Misty Ridge Drive SITE Analysis

PREPARED FOR:

Bexar County Public Works

PREPARED BY:

LEGACY ENGINEERING GROUP

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LEGACY ENGINEERING GROUP

Safety, Infrastructure, & Traffic Engineering (SITE) Analysis

Bexar County, TX

July 2025

EXECUTIVE SUMMARY

Legacy Engineering Group was retained to prepare a Safety, Infrastructure, and Traffic Engineering (S.I.T.E.) Analysis along Misty Ridge Drive between O'Connor Road & Kitty Hawk Road in Bexar County, Texas. The study location map is shown in Figure 1 with a zoom-in of the study area.

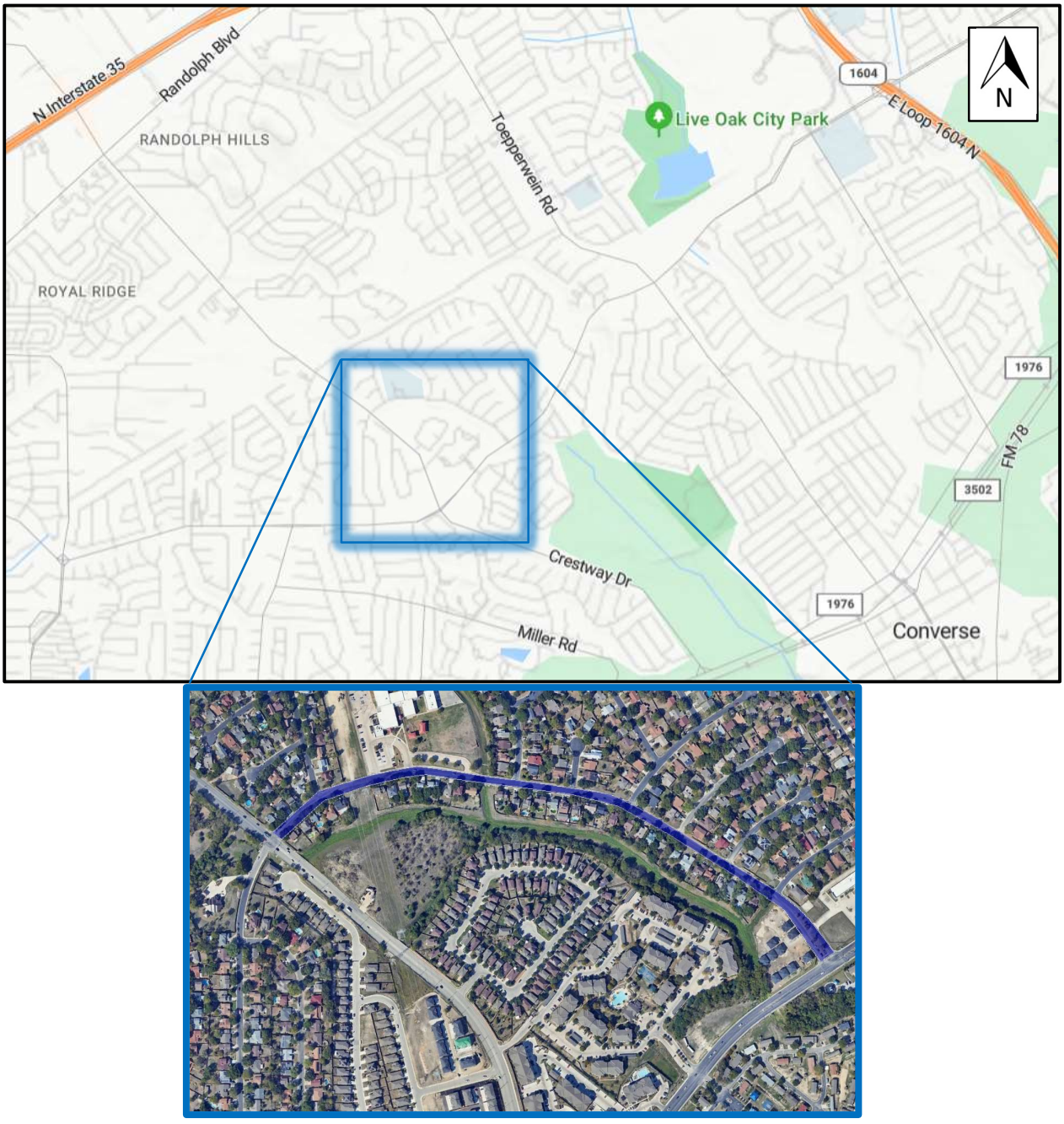

Figure 1e – Study Location Map

STUDY PROCEDURE

The study utilized the following procedures:

- Analysis of crash records for the study network (January 2020 through December 2024)
- Collection and review of Turning Movement Counts (TMCs)
- Field investigation to evaluate signing and pavement markings for reflectivity and conformance with the Texas Manual on Uniform Traffic Control Devices (TMUTCD)
- Field Investigation to conduct a qualitative analysis of existing illumination during night conditions
- Field Investigation to evaluate sight distance at stop-controlled intersections
- Collection of speed data at two locations within the study network
- Capacity analysis utilizing Synchro version 12.0

Figure 2e shows the locations where TMC and speed data was collected, indicated in yellow and green, respectively.

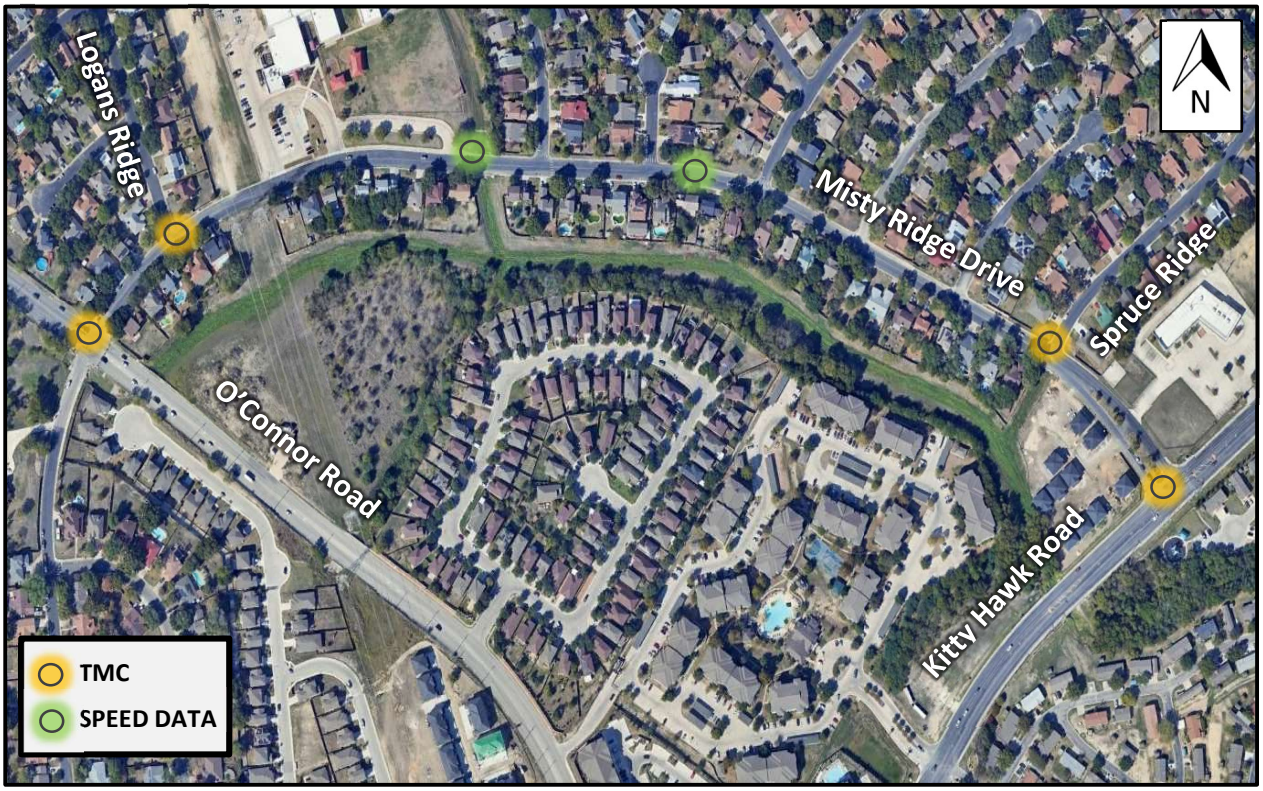

Figure 2e – Traffic Data Collection Locations

SUMMARY OF RECOMMENDATIONS

The recommendations developed from this Safety, Infrastructure, and Traffic Engineering (S.I.T.E.) Analysis are distinguished as short-term mitigations, which are typically lower-cost improvements that can be acted upon with minimal complications, and mid-term/long-term recommendations, which require more extensive planning, coordination, and funding. The complete list of recommendations are as follows:

SHORT-TERM CONSIDERATIONS

- Consider coordinating with the school to discourage parents from ad-hoc queuing in the nearby construction area/electrical easement
- Consider adding 18" Transverse white pavement markings to better define the beginning and end of school zone
- Consider adding Speed Limit Signs (R2-1) with "End School Zone" (S5-2) sign on downstream limits of school zone
- Consider trimming vegetation obstructing signage along Misty Ridge Drive near Fortune Ridge Drive (29°31'43.89"N, 98°20'43.21"W), (29°31'43.75"N, 98°20'42.10"W)
- Consider modifying the signal timings at the Misty Ridge Drive & O'Connor Road intersection to improve operations during the PM peak hour
- Consider increasing law enforcement presence in the area to improve driver adherence to the posted speed limit
- Consider installing vehicle speed feedback signs along Misty Ridge Drive to improve driver awareness and adherence to the posted speed limit
- Consider installing flashing beacons on the existing W3-3 (Signal Ahead) warning signs along northbound and southbound Kitty Hawk Road near Misty Ridge Drive
- Consider removing or relocating unused luminaires along Misty Ridge Drive
- Consider trimming vegetation at the intersections of Misty Ridge Drive and Fortune Ridge Drive, Golden Ridge Drive, Frontier Ridge Drive, and Southern Ridge Drive to improve driver sightline and awareness

MID-TERM CONSIDERATIONS

- Consider installing speed humps along Misty Ridge Drive to discourage motorists from using the residential roadway as a cut-through from O'Connor Road or Kitty Hawk Road
- Consider conducting a supplemental analysis to develop an alternative site-circulation pattern for Miller's Point Elementary School to improve PM peak hour operations
- Consider modifying the signal head for the left-turn lane along Kitty Hawk Road at Misty Ridge Drive from a five-section head to a four-section head to improve driver awareness of the yield condition with a yellow flashing arrow

Please note that these recommendations are preliminary in nature and subject to review and approval by Bexar County Authorities.

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PROJECT DESCRIPTION

INTRODUCTION

Legacy Engineering Group was retained to prepare a Safety, Infrastructure, and Traffic Engineering (S.I.T.E.) Analysis along Misty Ridge Drive between O'Connor Road & Kitty Hawk Road in Bexar County, Texas. The study location map is shown in Figure 1 with a zoom-in of the study area.

