



# US 290 Improvement Project

## FM 1155 Intersection in Chappell Hill – Update

### PUBLIC MEETING

CSJs: 0114-10-097 & 0114-11-083

January 17, 2023

Thank you for joining us this evening. I'd like to start by welcoming you to a public meeting for US 290 in Chappell Hill. Tonight we'll provide an update on the planned long- and near-term roadway projects along with recent improvements to the intersection of US 290 and FM 1155.

My name is Doug Marino I serve as the District Transportation and Development Director for the Bryan District of the Texas Department of Transportation, better known as TxDOT. The Bryan District serves 10 counties, including Washington. Presenting along with me this evening, I have Juan Quiroz our Bryan District Planning Engineer.

We are here to share project information and to receive feedback from you, the public, on these projects. Many of you were at the community meeting hosted by Ms. Ramey back in January of last year. Tonight's meeting will be a similar format. Juan and I will give a presentation and then we'll open it up to a Question & Answer Session focused on these projects.

In addition, we do have project layouts available around the room along with TxDOT staff who can answer your questions. We also have several other ways you can provide feedback that I will go over at the end of the presentation.



# HELP #EndTheStreakTX

End the streak of daily deaths on Texas roadways.

[TxDOT.gov](https://www.txdot.gov) (Keyword: #EndTheStreakTX)



#EndTheStreakTX Toolkit



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Before we continue, I'd like to take a moment to share a safety message. November 7, 2000 was the last deathless day on roadways in Texas. That means for over 22 years at least one person has died every single day. We all have a part to play to change that. This message is that reminder – to End the Streak of deaths on Texas highways.

We need drivers and passengers to act more responsibly and help us reach our goal of zero deaths by 2050. Texans can play a major role in ending fatal crashes with a few simple driving habits: wear seatbelts, drive the speed limit, put away the phone and other distractions, and never drive under the influence of alcohol or drugs.

So please do your part and share this message with friends and family.

## Intersection Improvement Plan



**Short Term: Improve Traffic Signal Timing and Signage**  
Calendar Year 2022



**Near Term: Intersection Improvement**  
Target within 2 years



**Long Term: Large Scale Improvements**  
Target 7+ years

In last year's community meeting, we presented the US 290/FM 1155 intersection improvement plan and timeline shown on this slide updated for this year. As you can see, improvements are planned for three distinct timeframes—Short-Term, Near-Term, and Long-Term. The plan included....

- Short-term improvements consisting of more immediate measures targeting implementation within 2022
- Near-term improvements with a raised median intersection design targeting implementation within a two-year timeframe, and
- Long-term improvements consisting of a selected concept targeting implementation no sooner than 7 years

Tonight we will go over the current status of each plan.



- 1 Long-Term Project Overview
  - + Public Involvement
  - + Selected Alternative
  - + TxDOT Right-of-Way Process
- 2 Short-Term Improvements
- 3 Near-Term Project
- 4 Share Your Input

The order of tonight's presentation will include the following:

