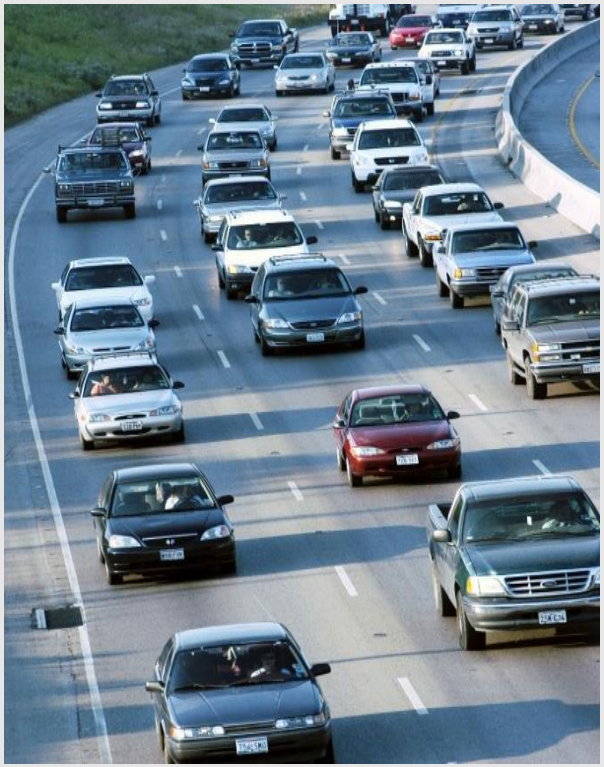
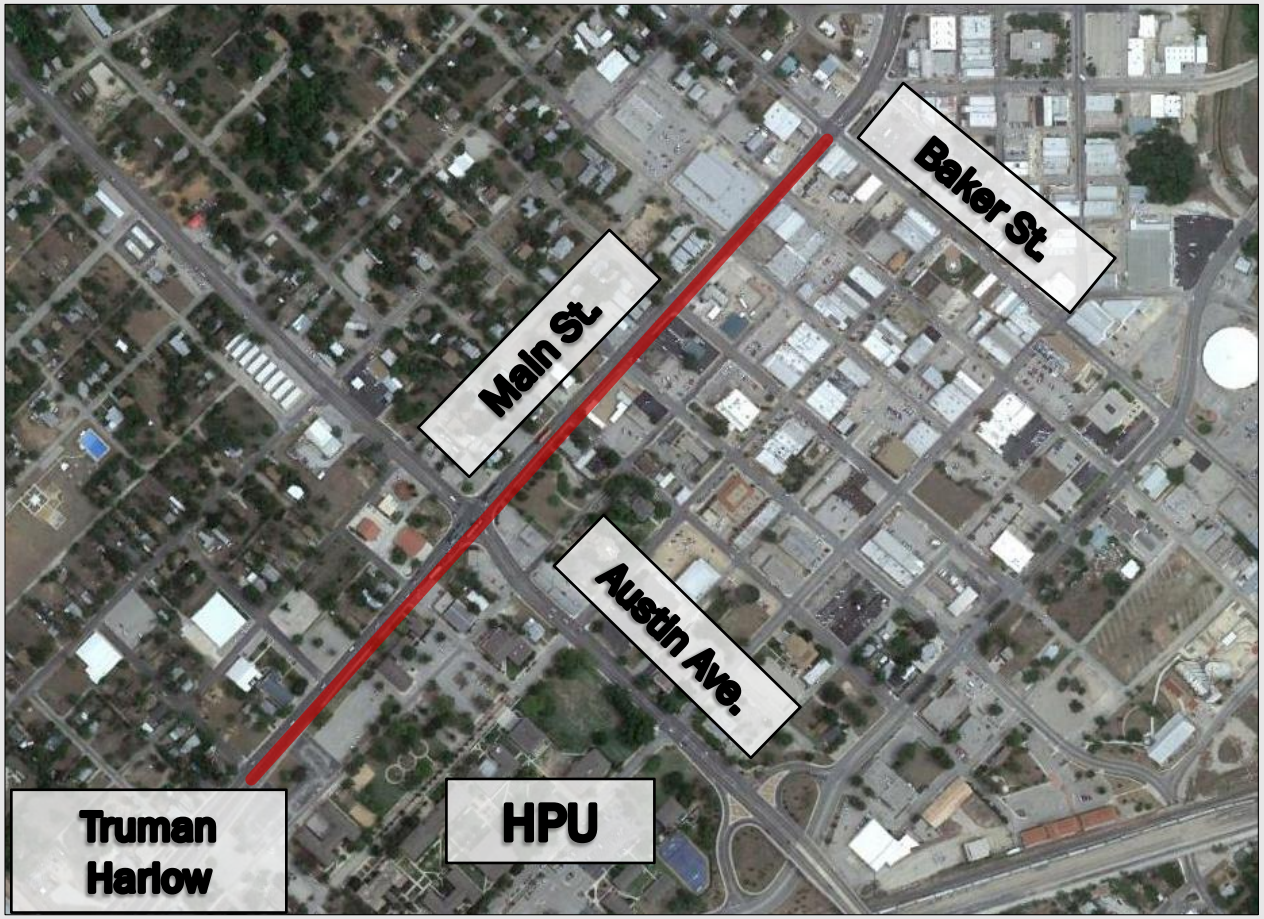
US 377/MAIN STREET PUBLIC MEETING #3