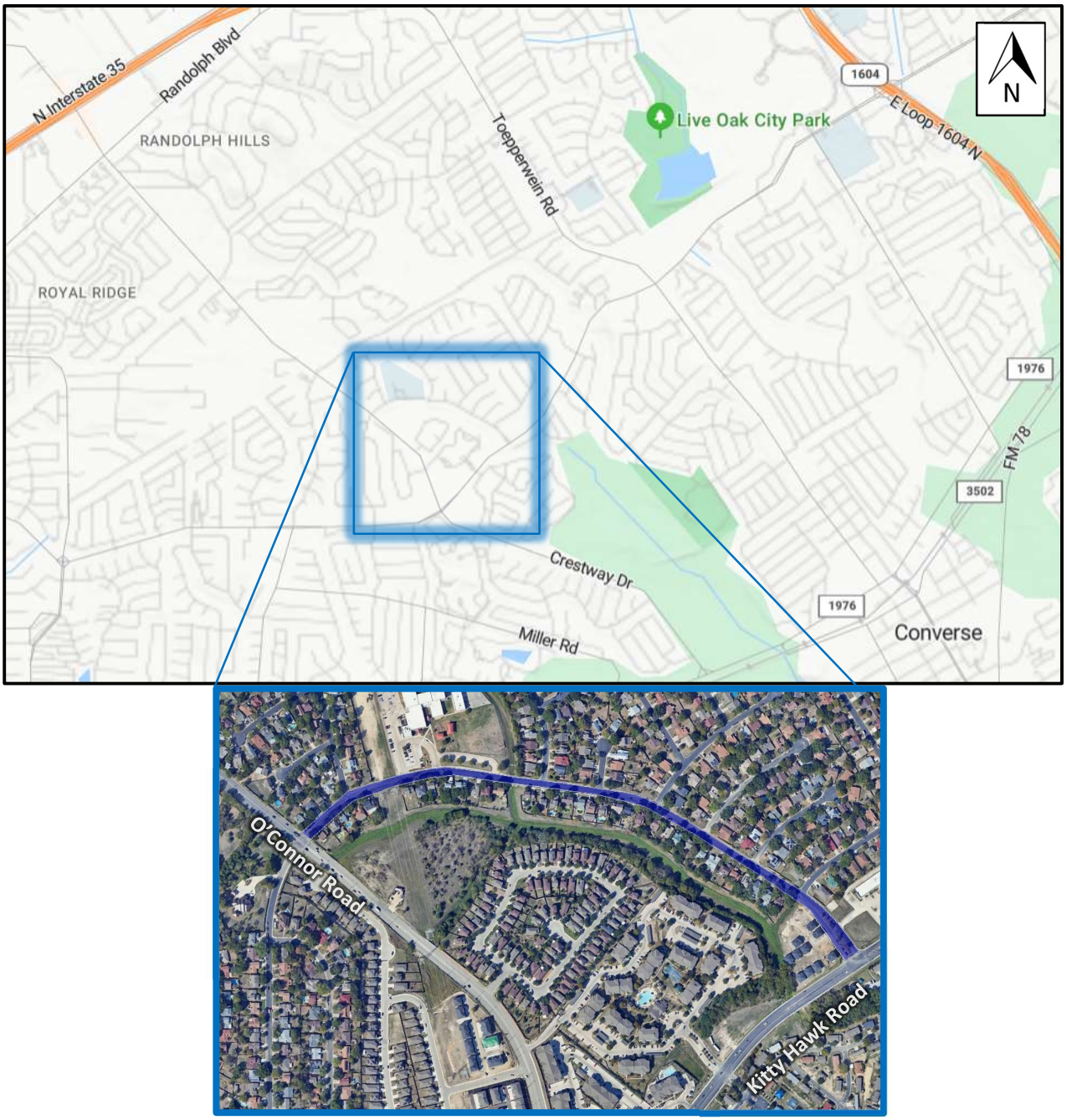

Figure 1 – Study Location Map

STUDY PROCEDURE

The study utilized the following procedures:

- Analysis of crash records for the study network (January 2020 through December 2024)
- Collection and review of Turning Movement Counts (TMCs)
- Field investigation to evaluate signing and pavement markings for reflectivity and conformance with the Texas Manual on Uniform Traffic Control Devices (TMUTCD)
- Field Investigation to conduct a qualitative analysis of existing illumination during night conditions
- Field Investigation to evaluate sight distance at stop-controlled intersections
- Collection of speed data at two locations within the study network
- Capacity analysis utilizing Synchro version 12.0

TMC data was collected at the following intersections:

- Misty Ridge Drive & O'Connor Road
- Misty Ridge Drive & Logans Ridge Drive
- Misty Ridge Drive & Spruce Ridge Drive
- Misty Ridge Drive & Kitty Hawk Road

Figure 2 shows the locations where TMC and speed data was collected, indicated in yellow and green, respectively.

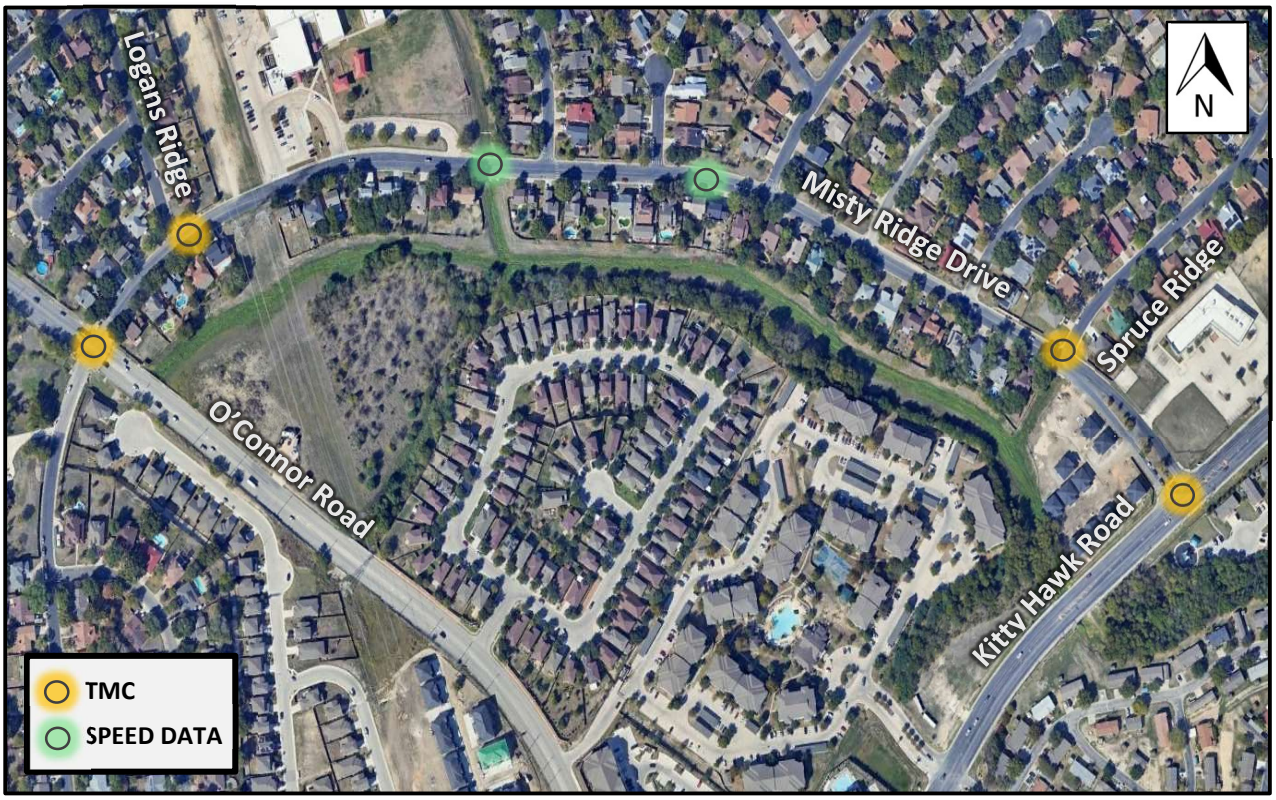

Figure 2 – Traffic Data Collection Locations

STUDY CORRIDOR

A description of the control types at each intersection within the study network are listed in Table 1.

Table 1 – Study Intersection Control Types

Location No.	Intersection	Intersection Control
1	Misty Ridge Drive & O'Connor Road	Signalized Intersection
2	Misty Ridge Drive & Logans Ridge Drive	Two-Way Stop-Controlled (Free flow = Misty Ridge Drive)
3	Misty Ridge Drive & Spruce Ridge Drive	Two-Way Stop-Controlled (Free flow = Misty Ridge Drive)
4	Misty Ridge Drive & Kitty Hawk Road	Signalized Intersection

EXISTING CONDITIONS

Misty Ridge Drive

Misty Ridge Drive is a two-lane roadway that extends in a general east-west direction within the study limits and has a posted speed limit of 30-mph. The typical section along Misty Ridge Drive is a 40 LF wide roadway that includes one 20 LF travel lane in each direction of travel. Figure 3 and 4 shows the typical section along Misty Ridge Drive within the study limits.

Figure 3 – Misty Ridge Drive Typical Section

Figure 4 shows Misty Ridge Drive facing east within the study limits.

Figure 4 – Misty Ridge Drive Facing East

O'Connor Road

O'Connor Road is a five-lane roadway that extends in a general north-south direction and includes a continuous two-way left turn lane (CTWLTL). O'Connor Road has a posted speed limit of 35-mph and is shown in Figure 5.

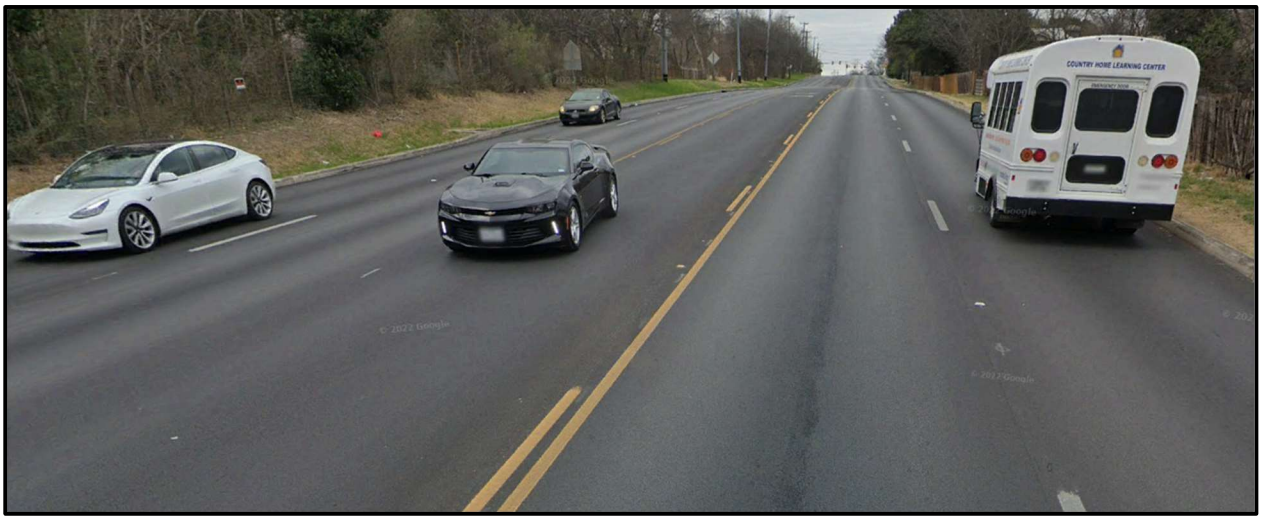

Figure 5 – O'Connor Road Facing North

Logans Ridge Drive

Logans Ridge Drive extends in a general north-south direction within the study limits and has a posted speed limit of 30-mph. Logans Ridge Drive is shown in Figure 6.

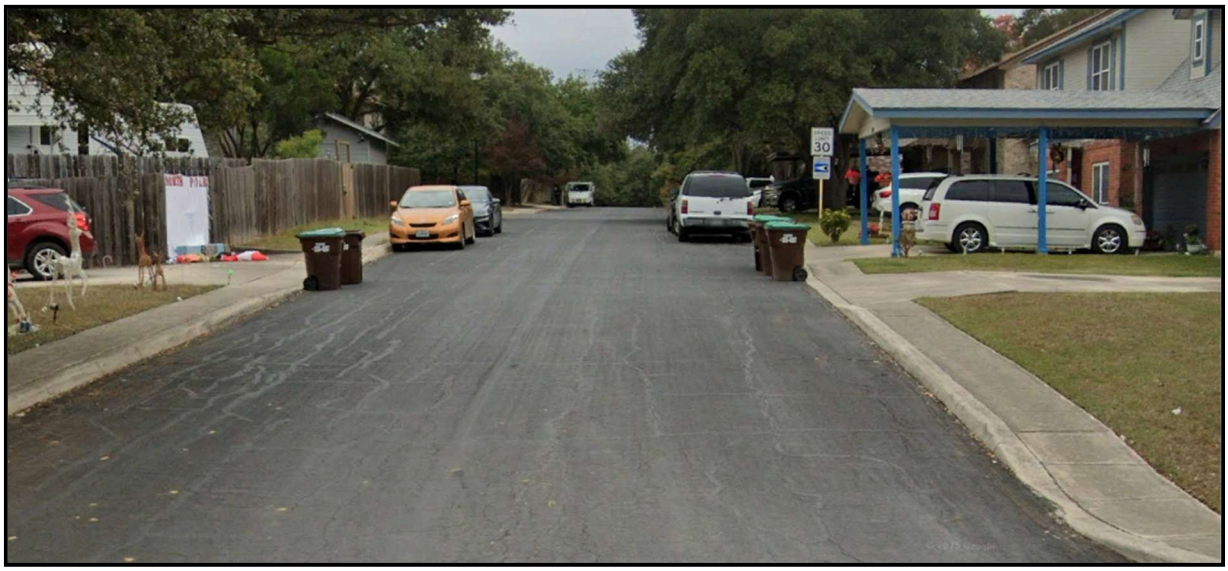

Figure 6 – Logans Ridge Drive Intersection

Spruce Ridge Drive

Spruce Ridge Drive extends in a general north-south direction within the study limits and has a posted speed limit of 30-mph. Spruce Ridge Drive is shown in Figure 7.

Figure 7 – Spruce Ridge Drive Intersection

Kitty Hawk Road

Kitty Hawk Road is a five-lane roadway that extends in a general north-south direction and includes a continuous two-way left turn lane (CTWLTL). The typical section along Kitty Hawk Road has a posted speed limit of 35-mph and is shown in Figure 8.

