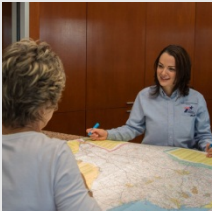




TEXAS DEPARTMENT OF TRANSPORTATION



US 380 FEASIBILITY STUDY

CSJs: 0135-11-022, 0135-02-059, 0135-03-048, 0135-04-032, 0135-05-026

Collin County

May 6, 7, and 9

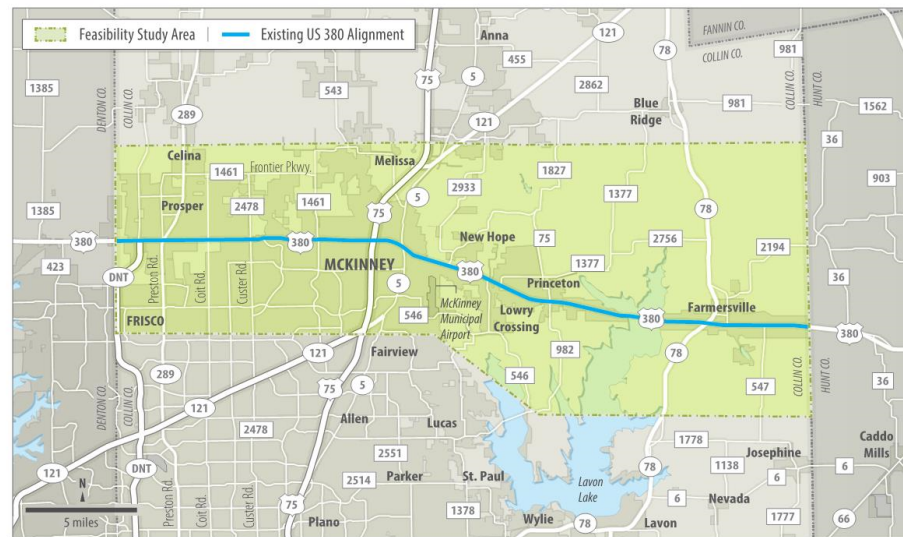
WELCOME

US 380 Collin County Feasibility Study

DALLAS DISTRICT PUBLIC MEETING

MAY 6 – MAY 7 – MAY 9, 2019
6:00 P.M. - 8:00 P.M.

Presentation at 6:00 P.M.



Transition from Feasibility Study to NEPA Process

TxDOT recommended alignment to be carried into the NEPA/Environmental studies.

Types of environmental studies include:

Environmental Assessment (EA)

- Segments along existing US 380
- No significant impacts expected
- 1-2 years

OR

Environmental Impact Statement (EIS)

- New location segments and along existing US 380
- Significant impacts to human & natural environments expected
- Multiple alignments considered
- 2-4 years

There is potential that other viable alternatives or changes to alignments would need to be considered.

380 Study History

2015

Previous TxDOT Feasibility Study conducted and suggested a freeway as a long-term solution.

2016

Collin County identified US 380 as a priority project & for study as a Limited Access Roadway. Location not specified.

2017

2018

2019

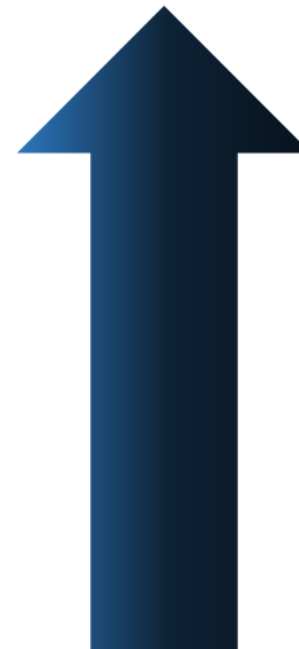
Current TxDOT Feasibility Study underway to determine east-west freeway feasibility, recommended location, and plans for implementation.

Collin County Roadway Action Plan is developed and underway.

It was determined that TxDOT will lead further study for the US 380 corridor.

Major Challenges: Existing US 380

- As population in and around Collin County grows, *east-west travel demand will continue to increase.*
- Existing and projected *travel demand is at capacity* during peak travel periods and projected to increase considerably by 2045.
- *Capacity and safety improvements are constrained* plus new developments continue to be constructed.



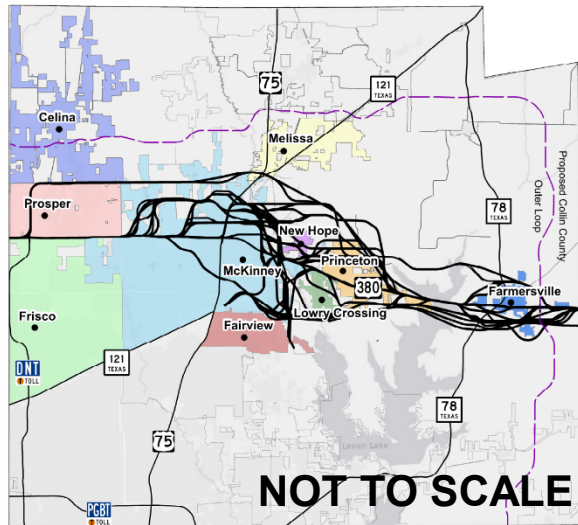
166%

**PROJECTED INCREASE
IN COLLIN COUNTY
POPULATION GROWTH FROM
2018 – 2040***

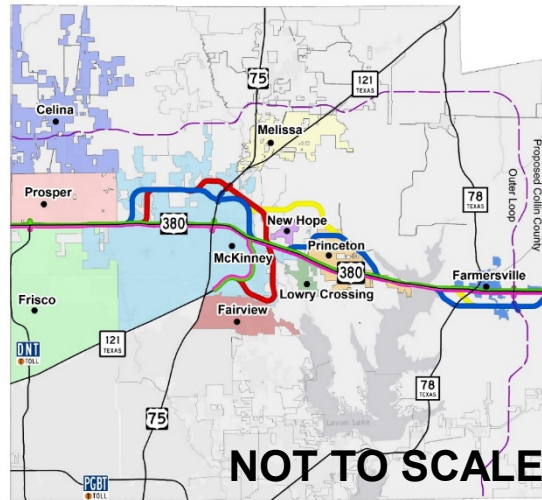
2014 Texas Population Projections by Migration Scenario Data Texas State Demographer, WEB, 23 April 2018.
*Aggressive scenario based on observed Collin County growth from 2000-2010.

