

Category 2		Low Bid	
10-Year Balance		Next Lowest Bid	
713,754,432		\$197,855,402	
<p>Project Description: Widened from 4 to 6-lane divided roadway with a grade separation/overpass at SH 146</p> <p>Current Condition: 4-lane roadway with a center two-way left turn lane</p> <p>Proposed Condition: 4-lane divided roadway with a center raised median and a grade separation/overpass at SH 146</p> <p>Current Annual Avg Daily Traffic: 39,700</p> <p>Future Annual Avg Daily Traffic: 61,700</p>		<p># of Bids: 5</p> <p># of Bids within 10% of Low Bid: 4</p>	

TxDOT Traffic Engineering Studies updates

Design Division (PDS Section) – Ken Mora, P.E. & Mark Middleton, P.E



November 21, 2024

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Overview

The Texas Department of Transportation (TxDOT) is introducing an updated Form 2534, Minor Traffic Engineering Studies, and Traffic Impact Analysis (TIA) guidance for use in the driveway permitting process. This guidance will also be provided in the future update to Chapter 3 of the *TxDOT Access Management Manual*.

The intent of this guidance, coupled with the recent release of the *TxDOT Traffic and Safety Analysis Procedures (TSAP) Manual*, will provide Districts with a more streamlined process to determine if a Traffic Engineering Study is needed, and the level of detail required.

TxDOT Traffic Engineering Studies MEMO-10/01/2024



MEMO

October 1, 2024

To: District Engineers

From: Jason Pike, P.E.
Director, Design Division

DocuSigned by:

Jason Pike

ES28E9CA47DD49A

Subject: Driveway Permitting: Form 2534 and Traffic Engineering Studies, Including Traffic Impact Analyses (TIAs)

The Texas Department of Transportation (TxDOT) is introducing an updated Form 2534, Minor Traffic Engineering Studies, and Traffic Impact Analysis (TIA) guidance for use in the driveway permitting process. The intent of this guidance, coupled with the recent release of the *TxDOT Traffic and Safety Analysis Procedures (TSAP) Manual*, will provide Districts with a more streamlined process to determine if a Traffic Engineering Study is needed, and the level of detail required.

The respective TxDOT District will always maintain the discretion to require a greater or lesser amount of detail with respect to these analyses and/or adjust traffic volume thresholds based on their experience with specific types of traffic generators, the level of development and density in the area, and the resultant safety and operational and mitigation impacts. The traffic volume thresholds below are recommended values; the District maintains the discretion to either require or waive the 2534 Form, a Minor Traffic Engineering Study, or a TIA.

TxDOT Traffic Engineering Studies MEMO-10/01/2024

Early Coordination

As early as possible in the development process, applicants are encouraged to meet with the local TxDOT district staff, and the municipality (if applicable) to discuss specific requirements associated with obtaining access to the state highway system. This meeting, in addition to bringing all affected parties together regarding access connection issues, will also help to define the requirements of any needed traffic engineering study.

The implementation timeline for this updated guidance is 6 months to allow for a normalization process to allow Districts to integrate into their procedures and will also allow for additional outreach and information sharing. This normalization period is to extend through March 31, 2025. Districts may implement this guidance sooner if desired.

Benefits of Updated Process

- Provides additional guidance and streamlining to Districts that may not have fully developed processes for determining when a Traffic Engineering Study should be conducted.
- Establishes recommended thresholds for when a Traffic Engineering Study is needed; and allows Districts the Flexibility to adjust thresholds as needed due to their experience with specific trip generator types, as well as the context or land use type.
- Updated 2534 Form no longer requires a TIA to be submitted with the Form.
- Ties in with the recent release of the TxDOT TSAP Manual (Ch. 16).
- “Minor Traffic Engineering Study” is more in line with terminology and intent of 43 TAC 11.51.

Traffic Thresholds and Level of Assessment

Peak Period Trip Generation Range	Actions	Documentation
Less than 20 vehicles per day	Form 2534 not recommended	None
20 vehicles per day through 49 vehicles per hour (vph)	Form 2534 recommended, and No Minor Traffic Engineering Study or TIA are recommended	Approved Form 2534
50 vph– 99 vph	Minor Traffic Engineering Study (Tech. Memo) recommended	Approved Form 2534, and Minor Traffic Engineering Study
100 vph or greater	Major Traffic Engineering Study - TIA recommended	Approved Form 2534, and Reference TxDOT TSAP Manual Chapter 16 for TIA requirements

Form 2534 is Not Recommended:

- Driveway access and development that result in anticipated minimal trip generation (less than 20 vehicles per day) during the highest peak day period do not require the use of a 2534 Form.
- Examples may include a single residential development, single farm/ranch operation, or a utility maintenance access.