Figure 8 – Kitty Hawk Road Facing North

MILLER'S POINT ELEMENTARY SCHOOL

Miller's Point Elementary School is located along Misty Ridge Drive between Logans Ridge Drive and Fortune Ridge Drive. The school generates a significant number of trips during the AM and Midday/PM Peak hours. Miller's Point Elementary has one enter-only access driveway with three (3) lanes for student pick-up/drop-off located approximately 450 LF east of Logans Ridge Drive. There is an exit-only driveway located 120 LF west of entry driveway and another exit-only driveway for school buses located 265 LF west of entry driveway. Miller's Point Elementary School and the driveways serving the school are shown in Figure 9.

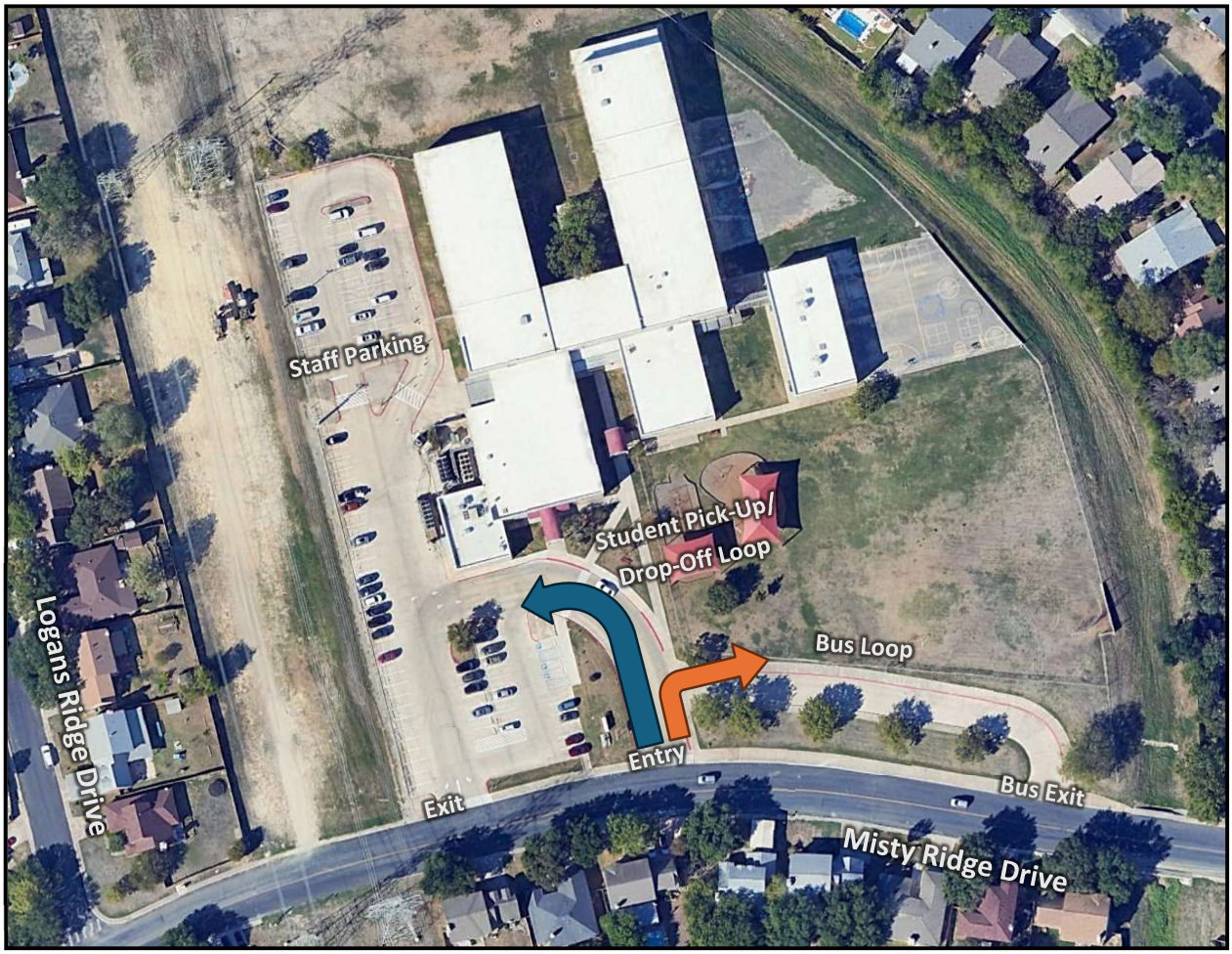

Figure 9 – Miller's Point Elementary School

SCHOOL AM & PM PEAK HOUR OPERATIONS

A site visit was conducted on May 21, 2025 to evaluate the AM & PM peak hour operations at Miller's Point Elementary School. The following figures show the observations recorded during the sight visit.

Figure 10 – On-Site Queuing (AM)

As shown in Figure 10, off-site queuing was not observed during the AM peak hour operations at the existing elementary school.

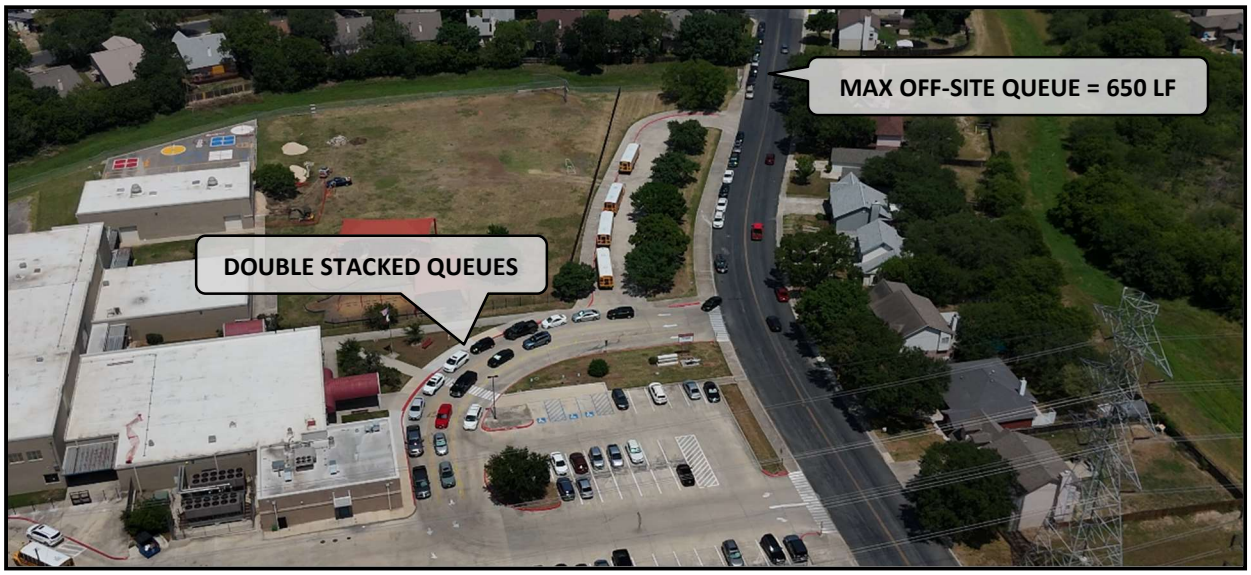

Figure 11 – Maximum Off-Site Queueing (PM)

As shown in Figure 11, extensive off-site queues were observed during the PM peak hour operations. The maximum off-site queue was observed to be approximately 650 LF at 2:45 PM. Since Misty Ridge Drive is wide enough for through traffic to safely bypass vehicles queued along the edge of travel, a right-turn lane is not recommended along Misty Ridge Drive to contain a portion of the PM peak hour queues. To improve PM school peak operations, consider conducting a supplemental analysis to develop an alternative site-circulation pattern that utilizes more capacity from the on-site pavement structure.

Figure 12 – Construction Area Ad-Hoc Parking

As shown in Figure 12, some parents were observed parking within the existing electrical easement that runs adjacent to the school's property line. Consider recommending school representatives coordinate with parents to discourage ad-hoc queuing at this location and prevent students from being released into a construction zone.

Figure 13 – Misty Ridge Drive & O'Connor Road Queues (PM)

As shown in Figure 13, extended queues along the westbound approach to the Misty Ridge Drive & O'Connor Road intersection are present during the school PM peak hour. Consider modifying the signal timings at this intersection during the PM peak hour to improve delays and queue lengths.

As a result of this analysis, the following recommendations should be considered along Misty Ridge Drive and at the intersection of Miller's Point Elementary School Driveway:

- Consider conducting a supplemental School Circulation Analysis for the Miller's Point Elementary School to improve operations and eliminate off-site queuing within the surrounding roadways
- Consider coordinating with the school to discourage parents from ad-hoc queuing in the nearby construction zone/electrical easement
- Consider modifying the signal timings at the Misty Ridge Drive & O'Connor Road intersection to improve operations during the PM peak hour
- Consider adding 18" Transverse white pavement markings to better define the beginning and end of school zone
- Consider adding Speed Limit Signs (R2-1) with "End School Zone" (S5-2) sign on downstream limits of school zone

TRAFFIC DATA

Traffic Data, in the form of Turning Movement Counts (TMCs), was collected on Tuesday, May 20, 2025 at the following intersections within the study limits:

- Misty Ridge Drive & O'Connor Road
- Misty Ridge Drive & Logans Ridge Drive
- Misty Ridge Drive & Spruce Ridge Drive
- Misty Ridge Drive & Kitty Hawk Road

The AM and PM peak hours were calculated from the collected traffic data and determined to be from 7:00 AM – 8:00 AM and 5:00 PM – 6:00 PM, respectively.

Additionally, speed data was collected at two locations along Misty Ridge Drive, shown in Figure 2.

Please note that all traffic data can be found in Appendix B.

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S.I.T.E. Analysis

Misty Ridge Drive

Existing Traffic Volumes (2025)

Legend

AM / (PM)

XX Intersection No.

DATE:
7/10/2025

SCALE:
1" = 300'

SIGNING, PAVEMENT MARKING, AND ILLUMINATION ANALYSIS

Signing and pavement markings within the study limits were visually inspected to evaluate reflectivity and conformance to the Texas Manual for Uniform Traffic Control Devices (TMUTCD) standards. Additionally, a qualitative analysis of existing illumination during night conditions was conducted within the study limits.

The following figures illustrate the conditions observed during the site evaluation.

Figure 14 – Misty Ridge Drive (29°31’43.14"N, 98°20’38.07"W)

Figure 15 – Misty Ridge Drive (29°31’43.89"N, 98°20’43.21"W)

Figure 16 – Misty Ridge Drive (29°31’43.75"N, 98°20’42.10"W)

Figure 17 – Misty Ridge Drive & Logan's Ridge Drive (29°31'42.94"N, 98°20'54.96"W)

Figure 18 – Misty Ridge Drive (29°31'44.38"N, 98°20'48.90"W)

Figure 19 – Misty Ridge Drive & Frontier Ridge Drive (29°31'42.19"N, 98°20'36.22"W)

Figure 20 – Misty Ridge Drive (29°31’43.84"N, 98°20’45.76"W)

Figure 21 – Misty Ridge Drive (29°31’44.04"N, 98°20’43.33"W)

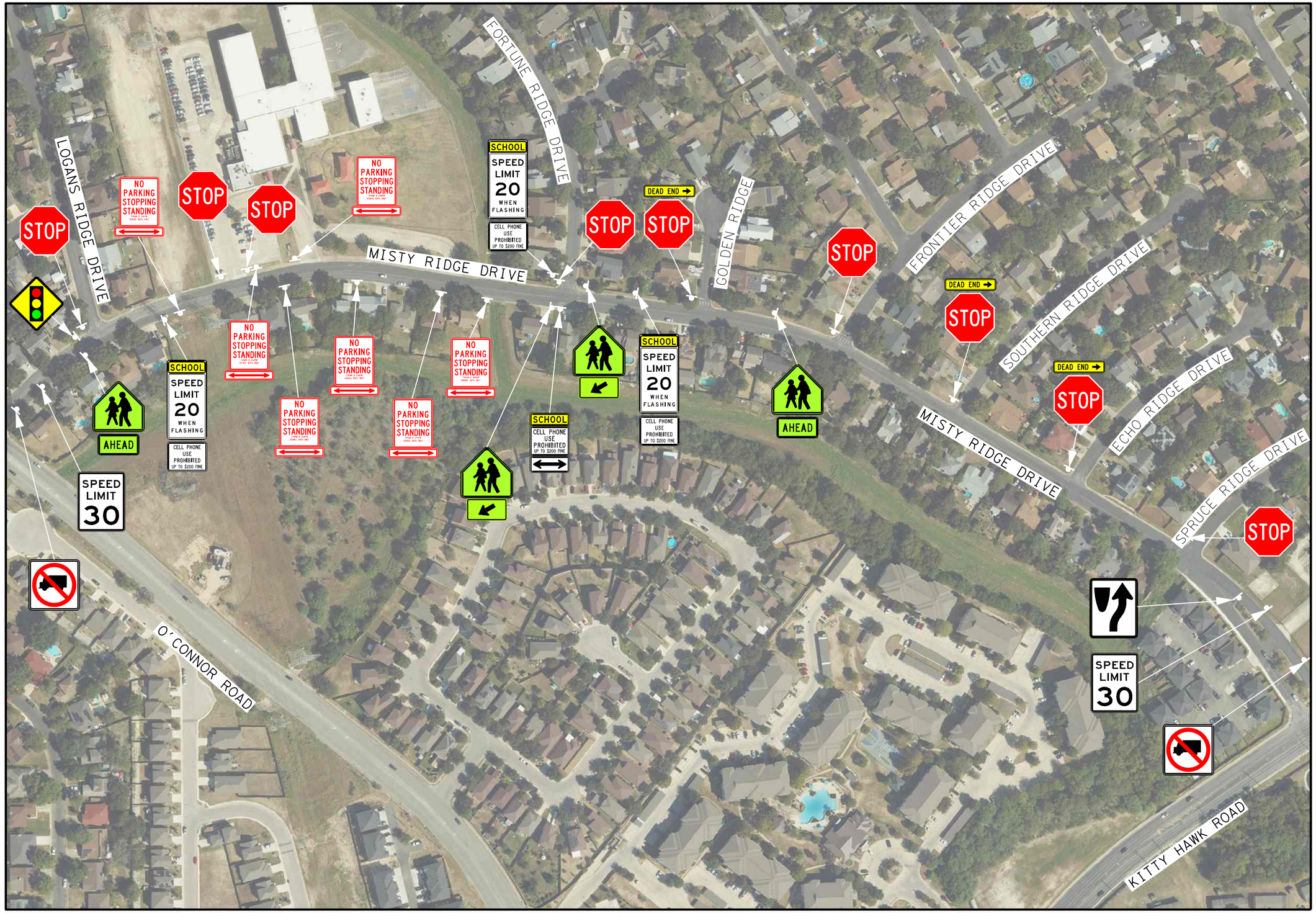
Figure 22 – Misty Ridge Drive (29°31’42.69"N, 98°20’36.66"W)