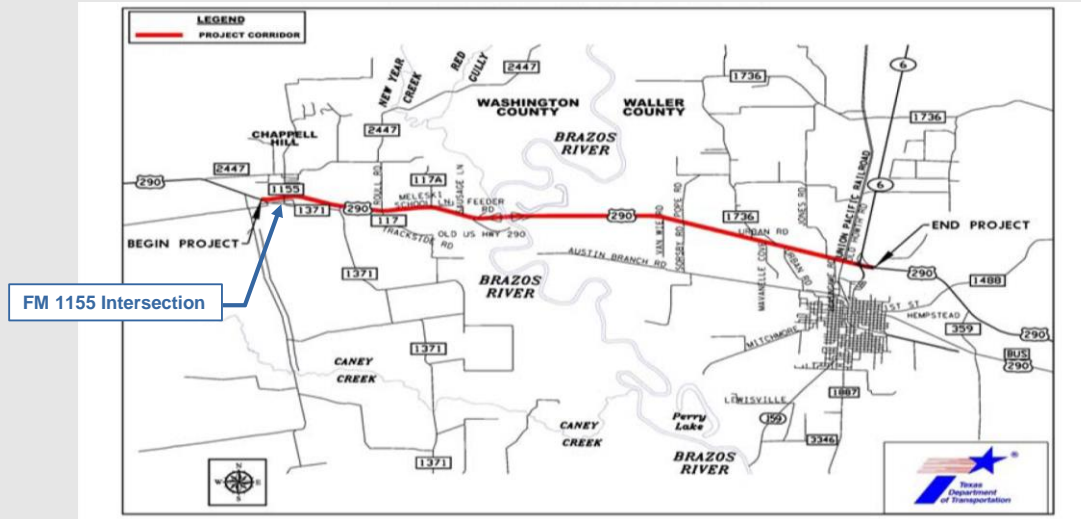
- We will start with Juan covering the Long-Term Project Overview and how the Intersection project fits within the larger US 290 expansion project.
  - He'll cover the Public Involvement Timeline
  - Provide an update to the proposed selected alternative at the intersection
  - and briefly cover the TxDOT Right-of-Way Process
- I will then cover the Short-, Term Improvements that have been made
- Along with the upcoming Near-, Term Project
- Then we'll go over how to Share Your Input



# Long-Term Project Overview

Now I'll turn it over to Juan, who will cover the Long-Term project.

## Project Overview – US 290 Improvement Project



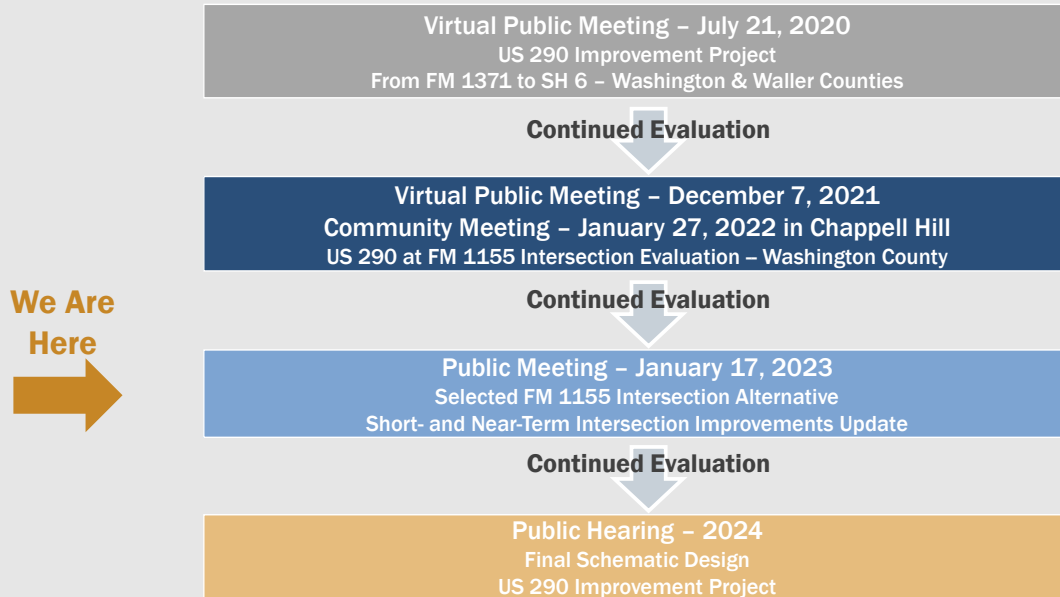
Public Meeting documents available online at the website [www.txdot.gov](http://www.txdot.gov). Just type “US 290 at FM 1155” in the keyword search box.

The location of the FM 1155 intersection improvements is shown on the slide in blue. The overall expansion project limits are shown in red from FM 1371 in Chappell Hill to State Highway 6 in Hempstead.

We are working with our counterparts in the Houston district on the long-term US 290 expansion project. The project would widen the existing four lane divided highway to a six-lane divided highway. The project is currently unfunded; as such, construction is not anticipated to begin before 2030.