Freeway Alignment Options

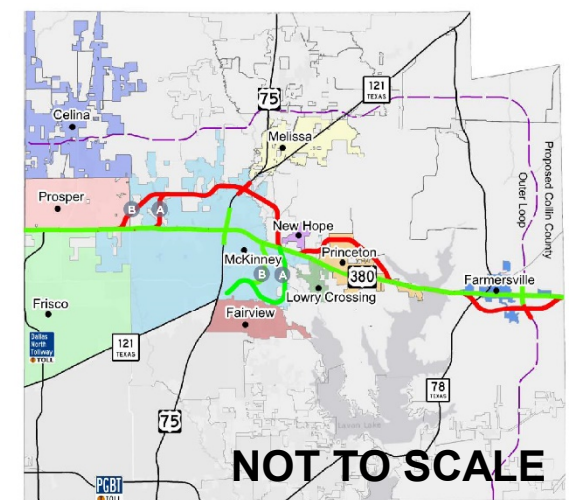
SUMMER 2017



SPRING 2018



FALL 2018



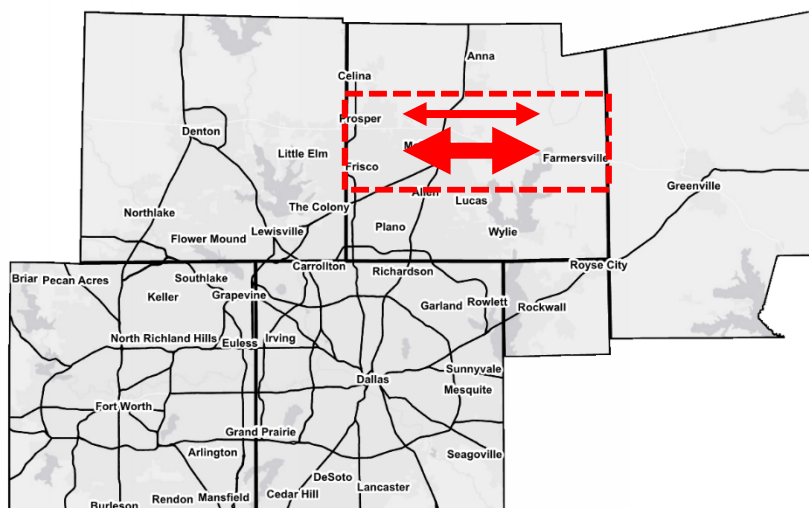
October 2018 to present

- **Additional traffic analysis and travel demand modeling**
- **Initial noise analysis**
- **Short-term economic impact overview**
- **Analysis of and response to input received**
- **Continued coordination with stakeholders and property owners**

**The tasks above informed our decisions
in evaluation of alignment tweaks or new segments.**

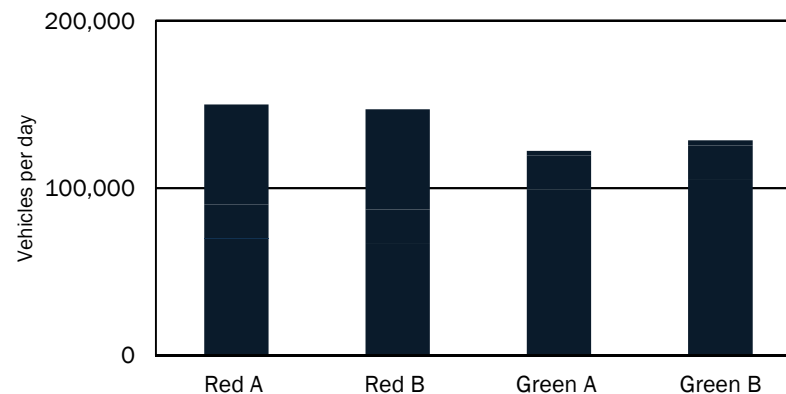
Travel Demand – Average Daily Volume

Comparing the GREEN and RED alignments, the RED alignments offer the best East-West mobility in Central Collin County.



Using NCTCOG 2045 Travel Demand Model Projections

TOTAL East West Volumes Estimates –
Coit Road to FM 1827



Includes:

- 1 US 380 Freeway in Collin Co.
+
- 2 Major Parallel E-W Arterial
Business US380 (red) or Bloomdale (green)
+
- 3 Added volume due to US 380 Freeway in Denton Co.

Congestion Relief

Comparing the GREEN and RED alignments, the RED alignment reduces regionwide congestion more than GREEN.

	RED	GREEN
Vehicle Hours of Benefit (Regional)	66,000	50,000
Better Project (Vehicle Hours)	16,000 (32%)	-
Annual Value of Time Benefits (Million \$)	\$515 M	\$390 M
Benefits to Collin County	✓	-
Total East/West Volume	✓	-

*Comparisons to No-Build Alternative of US 380

October 2018 to Present: Input and Outreach Overview

- 3 Public meetings held with 949 attendees and 10,750 comments/surveys received
- 2 meetings with potentially affected property owners (or MAPOs) with 596 attendees
- Multiple rounds of meetings with municipal/county staff and council/commission presentations
- Multiple rounds of meetings with neighborhood leaders
- Meetings, outreach and correspondence with potentially affected residential property owners
- Meetings and outreach to potentially impacted existing and future businesses and non-profit organizations including Raytheon, Encore Wire, ManeGait

Examples of How Input has Impacted the Study

- Conducted additional traffic analysis, preliminary noise analysis, and economic impact overviews
- Proposed red B alignment
- Proposed red E alignment
- Proposed yellow alignment north of New Hope
- Evaluated alignments:
 - south of Lowry Crossing, Princeton and Farmersville
 - north of Prosper
 - proposed by cities
- Evaluated shifting slightly the green alignment north and south
- Evaluated depression and compression of alignments
- Analyzed elevated typical sections along the green alignment through McKinney