Figure 23 – Misty Ridge Drive (29°31’38.53"N, 98°20’28.70"W)

As a result of this analysis, the following recommendations should be considered:

- Consider replacing sign at an angle (29°31’43.14"N, 98°20’38.07"W)
- Consider trimming foliage obstructing signage within the study limits
- Consider repairing degraded pavement sections within the study limits
- Consider removing or relocating unused luminaires within the study limits to improve nighttime driver visibility (**Note: This will require coordination with CPS since the additional luminaires were installed as part of their Solar Security Light Pilot Program)**

The existing sign layout within the study limits can be seen on the following page.



LEGACY ENGINEERING GROUP

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S.I.T.E. Analysis

Misty Ridge Drive

Existing Sign Inventory

Legend

DATE:
7/10/2025

SCALE:
1" = 200'

PAGE:
19

CORRIDOR CRASH ANALYSIS & RESULTS

Between January 2020 and December 2024, a total of 21 crashes were recorded along Misty Ridge Drive within the study limits. Of these, 17 crashes (81%) met the TxDOT reportable criteria, which include incidents involving a reported injury or property damage exceeding $1,000. Figure 24 shows the annual crash frequency along Misty Ridge Drive within the study period.

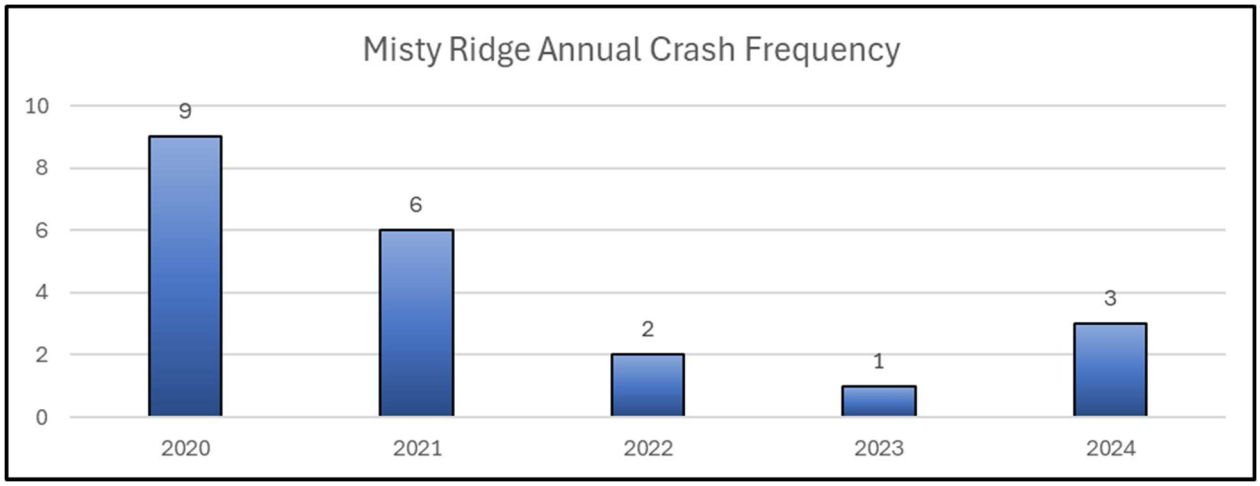

Figure 24 – Misty Ridge Drive Annual Crash Frequency

As shown in Figure 24, the crash frequency within the study period peaked in 2020, the first year considered within this analysis, and has generally trended downward since. It should be noted that the crash frequency increased from 1 in 2023 to 3 in 2024; however, the low number of crashes suggests this rise may be due to random variation.

A breakdown of crash severity by year within the study limits is shown in Figure 25.

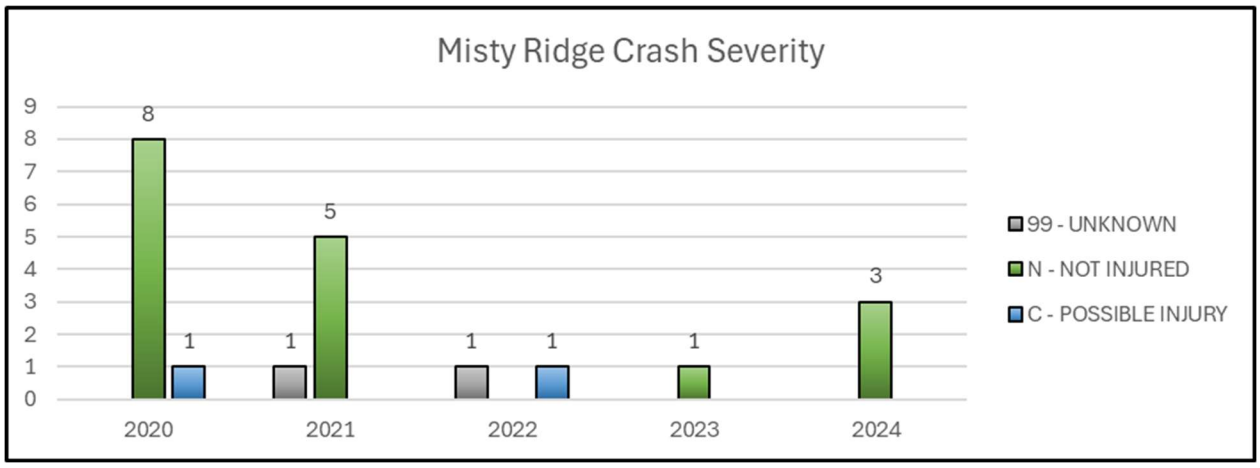

Figure 25 – Misty Ridge Drive Annual Crash Severity

As shown in Figure 25, the injury status for 17 crashes (81%) within the study limits is listed as “Not Injured”, 2 crashes (10%) are listed as “Possible Injury”, and 2 crashes (10%) are listed as “Unknown”. None of the crashes within the study limits were recorded an injury status of “Suspected Minor Injury”, “Suspected Serious Injury”, or “Fatal”.

CONTRIBUTING FACTORS

A review of the Contributing Factors shows that "Driver Inattention" was identified as a factor within 9 crashes (43%) reported within the study limits, "Other" was listed as a factor within 6 crashes (29%), and "Changed Lane When Unsafe" was listed as a factor within 4 crashes (19%). Additionally, it should be noted that speed was listed as a contributing factor in only one crash within the study limits. Figure 26 illustrates the contributing factor trends among the crash data.

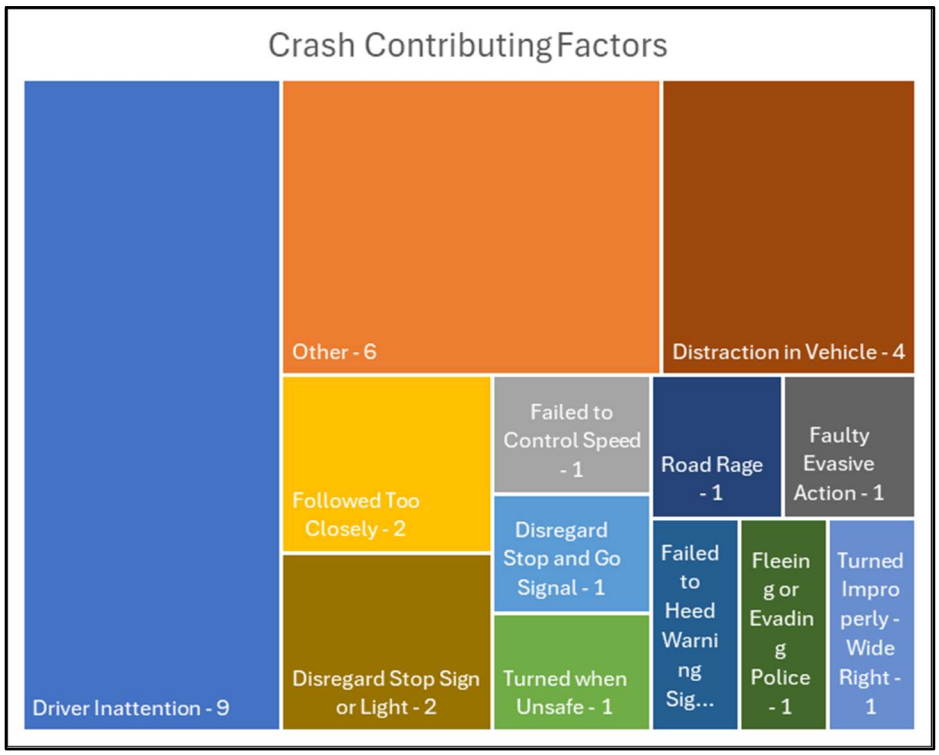

Figure 26 – Crash Contributing Factors

Driver Inattention: Driver Inattention is a behavioral contributing factor that is increasing in prevalence. The National Safety Council (NSC) published Traffic Safety Facts which states Distracted Driving contributed to 3,308 deaths in 2022. In an effort to mitigate driver behavior, some local governments have enacted laws requiring the use of hands-free technology when using the cell phone and banning cell phone use when in school zones. Mitigations for distracted driving may also include increased enforcement, wider edge lines, larger road signs, and improved lighting at night to help drivers who are not fully alert. The NHTSA Traffic Safety Facts can be found in the appendix of this report.

Other (Explain in Narrative): The contributing factor "Other (Explain In Narrative)" is used when the seventy-three (73) contributing factors listed on the CR3 do not apply. The CR3s that included this contributing factor were evaluated to determine if other trends might be identified within this heading. The evaluation determined that all but four crashes listing this contributing factor provided additional factors such as "Driver Inattention" or "Followed Too Closely." Those crash reports that did not include additional factors seemed to have used "Other" when "Lost Control" or "Vehicle Defects" may have been better descriptors.

LIGHT & SURFACE CONDITION

A review of the crashes by light and surface condition is shown in Figure 27.

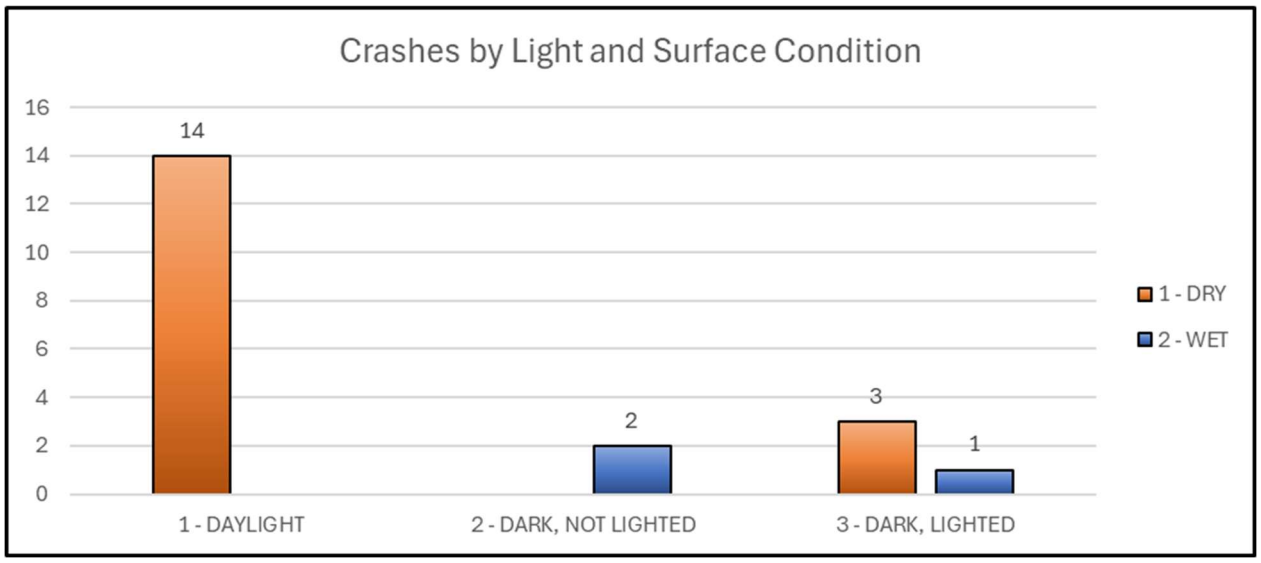

Figure 27 – Crashes by Light and Surface Condition

As shown in Figure 27, fourteen crashes (67%) occurred under ideal travel conditions (Daylight, Dry), and a total of 3 crashes (14%) occurred during wet conditions. It should be noted that all crashes listed as occurring during "wet" surface conditions also occurred during "dark" conditions; however, a review of the crash reports within the study limits found that wet conditions were not a major contributing factor. Since the majority of crashes occurred during ideal travel conditions, and wet conditions did not contribute significantly to any of the recorded crashes, light and surface condition are not considered major contributors to the crashes within the study limits.