Proposed Improvements to Enhance Traffic Flow and Safety in Brownwood

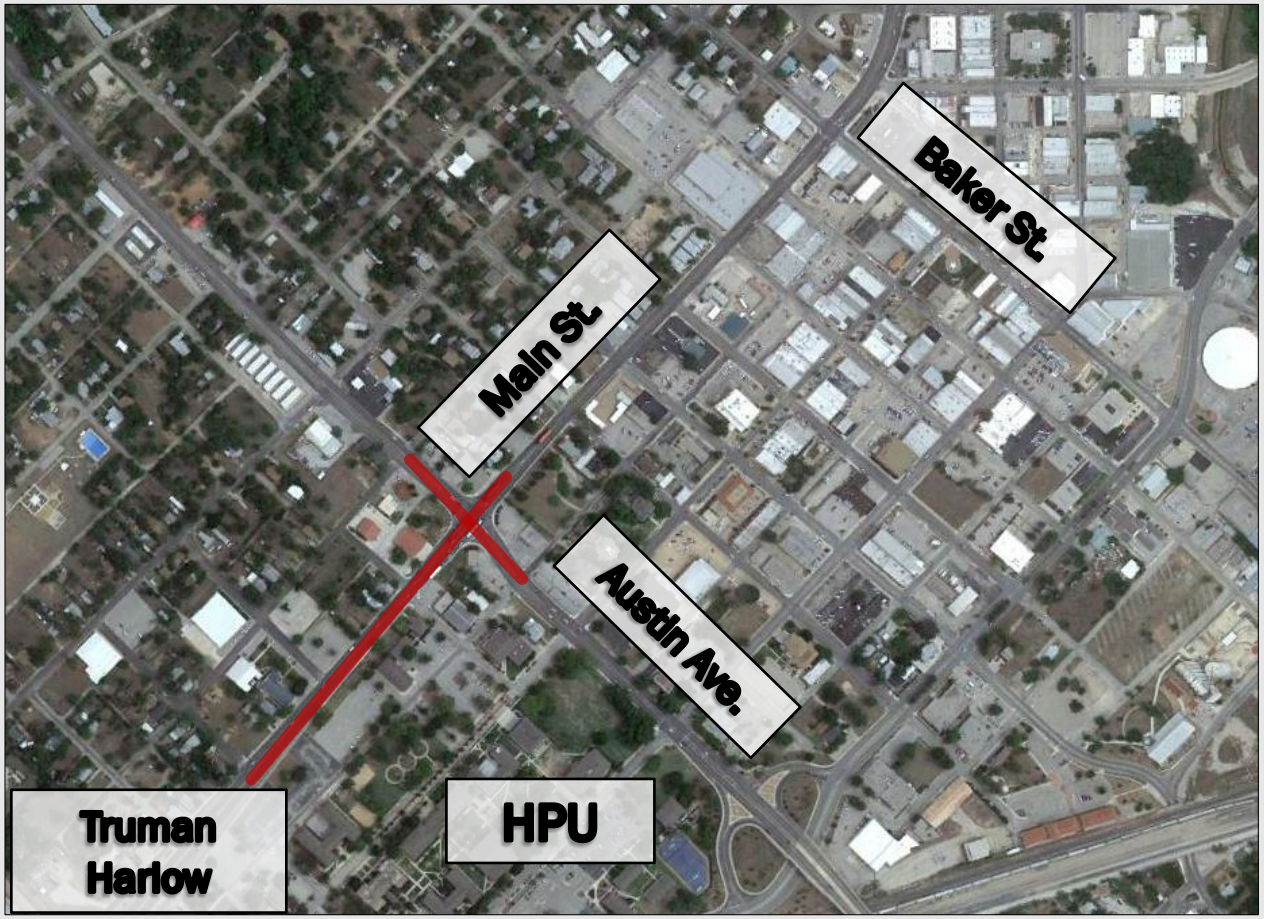
Original Project Description

The original proposed project would widen US 377/Main St. to accommodate a continuous center left turn lane from Baker St. to the north end of the Truman Harlow Overpass.



Project Description

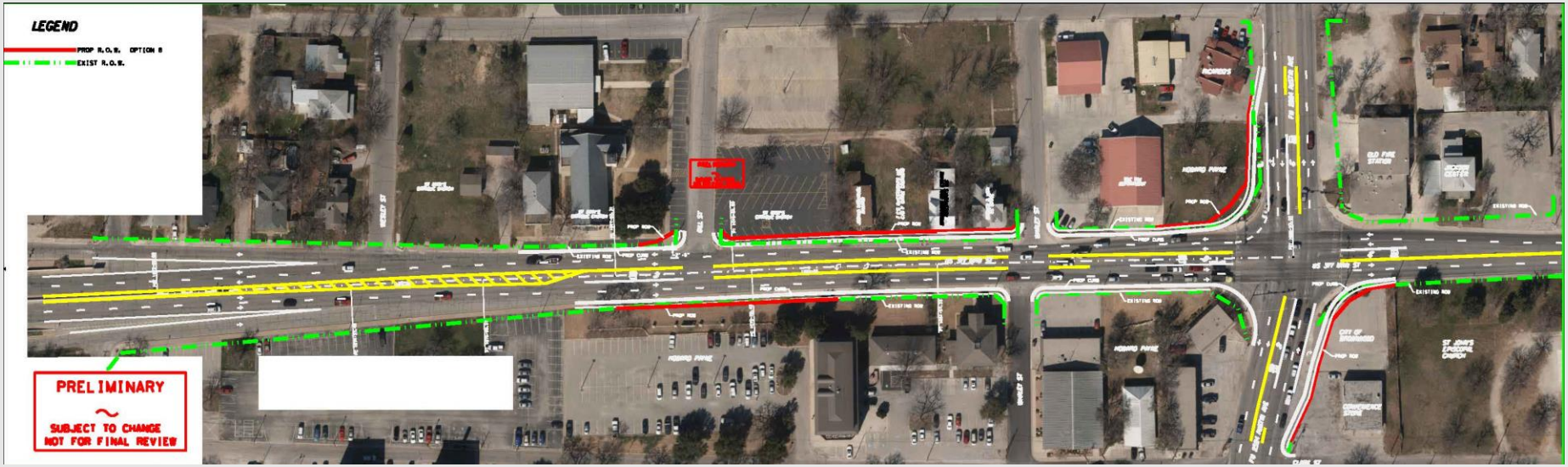
The current proposed project would widen US 377/Main St. to accommodate a continuous center left turn lane from Austin Avenue to the north end of the Truman Harlow Overpass (Lipscomb Street) as well as right turn lanes on Austin Avenue.