Feasibility Study Key Factors



**ENGINEERING
ANALYSIS**



**TRAFFIC
ANALYSIS**



**SAFETY AND
CRASH DATA**



**RIGHT-OF- WAY
REQUIREMENTS**



**EXISTING AND
PLANNED RESIDENTIAL
AND COMMERCIAL
DEVELOPMENTS**



**EXISTING AND
PLANNED UTILITIES**



**COST AND
ECONOMIC IMPACT**



**OTHER PLANNING
EFFORTS**



**NATURAL AND
CULTURAL
RESOURCES**



**ENDANGERED
SPECIES**



**LAND USE AND
PARKLAND**



**WATER RESOURCES
AND FLOOD PLAINS**



**HAZARDOUS
MATERIALS**

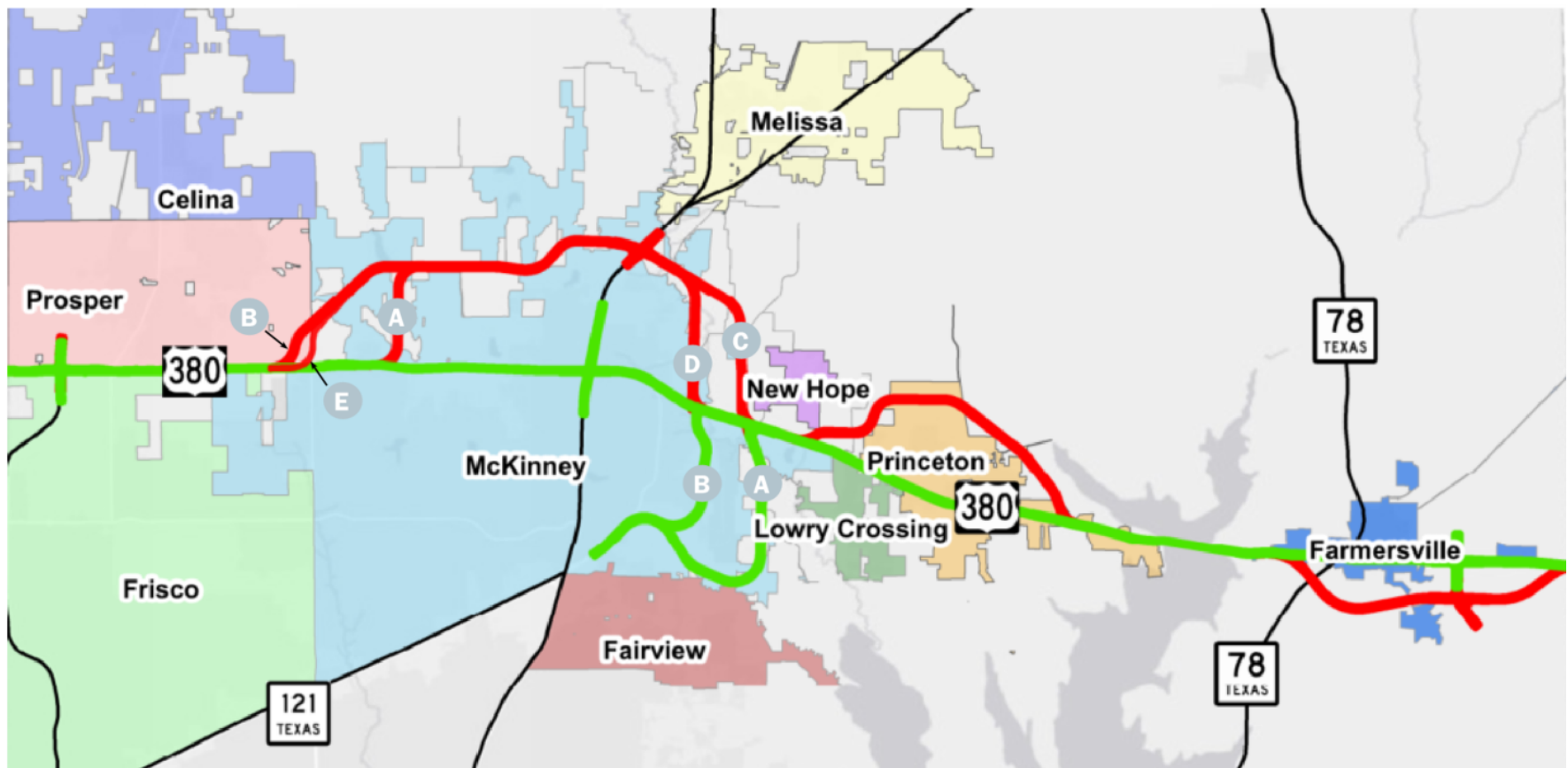


**SOCIAL AND
COMMUNITY
IMPACTS**

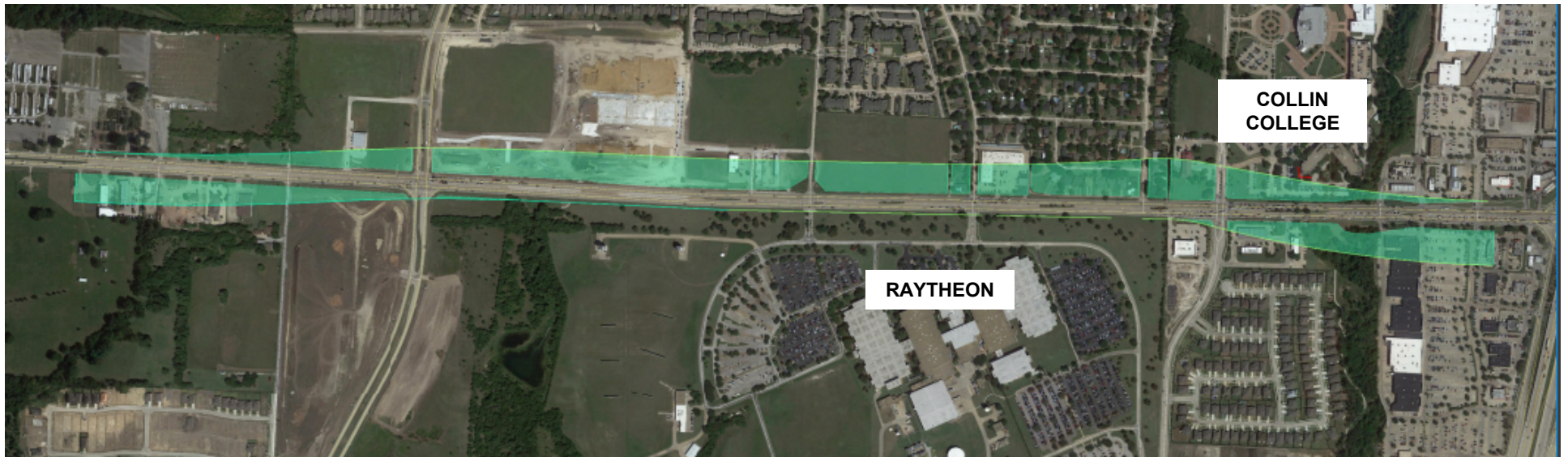


**STAKEHOLDER AND
PUBLIC INPUT**

Alignments Considered Since Last Public Meeting



Alignment Evaluation: Hardin Boulevard to US 75



WHY:

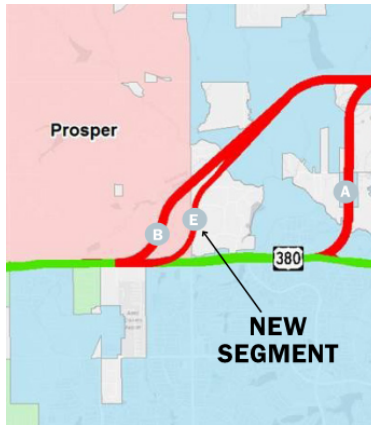
- Identified major green alignment impacts to businesses and major employer

ANALYSIS:

- North shift would cause 30 more residential displacements, 37 more business displacements, impact a fire station and Collin College

Alignment Evaluation: New Segments

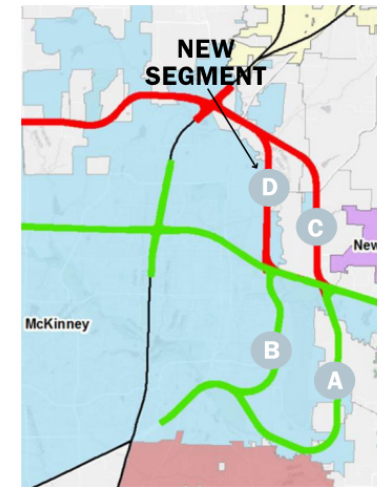
East Prosper – West of McKinney



WHY :

- Conducted additional engineering analysis and thought it prudent to get feedback on another option
- Significant comments about impacts in the area including ManeGait Therapeutic Horsemanship

Northeast McKinney











WHY:






- More direct connection to green B

Segment Evaluations

DENTON COUNTY LINE TO COIT ROAD: Deciding Factors

Evaluation Category	No Build	Green Alignment
Number of Residential Property Impacts	0	0
Number of Residential Displacements	0	0
Number of Business Impacts	0	3
Number of Business Induced Displacements	0	1
Number of Business Direct Displacements	0	1
Number of Business Displacements	0	2
Planned Future Development Impacts (acres)	0	12
Environmental, Watershed, and Park Land Impacts (acres)	0	6
Cost - includes construction, ROW, utility relocation	0	\$311M

Evaluation Category	No Build	Green Alignment
Enhances Regional Mobility		
Satisfies Travel Demand		
Enhances Safety		
Supports Future Regional Economic Growth		

Criteria Rating Scale				
Does not achieve criteria	Sometimes meets criteria	Partially meets criteria	Mostly meets criteria	Highly meets criteria
				

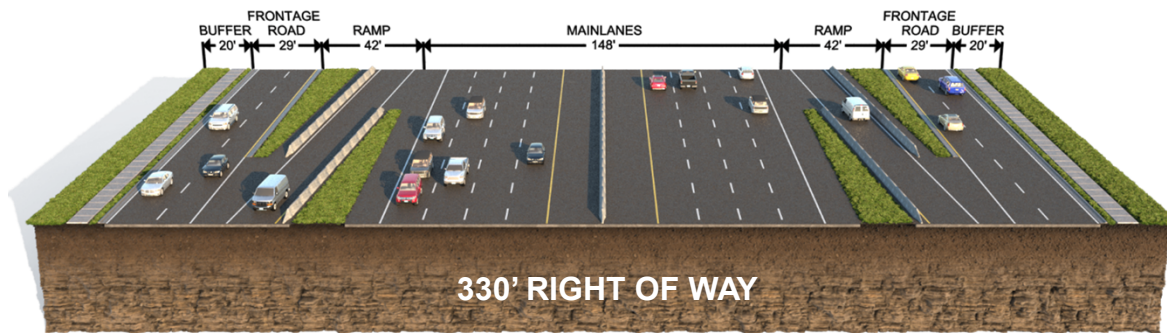
DENTON COUNTY LINE TO COIT ROAD: Deciding Factors

Recommended Alignment: GREEN

- Green alignment has minimum impacts/displacements
- Land development is quickly advancing, there is a need to start the land banking process now



DENTON COUNTY LINE TO COIT ROAD: Average Typical Section



- Mainlanes at grade
- Average right-of-way width is 330 feet. Exception is around major interchanges where more is needed for ramps
- Assumption is access to mainlanes would be provided at arterials. More work with municipalities will be done in future phases to further develop.

COIT ROAD to FM 1827: Deciding Factors

Evaluation Category	No Build	Green Alignment		Green Alignment - North Shift		Red A + Red D Alignments		Red B + Red D Alignments		Red E + Red D Alignments	
Number of Residential Property Impacts	0	16		16		30		30		34	
Number of Residential Displacements	0	18		48		15		14		17	
Number of Business Impacts	0	85		80		16		4		7	
Number of Business Induced Displacements	0	20		27		1		0		1	
Number of Business Direct Displacements	0	181		211		18		6		10	
Number of Business Displacements	0	201		238		19		6		11	
Planned Future Development Impacts (acres)	0	33		37		95		152		116	
Environmental, Watershed, and Park Land Impacts (acres)	0	80		80		340		327		319	
Cost - includes construction, ROW, utility relocation	0	\$2-2.2B		\$1.2B		\$969M		\$830M		\$878M	
Reduces Collin County Traffic Congestion		On 380	380 + Bloomdale	On 380	380 + Bloomdale	On 380	New 380 + Old 380	On 380	New 380 + Old 380	On 380	New 380 + Old 380
Satisfies Travel Demand											
Enhances Safety											
Supports Future Regional Economic Growth											

CRITERIA RATING SCALE

Does not achieve criteria



Sometimes meets criteria



Partially meets criteria



Mostly meets criteria

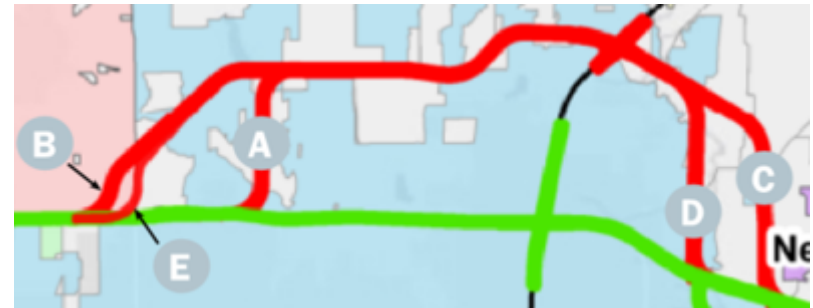


Highly meets criteria



COIT ROAD to FM 1827: Deciding Factors

Red v. Green



RED ALIGNMENTS

Fewer business impacts/displacement

Adding another east-west route is better for regional mobility

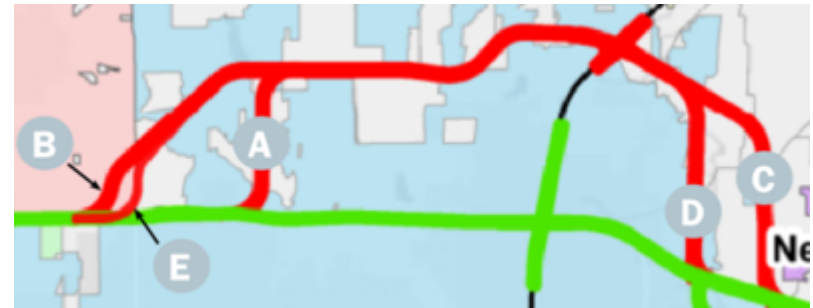
More expected economic growth opportunities