MANNER OF COLLISION

A summary of the crashes by the manner of collision can be seen in Figure 28.

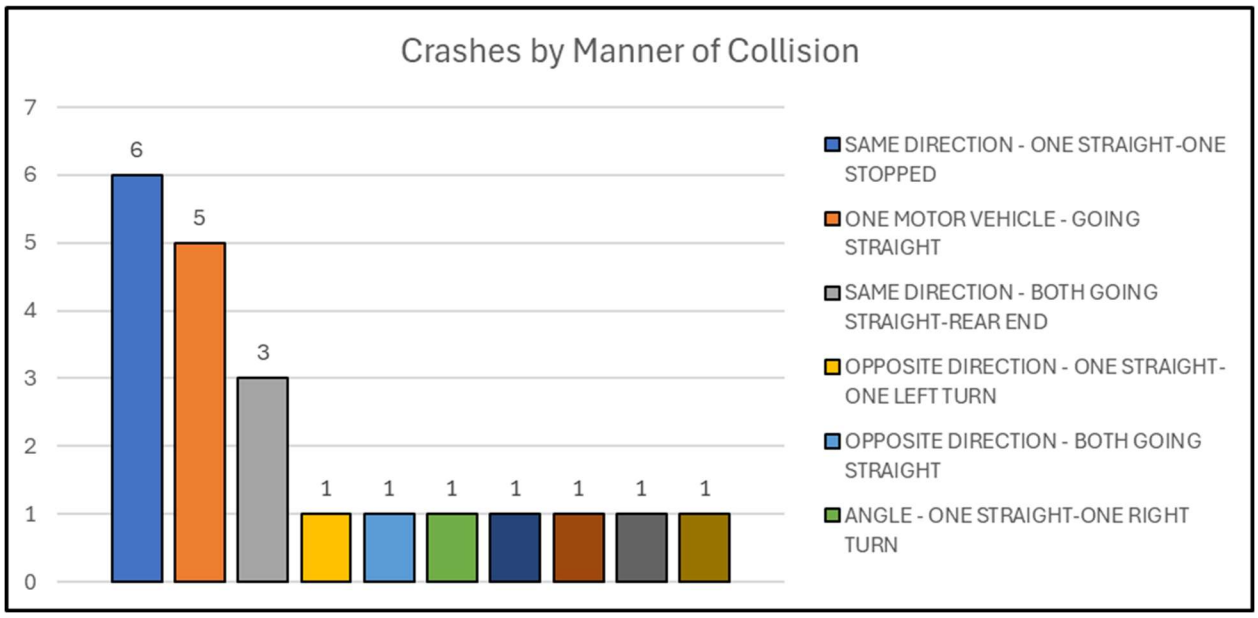

Figure 28 – Crashes by Manner of Collision

An analysis of crash data by manner of collision indicates that the most frequently occurring crash type within the study limits was "Same Direction – One Straight, One Stopped," accounting for 6 of the 21 crashes (29%). Five crashes (24%) were listed as "One Motor Vehicle – Going Straight", and 3 crashes (14%) were listed as "Same Direction – Both Going Straight – Rear End" collisions. The remaining crash types each occurred once (5% each) and included the following: "Opposite Direction – One Straight, One Left," "Opposite Direction – Both Going Straight," "Angle – One Straight, One Right Turn," "Same Direction – Both Going Straight – Sideswipe," "One Motor Vehicle – Other," "Angle – One Straight, One Left Turn," and "One Motor Vehicle – Turning Right." It should be noted that responding officers recorded that 7 crashes (33%) within the study limits involved a single vehicle.

A review of the crashes that had the manner of collision listed as "Same Direction – One Straight – One Stopped," found that most of these crashes were the result of driver inattention or a distraction in the vehicle, and generally occurred along Kitty Hawk Road at the intersection with Misty Ridge Drive. To improve driver awareness of the potential for a stop condition, consider installing flashing beacons on the existing W3-3 (Signal Ahead) warning signs along northbound and southbound Kitty Hawk Road near Misty Ridge Drive.

A review of the 7 crashes whose manner of collision was listed as involving one motor vehicle found that they were predominantly caused by driver distraction or were identified as hit & run crashes. Additionally, one crash involved a medical episode, and another involved a motorist evading law enforcement.

PEDESTRIAN/PEDAL CYCLIST CRASH REVIEW

Of the 21 crashes analyzed, none involved a pedestrian or a pedal cyclist.

FATAL CRASH REVIEW

Of the 21 crashes analyzed, none resulted in fatality.

INTERSECTION CRASH ANALYSIS AND RESULTS

INTERSECTION CRASH SUMMARY

Figure 29 illustrates the total number of intersection and intersection-related crashes within the study limits.

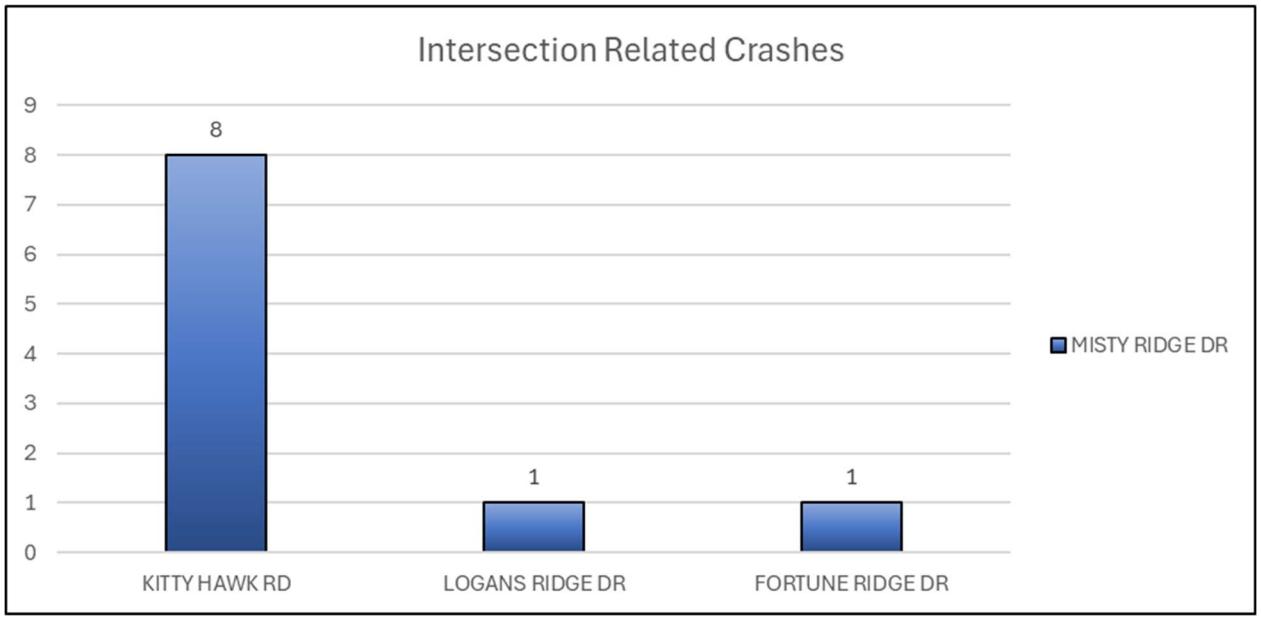

Figure 29 – Misty Ridge Drive Intersection Related Crashes

As shown in Figure 29, a total of eight crashes were reported at the intersection of Misty Ridge Drive & Kitty Hawk Road, one crash was recorded at the intersections of Misty Ridge Drive at Logans Ridge Drive and Fortune Ridge Drive. Of the eight crashes at Kitty Hawk Road, four crashes (50%) were rear-end collisions, and three crashes (38%) were attributed to failure to yield the right-of-way. To reduce the frequency of rear-end collisions at this location, consider installing flashing beacons on the existing W3-3 (Signal Ahead) warning signs along northbound and southbound Kitty Hawk Drive near Misty Ridge. Additionally, to improve driver awareness of the yield condition for northbound left-turn movements onto Misty Ridge Drive, consider installing a four-section signal head above the left-turn lane, which illuminates a yellow flashing arrow when left-turn movements should yield to oncoming traffic.

TRAFFIC AND OPERATION ANALYSIS

LEVEL OF SERVICE ANALYSIS

The traffic simulation analysis was conducted using Synchro 12.0 Traffic Simulation Software. The analysis process involved the development of a base model, calibration of the base model, and an alternative comparison to the base model. Development of the base model involves the creation of a system network, also referred to as the link-node diagram. The network development includes link-node assignments, traffic control, roadway geometry, lane designations & assignments, traffic volumes, and turning movements. The traffic analysis was conducted for the following scenario: Existing 2025. The AM and PM peak hours, calculated from the collected traffic data, were determined to be from 7:00 AM to 8:00 AM and 5:00 PM to 6:00 PM, respectively. A screenshot of the Synchro Model created for this study can be seen in Figure 30.

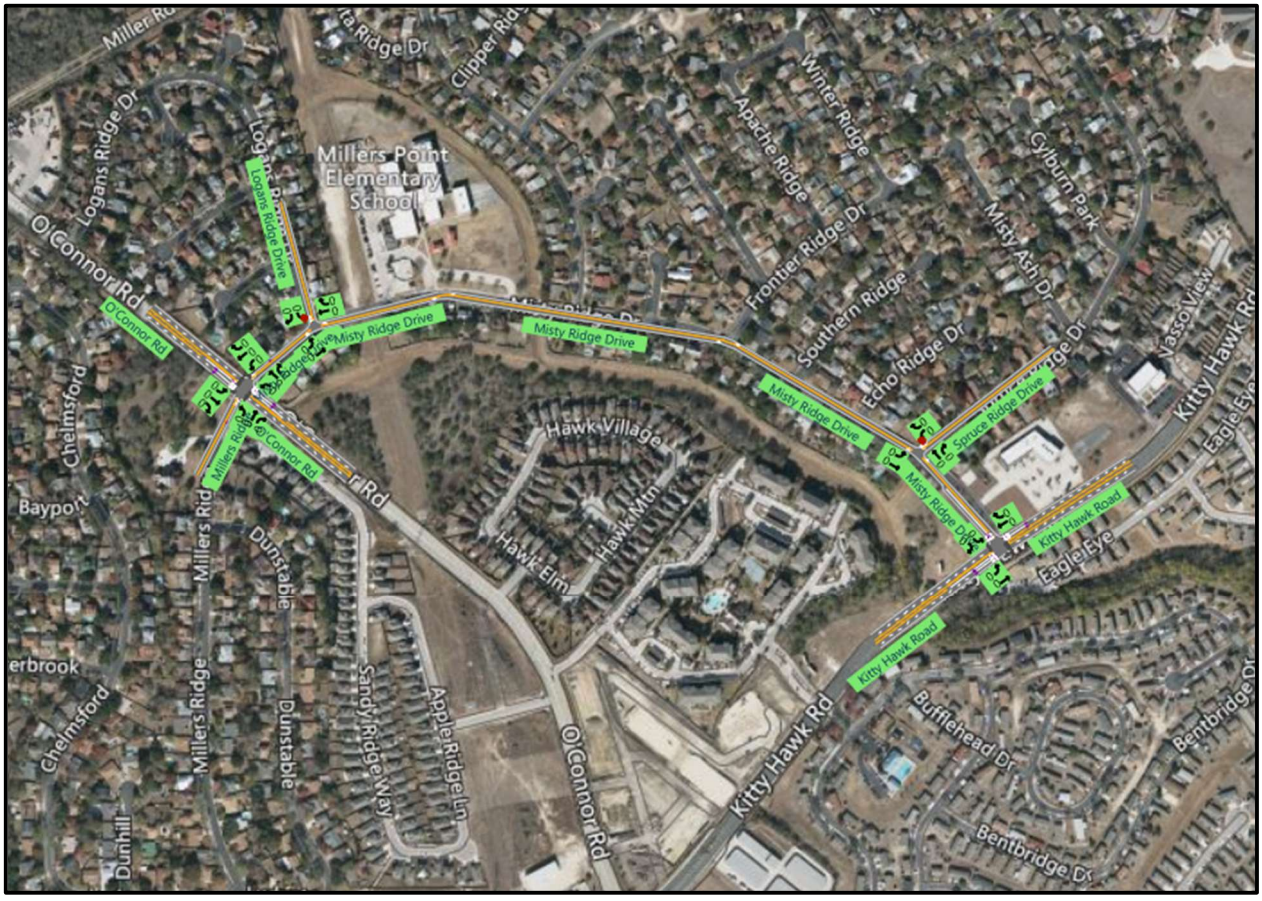

Figure 30 – Synchro Model Screenshot

Based on criteria found in the *Highway Capacity Manual 6th Edition (HCM)*, the critical minor street approach is used to determine the Levels of Service (LOS) for Two-Way Stop Controlled (TWSC) intersections. For signalized intersections, the LOS is determined based on the measures of effectiveness obtained from the traffic simulation output and the average control delay in seconds per vehicle (sec/veh) from the model.