Form 2534 is Recommended:

- For proposed Commercial, multi-residential, and Industrial driveways, with anticipated 20 or greater vehicles per day, the Form 2534 provides an initial assessment from which a decision can be made:
 - (1) about the access request;
 - (2) about whether additional location specific information is needed; or
 - (3) About whether a Minor Traffic Engineering Study (Technical Memorandum) or Traffic Impact Analysis (TIA) must be conducted.
- Use of the 2534 Form does not require an engineer's seal.

2534 Form - Traffic Engineering Study Checklist

- Form 2534 provides an initial assessment of the trips generated by the proposed site to determine if a Traffic Engineering Study is recommended, as well as the level of the study recommended.

LAND USE	ITE TGM Code	50 TRIPS per hour (approx.)	100 TRIPS per hour (approx.)
Single Family Detached Housing	210	48 (DU)	100 (DU)
Multifamily (Low Rise)	220	70 (DU)	185 (DU)
Multifamily (Mid Rise)	221	130 (DU)	255 (DU)
Multifamily (High Rise)	222	156 (DU)	310 (DU)
Strip Retail Plaza (< 40K GLA)	822	7,500 (SF)	15,200 (SF)
Fast Food Rest. with Drive Thru Window (GFA)	934	1,100 (SF)	2,250(SF)
General Office Building (GFA)	710	24,000 (SF)	55,000 (SF)
Gas Station w/ Convenience Store (Fueling Positions)	945	3 (Fueling Positions)	6 (Fueling Positions)
Warehousing (GFA)	150	277,500 (SF)	555,000 (SF)

Recommended Exempt from Minor Traffic Engineering Study:

- The data submitted in Form 2534 indicates the proposed development will generate fewer than 50 trips in the highest peak hour period.
- The District though maintains the discretion to request a Minor Traffic Engineering Study if they determine possible safety and/or operational issues.

Example 2534 Form with No further Traffic Engineering Study recommended

- Proposed All Suites Hotel with 100 rooms.
- 4 Lane Rdwy. w/ TWLTL; ADT 12,000; posted speed 45 mph.
- Single proposed driveway
- Use ITE Land Use Code 311 (All Suites Hotel) for Trip Generation.
- No assumed Internal Capture or Pass-by trips

Example with No further Traffic Engineering Study required

Date: 11-18-2024

Project Name: Xanadu Suites

Tracking Number (if applicable): 1234

Property Address/Location: 2525 FM 777, Topaz TX, 77777

District: Utopia

County: Longhorn

Hwy Name: FM 777

Project Description: Construction of Xanadu Suites with driveway access off of FM 777

Property Owner: AAA

Property Owner Address: BBB

Property Owner Email: CCC

Property Owner Phone No.: DDD

Applicant/Representative Name:EEE

Representative Firm (if applicable): FFF

Contact Address: GGG

Contact Phone No.: HHH

Contact Email: III

Additional Comments:

One proposed driveway access off of FM 777, 1/3 mile west of Topaz Rd.

Example with No further Traffic Engineering Study required

Form 2534 (Rev. 09/24)

Page 3 of 6

Proposed Development Trips (Pass-by and Internal Capture Not Included)

ITE Land Use Code	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips			
			Enter	Exit	Total	Enter	Exit	Total	
311	100	404	18	16	34	18	18	36	+
									-
									-
									-

Existing Development Trips (Site Must be Operational)

ITE Land Use Code	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips			
			Enter	Exit	Total	Enter	Exit	Total	
									+
									-
									-
									-

Net Development Trips (Fill out **only** if different than Proposed Development Trips)

ITE Land Use Code	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips			
			Enter	Exit	Total	Enter	Exit	Total	
									+
									-
									-
									-

Example with No further Traffic Engineering Study required

Form 2534 (Rev. 09/24)

Page 4 of 6

Full Build Out Year

The full build out year should account for the development to be constructed and substantially occupied.

Build Out Year: 2026

Annual Growth Rate

Provide the annual growth rate(s) that will be used for the analysis and the methodology for obtaining it.

Annual Growth Rate: 2%

Methodology:

Statewide Planning Map

Adjustment Factor

Is an Adjustment Factor needed? Yes No

Provide the reason(s) for the adjustment factor and the methodology to determine the adjustment factor.

Adjustment Factor:

Methodology:

Methodology:

Phased Developments

Is the development going to be phased? Yes No

If so, how will it be phased?

Example with No further Traffic Engineering Study required

Form 2534 (Rev. 09/24)
Page 5 of 6

Site Access

Is your Site Plan attached? Yes No

Is your Aerial attached? Yes No

Identify driveway widths, driveway radii, and access connections spacing, and posted speed limit on the site plan.

