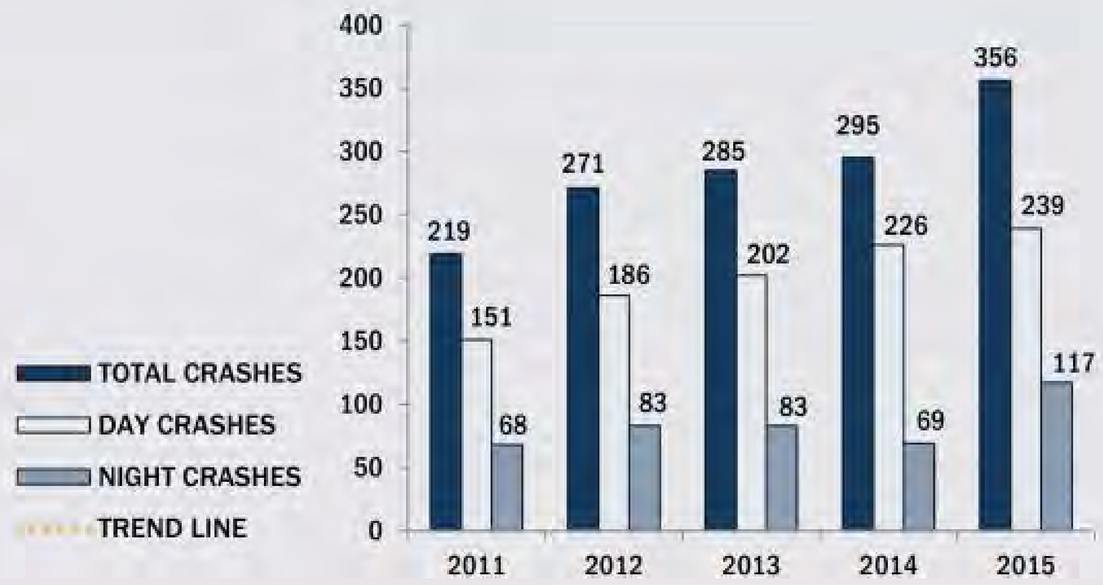



Annual Crashes by Time of Day

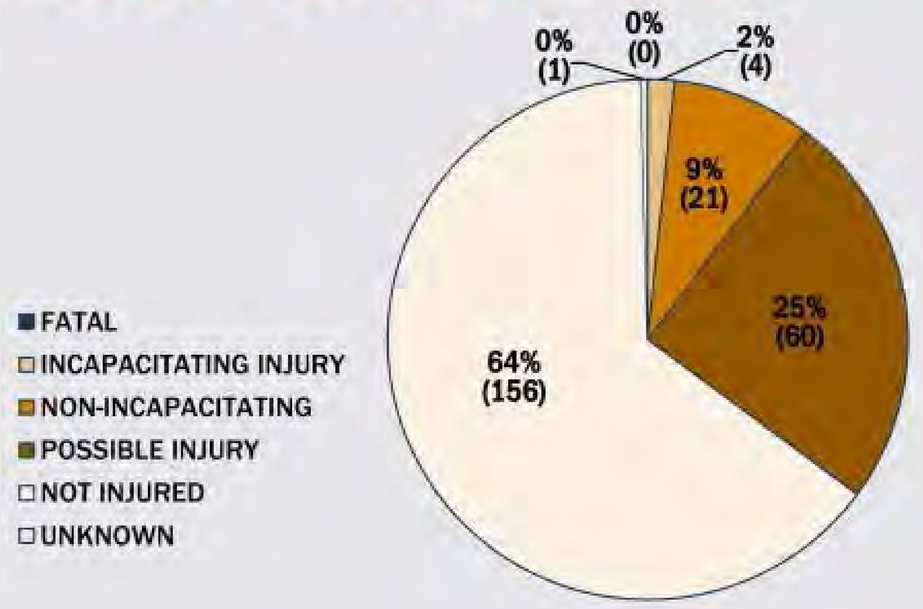


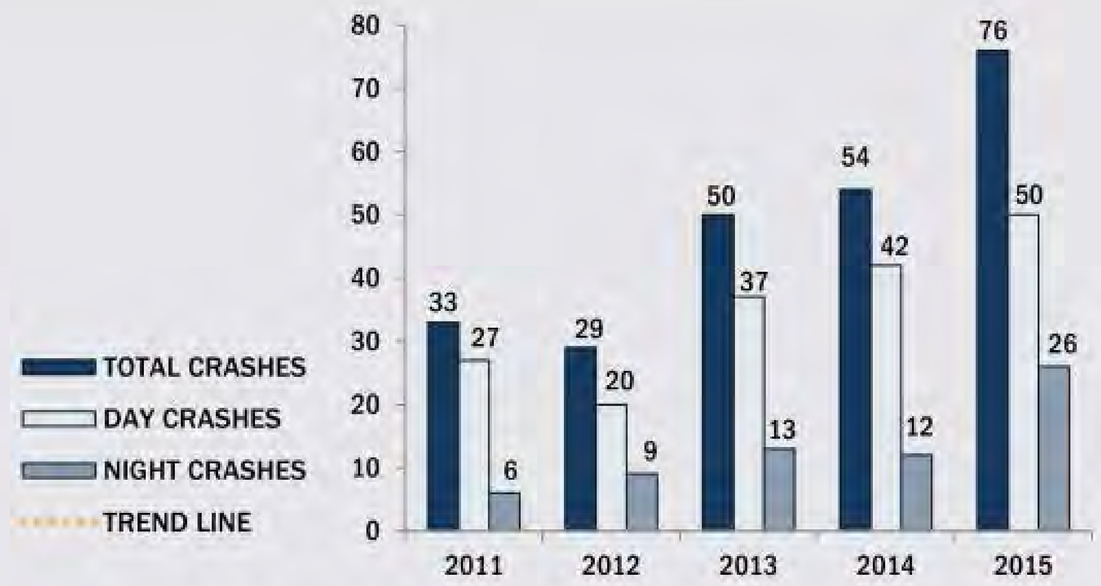