Table 2 shows the average control delay ranges with the corresponding LOS for both TWSC and signalized intersections.

Table 2 – Average Control Delay Ranges

Level of Service	Average Control Delay (sec/veh) Intersection (Signalized)	Average Control Delay (sec/veh) Per Approach (TWSC)
A	≤ 10	≤10
B	> 10 – ≤20	> 10 – ≤15
C	> 20 – ≤35	> 15 – ≤25
D	> 35 – ≤55	> 25 – ≤35
E	> 55 – ≤80	> 35 – ≤50
F	> 80	> 50

Tables 3 – 6 present a summary of the intersection and approach LOS values obtained from the traffic simulation.

Table 3 – Misty Ridge Drive & O'Connor Road LOS Results

Misty Ridge Drive & O'Connor Road	Intersection Analysis									
	Northbound O'Connor Road		Southbound O'Connor Road		Eastbound Misty Ridge Drive		Westbound Misty Ridge Drive		Intersection Average	
	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS
AM Peak Period										
Existing (2025)	15.8	B	13.1	B	16.0	B	28.2	C	18.7	B
PM Peak Period										
Existing (2025)	4.3	A	4.9	A	50.9	D	65.0	E	13.2	B

Table 4 – Misty Ridge Drive & Logans Ridge Drive LOS Results

Misty Ridge Drive & Logans Ridge Drive	Intersection Analysis									
	Northbound		Southbound Logans Ridge Drive		Eastbound Misty Ridge Drive		Westbound Misty Ridge Drive		Intersection Average	
	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS
AM Peak Period										
Existing (2025)			12.2	B	0.1	A	0.0	A	0.2	A
PM Peak Period										
Existing (2025)			10.1	B	0.3	A	0.0	A	0.7	A

Table 5 – Misty Ridge Drive & Spruce Ridge Drive LOS Results

Misty Ridge Drive & Spruce Ridge Drive	Intersection Analysis									
	Northbound		Southbound Spruce Ridge Drive		Eastbound Misty Ridge Drive		Westbound Misty Ridge Drive		Intersection Average	
	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS
AM Peak Period										
Existing (2025)			11.8	B	0.8	A	0.0	A	3.0	A
PM Peak Period										
Existing (2025)			10.5	B	1.1	A	0.0	A	1.8	A

Table 6 – Misty Ridge Drive & Kitty Hawk Road LOS Results

Misty Ridge Drive & Kitty Hawk Road	Intersection Analysis									
	Northbound Kitty Hawk Road		Southbound Kitty Hawk Road		Eastbound Misty Ridge Drive		Westbound		Intersection Average	
	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS
AM Peak Period										
Existing (2025)	3.3	A	8.6	A	20.1	C			8.1	A
PM Peak Period										
Existing (2025)	3.9	A	7.4	A	22.8	C			6.9	A

The results of the LOS analysis found that all study intersections operate at acceptable LOS values during the Existing (2025) AM & PM peak hour scenarios; however, motorists travelling along Misty Ridge Drive may experience extended delays while exiting the neighborhood at O'Connor Road during the PM peak hour. Since there are significant right-of-way (ROW) constraints that make additional capacity improvements along Misty Ridge Drive unfeasible at this time, signal timing modifications were applied and analyzed to determine if delays can be improved.

SIGNAL TIMING MODIFICATIONS

The following signal timing modifications will be applied and analyzed:

Misty Ridge Drive & O'Connor Road (PM Peak Hour):

- Decrease cycle length to 55 seconds and modify phasing splits

  Note: Synchro output sheets showing the recommended signal timing splits are shown in Appendix G

Table 7 shows the results of the LOS Analysis when the signal timing modifications described above have been applied and analyzed.

Table 7 – Misty Ridge Drive & O'Connor Road LOS Results

Misty Ridge Drive & O'Connor Road	Intersection Analysis									
	Northbound O'Connor Road		Southbound O'Connor Road		Eastbound Misty Ridge Drive		Westbound Misty Ridge Drive		Intersection Average	
	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS
AM Peak Period										
Existing (2025)	15.8	B	13.1	B	16.0	B	28.2	C	18.7	B
Mitigation (2025)	15.8	B	13.1	B	16.0	B	28.2	C	18.7	B
PM Peak Period										
Existing (2025)	4.3	A	4.9	A	50.9	D	65.0	E	13.2	B
Mitigation (2025)	7.7	A	8.8	A	16.3	B	17.8	B	9.8	A

Note: signal timing modifications were not analyzed at this intersection during the AM peak hour due to acceptable LOS values.

As shown in Table 7, the applied mitigation measures are expected to significantly improve delays along the eastbound and westbound approaches to the Misty Ridge Drive & O'Connor Road intersection during the PM peak hour.

CUT-THROUGH TRAFFIC ANALYSIS

The traffic data collection videos were reviewed to determine if motorists are utilizing Misty Ridge Drive as a bypass route or "cut-through" between O'Connor Road & Kitty Hawk Road during the AM or PM peak periods. The results of this analysis are shown in Figure 31.

Figure 31 – Cut-Through Traffic Along Misty Ridge Drive

As shown in Figure 31, a total of 82 vehicles during the AM peak hour and 88 vehicles during the PM peak hour were observed utilizing Misty Ridge Drive as a bypass route between Kitty Hawk Road & O'Connor Road. To discourage motorists from utilizing Misty Ridge Drive as a cut-through, consider installing speed humps along Misty Ridge Drive.

SPEED STUDY

A vehicular speed study was performed along Misty Ridge Drive within the study limits to determine if motorists are adhering to the posted speed limit. The posted speed limit along Misty Ridge Drive is 30 mph. Twenty-four-hour speed data was collected on Tuesday, May 20, 2025, at two (2) locations along the corridor. Figure 32 illustrates the speed data collection points and summarizes the recorded 85th percentile speeds.

Figure 32 – Speed Study Results

The 85th percentile speed – a standard metric in traffic engineering used to represent prevailing vehicle operating speeds – was evaluated against the posted 30-mph speed limit. The analysis found that the 85th percentile speeds at both data collection locations were consistent with the posted limit, indicating general compliance under typical conditions. However, isolated instances of excessive speeding were recorded, including three (3) motorists exceeding 45 mph and one (1) motorist exceeding 70 mph along Misty Ridge Drive. To improve driver adherence to the posted speed limit, consider installing vehicle speed feedback signs along Misty Ridge Drive, installing speed humps along Misty Ridge Drive, and increasing law enforcement presence in the area.

ADDITIONAL CONSIDERATIONS

SIGHT DISTANCE

A sight distance analysis was conducted at multiple locations along Misty Ridge Drive to determine if stop-controlled approaches within the study limits meet the minimum horizontal sight distance requirements outlined within the American Association of State Highway and Transportation Officials' (AASHTO) "A Policy on Geometric Design of Highways and Streets".

The results of the sight-distance analysis conducted along southbound Fortune Ridge Drive at Misty Ridge Drive is shown in Figure 33.

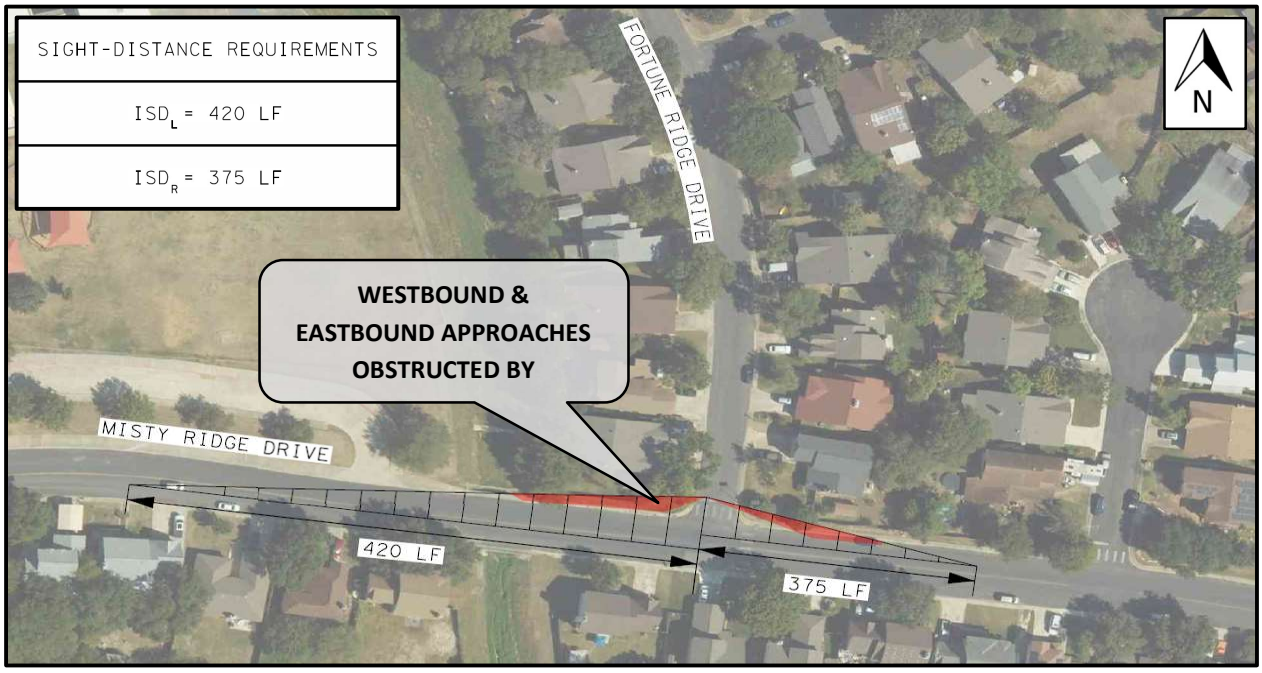

Figure 33 – Sight Distance Analysis: Southbound Fortune Ridge Drive at Misty Ridge Drive

As shown in Figure 33, the visibility along both the westbound and eastbound approaches is compromised due to overgrown vegetation adjacent to the roadway. This obstruction limits the sight distance at the intersection, which may pose safety concerns. This reduced visibility may impact on motorist decision-making and could contribute to delays or an increased risk of collisions. Mitigation measures, such as routine vegetation trimming should be considered to restore adequate sightlines and improve overall operational safety.

Please note that all other intersections share the same visibility obstructions.

The results of the sight distance analysis conducted along southbound Golden Ridge Drive at Misty Ridge Drive is shown in Figure 34.