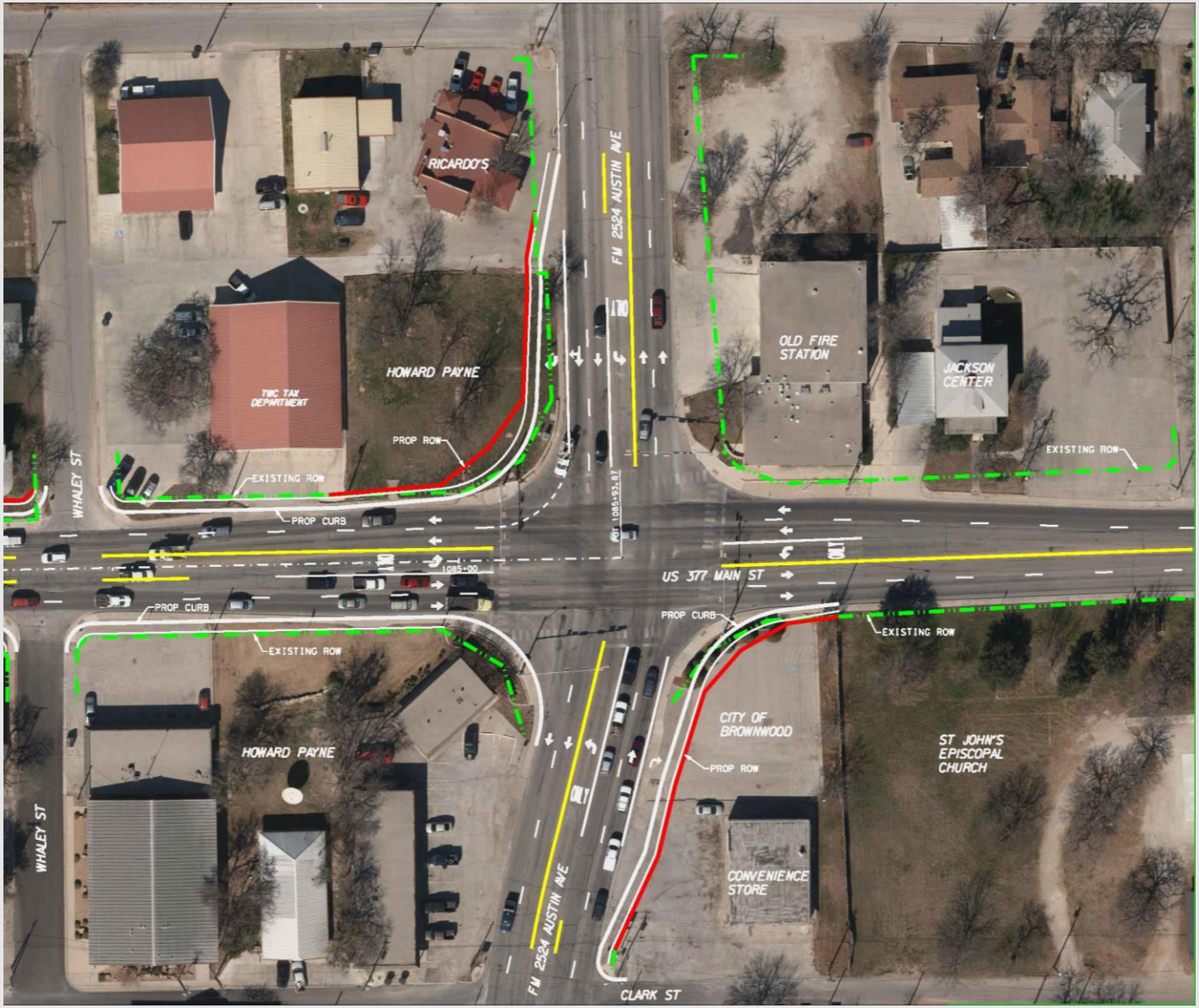
Why is the project needed?

- This project focuses on improving the mobility and safety at the Austin Avenue/Main Street intersection.
- Approximately 14,000 vehicles travel this section of Austin Avenue each day. Approximately 17,500 vehicles travel this section of US 377/Main Street each day. Traffic is projected to increase to more than 26,400 (Austin Avenue) 34,000 (Main St./US 377) vehicles per day by 2035. Large trucks account for approximately 9% of traffic on US 377/Main Street.
- The lack of a center turn lane for side street access (at the church, etc.) causes traffic to backup in the inside lane. Vehicles waiting to turn left cause all traffic on the inside lanes to come to a stop, resulting in delays, traffic backups and increased rear-end collision risk.
- The lack of right turn lanes on Austin Avenue onto Main Street slows thru-traffic during peak traffic hours.
- Mobility:
  - Providing a center turn lane will allow for increased storage of vehicles eliminating traffic impacts to inside lanes
  - The addition of right turn lanes at the Austin Ave. intersection would improve traffic flow during peak hours.