As a reminder, all the information presented in previous public meetings including this one can be found at our project page on our TxDOT website: [www.txdot.gov](http://www.txdot.gov), keyword search “US 290 at FM 1155”.

## Public Involvement



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Public involvement provides stakeholders, roadway users, and the public opportunities to engage with the project development team. Let's review our public involvement efforts to date.

The first online, virtual public meeting for the long-term US 290 expansion project was held in July 2020. As a result of comments received regarding the intersection of US 290 at FM 1155, we undertook a more extensive evaluation of the intersection to explore feasible concepts that address congestion and improve safety.

A second virtual public meeting was held online on December 7, 2021, which focused on the US 290 intersection at FM 1155 by presenting three long-term intersection improvement concepts. The following month, in January 2022, we also participated in the community meeting at the Chappell Hill Volunteer Fire Department to discuss the intersection improvement plan that Doug covered earlier.

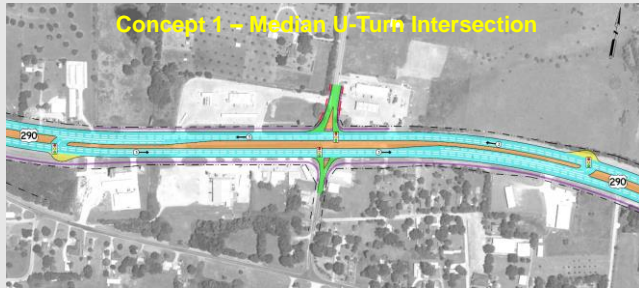
Based on TxDOT's technical evaluation along with stakeholder and public input, a press release in June 2022 announced that the overpass option was the long-term concept selected for further development.

In November and December of 2022, as part of continued project development, we proactively coordinated and met with about a dozen affected property owners to discuss project impacts. If you are an affected property owner and we have not been able to meet, please let us know that you want to talk with us on a comment form available here at the meeting this evening, by calling our TxDOT office, or speak to one of our staff after the presentation.

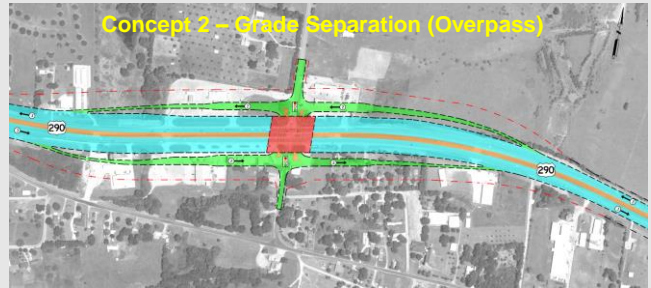
As indicated by the We Are Here arrow, today's meeting covers the design of the selected long-term FM 1155 overpass intersection alternative that would be incorporated as part of the long-term US 290 expansion project as previously mentioned.

And finally, a public hearing presenting the final schematic design of the long-term US 290 expansion project from FM 1371 to SH 6 including the proposed improvements for the FM 1155 Intersection is anticipated in 2024.

## FM 1155 Intersection Evaluation Concepts



Concept 1 – Median U-Turn Intersection



Concept 2 – Grade Separation (Overpass)



Concept 3 – New Location South Route

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At the community meeting a year ago, we shared three concepts that were developed to address traffic congestion and improve safety for the FM 1155 intersection improvement. To recap.....

- Concept 1 – 6-Lane Median U-Turn Intersection, shown in the upper left, which is an at-grade intersection with raised medians configured to prevent left turns from FM 1155 and reduce the number of conflict points
- Concept 2 – Grade Separated Overpass, shown in the upper right, designed to allow US 290 traffic to bridge over the intersection, and
- Concept 3 – New Location South Route Re-alignment, shown bottom center, which would provide a relief route around the Chappell Hill Community.



# **Long-Term Project**



## **Selected Alternative**

### **Overpass at FM 1155 Intersection**

As previously mentioned, based on a technical evaluation along with stakeholder and public input, the overpass concept was the long-term intersection concept selected for further development.