## US 281




## SAN PEDRO AVENUE

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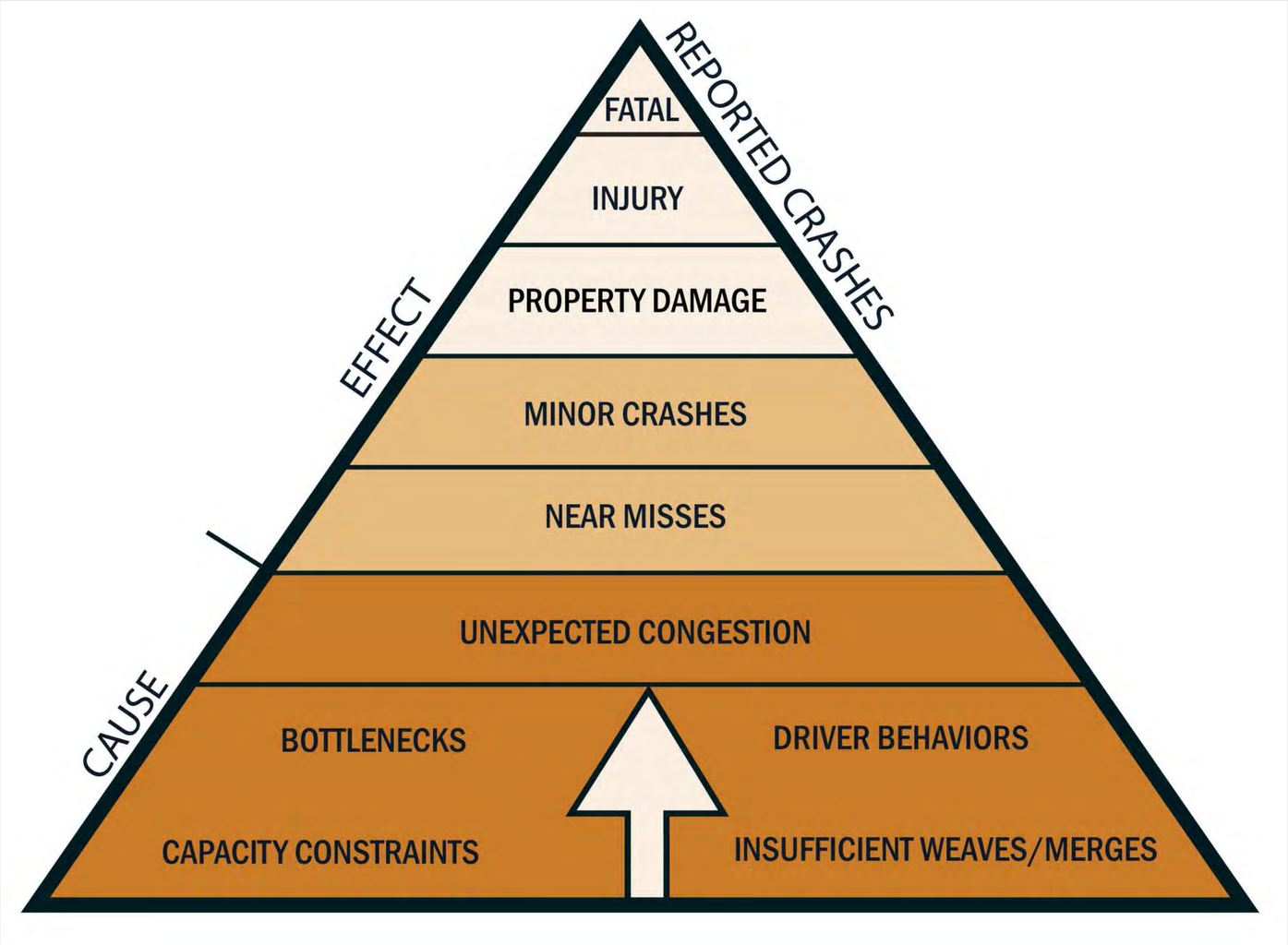
Source: TxDOT 2016