How many access connections are being proposed?

One

What type of access is being requested (e.g., Full access, right-in/right-out)?

Full access

What type of access is being requested (e.g., Full access, right-in/right-out)?

What is the Average Daily Traffic (ADT) for the adjacent roadway?

12,000

ADT can be found using TxDOT Statewide Planning Map and/or TxDOT STARS II:

Statewide Planning Map: Yes

TxDOT STARS II:

Planned Roadway Improvements

Have you reviewed the known TxDOT planned roadway improvements through Project Tracker? Yes No

Have you reviewed known non-TxDOT planned projects? Yes No

Identify all known local and TxDOT planned roadway improvements.

None

Example with No further Traffic Engineering Study required

Form 2534 (Rev. 09/24)

Page 6 of 6

For TxDOT District Use Only

Project Name: Xanadu Suites

Tracking Number: 1234

- An approved Form 2534 is required ONLY**
- A Minor Traffic Engineering Study is required**
(See TxDOT Minor Traffic Engineering Study Technical Memorandum Format)
- A TIA is required (See TxDOT TSAP Manual Chapter 16 for guidelines)**
- Rejected (See Additional Comments)**

Additional Comments:

FM 777 at this location is a 4 lane w/ Continuous left-turn lane with a 45 mph posted speed. The proposed driveway does not have sight distance issues and meets driveway spacing requirements from the Access Management Manual. Does not meet thresholds for consideration of a right-turn lane to property.



TxDOT Traffic Engineering Study Checklist Approver Signature



Date

Minor Traffic Engineering Study (Tech MEMO) is recommended:

- The data submitted in Form 2534 indicates the proposed development will generate between 50-99 trips in the highest peak hour period. In this case a Minor Traffic Engineering Study in the form of a technical memorandum would be recommended.
- The technical memorandum is required to be signed and sealed by a Professional Engineer licensed by the State of Texas.

Minor Traffic Engineering Study (Tech Memo format)

1. Introduction
2. Proposed Development
3. Existing Conditions
4. Projected Traffic
5. Trip Generation/Distribution
6. Traffic Operations Analysis (Capacity Analysis (LOS)) Results (If needed)
7. Sight Distance/Turn Lane Analysis
8. Signal Warrants (if needed)
9. Safety Analysis (Reference *TxDOT TSAP Manual* Chapters 5, 6, and 16.)
10. Conclusions and Recommendations
11. Appendices

Example Minor Traffic Engineering Study (Tech Memo)

Voigt Associates, Inc.

Professional Traffic Engineers
Texas Registered Firm F-5333

2631 Lakecrest Drive
Pearland, Texas 77584
832.264.0429
tony@voigtassociates.com

August 30, 2024

Ms. Yolci Ramirez, EIT
Traffic Engineer, Traffic Division
City of Pearland Engineering and Capital Projects
2016 Old Alvin Road
Pearland, Texas 77581

Through

Mr. Rudy Aldana, EIT
Project Engineer III
WGA Consulting Engineers, LLP
1020 NE Loop 410, Suite 800
San Antonio, TX 78209

RE: Traffic Engineering Assessment: 3250 South Sam Houston Parkway East Industrial Building, 3250 South Sam Houston Parkway East, Houston TX 77047 (City of Pearland)

Dear Ms. Ramirez,

Voigt Associates, Inc. is pleased to present this technical memorandum for a new industrial building at 3250 South Sam Houston Parkway East in the City of Pearland. The proposed development includes a single building with 133,000 square feet of space. Sole access will be via an existing driveway shared with the Syzygy Plasmotics building located about 1250' west of Fellows Road, so no new access is being proposed for the new industrial building development.

Site Location



Exhibit A1. Site Location Map.
Not to scale, north to top of page.