## Overpass at FM 1155 Intersection



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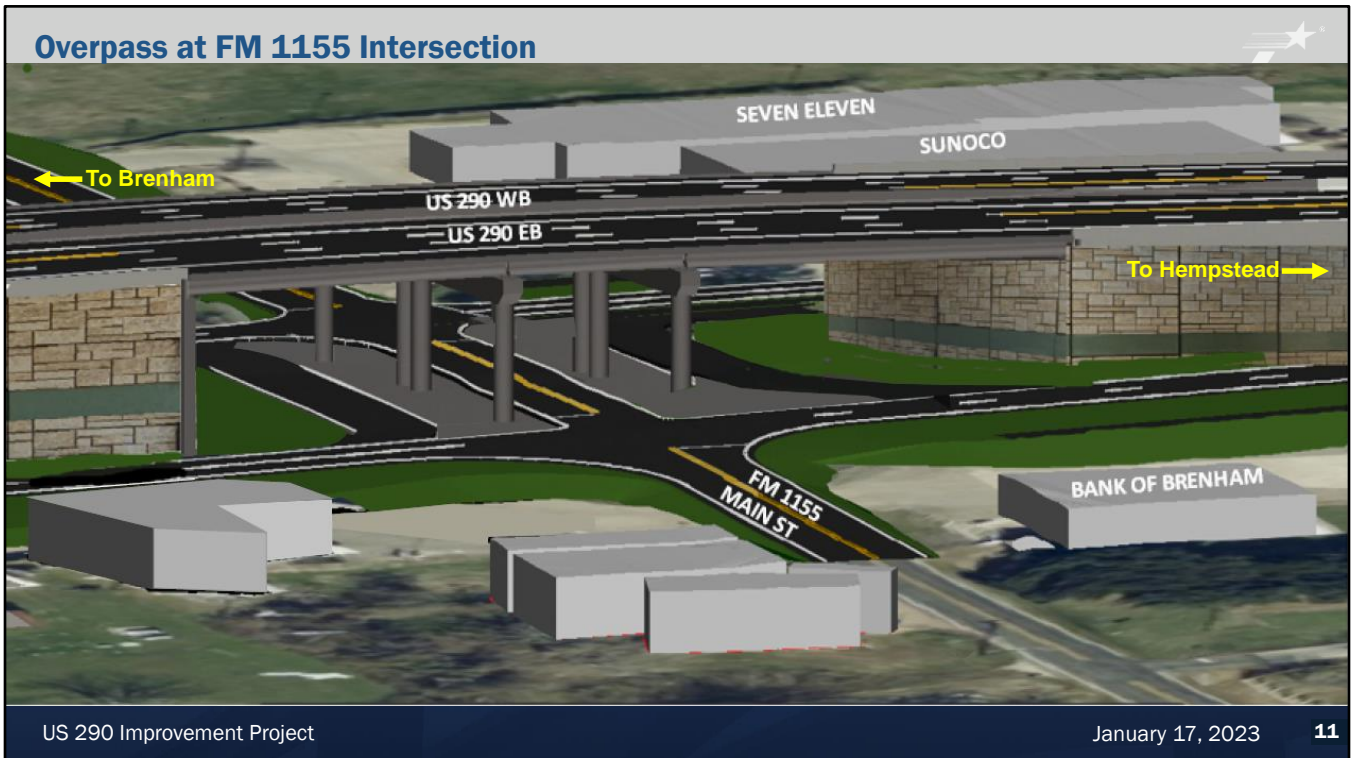
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This slide presents the proposed long-term design of the overpass concept at the FM 1155 intersection.

The improvements include the following major features:

- Shown in light red – US 290 would be widened from the current 4-lane divided highway to a 6-lane divided highway at this location,
- Shown in dark red – US 290 main lanes would bridge over the FM 1155 intersection to create the overpass,
- Shown in green – Exit ramps with frontage roads would be constructed to access FM 1155 using at-grade signalized intersections.
- FM 1155 on the north side of the intersection, also shown in green, would be widened to accommodate future traffic flow, and
- Shown in purple – Pedestrian accommodations would also be provided at the intersection to allow pedestrians and cyclists to safely cross the intersection.