# REDUCING CRASHES IN THE STUDY AREA



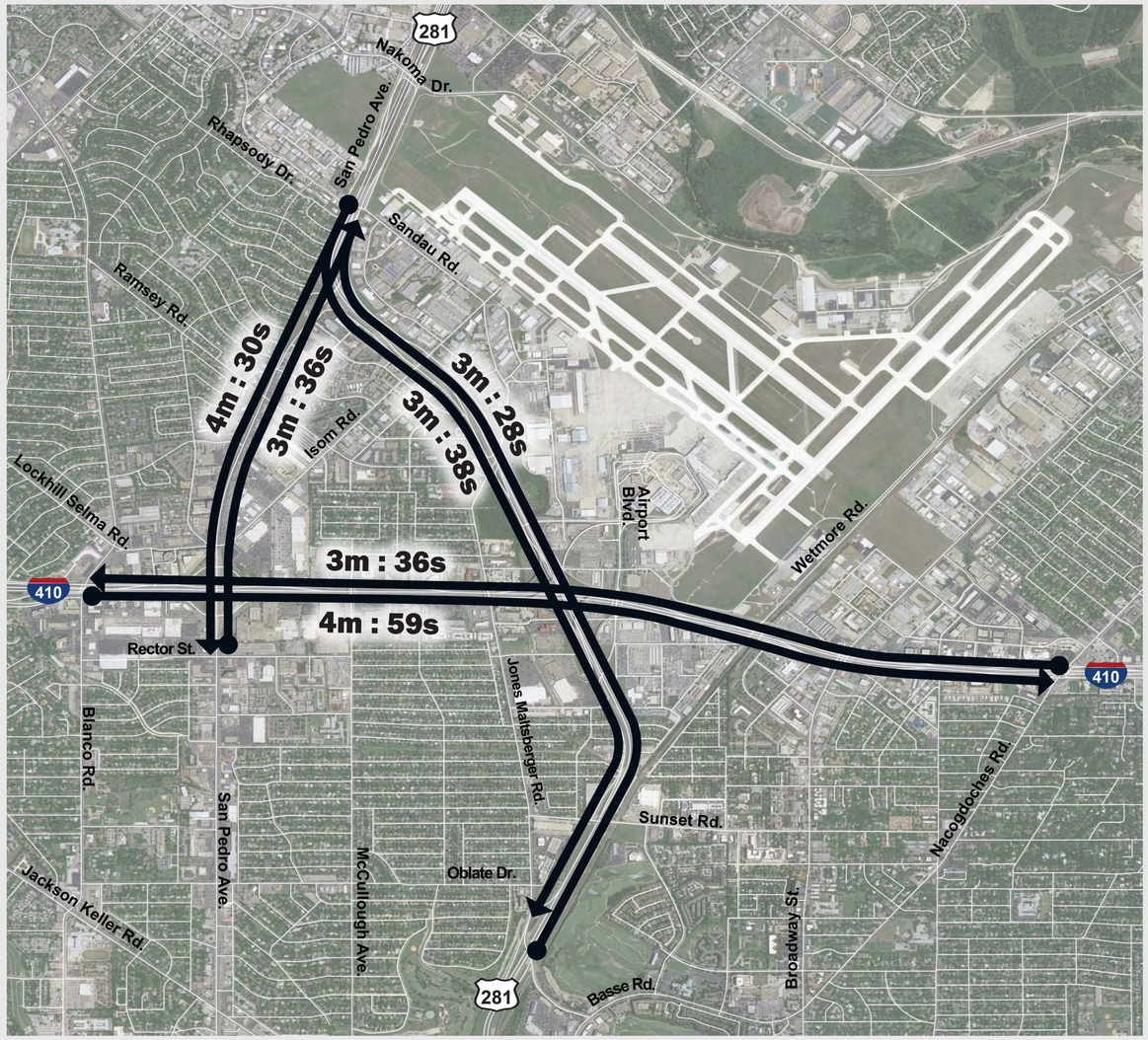

**As the causes of crashes are addressed, the effects and reported crashes in the study area can be reduced.