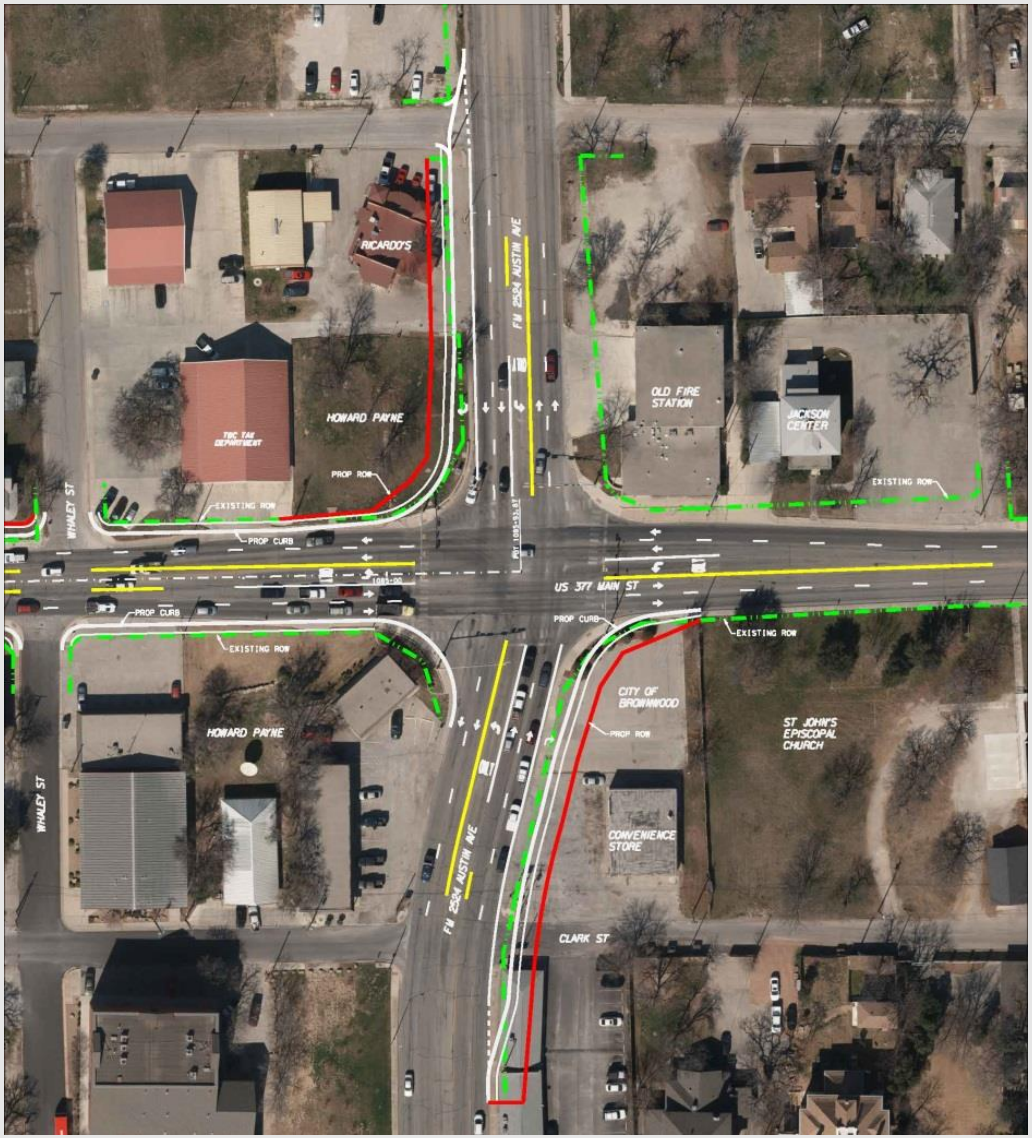
Original Proposed Roadway Configuration



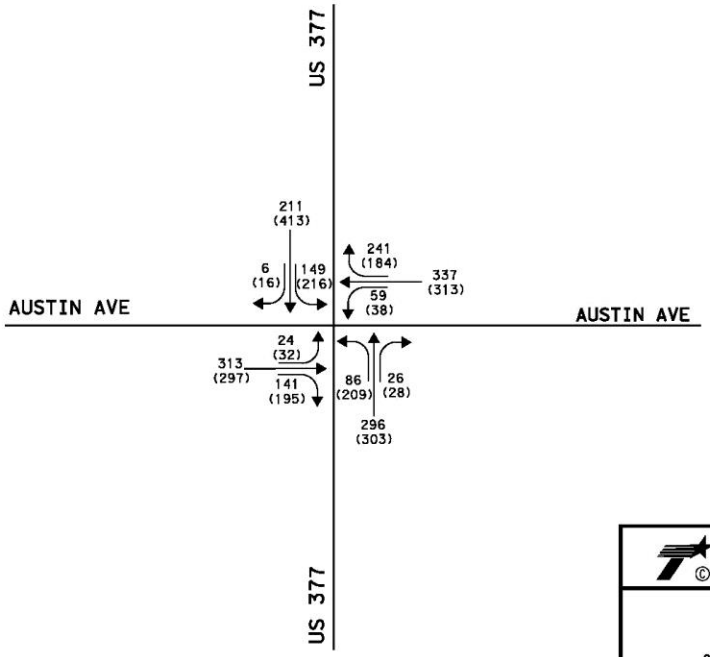
Original Proposed Roadway Configuration



Roadway Configuration Based on Traffic Study



Existing Traffic Volumes



NOT TO SCALE

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P 214.340.7344|F: 214.221.7411