Less impactful to city revenues

Cost less

COIT ROAD to FM 1827: Deciding Factors

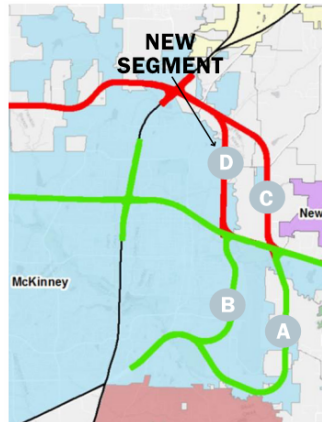
RED A v. RED B v. RED E



- Red A does not impact/displace ManeGait Therapeutic Horsemanship, which provides essential services for at least two vulnerable and protected status populations – the disabled and children
- Red A affects fewer acres of planned developments
- Red A does not go through an existing neighborhood or through an existing commercial area

SPUR 399 EXTENSION and northern connections: Deciding Factors

**RED C/GREEN A
V.
RED D/GREEN B**



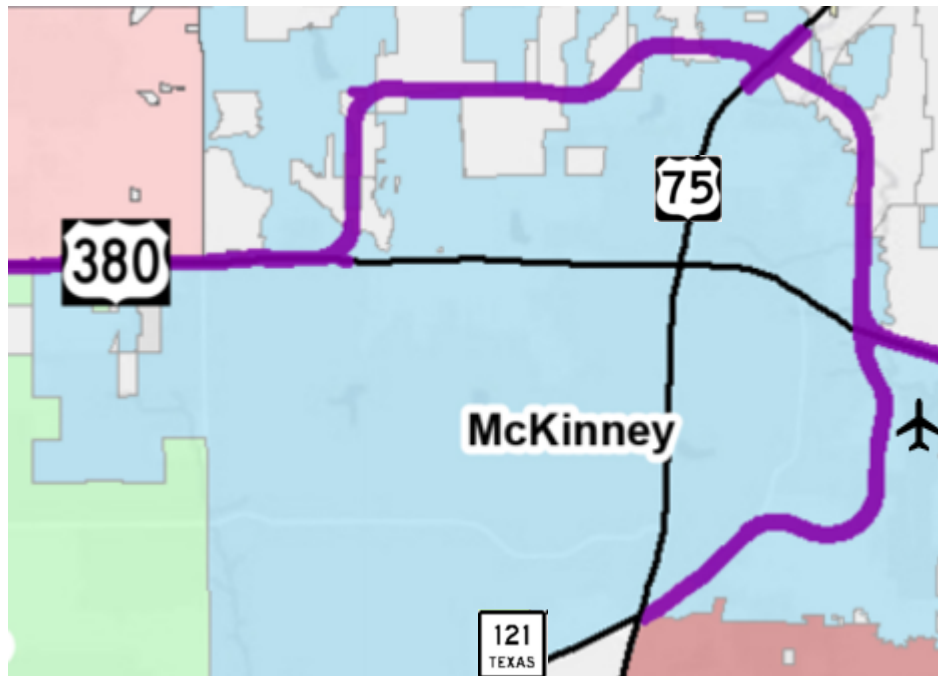
ANALYSIS:

- Red D + green B has fewer residential impacts and displacements
- Green B encroaches on fewer park parcels and carries more traffic than green A

Evaluation Category	No Build	Red C + Green A Alignment	Red D + Green B Alignment
Number of Residential Property Impacts	0	25	7
Number of Current Residential Displacements	0	12	6
Number of Business Impacts	0	7	9
Number of Business Induced Displacements	0	1	0
Number of Business Direct Displacements	0	1	3
Number of Business Displacements	0	2	3
Planned Future Development Impacts (acres)	0	16	8
Environmental, Watershed, and Park Land Impacts (acres)	0	221	236
Cost - includes construction, ROW, utility relocation	0	\$618M	\$560M
Enhances Regional Mobility	○	●	●
Satisfies Travel Demand	○	◐	●
Enhances Safety	○	●	●
Supports Future Regional Economic Growth	○	●	●

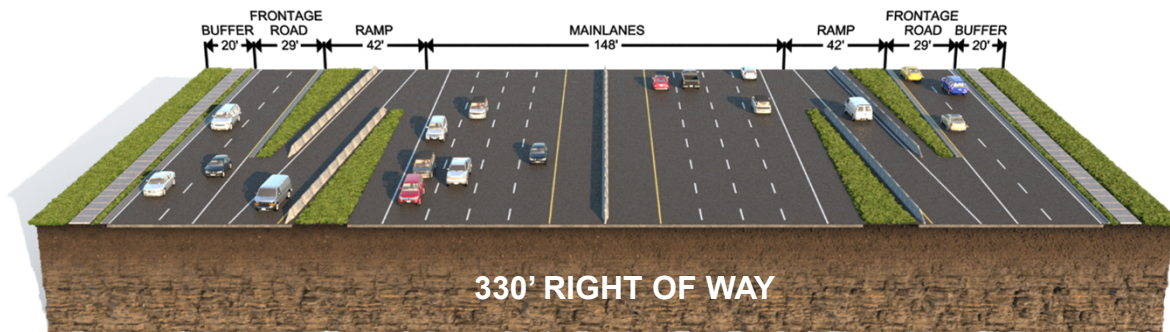
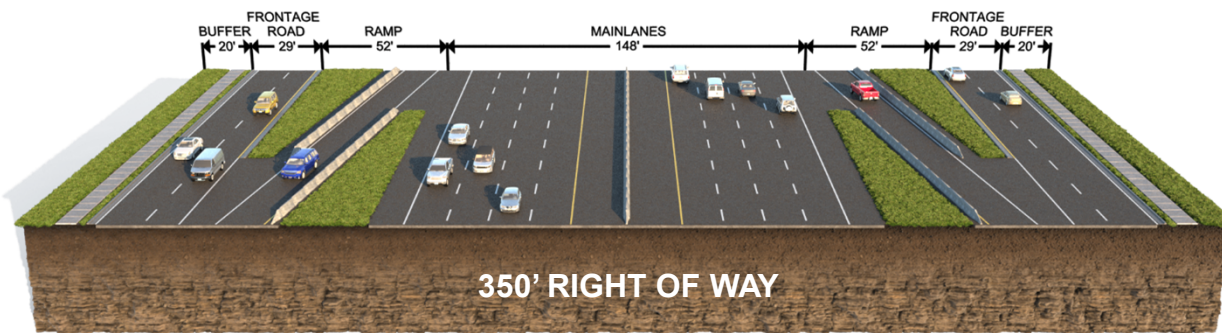
CRITERIA RATING SCALE
Does not achieve criteria ○
Sometimes meets criteria ◐
Partially meets criteria ◑
Mostly meets criteria ●
Highly meets criteria ●