**

Source: Study Team 2016

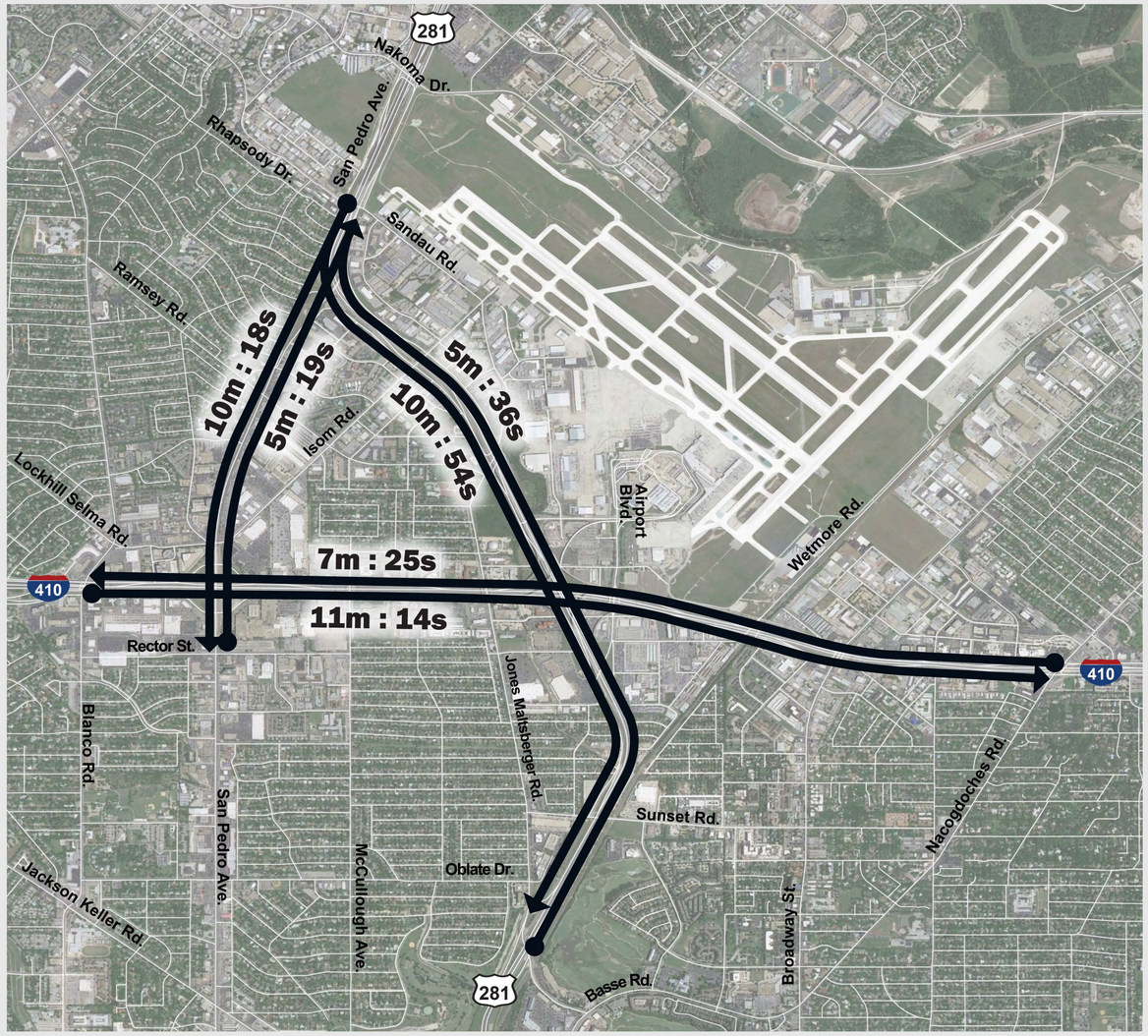
# TRAVEL TIMES THROUGH THE STUDY AREA - PM PEAK HOUR

(4:45 – 5:45 pm)