Site Layout on Aerial

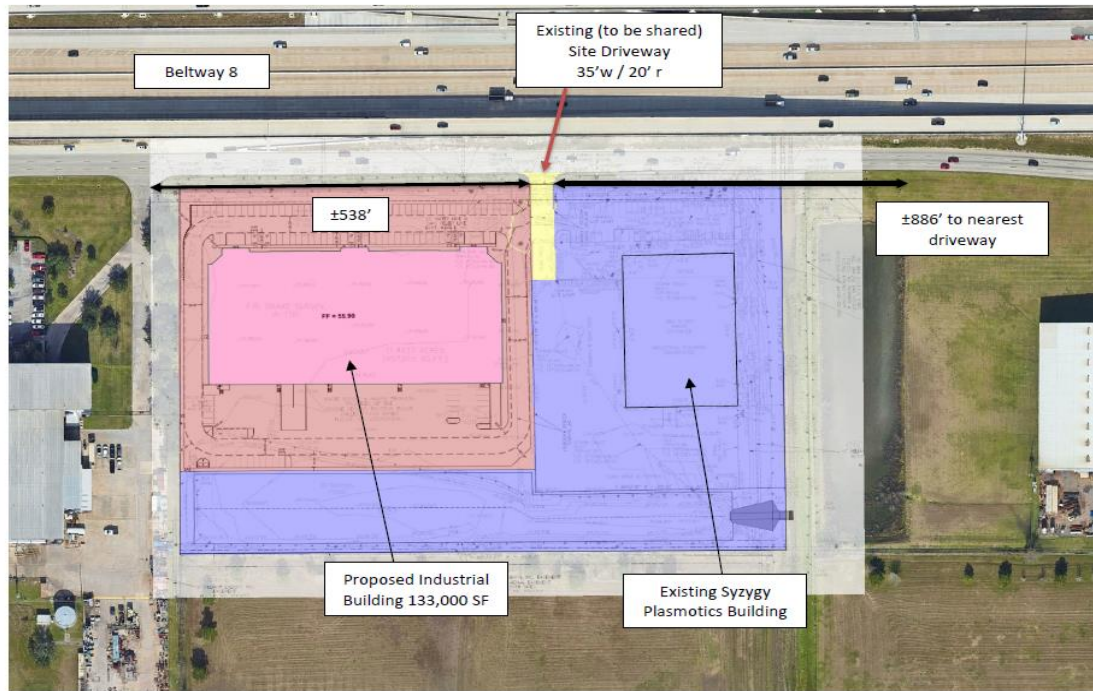


Exhibit A3. Site Layout on Aerial Image.

North to top of page, not to scale.

Street View



**Photograph 1. South Sam Houston Parkway East
at Syzygy Plasmotics Driveway
(shared driveway with proposed development – to right)**
Photograph Date: 9/2/2024

Key inputs

- Key Inputs
 - Beltway 8 Eastbound Frontage Road; 3 lanes; 50 mph posted speed
 - Change in driveway use; existing driveway to be shared with current Syzygy Plasmotics building
 - Proposed Industrial site – 133,000 sq. ft.
 - Existing driveway distance to adjacent driveways: 538 ft. west; 886 ft. east
 - Proposed estimated Construction late 2024; occupied late 2025
 - Existing driveway has 35 ft. width and 20 ft. radii.

Traffic Analyses & Trip Generation

- Existing Traffic: AM and PM Peak period video counts conducted on a Tuesday
- Growth rate: TxDOT nearby annual count data stations showed -2.34% from 2014 to 2025. 1% growth rate was then assumed from 2024 to 2025
- Trip Generation (proposed development): ITE Land Use #130 (Industrial Park) – AM Peak Hour: 46 vehicle trips, 37 entering, 9 exiting. PM Peak Hour: 45 vehicle trips, 10 entering, 35 exiting
- Projected Total 2025 Peak Hour turning movements at driveway:
 - AM Peak: Frontage thru – 1717 vph; right (into driveway) 52; right (out of driveway) 14
 - PM Peak: Frontage thru – 1834 vph; right (into driveway) 13; right (out of driveway) 62

Safety and Geometric Analyses

- **Crash History** at Site Driveway: CRIS data for 2021 to 2024 (current) indicates no crashes within 200 ft. of the existing driveway.
- **Geometric Analysis:** A turn path analysis indicates the entering or west radius needs to be increased to 30 ft. min. (35 ft. preferred) to accommodate possible WB-67 into the site. Limited number of large trucks are anticipated.

Conclusions and Recommendations

- The 52 vph peak slightly exceeds the 50 vph threshold for consideration of a right turn lane into the Site Driveway. Recommend no right turn lane due to the three lane frontage road, and multiple underground utilities in the area. A variance to the requirement to provide a dedicated right turn lane is recommended.
- Increase the west turn radius to 30 ft. min to accommodate occasional WB-67 trucks.

TIA (Major Traffic Engineering Study) is Recommended:

- The data submitted in Form 2534 indicates the proposed development generates 100 trips or greater in the highest peak hour period. In this case a formal TIA would be recommended.
- The recommended level of detail and analysis (including safety analysis), checklist, outline, and examples for TIA's are provided in Chapter 16 and Appendix Q of the *TxDOT Traffic and Safety Analysis Procedures (TSAP) Manual*.
- The TIA is required to be signed and sealed by a Professional Engineer licensed by the State of Texas.