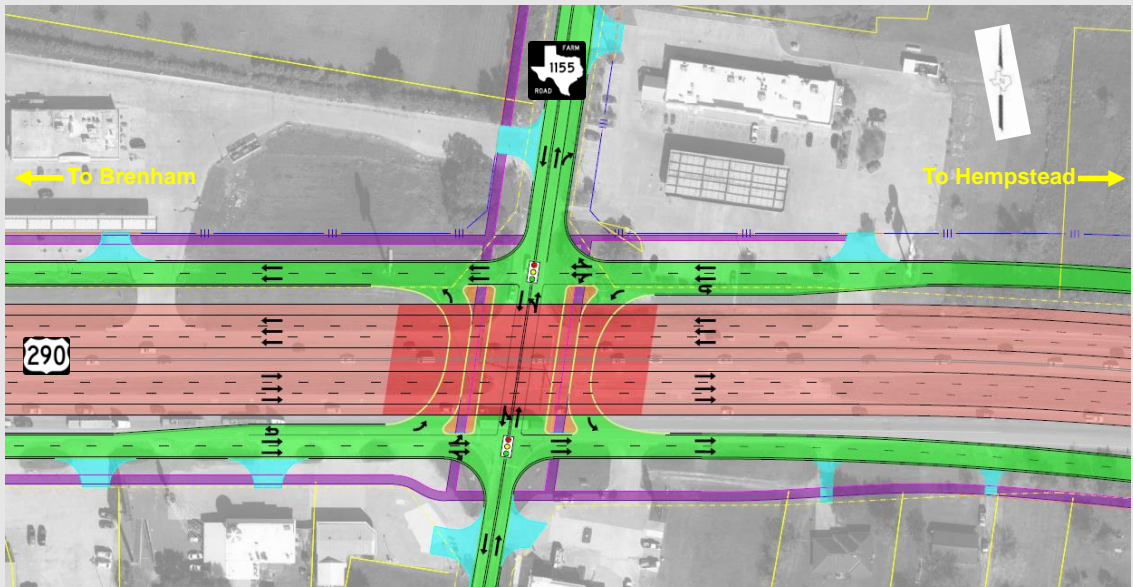
In addition, the west end of FM 1371 along with St Joseph Street would be reconfigured with a cul-de-sacs, shown in orange, removing access to US 290. As such all access to US 290 would be through FM 1155.



This 3-D visualization illustrates the FM 1155 overpass in the Chappell Hill Community from a bird's eye perspective. The view is looking northeast. Brenham is to the left and Hempstead is to the right.

A key design feature is the construction of vertical retaining walls allowing US 290 to bridge over the intersection. These vertical retaining walls also minimize impacts to adjacent property owners by reducing the amount of right of way width required by approximately 20% when compared to traditional embankments. Of particular note is that minimal right of way will be required along the south side of the intersection and a much reduced footprint compared to what was shown in last year's community meeting.

## Intersection Layout and Lane Configurations



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Here is a close-up aerial perspective of the intersection which provides a plan view of lane configurations. The proposed right of way at the overpass would be approximately 300 ft wide to accommodate the proposed intersection and following key elements:

- First, shown in light red, the 6-lane divided highway overpass at this location consists of 3-lanes in each direction separated by a concrete traffic barrier with 12 ft wide inside and outside shoulders; the overpass provides significant safety benefit by separating the high-speed traffic over the intersection,
- Next, shown in green, the eastbound and westbound frontage roads approaching the intersection consist of two through lanes that would allow for left and right turns onto FM 1155.
- U-turn lanes would also be provided to allow vehicles to safely change direction and by-pass the intersection, and
- Pedestrian accommodations, shown in purple, would also be provided at the intersection to allow pedestrians and cyclists to safely cross the intersection under US 290. A shared use path which is essentially a wide sidewalk that can be utilized by both pedestrians and cyclists would be constructed along the south side of US 290, and a sidewalk would be constructed along the north side of US 290.