## EXISTING (2016)




## DO NOTHING (2040)




**If no improvements are made, it will take up to 3 times longer to drive through the Study Area in 2040.**

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Source: Study Team 2016

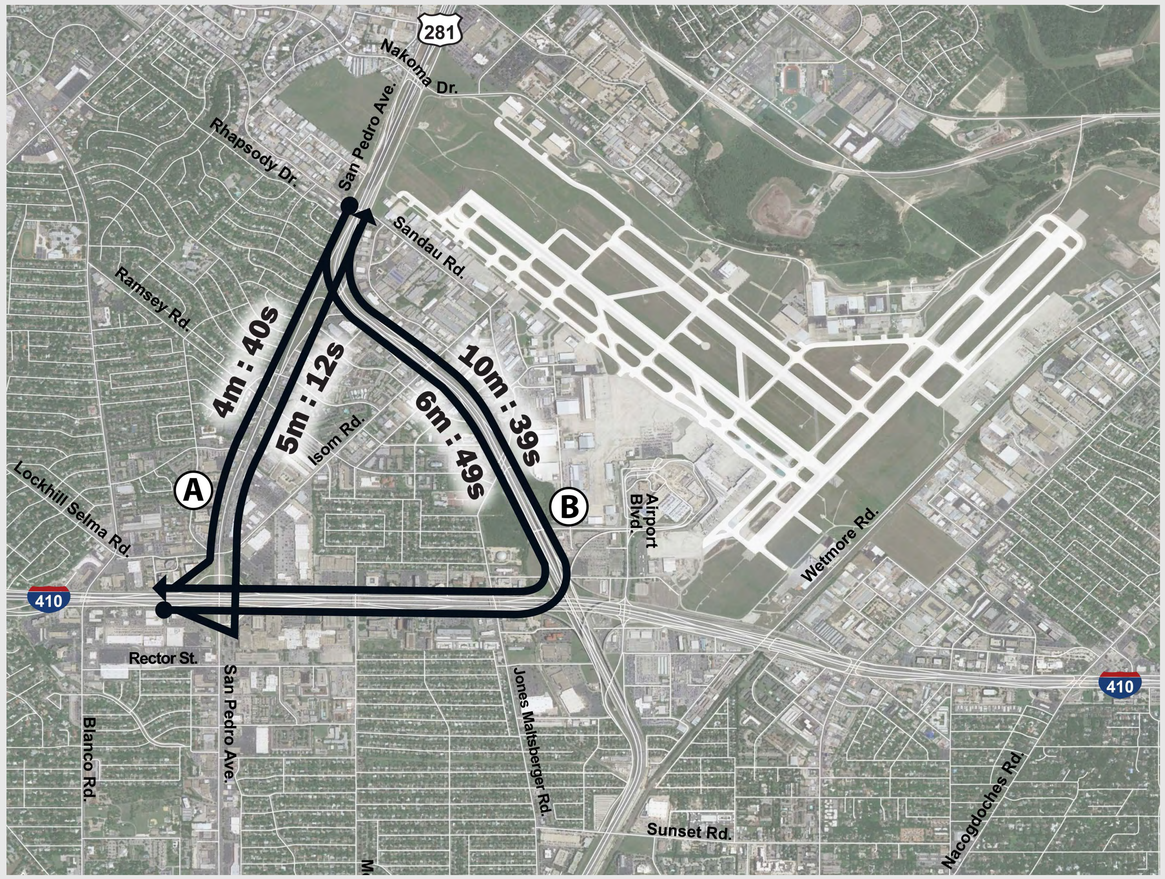
# TRAVEL TIMES TO/FROM I-410 - PM PEAK HOUR

(4:45 – 5:45 pm)