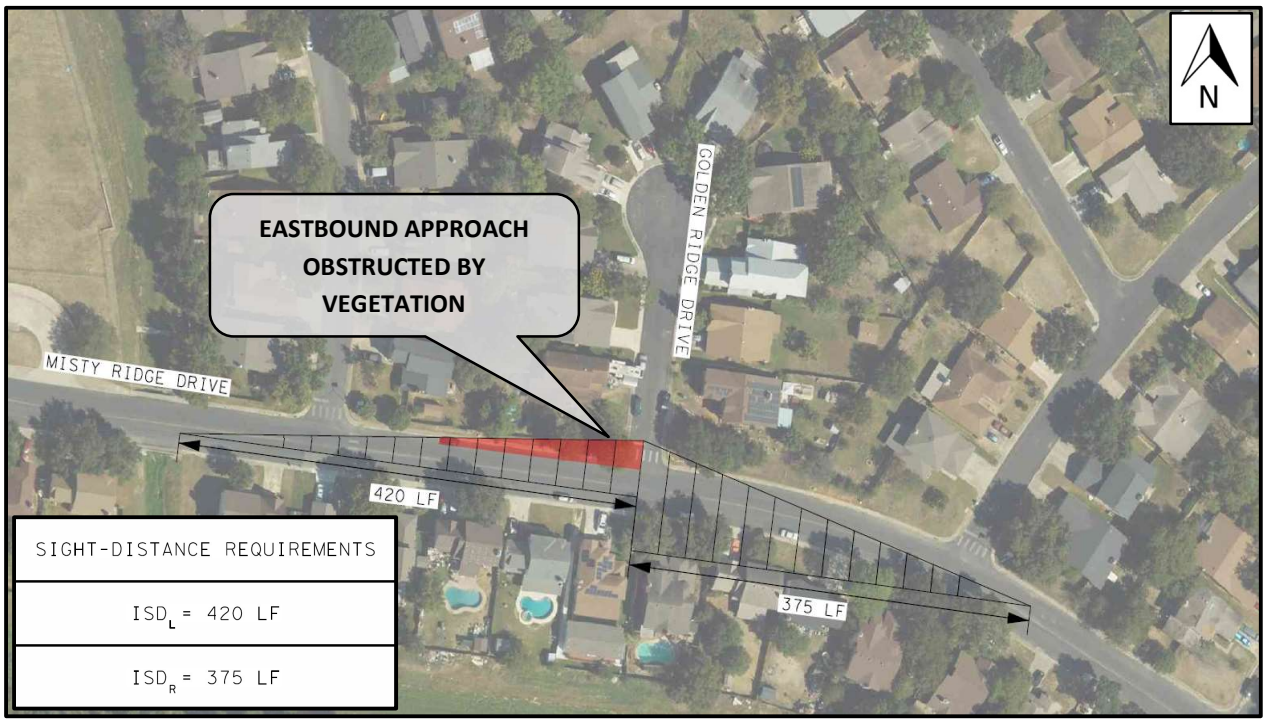

Figure 34 – Sight Distance Analysis: Southbound Golden Ridge Drive at Misty Ridge Drive

The results of the sight distance analysis conducted along southbound Frontier Ridge Drive at Misty Ridge Drive are shown in Figure 35.

Figure 35 – Sight Distance Analysis: Southbound Frontier Ridge Drive at Misty Ridge Drive

The results of the sight distance analysis conducted along southbound Southern Ridge Drive at Misty Ridge Drive are shown in Figure 36.

Figure 36 – Sight Distance Analysis: Southbound Southern Ridge Drive at Misty Ridge Drive

CONCLUSION & SUMMARY OF RECOMMENDATIONS

Legacy Engineering Group performed a Safety, Infrastructure, and Traffic Engineering (S.I.T.E) Analysis of for Misty Ridge Drive located in Bexar County, Texas.

The study utilized the following procedures:

- Analysis of crash records for the study network (January 2020 through December 2024)
- Collection and review of Turning Movement Counts (TMCs)
- Field investigation to evaluate signing and pavement markings for reflectivity and conformance with the Texas Manual on Uniform Traffic Control Devices (TMUTCD)
- Field Investigation to conduct a qualitative analysis of existing illumination during night conditions
- Field Investigation to evaluate sight distance at stop-controlled intersections
- Collection of speed data at two locations within the study network
- Capacity analysis utilizing Synchro version 12.0

The crash analysis identified 21 crashes occurring within the study limits over a five-year period between 2020 and 2024.

A review of the Contributing Factors shows that “Driver Inattention” was identified as a factor within 9 crashes (43%) reported within the study limits, “Other” was listed as a factor within 6 crashes (29%), and “Changed Lane When Unsafe” was listed as a factor within 4 crashes (19%).

An analysis of crash data by manner of collision indicates that the most frequently occurring crash type within the study limits was “Same Direction – One Straight, One Stopped,” accounting for 6 of the 21 crashes (29%). Five crashes (24%) were listed as “One Motor Vehicle – Going Straight”, and 3 crashes (14%) were listed as “Same Direction – Both Going Straight – Rear End” collisions. The remaining crash types each occurred once (5% each) and included the following: “Opposite Direction – One Straight, One Left,” “Opposite Direction – Both Going Straight,” “Angle – One Straight, One Right Turn,” “Same Direction – Both Going Straight – Sideswipe,” “One Motor Vehicle – Other,” “Angle – One Straight, One Left Turn,” and “One Motor Vehicle – Turning Right.” It should be noted that responding officers recorded that 7 crashes (33%) within the study limits involved a single vehicle.

A review of the 7 crashes whose manner of collision was listed as involving one motor vehicle found that they were predominantly caused by driver distraction or were identified as hit & run crashes.

Of the 21 crashes analyzed, none involved a pedestrian or a pedal cyclist.

The signing and pavement marking analysis determined that sign placement and pavement marking design were in compliance with the requirements established in the Texas Manual on Uniform Traffic Control Devices (TMUTCD). However, sections of pavement along the corridor showed signs of degradation. It is recommended that these areas be repaired to enhance driver safety. Additionally, vegetation obstructing signage along Misty Ridge Drive and Fortune Ridge Drive should be trimmed to improve visibility.

The 85th percentile speed – a standard metric in traffic engineering used to represent prevailing vehicle operating speeds – was evaluated against the posted 30-mph speed limit. The analysis found that the 85th percentile speeds at both data collection locations were consistent with the posted limit, indicating general compliance under typical conditions. However, isolated instances of excessive speeding were recorded, including three (3) motorists exceeding 45 mph and one (1) motorist exceeding 70 mph along Misty Ridge Drive. To improve driver adherence to

the posted speed limit, consider installing vehicle speed feedback signs along Misty Ridge Drive, installing speed humps along Misty Ridge Drive, and increasing law enforcement presence in the area.

Given these findings, further evaluation may be warranted to determine the need for targeted mitigation strategies.

The recommendations developed from this Safety, Infrastructure, and Traffic Engineering (S.I.T.E.) Analysis are distinguished as short-term mitigations, which are typically lower-cost improvements that can be acted upon with minimal complications, and mid-term/long-term recommendations, which require more extensive planning, coordination, and funding. The complete list of recommendations is as follows:

SHORT-TERM CONSIDERATIONS

- Consider coordinating with the school to discourage parents from ad-hoc queuing in the nearby construction area/electrical easement
- Consider adding 18” Transverse white pavement markings to better define the beginning and end of school zone
- Consider adding Speed Limit Signs (R2-1) with “End School Zone” (S5-2) sign on downstream limits of school zone
- Consider trimming vegetation obstructing signage along Misty Ridge Drive near Fortune Ridge Drive (29°31’43.89"N, 98°20’43.21"W), (29°31’43.75"N, 98°20’42.10"W)
- Consider modifying the signal timings at the Misty Ridge Drive & O’Connor Road intersection to improve operations during the PM peak hour
- Consider increasing law enforcement presence in the area to improve driver adherence to the posted speed limit
- Consider installing vehicle speed feedback signs along Misty Ridge Drive to improve driver awareness and adherence to the posted speed limit
- Consider installing flashing beacons on the existing W3-3 (Signal Ahead) warning signs along northbound and southbound Kitty Hawk Road near Misty Ridge Drive
- Consider removing or relocating unused luminaires along Misty Ridge Drive
- Consider trimming vegetation at the intersections of Misty Ridge Drive and Fortune Ridge Drive, Golden Ridge Drive, Frontier Ridge Drive, and Southern Ridge Drive to improve driver sightline and awareness

MID-TERM CONSIDERATIONS

- Consider installing speed humps along Misty Ridge Drive to discourage motorists from using the residential roadway as a cut-through from O’Connor Road or Kitty Hawk Road
- Consider conducting a supplemental analysis to develop an alternative site-circulation pattern for Miller’s Point Elementary School to improve PM peak hour operations
- Consider modifying the signal head for the left-turn lane along Kitty Hawk Road at Misty Ridge Drive from a five-section head to a four-section head to improve driver awareness of the yield condition with a yellow flashing arrow

PRELIMINARY
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Eduardo Villalon	123415	7/31/2025
NAME:	**PE:**	**DATE:**

LEGACY
ENGINEERING GROUP

APPENDIX A – RECOMMENDATIONS

LEGACY ENGINEERING GROUP
Legacy Engineering Group, PLLC
7800 W Interstate 10, Ste 830, San Antonio, Texas 78230
210.660.1960 / TBPE Firm Registration No. 20623

S.I.T.E. Analysis

Misty Ridge Drive

Recommended Enhancements

Legend

DATE: 7/17/2025

SCALE: 1" = 250'

PAGE:

APPENDIX B – TRAFFIC DATA

O'Connor Road & Misty Ridge Drive - TMC

Tue May 20, 2025
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302415, Location: 29.527986, -98.349347