SPRING 2018
EXISTING PEAK HOUR TRAFFIC VOLUMES
FOR US 377 AT AUSTIN AVE

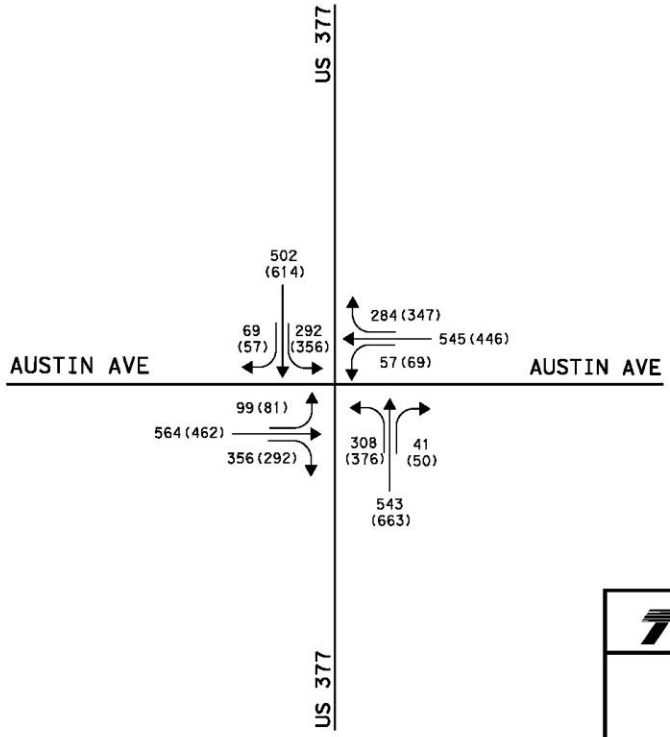
DATE: 10/9/2018	DN: RH	CK: SS	DN: RH	CK: SS	
CSJ: 0581-01-152	DISTRICT	FEDERAL AID PROJECT			SHEET
	BWD				1
	COUNTY		CONTROL	SECT	JOB	HIGHWAY
	BROWN					US 377

LEGEND

999-AM PEAK HOUR VOLUMES (7:15-8:15 AM)
(999)-PM PEAK HOUR VOLUMES (4:30-5:30 PM)

10/9/2018 3:54:25 PM
U:\Projects\2018\0THON\1378-41190 - 35-41PDS378_WBS_US 377_Brownwood\Drawings\10TRA\Existing\US 377 Spring Existing Peak Hr Vol.dgn

Future (2042) Traffic Volumes



NOT TO SCALE

LEGEND

999-AM PEAK HOUR VOLUMES (7:15-8:15 AM)
(999)-PM PEAK HOUR VOLUMES (4:30-5:30 PM)

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SPRING 2042 SCENARIO C
PEAK HOUR TRAFFIC VOLUMES
FOR US 377 AT AUSTIN AVE

DATE: 10/10/2018	DN: RH	CK: SS	DW: RH	CK: SS	
CSJ: 0581-01-152	DISTRICT	FEDERAL AID PROJECT			SHEET
	BWD				11
	COUNTY		CONTROL	SECT	JOB	HIGHWAY
	BROWN					US 377

10/10/2018 4:51:58 PM
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Intersection Level of Service

Spring Traffic Volumes

Condition	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Existing	42.7	D	32.0	C
No Build	41.4	D	49.2	D
Build with Recommendations	*25.6*	*C*	*27.1*	*C*

Summer Traffic Volumes

Condition	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Existing	33.3	C	29.1	C
No Build	43.3	D	44.6	D
Build with Recommendations	*26.6*	*C*	*28.0*	*C*

Existing Level of Service

Spring Traffic Volumes

Intersection	Movement	AM Peak Hour		PM Peak Hour	
		LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
US 377 at Austin Avenue (93 sec Cycle length)	Overall	D	42.7	C	32.0
	EBL	C	30.0	C	28.9
	EBTR	E	71.3	E	55.8
	WBL	C	30.4	C	29.0
	WBTR	E	57.3	D	54.0
	NBL	B	12.7	B	12.5
	NBTR	B	15.0	B	18.1
	SBL	B	12.9	B	12.7
	SBTR	B	17.4	B	18.4

Summer Traffic Volumes

Intersection	Movement	AM Peak Hour		PM Peak Hour	
		LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
US 377 at Austin Avenue (93 sec Cycle length)	Overall	C	33.3	C	29.1
	EBL	C	26.5	C	28.7
	EBTR	E	78.8	D	39.8
	WBL	C	27.7	C	28.8
	WBTR	C	33.2	E	55.5
	NBL	B	12.0	B	12.4
	NBTR	B	15.0	B	17.2
	SBL	B	11.9	B	13.0
	SBTR	B	15.8	B	18.2

No Build Level of Service (2042)

Spring Traffic Volumes

Intersection	Movement	AM Peak Hour		PM Peak Hour	
		LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
US 377 at Austin Avenue (90 sec Cycle length)	Overall	D	41.4	D	49.2
	EBL	C	22.6	C	25.9
	EBTR	D	51.2	E	55.6
	WBL	C	22.2	C	24.8
	WBTR	D	40.1	E	67.4
	NBL	C	33.9	D	41.1
	NBTR	D	39.8	D	43.1
	SBL	C	28.5	C	33.0
	SBTR	D	46.8	D	48.0

Summer Traffic Volumes

Intersection	Movement	AM Peak Hour		PM Peak Hour	
		LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
US 377 at Austin Avenue (90 sec Cycle length)	Overall	D	43.3	D	44.6
	EBL	C	23.4	C	23.2
	EBTR	D	49.2	E	62.5
	WBL	C	22.2	C	22.6
	WBTR	D	43.7	D	54.3
	NBL	D	36.3	C	26.5
	NBTR	D	43.5	D	36.0
	SBL	C	30.7	C	27.0
	SBTR	D	52.0	D	41.6