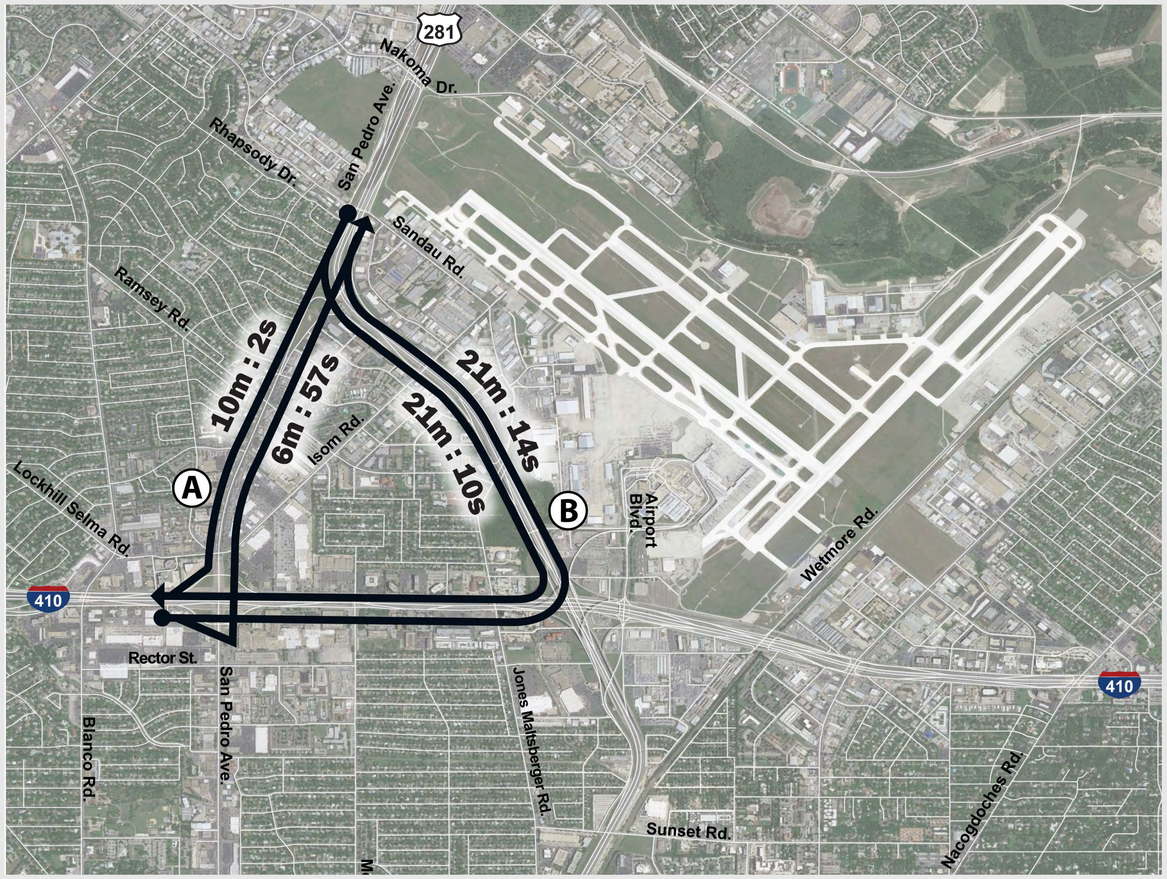
Ⓐ San Pedro Avenue

Ⓑ US 281 Direct Connectors

## EXISTING (2016)




## DO NOTHING (2040)




**If no improvements are made, it will take up to 3 times longer to drive to and from I-410 in 2040. San Pedro Avenue offers a quicker route to and from I-410 when compared to US 281.**

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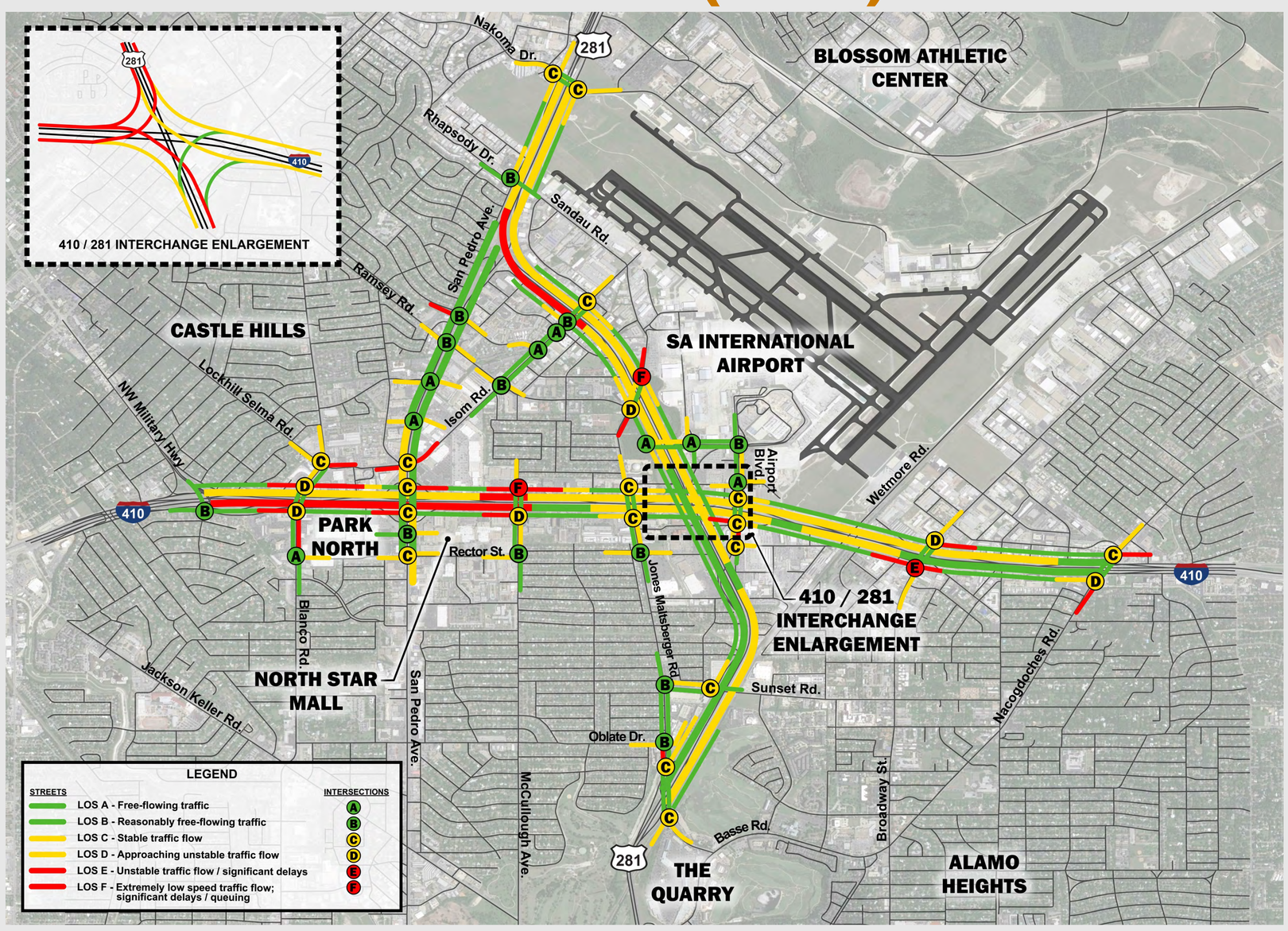
Source: Study Team 2016

