

## TEXAS DEPARTMENT OF TRANSPORTATION















# US 380 COLLIN COUNTY FEASIBILITY STUDY

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

Collin County Commissioners Court Update



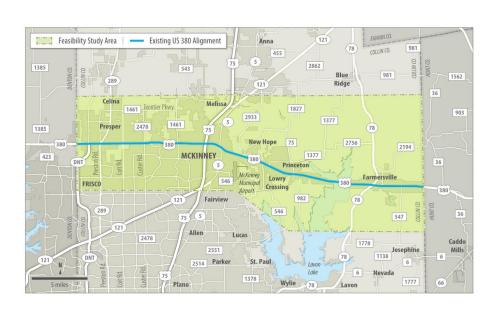
# WELCOME

US 380 Collin County Feasibility Study

**DALLAS DISTRICT**PUBLIC MEETING

**OCTOBER 4 – OCTOBER 9 – OCTOBER 11, 2018**6:00 P.M - 8:00 P.M.

Presentation at 7:00 P.M.

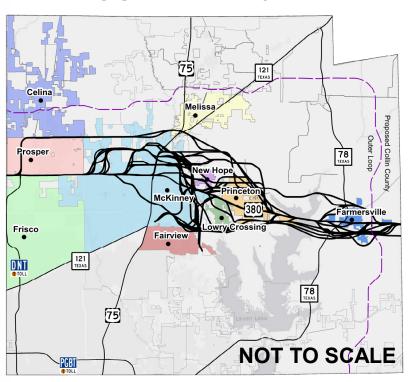


## **Study History**

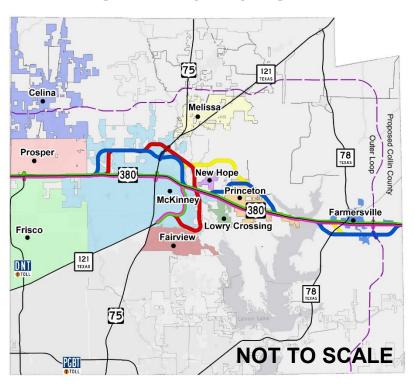
- **STEP 1:** Need for the study is identified and study began June 2017
- STEP 2: TxDOT developed and evaluated many potential alignment options based on engineering factors and known environmental constraints
- STEP 3: TxDOT presented the project need, modes of transportation considered, three roadway scenarios, and five draft freeway alignment options in April and May of 2018
- STEP 4: TxDOT received and began analyzing more than 4,000 surveys and comments
- **STEP 5: TxDOT refined alignment options**
- STEP 6 TxDOT presents revised alignment options in October 2018

## **Freeway Alignment Options**

## **SUMMER 2017**



## **SPRING 2018**



## **Modes of Transportation Evaluated**

#### **BIKE/PEDESTRIAN**

- Cannot relieve congestion alone
- Bike/Pedestrian facilities will be included in future plans

#### **TRANSIT**

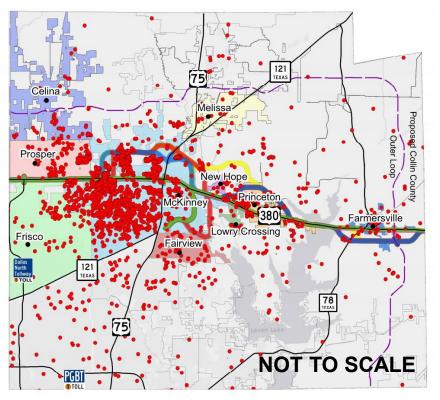
Cannot solely relieve congestion as it only serves a small portion of the trips

#### **ROADWAY**

 Variety of options previously studied range from no new improvements to grade separations to freeway alignments.

## **Input Highlights**

- Over 4,000 comments/surveys received
- 84% of the comments/surveys listed concerns about existing US 380 including:
  - Traffic
  - Congestion
  - Safety (number of accidents/fatalities and high rates of speed)
  - Pace of future developments and impacts on congestion
  - Lack of other east/west routes



RED DOTS INDICATE THE LOCATION OF RESIDENCES AND BUSINESSES IN COLIN COUNTY
WHERE INPUT WAS RECEIVED DURING THE COMMENT PERIOD

## What We Heard – Input Spring 2018

3:1 SUPPORT FOR BUILDING A FREEWAY V. NO BUILD ALTERNATIVE 1,897
SELECTED PREFERENCE FOR AN ALIGNMENT ALONG THE EXISTING US 380