Build Level of Service (2042)

Spring Traffic Volumes

Intersection	Movement	AM Peak Hour		PM Peak Hour	
		LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
US 377 & Austin Avenue (70 sec AM Cycle length 80 sec PM Cycle length)	Overall	C	29.6	D	36.4
	EBL	B	18.2	C	20.2
	EBT	C	24.6	C	25.6
	EBR	D	53.4	C	34.1
	WBL	B	17.4	B	19.9
	WBT	C	24.3	C	25.4
	WBR	C	30.6	D	47.5
	NBL	C	28.9	D	47.4
	NBTR	C	28.1	D	36.2
	SBL	C	25.1	D	41.7
	SBTR	C	31.6	D	41.8

Summer Traffic Volumes

Intersection	Movement	AM Peak Hour		PM Peak Hour	
		LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
US 377 & Austin Avenue (75 sec AM Cycle length 80 sec PM Cycle length)	Overall	C	31.8	C	32.8
	EBL	B	18.7	B	19.5
	EBT	C	25.2	C	24.2
	EBR	C	34.4	D	51.6
	WBL	B	18.3	B	18.7
	WBT	C	23.5	C	25.2
	WBR	D	49.6	C	30.5
	NBL	D	40.4	C	27.3
	NBTR	C	32.0	D	37.2
	SBL	C	28.1	C	26.2
	SBTR	C	32.2	D	39.9

Build With Recommendations Level of Service (2042)

Spring Traffic Volumes

Intersection	Movement	AM Peak Hour		PM Peak Hour	
		LOS	*Delay (sec/veh)*	*LOS*	*Delay (sec/veh)*
US 377 & Austin Avenue	***Overall***	***C***	***25.6***	***C***	***27.1***
	EBL	C	20.1	C	20.2
	EBT	C	25.8	C	25.6
	EBR	D	42.5	C	34.1
	WBL	B	19.4	B	19.9
	WBT	C	25.9	C	25.4
	WBR	C	30.1	D	47.5
	NBL	B	16.1	B	16.6
	NBTR	C	24.3	C	27.6
	SBL	B	16.0	B	16.7
	SBTR	C	25.4	C	28.5