Major Traffic Engineering Study (TIA)

- Traffic Impact Analysis (TIA) is the study of the traffic generated by a proposed development and its impact on the nearby surrounding transportation system

Purpose and intended use

- Determine the ability of the surrounding transportation system to handle the change in demand of traffic introduced by a project
- Recommend improvements/mitigations if the existing infrastructure does not sufficiently support the increased traffic demand

TIA Mitigation

- Any operational or safety deficiencies found in the future analysis are considered for mitigation. All mitigation is typically confirmed with the local TxDOT District. The developer is responsible for implementing the mitigation measures.
- Example Mitigation Improvements:
 - Right-turn decel. lanes, left-turn decel. lanes, lengthening of storage lanes
 - Directional Median Openings
 - Optimization of existing Traffic signals, or addition of new Traffic signals
 - Consideration of Alternative Intersections (e.g., roundabouts)



Figure: Example of raised median on SL 248 in El Paso

Safety Analysis in TIAs

- Review location of access points for safety considerations
- Evaluate that the design of external access points to account for bicycle and pedestrian safety
- Conduct crash analysis based on the past five calendar years
- Compare crash rates for the study area with statewide/municipality crash rates
- Identify crash reduction factors and safety countermeasures to mitigate key locations
- Conduct predictive crash analysis for buildout years

Traffic and Safety Analysis Procedures Manual



June
2024

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TIA Categories (TxDOT TSAP Manual, Chapter 16)

Table 16-1: TIA Categories

Categories	Peak Hour Trip Generation Range (veh/hr)	Additional Requirement	Analysis to Include
1	100-499	The TxDOT District can request a TIA if under 100 trips result from localized safety or capacity deficiencies.	<ul style="list-style-type: none"> • Buildout year of development • Ramps, roads, and intersections that are significantly impacted by development • Site access drives and intersections adjacent to site
2	500-1,000	NA	<ul style="list-style-type: none"> • Buildout year of development • Year of completion of each phase • Five years after full buildout • Ramps, roads, and intersections that are significantly impacted by development • Site access drives and intersections within 1 mile of the development
3	>1,000	NA	<ul style="list-style-type: none"> • Year of completion of each phase • Year of completion • Five years after full buildout • Ten years after full buildout • Ramps, roads, and intersections that are significantly impacted by development • Site access drives and intersections within 1 mile of the development

Note: Service drives, emergency drives, and other drives with minimal traffic are typically omitted. This table is adapted from TTI's Guidelines.

Trip Generation Example (TSAP Manual, App. Q Section 3) Single Family Development Example

Rates and equations are applied for proposed land uses to estimate traffic generated.

- ITE 11th edition of *Trip Generation Manual*

Assume a development with 300 single family detached homes. The following equation represents the number of weekday one-way vehicle trips for single family detached homes.

$$\ln(T) = 0.92 \ln(X) + 2.68$$

X is the number of homes in the development, and T is the number of vehicle trip ends generated.

For 300 homes there will be 2,772 daily one-way trips.

The following equation is for the number of trip ends during the AM peak hour.

$$\ln(T) = 0.91 \ln(X) + 0.12$$

For 300 homes there will be 202 total AM peak hour trips. A similar equation is used for the PM peak. **33**

Trip Distribution (Multifamily Dev.)

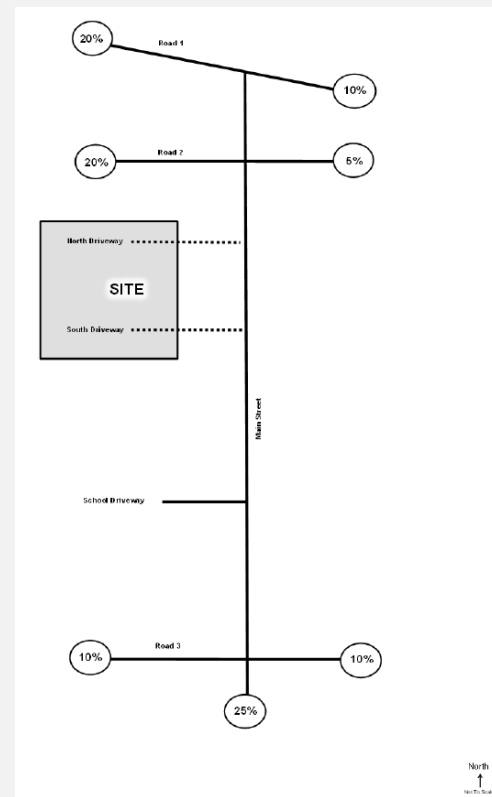
Trip distribution refers to the origins and destinations of site-generated trips from the proposed development.

Assume you are dealing with a multifamily development. After evaluation of the existing counts, traffic percentages entering and exiting the study area can be calculated by dividing the number of vehicles to/from each direction with the total traffic at all approaches along the edges of the study area.