## WHAT RESIDENTS PREFER FOR THEIR CITY/TOWN

FREEWAY ALONG EXISTING

**US 380** 

PROSPER FRISCO MCKINNEY FREEWAY NORTH OF TOWN LIMITS

> NEW HOPE LOWRY CROSSING

NO CLEAR CONSENSUS

FAIRVIEW PRINCETON FARMERSVILLE

## **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

## **Alignment revisions – Overall**

## **SPRING 2018**



#### **FALL 2018**



- **Considering 2 alignments with** options instead of 5
- Pink and green alignment combined into green alignment
- Combined or eliminated red, blue, and yellow alignments to the red alignment
- Right-of-way widths reduced average now between 330 and 350 feet wide

## **Alignment revisions – Denton County Line to Coit Road**

- Combined pink and green alignments into green alignment
- Considered the following:
  - Impacts to homes and businesses
  - Plans for future developments
  - Amount of right of way needed from Prosper and Frisco
  - Impacts to water transmission lines
  - Ability to re-use improvements currently under construction



## **Alignment revisions – Denton County Line to Coit Road**

Evaluation Category	No Build	Green Alignment
Number of Residential Property Impacts	0	0
Number of Residential Displacements	0	0
Number of Business Impacts	0	10
Number of Business Induced Displacements	0	1
Number of Business Direct Displacements	0	0
Number of Business Displacements	0	1
Future Development Impacts (acres)	0	12
Environmental, Watershed, and Park Land Impacts (acres)	0	5
Cost - includes construction, ROW, utility relocation	0	\$298M

Evaluation Category	No Build	Green Alignment
Enhances Regional Mobility	0	
Satisfies Travel Demand	0	
Enhances Safety	0	•
Supports Future Regional Economic Growth	0	

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

#### **Green alignment:**

- Refined green alignment and US 75 interchange
- Depressed and compressed right-of-way between Tucker Hill and Stonebridge neighborhoods
- Depressed US 75 to SH 5



#### **Red Alignment – Coit Road to Ridge Road:**

- Shifted blue alignment west due to its proximity to neighborhoods and to avoid impacting existing soil conservation lake.
   This alignment is now red alignment – option B.
- Stakeholders requested study of an alignment in this area
- All alignments have impacts in this area





#### Red Alignment -Ridge Road to FM 1827

- Depress alignment south of Erwin Park and Bloomdale Farms and north of Heatherwood
- Eliminated the blue alignment south of Courthouse due to impact on neighborhoods, businesses, floodplains, major water utilities, and public infrastructure.

Evaluation Category	No Build	Green Alignment	Red Alignment Option A	Red Alignment Option B
Number of Residential Property Impacts	0	18	43	41
Number of Residential Displacements	0	21	18	16
Number of Business Impacts	0	77	18	5
Number of Business Induced Displacements	0	11	1	0
Number of Business Direct Displacements	0	167	15	2
Number of Business Displacements	0	178	16	2
Future Development Impacts (acres)	0	33	156	214
Environmental, Watershed, and Park Land Impacts (acres)	0	94	224	219
Cost - includes construction, ROW, utility relocation	0	\$916M	\$748M	\$645M

Evaluation Category	No Build	Green Alignment	Red Alignment Option A	Red Alignment Option B
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	
	•		•		

## Alignment revisions – Spur 399 extension



#### **Option A**

- Longer route
- Impacts two Fairview parks located in the City of McKinney
- Complements future airport development

#### **Option B**

- Shorter route
- Impacts major water transmission line and McKinney park
- Higher traffic volume

## **Alignment revisions – Spur 399 extension**

Evaluation Category	No Build	Green Alignment Option A	Green Alignment Option B
Number of Residential Property Impacts	0	14	4
Number of Current Residential Displacements	0	6	2
Number of Business Impacts	0	10	11
Number of Business Induced Displacements	0	0	0
Number of Business Direct Displacements	0	1	1
Number of Business Displacements	0	1	1
Future Development Impacts (acres)	0	19	6
Environmental, Watershed, and Park Land Impacts (acres)	0	198	69
Cost - includes construction, ROW, utility relocation	0	\$433M	\$266M

Evaluation Category	No Build	Green Alignment Option A	Green Alignment Option B
Enhances Regional Mobility			
Satisfies Travel Demand			
Enhances Safety	0		•
Supports Future Regional Economic Growth			•

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

## Alignment revisions – FM 1827 to CR 559

- Pink and green alignment combined into green alignment and right-of-way width reduced
- Eliminated yellow alignment due to impacts to planned Water Recovery facility and because its location did not work well with the Spur 399 extension traffic movements
- Blue alignment changed to red and right-of-way width reduced