COIT ROAD to FM 1827 + SPUR 399 EXTENSION: Deciding Factors



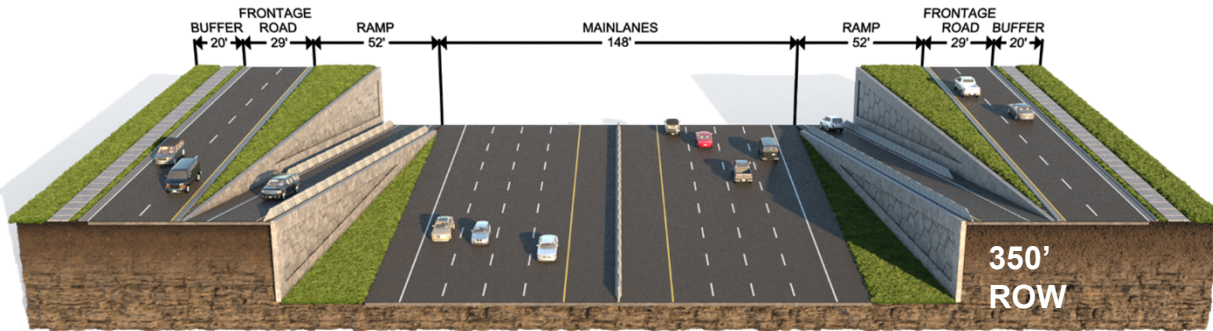
**Recommended Alignment:
Red A + Red D + Green B**

COIT ROAD to FM 1827 + SPUR 399 EXTENSION: Average Typical Section



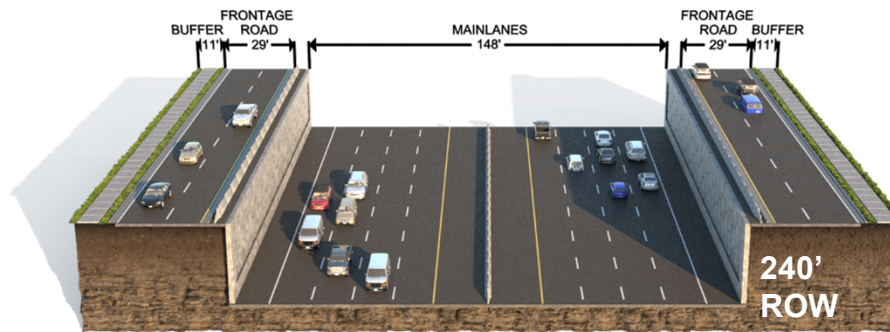
- Mainlanes at grade or structure on bridges through wetland areas
- Average right-of-way width is between 330 and 350 feet. Exceptions are reduced ROW segments on next slide and around major interchanges where more is needed for ramps.
- Assumption is access to mainlanes would be provided at arterials. More work with municipalities will be done in future phases to further develop.

COIT ROAD to FM 1827: Average Typical Section



**350' RIGHT OF WAY
MAINLANES DEPRESSED**

- south of Erwin Park and Bloomdale Farms and north of Heatherwood




















**240' RIGHT OF WAY
MAINLANES DEPRESSED**

- between Tucker Hill and Stonebridge

FM 1827 to CR559 : Deciding Factors

Evaluation Category	No Build	Green Alignment	Red Alignment
Number of Residential Property Impacts	0	10	12
Number of Residential Displacements	0	14	10
Number of Business Impacts	0	22	0
Number of Business Induced Displacements	0	6	0
Number of Business Direct Displacements	0	116	19
Number of Business Displacements	0	122	19
Planned Future Development Impacts (acres)	0	42	105
Environmental, Watershed, and Park Land Impacts (acres)	0	16	29
Cost - includes construction, ROW, utility relocation	0	\$452M	\$353M

Evaluation Category	No Build	Green Alignment	Red Alignment
Enhances Regional Mobility			
Satisfies Travel Demand			
Enhances Safety			
Supports Future Regional Economic Growth			

Criteria Rating Scale				
Does not achieve criteria	Sometimes meets criteria	Partially meets criteria	Mostly meets criteria	Highly meets criteria
				

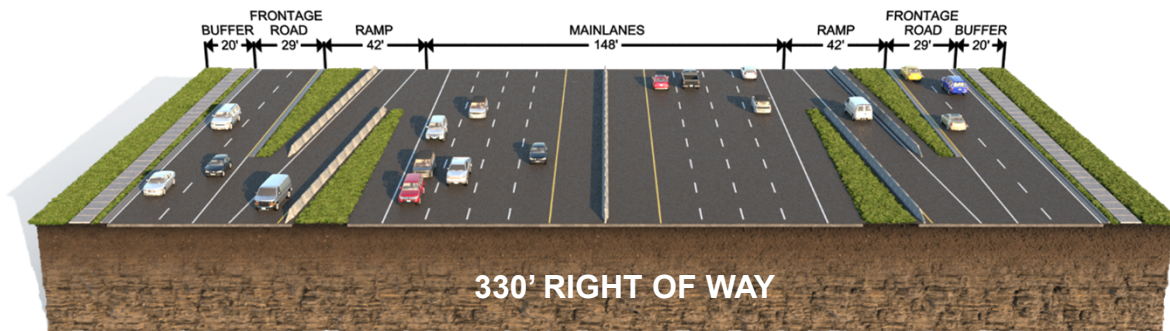
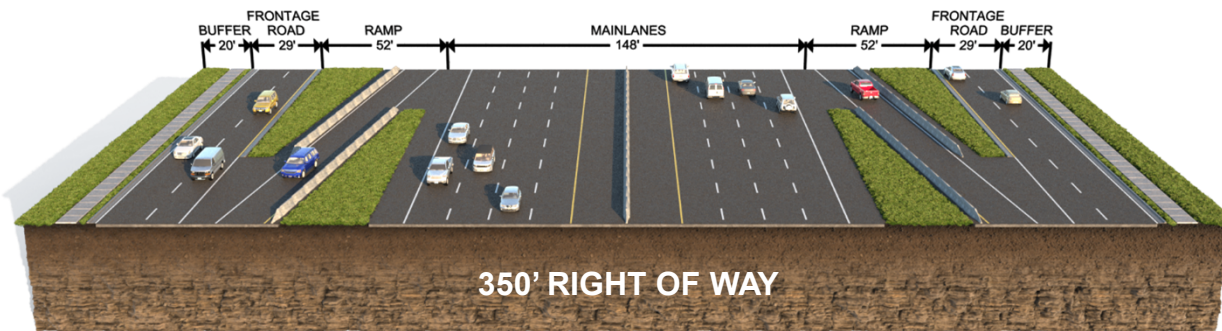
FM 1827 to CR559 : Deciding Factors

Recommended Alignment: RED

- Business impacts and displacements
 - Displacing 122 businesses (green) v. 19 businesses (red)
- Cost
 - \$353M (red) v. \$452M (green)
- Greater support for future economic growth opportunities















FM 1827 to CR559: Average Typical Section





- Mainlanes at grade
- Average right-of-way width is between 330 and 350 feet. Exception is around major interchanges where more is needed for ramps
- Assumption is access to mainlanes would be provided at arterials. More work with municipalities will be done in future phases to further develop.