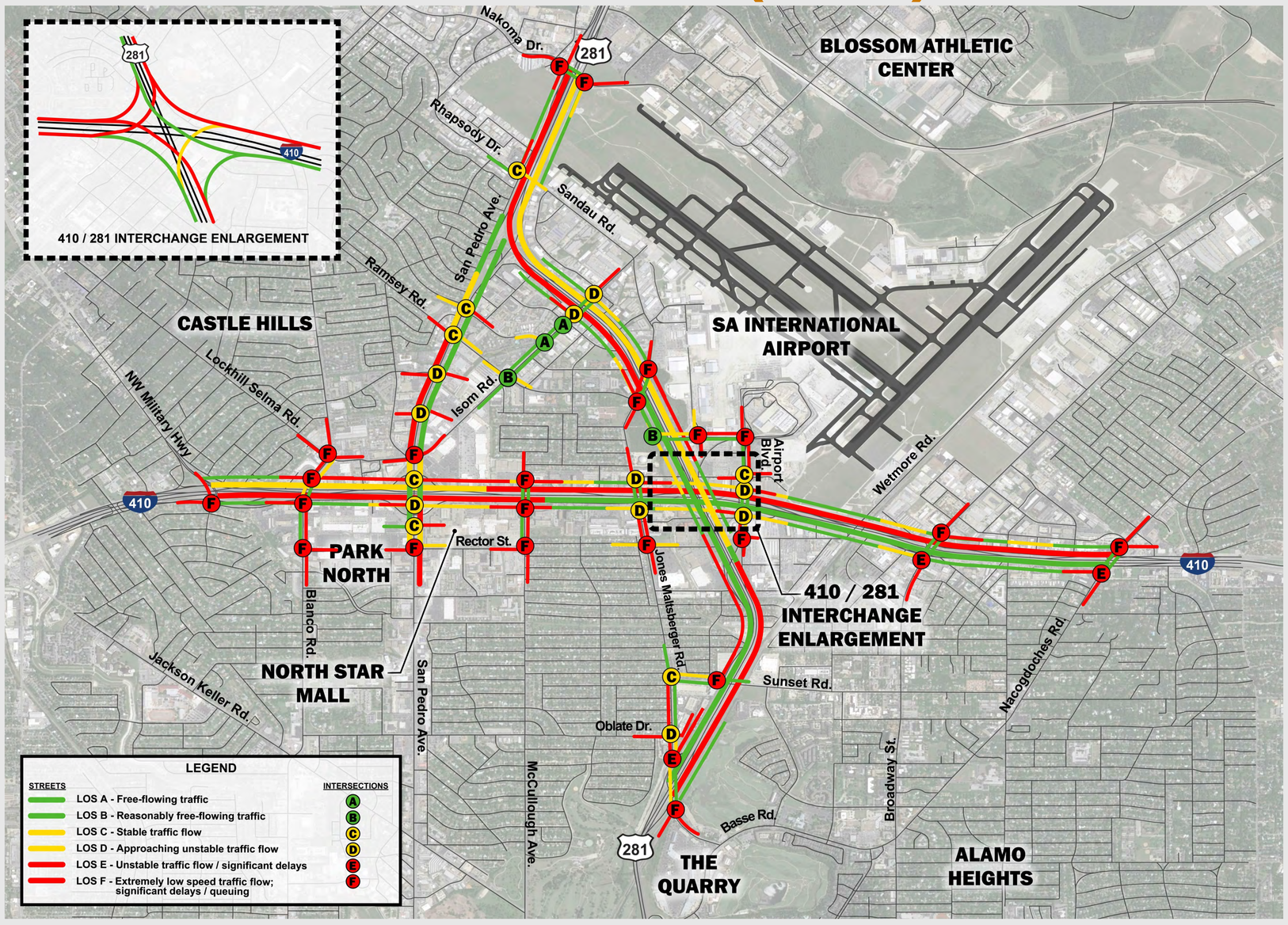
# LEVEL OF SERVICE IN THE STUDY AREA - PM PEAK HOUR

(4:45 – 5:45 pm)