## Alignment revisions – FM 1827 to CR 559

Evaluation Category	No Build	Green Alignment	Red Alignment
Number of Residential Property Impacts	0	15	11
Number of Residential Displacements	0	15	11
Number of Business Impacts	0	17	1
Number of Business Induced Displacements	0	3	1
Number of Business Direct Displacements	0	87	18
Number of Business Displacements	0	90	19
Future Development Impacts (acres)	0	42	105
Environmental, Watershed, and Park Land Impacts (acres)	0	24	35
Cost - includes construction, ROW, utility relocation	0	\$416M	\$342M

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

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

## Alignment revisions – CR 559 to Hunt County line



- Pink and green alignment combined into green alignment and refined to minimize impacts to businesses, homes, the planned Collin College development, and potentially historic churches
- Blue alignment eliminated due to USACE property impacts and a planned cemetery
- Yellow alignment changed to red and revised to minimize impacts to homes, businesses, and the South lake.

## Alignment revisions – CR 559 to Hunt County line

Evaluation Category	No Build	Green Alignment	Red Alignment
Number of Residential Property Impacts	0	7	10
Number of Residential Displacements	0	45	4
Number of Business Impacts	0	5	4
Number of Business Induced Displacements	0	1	0
Number of Business Direct Displacements	0	34	2
Number of Business Displacements	0	35	2
Future Development Impacts (acres)	0	4	0
Environmental, Watershed, and Park Land Impacts (acres)	0	25	34
Cost - includes construction, ROW, utility relocation	0	\$399M	\$406M

Evaluation Category	No Build	Green Alignment	Red Alignment
Enhances Regional Mobility			
Satisfies Travel Demand	0		
Enhances Safety	0		
Supports Future Regional Economic Growth		•	

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

## **Travel Demand Model Evaluation**



APPROX. AVG. DAILY VOLUME 36,000

#### NO BUILD - 2045 ESTIMATE

AVG. DAILY VOLUME 46,200

> LEVEL OF SERVICE

> > F

#### 2045 ESTIMATES

#### RED A & B

AVG. DAILY VOLUME

78,500

LEVEL OF SERVICE

В

#### **GREEN A**

AVG. DAILY VOLUME

86,300

LEVEL OF SERVICE

В

#### **GREEN B**

AVG. DAILY VOLUME

90,200

LEVEL OF SERVICE

В

### **Feasibility study process**

JUNE 2017 - MARCH 2018

Initial Data Gathering

- ✓ One–on-one meetings with partners
- ✓ Technical work session

APRIL - MAY 2018

SUMMER 2018

**FALL 2018** 

Stakeholder input and

public involvement

✓ Public meeting and

comment period

√ Kev stakeholder

outreach

and elected leader

WINTER 2018-2019

Process data/input

- ✓ Input analyzed
- √ TxDOT selects
  alignment for
  the study team
  to refine further

**SPRING 2019** 

Project implementation plan, stakeholder input and public involvement

- ✓ Recommend long and short term improvements as well as regional action items
- ✓ Public meeting and comment period

Stakeholder input

Involvement

✓ Public meeting and

comment period

✓ Elected leader

council

groups

outreach and

presentations

√ Stakeholder work

Process data/input

- ✓ Input analyzed
- ✓ TxDOT selects alignments for the study team to refine further
- ✓ Evaluation of alignments

2 to 3 alignment options



1 recommended alignment option

Alignment trends

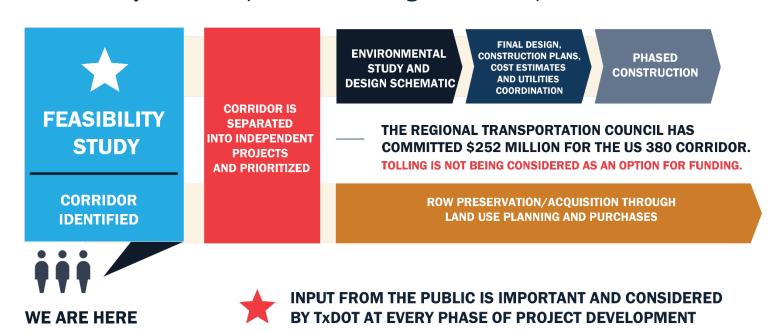
5 alignment options

SUBJECT TO CHANGE

## **Project Development**

## TXDOT HAS DONE ANALYSIS OF THE NEED AND POTENTIAL SOLUTIONS.

Planning the next steps for the US 380 corridor will take time -that is why it is so important work begins NOW to plan for the future.



## **Study Contacts**





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## **THANK YOU**

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

Visit <u>Drive380.com</u> for study information and updates.