CR 559 to Hunt County: Deciding Factors

Evaluation Category	No Build	Green Alignment	Red Alignment
Number of Residential Property Impacts	0	12	7
Number of Residential Displacements	0	39	3
Number of Business Impacts	0	4	2
Number of Business Induced Displacements	0	0	0
Number of Business Direct Displacements	0	27	1
Number of Business Displacements	0	27	1
Planned Future Development Impacts (acres)	0	0	0
Environmental, Watershed, and Park Land Impacts (acres)	0	35	44
Cost - includes construction, ROW, utility relocation	0	\$435M	\$404M

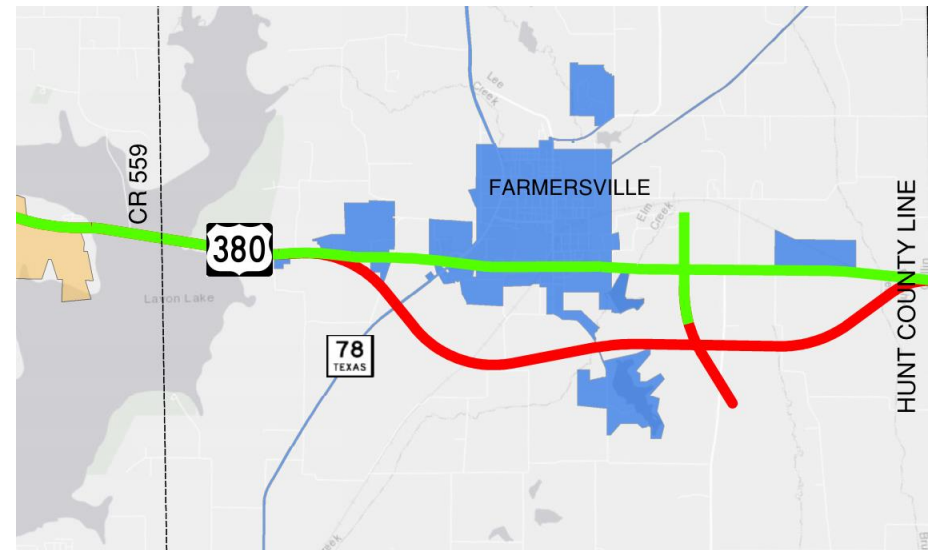
Evaluation Category	No Build	Green Alignment	Red Alignment
Enhances Regional Mobility			
Satisfies Travel Demand			
Enhances Safety			
Supports Future Regional Economic Growth			

Criteria Rating Scale				
Does not achieve criteria	Sometimes meets criteria	Partially meets criteria	Mostly meets criteria	Highly meets criteria
				

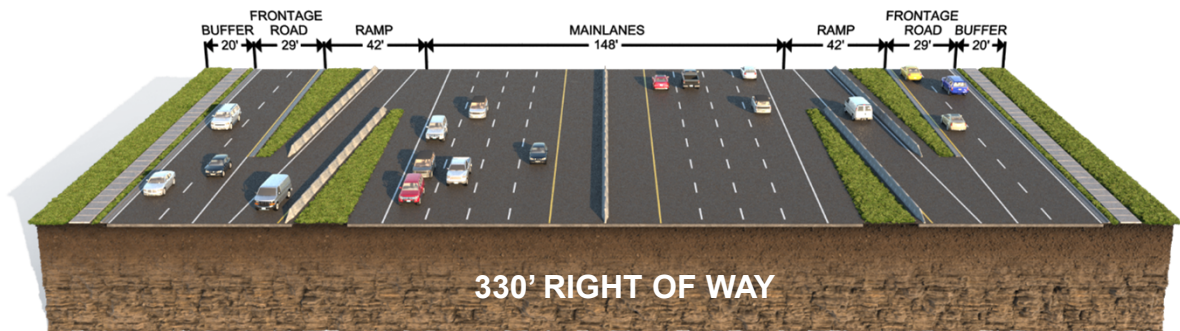
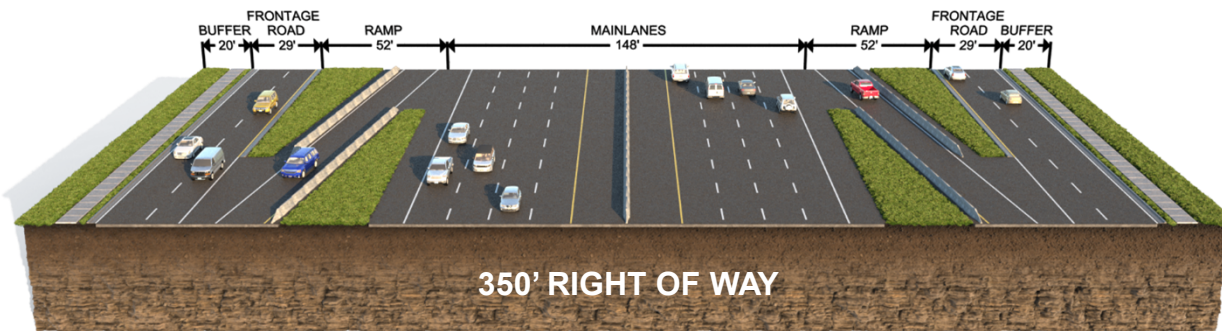
CR 559 to Hunt County: Deciding Factors

Recommended Alignment: RED

- Residential displacements – 39 (green) v. 3 (red)
- Business displacements – 27 (green) v. 1 (red)
- Cost
 - \$404M (red) v. \$435M (green)
- Greater support for future economic growth opportunities