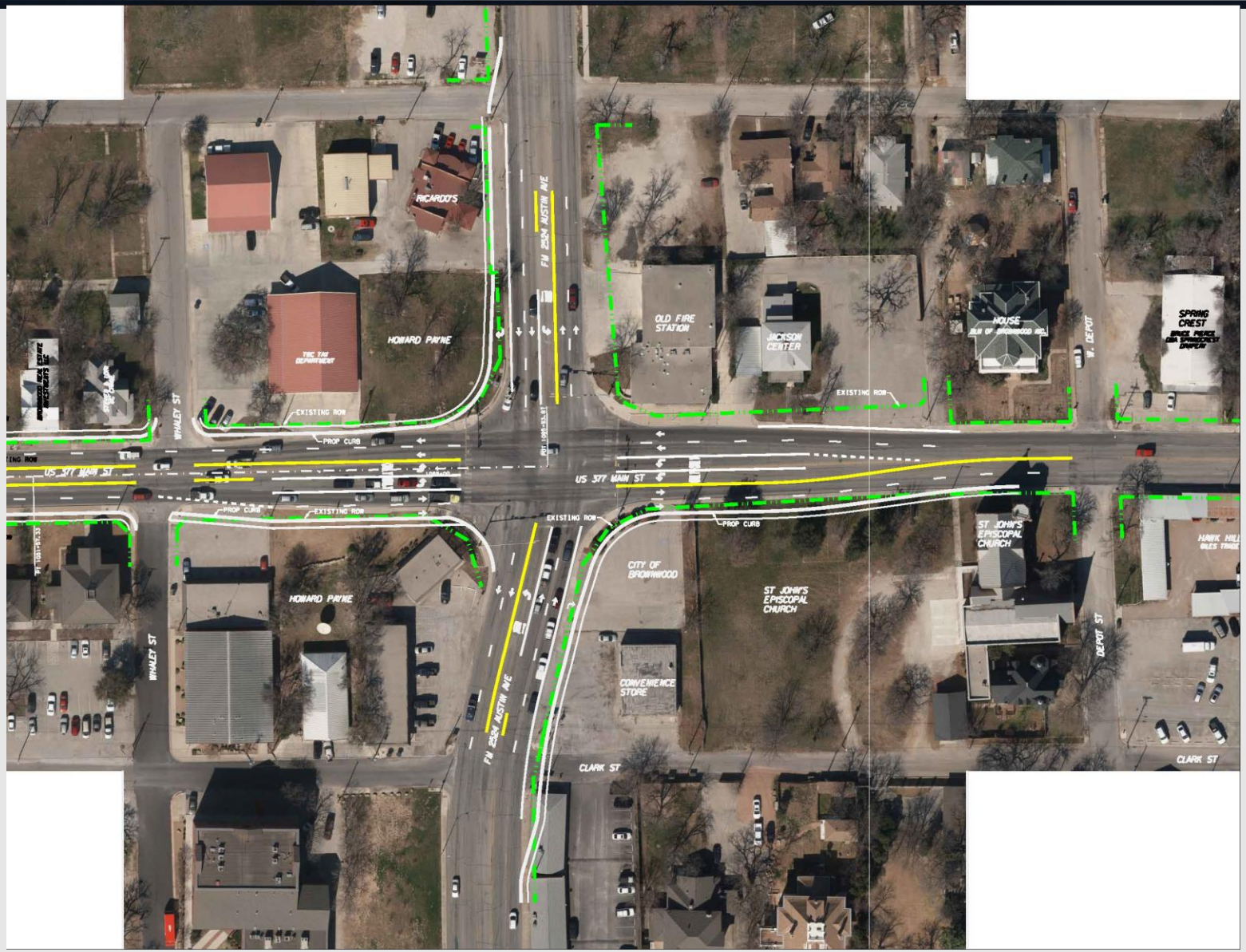
Summer Traffic Volumes

Intersection	Movement	AM Peak Hour		PM Peak Hour	
		LOS	*Delay (sec/veh)*	*LOS*	*Delay (sec/veh)*
US 377 & Austin Avenue	***Overall***	***C***	***26.6***	***C***	***28.0***
	EBL	B	19.7	C	20.3
	EBT	C	25.9	C	25.1
	EBR	C	33.5	E	62.5
	WBL	B	19.4	B	19.4
	WBT	C	24.7	C	26.3
	WBR	D	46.5	C	33.2
	NBL	B	16.3	C	16.1
	NBTR	C	26.2	C	24.8
	SBL	B	16.9	B	15.5
	SBTR	C	26.2	C	26.0

Recommendations

- Add dual left turns for northbound US 377 at Austin Avenue with a minimum length of 160 feet and 100 feet long taper.
- Add dual left turns for southbound US 377 at Austin Avenue with a minimum length of 160 feet and a 100 feet long taper.
- Add a dedicated right turn lane for eastbound Austin Avenue with a minimum length of 255 feet and a 50 feet taper.
- Add a dedicated right turn lane for westbound Austin Avenue with a minimum length of 255 feet and a 50 feet taper.
- The existing left turn lanes provided on Austin Avenue does not need to be extended for future traffic volumes.
- Use an 80 second cycle length for AM and PM peak periods for both summer and spring.

Intersection Layout with all Improvements



Year 2042 with Dedicated Right Turn Lanes on Austin Ave.

Existing Traffic Conditions: Long Right Turn Queue

Existing Conditions: Thru Traffic Blocking Right Turn Traffic

Existing Conditions: Truck Traffic in Queue

Turning Lanes

- Right turn lanes off of Austin onto Main Street.
- Frees up through lanes allowing for better flow of traffic.

- Added Center Turn Lane.
- Allows for safer left-hand turning movements.

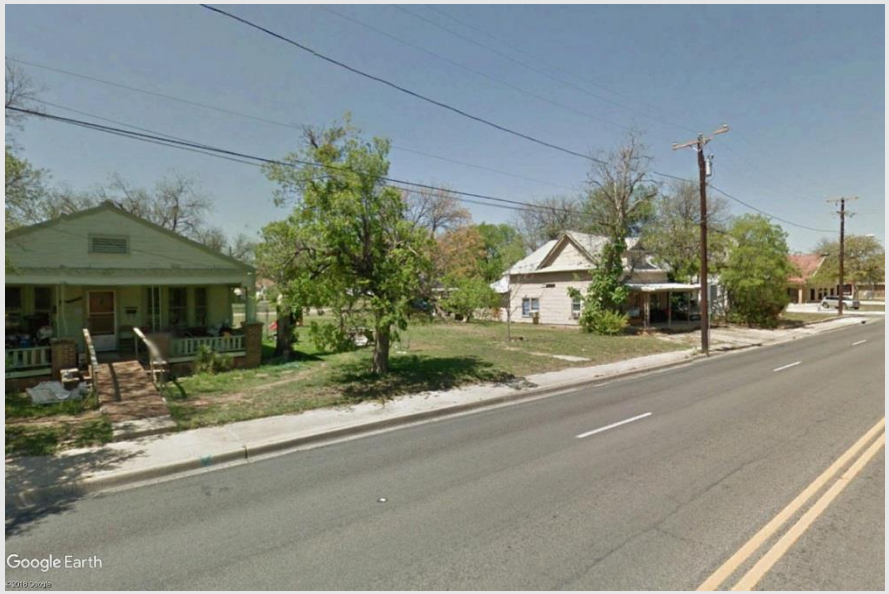
What are the complications and concerns with this proposal?

Impacts to historic buildings

Impacts to churches

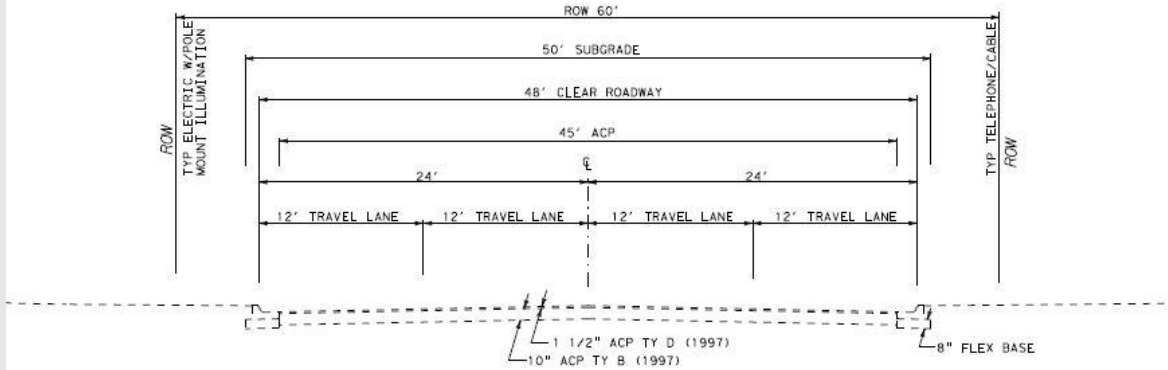
What are the complications and concerns with this proposal?