## Selection Criteria Information



Selection Criteria	Alignment Shift to the North	Alignment Shift to the South
<i>Property Impacts</i>		
Overpass Alignment Length (miles, approx.)	4.3	4.3
Estimated Proposed ROW Acquisition (acres)	7.9	8
Potential Residential Displacements	0	4
Potential Commercial Displacements	4	8

The process for selecting the preferred alternative for the project includes assessing feedback received from the public and stakeholders as well as evaluating other criteria such as property impacts.

Every effort was made to minimize the extent of possible impact to adjacent properties. Right of way acquisition will be required for the Overpass alternative.

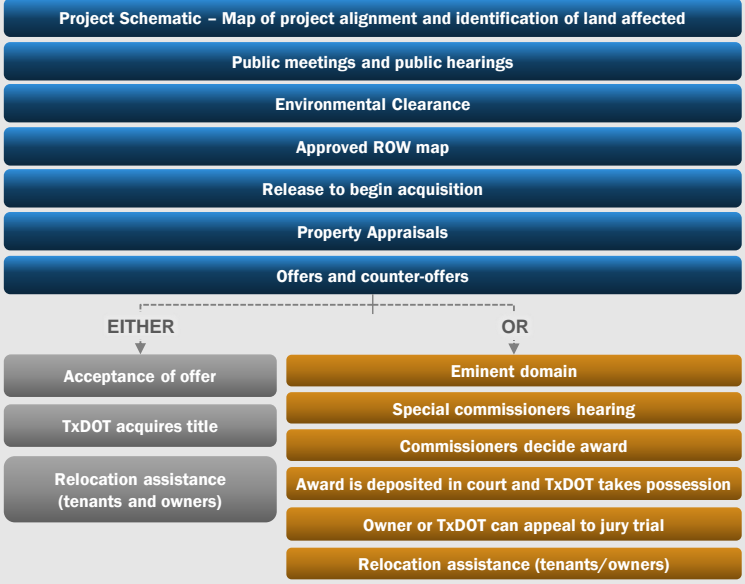
For an Overpass alignment shifted to the north, fewer potential residential and commercial displacements would result.



## TxDOT Right of Way Process

As I mentioned there would be right of way acquisition as part of the project. The following slide will provide more information.

# TxDOT Right of Way Process



Information can be found online at: <http://www.txdot.gov/government/processes-procedures/row.html>

**For More Information:**  
**Christine Solomon**  
**ROW Project Manager**  
TxDOT Bryan District  
[Christine.Solomon@txdot.gov](mailto:Christine.Solomon@txdot.gov)

The project would, subject to final design considerations, require additional right of way, and potentially require displacements. This slide illustrates TxDOT’s right of way process. We are currently in the early stages of project development, and as such have not started the Right of Way process. However, information is available on the TxDOT Website outlining property owners’ rights, the Right of Way process, and the help provided by the department in relocating tenants and property owners.

These can be found on the project webpage or additionally at the web address noted on the slide.

If you have any questions during the right-of-way process, please contact the Bryan District Right of Way Project Manager, Christine Solomon at [Christine.Solomon@txdot.gov](mailto:Christine.Solomon@txdot.gov).

With that, I’ll hand it back to Doug.



## Short-Term Improvements

Thanks Juan.

While the long-term project is the best overall solution for the US 290/FM 1155 intersection, a project of that magnitude does take time to develop.

To address the safety concerns at the intersection in a more timely manner, we have other improvements to install.

## Existing Signage



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The current signs leading to the signal at the intersection are standard signal ahead signs with continuous flashing lights. At last year's meeting we discussed a few items that we thought could be installed with a relatively short turn around time to address the safety concerns at the intersection. We ended up working towards two solutions.

## Short-Term Solutions



- Install Active Advance Warning Signs
- Install Active All Red Extension



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The first is a active signal ahead warning sign. This sign is similar to the current signs however the flashing lights are timed so that they will only turn on to flash at the appropriate time when driver approaches the intersection along with additional signs tell drivers to prepare to stop when flashing. These lights are wired to the traffic signal and they will turn on the interval it takes vehicles to stop.