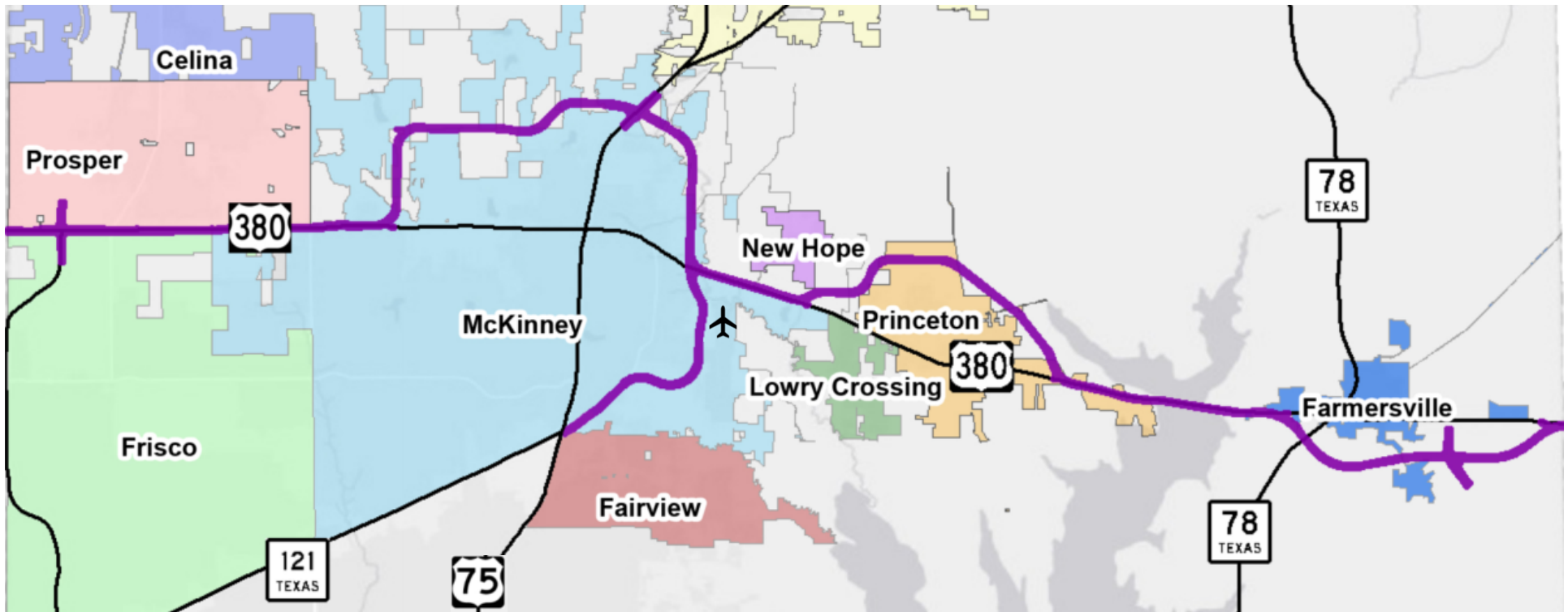


CR 559 to Hunt County: Average Typical Section



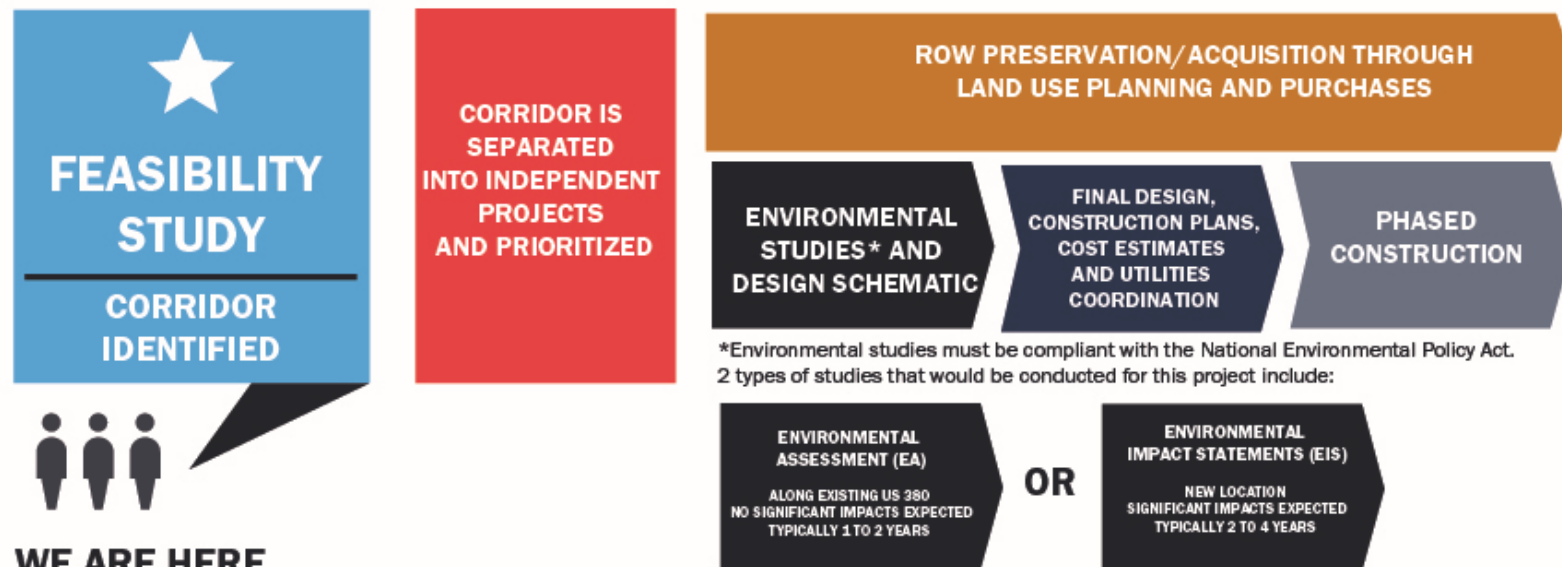
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- Average right-of-way width is between 330 and 350 feet. Exception is around major interchanges where more is needed for ramps
- Assumption is access to mainlanes would be provided at arterials. More work with municipalities will be done in future phases to further develop.

TxDOT Recommended Alignment



Next Steps

INPUT FROM THE PUBLIC IS IMPORTANT AND CONSIDERED BY TxDOT AT EVERY PHASE OF PROJECT DEVELOPMENT



Other viable alignments or changes to alignments can still be considered during environmental studies

Transition from Feasibility Study to NEPA Process

TxDOT recommended alignment to be carried into the NEPA/Environmental studies.

Types of environmental studies include:

Environmental Assessment (EA)

- Segments along existing US 380
- No significant impacts expected
- 1-2 years

OR

Environmental Impact Statement (EIS)

- New location segments and along existing US 380
- Significant impacts to human & natural environments expected
- Multiple alignments considered
- 2-4 years

There is potential that other viable alternatives or changes to alignments would need to be considered.

Study Contacts



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Officer**

Michelle.Raglon@txdot.gov

(214) 320-4480

Thank You!



THANK YOU

**for taking time to provide input and
help shape the future of US 380 and
Collin County.**

**Visit Drive380.com for
study information and updates.**