Based on existing traffic counts, the following traffic distribution percentages are shown:

- 1) 45% of existing traffic travels in or out from the south (Road 3 and Main Street)
- 2) 55% of existing traffic travels in or out from the north (Road 1, Road 2, and Main Street)

Existing traffic patterns is a starting point other factors such as the land use, street system and activity centers should be considered to adjust the distribution.

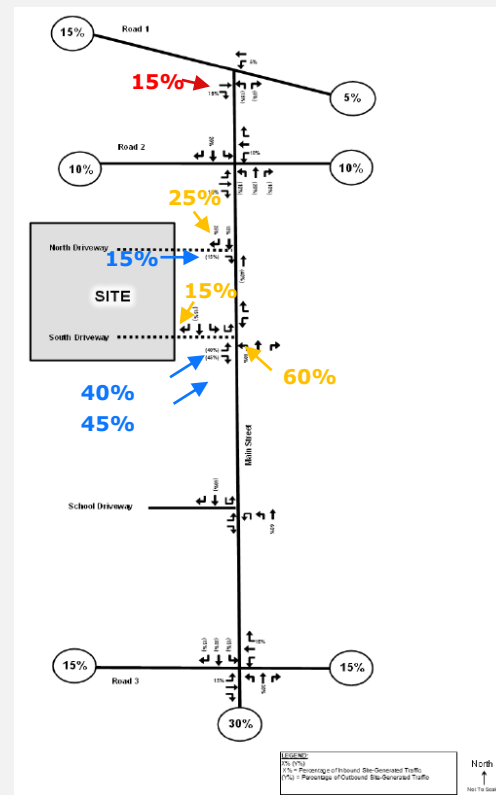


Traffic Assignment

Traffic assignment refers to the specific routes that the trips will take along the roadway network and into the site driveways.

- 1) Drivers will tend to use the first available driveway when reaching the development.
- 2) No northbound left or eastbound left turns are made at the position of North Driveway, due to there being no median opening at this access point.
- 3) More drivers will use South Driveway to exit the development, due to a median opening on Main Street allowing outbound vehicles to turn left towards the north.

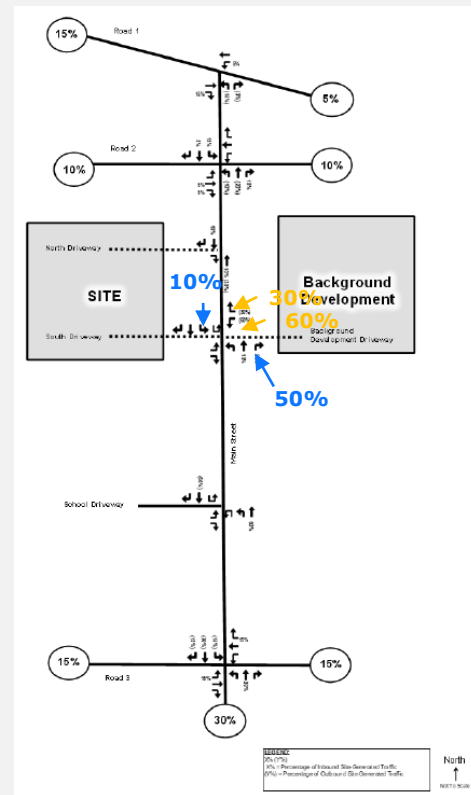
The corresponding inbound and outbound traffic assignment is shown in figure. Once again, engineering judgement should be exercised to appropriately assign the traffic according to site specific characteristics of the development.



Background Site Traffic Assignment

In some cases, future developments near the study area are slated to open during the period of analysis. These sites need to be included in the traffic analyses. Traffic assignment for the corresponding background development must also be added to the surrounding roadway network.

If the site has an available TIA it should be used, if not traffic assignment will need to be completed in a similar manner.



Projected Traffic (Intersection Example)

Determine background growth rates. When analyzing future conditions, existing traffic is grown using compound growth rates extended to the future study years specified in the scope. Annual growth rate is obtained from the city or MPO.

The growth rate can also be estimated from AADT. The annual growth rate is calculated by applying the following compound annual growth rate formula.

$$\text{Compound Annual Growth Rate} = \left(\frac{V_{Final}}{V_{Begin}} \right)^{\frac{1}{t}} - 1$$

The traffic counts for each movement are grown by the compound growth rate using the following formula.

$$\text{Future Traffic} = P \left(1 + \frac{r}{100} \right)^t$$

Table Q-6. 2028 Background Traffic Counts

Intersection		EXISTING (2023)		Background Traffic (2028)	
		AM	PM	AM	PM
Road 1 & Road 2	EBL	13	9	14	10
	EBT	919	906	1,015	1,000
	EBR	1,177	967	1,300	1,068
	EBU	0	1	0	1
	WBL	82	68	91	75
	WBT	894	924	987	1,020
	WBR	7	4	8	4
	WBU	0	3	0	3
	NBL	560	847	618	935
	NBT	14	22	15	24
	NBR	92	84	102	93
	NBU	0	0	0	0
	SBL	21	21	23	23
	SBT	44	16	49	18
	SBR	8	6	9	7
	SBU	0	0	0	0

Traffic Operations Analysis

HCM methods were used to estimate delay and LOS.