## EXISTING (2016)




## DO NOTHING (2040)

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Source: Study Team 2016

# STATION 3

## Identifying Solutions

# ISSUES & OPPORTUNITIES

## Data collected suggest the following issues currently occur in the Study Area. Examples of where these issues occur are identified on the maps:

- **ISSUE #1** – Insufficient capacity creates back-ups on cross streets and I-410 frontage roads
- **ISSUE #2** – Closely spaced entrance and exit ramps create slow-downs on I-410 frontage roads
- **ISSUE #3** – Excessive lane changing by high volumes of vehicles moving at different speeds on I-410 main lanes creates slow-downs in the vicinity of closely-spaced ramps
- **ISSUE #4** – Inadequate merging distance and/or capacity creates back-ups on I-410 and US 281 ramps

# WE NEED YOUR FEEDBACK

## Place sticky notes and/or colored dots on the maps to let us know:

1) Where do you experience transportation issues?
2) What solutions should we consider?

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# DRAFT GOALS

## What should the potential solutions accomplish?

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Please use stickers to indicate which goals are most important to you.

| | | |
|---|---|---|
| SAFETY | Improve vehicle, pedestrian and bicycle safety. | |
| TRAFFIC OPERATIONS | Improve travel times and reduce travel delays. | |
| CONNECTION TO THE COMMUNITY | Reduce conflicts with driveways and adjacent properties and improve connections to neighborhoods. | |
| MULTIMODAL | Accommodate alternative modes of transportation including bicycles, pedestrians, transit vehicles and freight services. | |
| ENVIRONMENT | Protect the natural, human, and cultural environment. | |
| PLACE MAKING & AESTHETICS | Provide a landscape/streetscape that reflects the community's identity and creates a sense of place. | |
| COST | Provide solutions that are cost effective. | |

Please use sticky notes to suggest additional goals.

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# POTENTIAL SOLUTIONS

## What type of solutions would benefit you?

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Please use stickers to indicate which solutions would benefit you.

| | | |
|---|---|---|
| **CROSS STREETS & FRONTAGE ROADS** | Improve traffic conditions along cross streets & frontage roads<br>• Change number and/or purpose of lanes<br>• Optimize traffic flows through signal timing<br>• Change access to/from driveways<br>• Close or restrict roads | |
| **INTERSECTIONS & INTERCHANGES** | Improve intersection and interchange operations:<br>• Improve operations for turning traffic<br>• Provide direct connection between roadways<br>• Add traffic signals<br>• Construct innovative intersections/interchanges | |
| **MAIN LANES** | Improve traffic conditions on I-410 & US 281 main lanes:<br>• Change number and/or purpose of lanes<br>• Move or close ramps<br>• Use technology to manage traffic flow | |
| **MULTIMODAL** | Improve facilities for transit users, pedestrians and cyclists:<br>• Improve transit facilities<br>• Improve sidewalks, crosswalks and/or bike lanes<br>• Improve multimodal access to/from the airport | |

Please use sticky notes to suggest additional solutions.

# STATION 4

## Comments & Next Steps

# NEXT STEPS

- Compile and consider input from this Open House
- Develop, evaluate and refine potential solutions
- Conduct additional stakeholder meetings
- Hold Open House #2 (anticipated Spring 2017)
- Decide how to advance one or more projects

# HOW TO STAY INVOLVED

- Visit www.txdot.gov, keyword "I-410-US 281 San Pedro" or scan this code with your smart phone or tablet.
- Email the Study Team at 410-281study@jacobs.com
- Participate in future open houses
- Call us at (210) 615-1110

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# HOW TO SUBMIT COMMENTS

## 1) Today at the Open House:

- Fill out a comment form and drop it in the comment box
- Provide a verbal comment to the court reporter

## 2) Mail:

Texas Department of Transportation

Re: I-410/US 281/San Pedro Avenue Interchange Study

c/o Richard L. De La Cruz, P.E.

4615 NW Loop 410

San Antonio, TX 78229-0929

## 3) Email:

410-281study@jacobs.com

## 4) Online:

Please visit www.txdot.gov, keyword "I-410-US 281 San Pedro" or scan this code with your smart phone or tablet.

***All comments must be postmarked by December 23, 2016 to be part of the official record of the Open House.***

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