- Impacts to businesses



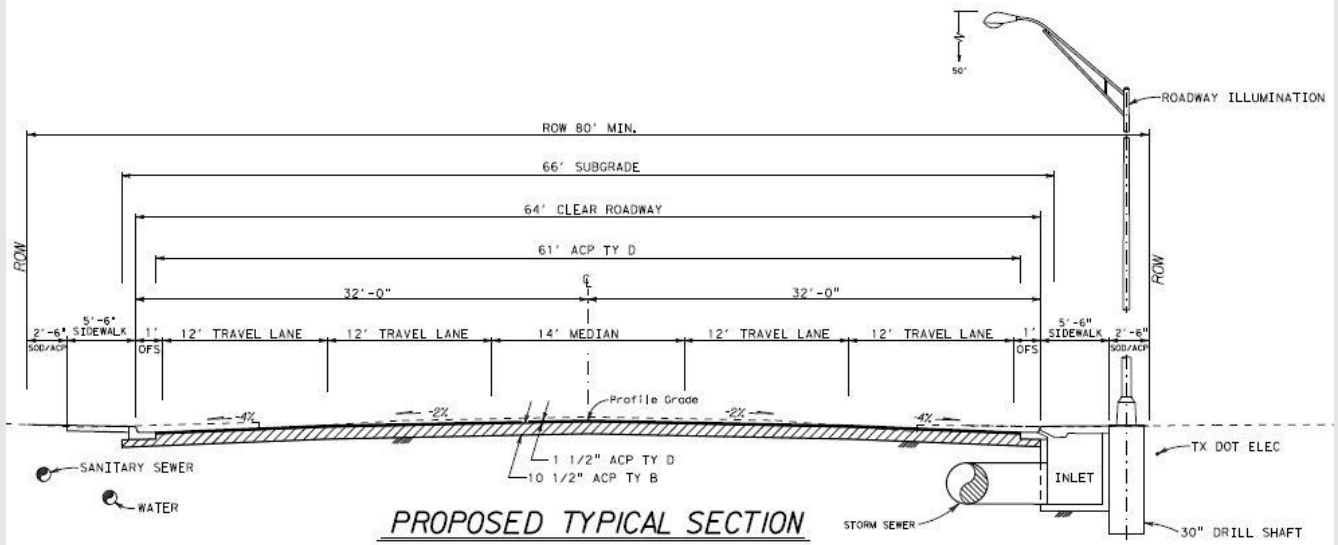
- Impacts to residences

Existing and proposed typical sections



EXISTING UNIMPROVED TYPICAL SECTION

AUSTIN AVE. TO LIPSCOMB ST.



PROPOSED TYPICAL SECTION

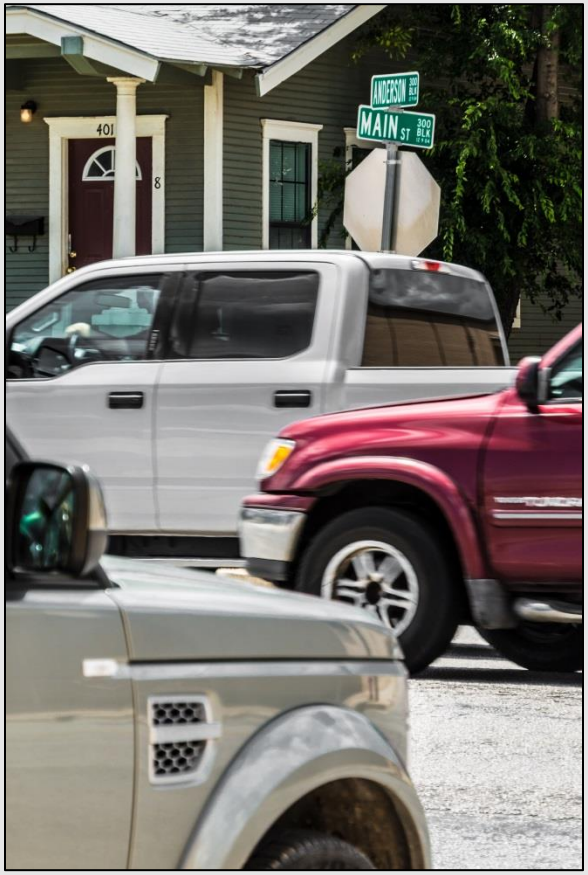
AUSTIN AVE. TO LIPSCOMB ST.

Estimated costs and timeline

- The estimated construction cost is **$1,500,000 to $4,000,000.**
- Estimated right of way acquisition costs:
  - Real Estate Costs - **$1,283,800**
  - Relocation Costs - **$450,000**
  - Appraisal, Abatement, Demolition, etc. - **$356,000**

- Potential project timeline, should project move forward:
  - Environmental Documentation: **Spring 2019**
  - Right of way acquisition: **January 2019 – July 2020**
  - Utility adjustments/relocations: **July 2020 – January 2022**
  - Construction contract awarded: **January 2022**

Public Comments



Mailing Address

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TxDOT Brownwood District
2495 HWY 183 N.
Brownwood, Texas 76802
Email: jason.scantling@txdot.gov

Written comments must by postmarked by
Friday, December 14, 2018

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 USC 327 and a Memorandum of Understanding dated December 16, 2014, and executed by the Federal Highway Administration and TxDOT.

20 Minute General Question and Answer Session

Questions about specific properties and concerns will be answered one-on-one following the presentation

Please limit questions/comments to 5 minutes

Thank you!

Texas Department of Transportation

1917 ★ 2017