The Synchro software was used to analyze the following two signalized intersections during the AM peak hour. Average delay and LOS are reported for each approach during existing, background, and buildout scenarios.

Table Q-8. Traffic Operational Results

INTERSECTION	APPROACH	2023 Existing Traffic		2030 Background Traffic		2030 Build Traffic		2035 Background Traffic		2035 Build Traffic	
		AM PEAK HOUR		AM PEAK HOUR		AM PEAK HOUR		AM PEAK HOUR		AM PEAK HOUR	
		DELAY (SEC/VEH)	LOS	DELAY (SEC/VEH)	LOS	DELAY (SEC/VEH)	LOS	DELAY (SEC/VEH)	LOS	DELAY (SEC/VEH)	LOS
Signalized Intersection											
Road 1 @ Road 2	EB	47.7	D	48	D	48.1	D	48.5	D	48.5	D
	WB	53.8	C	34	C	31.9	C	34	C	32.1	C
	NB	12.9	B	13.5	B	15.2	B	14	B	15.9	B
	SB	21.3	C	24	C	24.2	C	26.9	C	27.3	C
	Overall	20	B	22	C	21.9	C	23.5	C	23.8	C
Road 3 @ Road 4	WB	28.3	C	30	C	30.6	C	31.5	C	31.8	C
	NB	13.4	B	19	B	54.7	D	34.8	C	64	E
	SB	5.7	A	7.4	A	9.9	A	9.3	A	12.7	B
	Overall	10.5	B	14	B	31.6	C	21.6	C	37.1	D

Mitigation

Where necessary, recommendations are required to mitigate impacts from the additional traffic generated by the development. Recommendations can include altering lane configurations and geometries of the intersection, optimizing signal timings, modifications to the traffic control at the intersection, or reducing the projects density.

In this case, due to the large delay present at the northbound approach on Road 3 and Road 4, mitigation will be required to improve the LOS at this intersection to an acceptable threshold. Because it is already signalized, traffic signal timing adjustments were recommended.

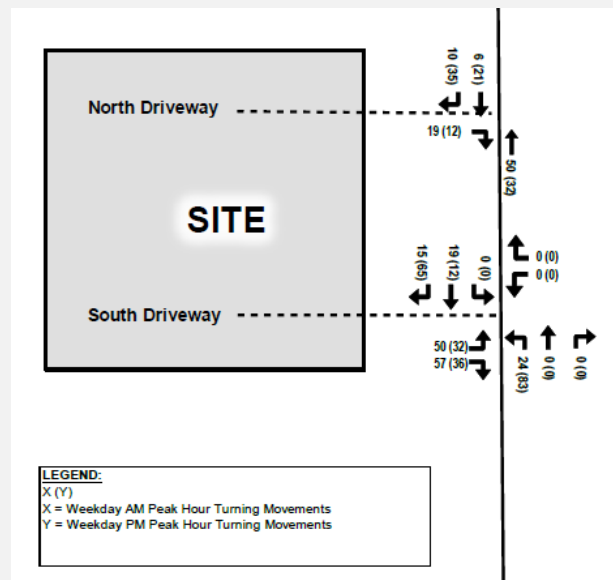
Table Q-9. Traffic Operational Results with Mitigation

INTERSECTION	APPROACH	2035 Build Traffic		2035 Build Traffic Mitigation	
		AM PEAK HOUR		AM PEAK HOUR	
		DELAY (SEC/VEH)	LOS	DELAY (SEC/VEH)	LOS
Signalized Intersection					
Road 3 @ Road 4	WB	31.8	C	32.5	C
	NB	64	E	40.3	D
	SB	12.7	B	20.3	C
	Overall	37.1	D	30.2	C

Auxiliary Lane Analysis

Where justified, the addition of right-turn deceleration lanes can help inbound turning vehicles separate from the through traffic, avoiding conflicts and smoothing traffic flow. TxDOT has identified right-turning volume thresholds where right-turn lanes are justified.