Now unfortunately we have not completed the installation of these signs. Getting signal parts of all types has been a challenge with the current supply chain issues. The wiring to the traffic signal...has been... installed for many months now....we do expect to have the parts by in the next few weeks and these signs up and running shortly thereafter.

[CLICK] The second item that...was....installed last Spring, is a newer technology we call an Active All Red Extension. It uses video and radar to extend the red-light time for vehicles on FM 1155 when it detects that a vehicle is likely to run the US 290 red light. The detection measures vehicle speed and distance to the intersection to calculate if it should take action. So when a likely red-light running is detected it holds the vehicles stopped at FM 1155 until the red-light runner passes through the intersection.

While these systems are an improvement, there are limitations, they aren't fool-proof. For one, the curves leading up to the intersection limit the sight distance the system can see, so it's possible it won't catch the most egregious speeders or someone that just chooses to run the light. Another limitation is that once the lights on FM 1155 turn green, they won't turn back to red even if a potential light runner is detected.



## Near-Term Project

So while the short term improvements will make the intersection better, the limitations I described do warrant further improvements to further reduce crash risk. To that we are planning a more robust near-term project that will further increase the safety of the intersection in the more immediate future than the long-term project.

## Near Term Solution: R-CUT Intersection at FM 1155 and FM 1371



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The near-term improvements, as outlined at last year's meeting, is a proposed Restricted Crossing U-Turn intersection, also known as an R-CUT intersection. Essentially most left turns are eliminated and replaced by right turns, which are safer.

The proposed improvements include the following features:

- The R-CUT intersection at FM 1155, would be signalized to allow northbound left turns, and
- Two U-turn locations offset from the intersection—the U-turn location west of the intersection coincides with an R-CUT at FM 1371 intersection and would also have a traffic signal

It is important to note that the Federal Highway Administration supports these intersections designs because they have shown to reduce crashes by up to 49%.

You maybe thinking, it's a traffic signal, how is this any different than what's out there today. It's actually very different. Let me explain...

This type of configuration enhances safety by reducing conflict points at the intersection. Most notably, the maneuver of turning across 4-lanes of traffic from the side street that generally results in the most serious types of crashes...the t-bone crash.

It also reduces the red-light time or phasing for each signal cycle which improves the operational efficiency of the intersection. This means US 290 traffic will stop less often. In fact, the EB US 290 traffic never stops except if pedestrians activate the crossing signal.

Another important change is that the project will remove the three median crossings within these limits.

## Near Term Solution: R-CUT Intersection at FM 1155



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This slide shows a close-up view of the R-CUT Intersection at GM 1155. Raised medians, shown here in green, would be installed to channelize traffic. As previously mentioned, R-CUT intersections eliminate left turns for vehicles exiting the FM 1155. Instead, vehicles wanting to make the left turn on to US 290 would take a right turn and then utilize a U-turn location offset from the intersection to then proceed in the desired direction.

Eastbound US 290 traffic would be able to make a northbound left turn to FM 1155. Westbound US 290 traffic would access FM 1155 through the intersection at FM 1371 which will also serve as a U-turn location allowing vehicles to then proceed in the desired direction and make a safe right turn.