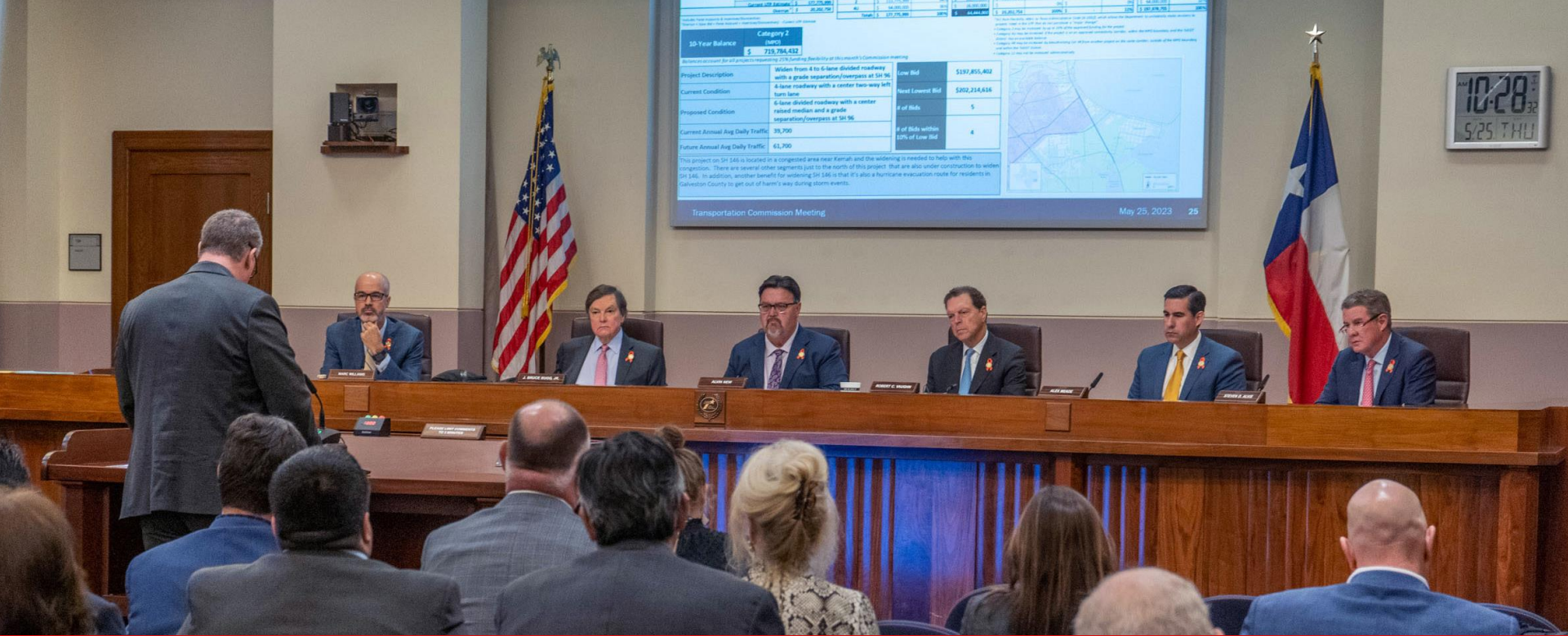
The table shows the driveway locations with right-turn driveway access to the site, and how they compare with the TxDOT right turn volume threshold per the Access Management Manual.



Right-Turn Location	Peak Hour Right-Turn Volume (vph)	TxDOT Threshold Access Management Manual, Table 2-3)	Right-Turn Lane Recommended?
North Driveway from Main Street	35	60 vph	No
South Driveway from Main Street	65	60 vph	Yes

Closing comments

- Districts have the Flexibility to adjust volume thresholds, as well as the Level or type of Traffic Engineering Study due to their experience with specific trip generator types, as well as the context or land use type.
- Ties in with the recent release of the TxDOT TSAP Manual (Ch. 16).
- Implementation timeline is March 31st, 2025 to allow Districts the opportunity to integrate into their procedures. May be implemented sooner if desired.
- For questions on the use of ITE Trip Generation, please reach out to Milad Kiaee, P.E. (milad.Kiaee@txdot.gov) (512) 416-2296.



Category 2 (noC)	
10-Year Balance	\$ 713,794,432
Project Description	Widen from 4 to 6-lane divided roadway with a grade separation/overpass at SH 146
Current Condition	4-lane roadway with a center two-way left turn lane
Proposed Condition	4-lane divided roadway with a center raised median and a grade separation/overpass at SH 146
Current Annual Avg Daily Traffic	39,700
Future Annual Avg Daily Traffic	61,700
Low Bid	\$197,855,402
Next Lowest Bid	\$202,214,624
# of Bids	5
# of Bids within 10% of Low Bid	4

Transportation Commission Meeting May 25, 2023 25

Thank you, open for questions.

Design Division (PDS Section) – Ken Mora, P.E. & Mark Middleton, P.E.



November 21, 2024