## Near Term Solution: R-CUT Intersection at FM 1155



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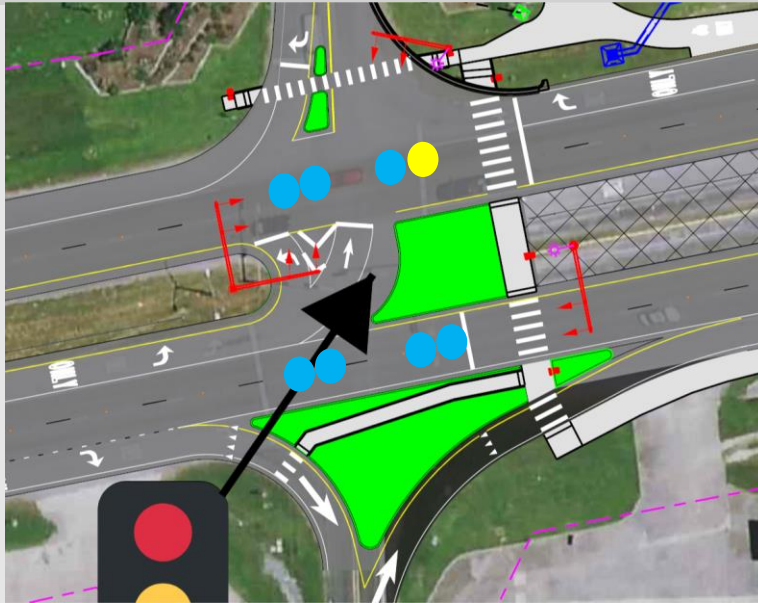
Here is a close-up view of the offset U-turn locations that work with the R-CUT intersection.

The U-turn location west of the intersection coincides with the FM 1371 intersection and would have a traffic signals. Eastbound drivers would still have access to FM 1731 but would also be able to make a U-turn to change direction and make a safe right turn at the desired location as needed.

The U-turn location east of the intersection, shown on the right-hand side.

TxDOT is actively progressing the design and plans to start construction approximately one year from now.

## Near Term Solution: R-CUT Intersection at FM 1155



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I mentioned the conflict points that generally results in the most serious types of crossing type crashes...or t-bones. The other types, merging and diverging do occur but are generally less serious.

For this location in particular, I want to illustrate the highest risk conflicts, the t-bones, that this design eliminates. I've added some blue and yellow dots to show the conflict points that currently exist.

SB 1155 from one side to other  
NB 1155 from one side to other  
SB 1155 to EB 290  
NB 1155 to WB 290  
WB 290 to 1155 south  
EB 290 to 1155 north

7 (blue dot) out of 8 (yellow dot remains) highest risk conflict points eliminated

Yellow dot remains because high volume of left turns would be too many for the eastern u-turn without adding an additional traffic signal.



## Traffic Simulation Video

Year 2040 Peak Volumes



## Share Your Input

That concludes the presentation....we'll have a Question & Answer session in a moment but first let me tell you how you can share comments on the record.

## Share Your Input



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US 290 at FM 1155

Connecting you with Texas

Public Meeting documents available online at the website [www.txdot.gov](http://www.txdot.gov)  
Just type “US 290 at FM 1155” in the keyword search box.

To find the information online that we presented at tonight’s meeting, go to our TxDOT website [www.txdot.gov](http://www.txdot.gov). To reach the public meeting webpage, just type “US 290 at FM 1155” in the keyword search box. We anticipate the information will be uploaded and available by the end of the day tomorrow.

## Share Your Input



Public meeting comments must be received on or before **Wednesday, February 1, 2023** to be included in the official meeting documentation.



### Call TxDOT Project Manager

(979) 778-9719

During regular  
office hours  
between 8am-5pm



### Email

[Juan.Quiroz@txdot.gov](mailto:Juan.Quiroz@txdot.gov)  
TxDOT Project Manager  
Juan Quiroz, P.E.



### Mail-in Comments\*

TxDOT Bryan District Office  
ATTN: Juan Quiroz, P.E.  
2591 North Earl Rudder Freeway  
Bryan, TX 77803

\*Download a Comment Form on the Public Meeting webpage at [www.txdot.gov](http://www.txdot.gov)  
Type "US 290 at FM 1155" in the keyword search box.

We are interested in hearing any feedback you might have on the information presented at tonight's meeting.

There are several methods available for you to share your input. While comments are always welcome....for comments to be included in the official record of this public meeting they must be received or postmarked on or before Wednesday, February 1, 2023.

In addition to filling out the comments forms available and placing them in the Comment Box this evening, you also to submit comments by

- Phone or Email to Juan as shown on the slide
- You may submit written comments by mail to the TxDOT Bryan District Office at the address shown

The Comment Form can be downloaded at the public meeting webpage I mentioned in the previous slide.