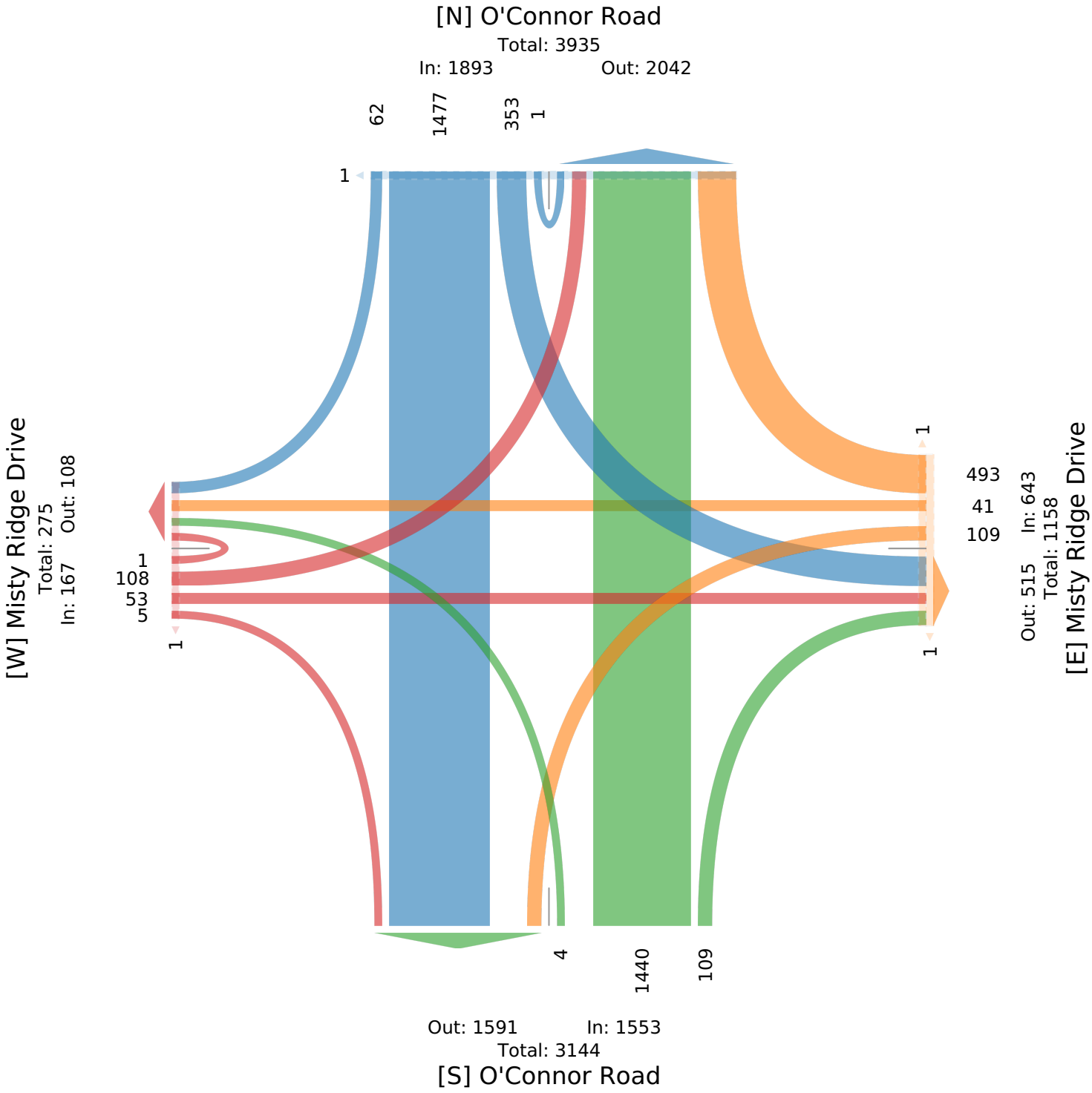
Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg	O'Connor Road						Misty Ridge Drive						O'Connor Road						Misty Ridge Drive						
Direction	Southbound						Westbound						Northbound						Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-05-20 7:00AM	2	66	21	0	**89**	0	62	10	23	0	**95**	0	30	134	0	0	**164**	0	0	3	17	0	**20**	0	**368**
7:15AM	0	59	21	0	**80**	0	62	8	38	0	**108**	0	25	136	0	0	**161**	0	0	8	6	0	**14**	0	**363**
7:30AM	2	62	15	0	**79**	0	59	3	16	0	**78**	0	11	95	0	0	**106**	0	1	2	11	0	**14**	0	**277**
7:45AM	2	54	11	0	**67**	1	37	1	2	0	**40**	1	3	121	0	0	**124**	0	0	1	7	0	**8**	1	**239**
Hourly Total	6	241	68	0	**315**	1	220	22	79	0	**321**	1	69	486	0	0	**555**	0	1	14	41	0	**56**	1	**1247**
8:00AM	3	71	12	0	**86**	0	19	1	1	0	**21**	0	3	89	0	0	**92**	0	0	2	9	0	**11**	0	**210**
8:15AM	3	56	8	0	**67**	0	37	1	6	0	**44**	0	3	87	1	0	**91**	0	0	4	10	0	**14**	0	**216**
8:30AM	1	56	8	0	**65**	0	26	2	1	0	**29**	0	1	84	0	0	**85**	0	1	0	6	0	**7**	0	**186**
8:45AM	0	50	9	0	**59**	0	26	0	3	0	**29**	0	4	88	0	0	**92**	0	0	1	4	0	**5**	0	**185**
Hourly Total	7	233	37	0	**277**	0	108	4	11	0	**123**	0	11	348	1	0	**360**	0	1	7	29	0	**37**	0	**797**
4:00PM	11	125	35	1	**172**	0	15	1	2	0	**18**	1	3	83	0	0	**86**	0	2	3	7	1	**13**	0	**289**
4:15PM	4	113	36	0	**153**	0	25	2	1	0	**28**	0	5	74	0	0	**79**	0	0	4	4	0	**8**	0	**268**
4:30PM	4	113	29	0	**146**	0	27	0	1	0	**28**	0	2	75	0	0	**77**	0	0	2	4	0	**6**	0	**257**
4:45PM	8	115	23	0	**146**	0	14	4	3	0	**21**	0	1	73	1	0	**75**	0	0	5	3	0	**8**	0	**250**
Hourly Total	27	466	123	1	**617**	0	81	7	7	0	**95**	1	11	305	1	0	**317**	0	2	14	18	1	**35**	0	**1064**
5:00PM	6	102	34	0	**142**	0	20	3	3	0	**26**	0	2	81	0	0	**83**	0	0	7	3	0	**10**	0	**261**
5:15PM	4	157	26	0	**187**	0	26	3	2	0	**31**	0	4	70	0	0	**74**	0	0	1	1	0	**2**	0	**294**
5:30PM	3	124	33	0	**160**	0	23	0	6	0	**29**	0	6	78	0	0	**84**	0	0	7	9	0	**16**	0	**289**
5:45PM	9	154	32	0	**195**	0	15	2	1	0	**18**	0	6	72	2	0	**80**	0	1	3	7	0	**11**	0	**304**
Hourly Total	22	537	125	0	**684**	0	84	8	12	0	**104**	0	18	301	2	0	**321**	0	1	18	20	0	**39**	0	**1148**
Total	62	1477	353	1	**1893**	1	493	41	109	0	**643**	2	109	1440	4	0	**1553**	0	5	53	108	1	**167**	1	**4256**
% Approach	3.3%	78.0%	18.6%	0.1%	**-**	-	76.7%	6.4%	17.0%	0%	**-**	-	7.0%	92.7%	0.3%	0%	**-**	-	3.0%	31.7%	64.7%	0.6%	**-**	-	-
% Total	1.5%	34.7%	8.3%	0%	**44.5%**	-	11.6%	1.0%	2.6%	0%	**15.1%**	-	2.6%	33.8%	0.1%	0%	**36.5%**	-	0.1%	1.2%	2.5%	0%	**3.9%**	-	-
Motorcycles	1	1	0	0	**2**	-	1	0	1	0	**2**	-	1	7	0	0	**8**	-	0	0	0	0	**0**	-	12
% Motorcycles	1.6%	0.1%	0%	0%	**0.1%**	-	0.2%	0%	0.9%	0%	**0.3%**	-	0.9%	0.5%	0%	0%	**0.5%**	-	0%	0%	0%	0%	**0%**	-	0.3%
Lights	60	1455	349	1	**1865**	-	475	39	104	0	**618**	-	103	1412	4	0	**1519**	-	5	51	107	1	**164**	-	4166
% Lights	96.8%	98.5%	98.9%	100%	**98.5%**	-	96.3%	95.1%	95.4%	0%	**96.1%**	-	94.5%	98.1%	100%	0%	**97.8%**	-	100%	96.2%	99.1%	100%	**98.2%**	-	97.9%
Single-Unit Trucks	0	13	1	0	**14**	-	6	0	0	0	**6**	-	2	14	0	0	**16**	-	0	0	0	0	**0**	-	36
% Single-Unit Trucks	0%	0.9%	0.3%	0%	**0.7%**	-	1.2%	0%	0%	0%	**0.9%**	-	1.8%	1.0%	0%	0%	**1.0%**	-	0%	0%	0%	0%	**0%**	-	0.8%
Articulated Trucks	0	2	1	0	**3**	-	8	0	2	0	**10**	-	0	6	0	0	**6**	-	0	0	1	0	**1**	-	20
% Articulated Trucks	0%	0.1%	0.3%	0%	**0.2%**	-	1.6%	0%	1.8%	0%	**1.6%**	-	0%	0.4%	0%	0%	**0.4%**	-	0%	0%	0.9%	0%	**0.6%**	-	0.5%
Buses	1	6	2	0	**9**	-	3	2	2	0	**7**	-	3	1	0	0	**4**	-	0	2	0	0	**2**	-	22
% Buses	1.6%	0.4%	0.6%	0%	**0.5%**	-	0.6%	4.9%	1.8%	0%	**1.1%**	-	2.8%	0.1%	0%	0%	**0.3%**	-	0%	3.8%	0%	0%	**1.2%**	-	0.5%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	50.0%	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	50.0%	-	-	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

O'Connor Road & Misty Ridge Drive - TMC
Tue May 20, 2025
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302415, Location: 29.527986, -98.349347

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



O'Connor Road & Misty Ridge Drive - TMC

Tue May 20, 2025
AM Peak (7 AM - 8 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302415, Location: 29.527986, -98.349347

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

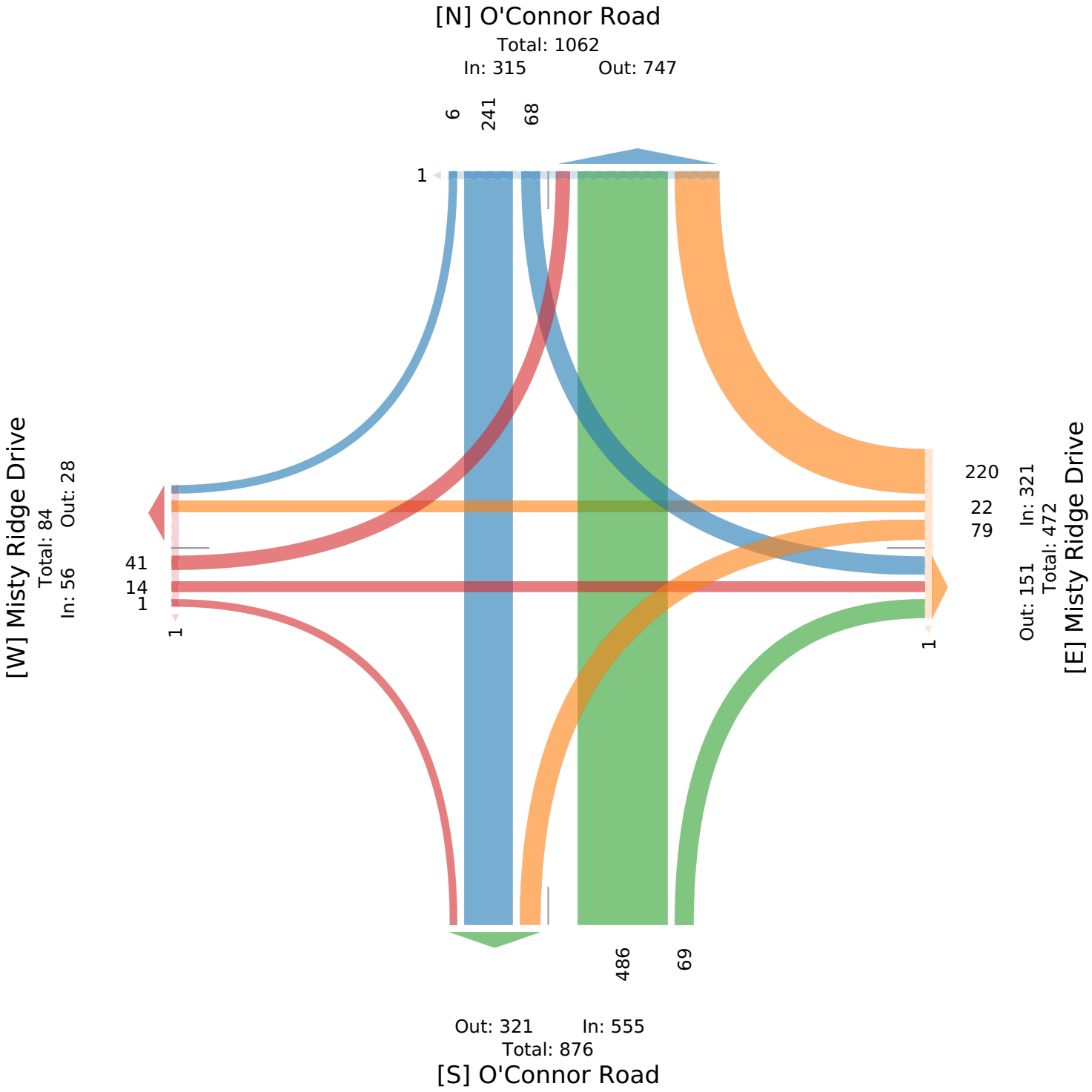
Leg	O'Connor Road						Misty Ridge Drive						O'Connor Road						Misty Ridge Drive						
Direction	Southbound						Westbound						Northbound						Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-05-20 7:00AM	2	66	21	0	**89**	0	62	10	23	0	**95**	0	30	134	0	0	**164**	0	0	3	17	0	**20**	0	**368**
7:15AM	0	59	21	0	**80**	0	62	8	38	0	**108**	0	25	136	0	0	**161**	0	0	8	6	0	**14**	0	**363**
7:30AM	2	62	15	0	**79**	0	59	3	16	0	**78**	0	11	95	0	0	**106**	0	1	2	11	0	**14**	0	**277**
7:45AM	2	54	11	0	**67**	1	37	1	2	0	**40**	1	3	121	0	0	**124**	0	0	1	7	0	**8**	1	**239**
Total	6	241	68	0	**315**	1	220	22	79	0	**321**	1	69	486	0	0	**555**	0	1	14	41	0	**56**	1	**1247**
% Approach	1.9%	76.5%	21.6%	0%	**-**	-	68.5%	6.9%	24.6%	0%	**-**	-	12.4%	87.6%	0%	0%	**-**	-	1.8%	25.0%	73.2%	0%	**-**	-	-
% Total	0.5%	19.3%	5.5%	0%	**25.3%**	-	17.6%	1.8%	6.3%	0%	**25.7%**	-	5.5%	39.0%	0%	0%	**44.5%**	-	0.1%	1.1%	3.3%	0%	**4.5%**	-	-
PHF	0.750	0.913	0.810	-	**0.885**	-	0.887	0.550	0.520	-	**0.743**	-	0.575	0.893	-	-	**0.846**	-	0.250	0.438	0.603	-	**0.700**	-	0.847
Motorcycles	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	5	0	0	**5**	-	0	0	0	0	**0**	-	5
% Motorcycles	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	1.0%	0%	0%	**0.9%**	-	0%	0%	0%	0%	**0%**	-	0.4%
Lights	6	236	65	0	**307**	-	214	20	78	0	**312**	-	68	475	0	0	**543**	-	1	14	41	0	**56**	-	1218
% Lights	100%	97.9%	95.6%	0%	**97.5%**	-	97.3%	90.9%	98.7%	0%	**97.2%**	-	98.6%	97.7%	0%	0%	**97.8%**	-	100%	100%	100%	0%	**100%**	-	97.7%
Single-Unit Trucks	0	2	0	0	**2**	-	3	0	0	0	**3**	-	1	5	0	0	**6**	-	0	0	0	0	**0**	-	11
% Single-Unit Trucks	0%	0.8%	0%	0%	**0.6%**	-	1.4%	0%	0%	0%	**0.9%**	-	1.4%	1.0%	0%	0%	**1.1%**	-	0%	0%	0%	0%	**0%**	-	0.9%
Articulated Trucks	0	1	1	0	**2**	-	2	0	0	0	**2**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	5
% Articulated Trucks	0%	0.4%	1.5%	0%	**0.6%**	-	0.9%	0%	0%	0%	**0.6%**	-	0%	0.2%	0%	0%	**0.2%**	-	0%	0%	0%	0%	**0%**	-	0.4%
Buses	0	2	2	0	**4**	-	1	2	1	0	**4**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	8
% Buses	0%	0.8%	2.9%	0%	**1.3%**	-	0.5%	9.1%	1.3%	0%	**1.2%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.6%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

O'Connor Road & Misty Ridge Drive - TMC

Tue May 20, 2025
AM Peak (7 AM - 8 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302415, Location: 29.527986, -98.349347

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



O'Connor Road & Misty Ridge Drive - TMC

Tue May 20, 2025
PM Peak (5 PM - 6 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302415, Location: 29.527986, -98.349347

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

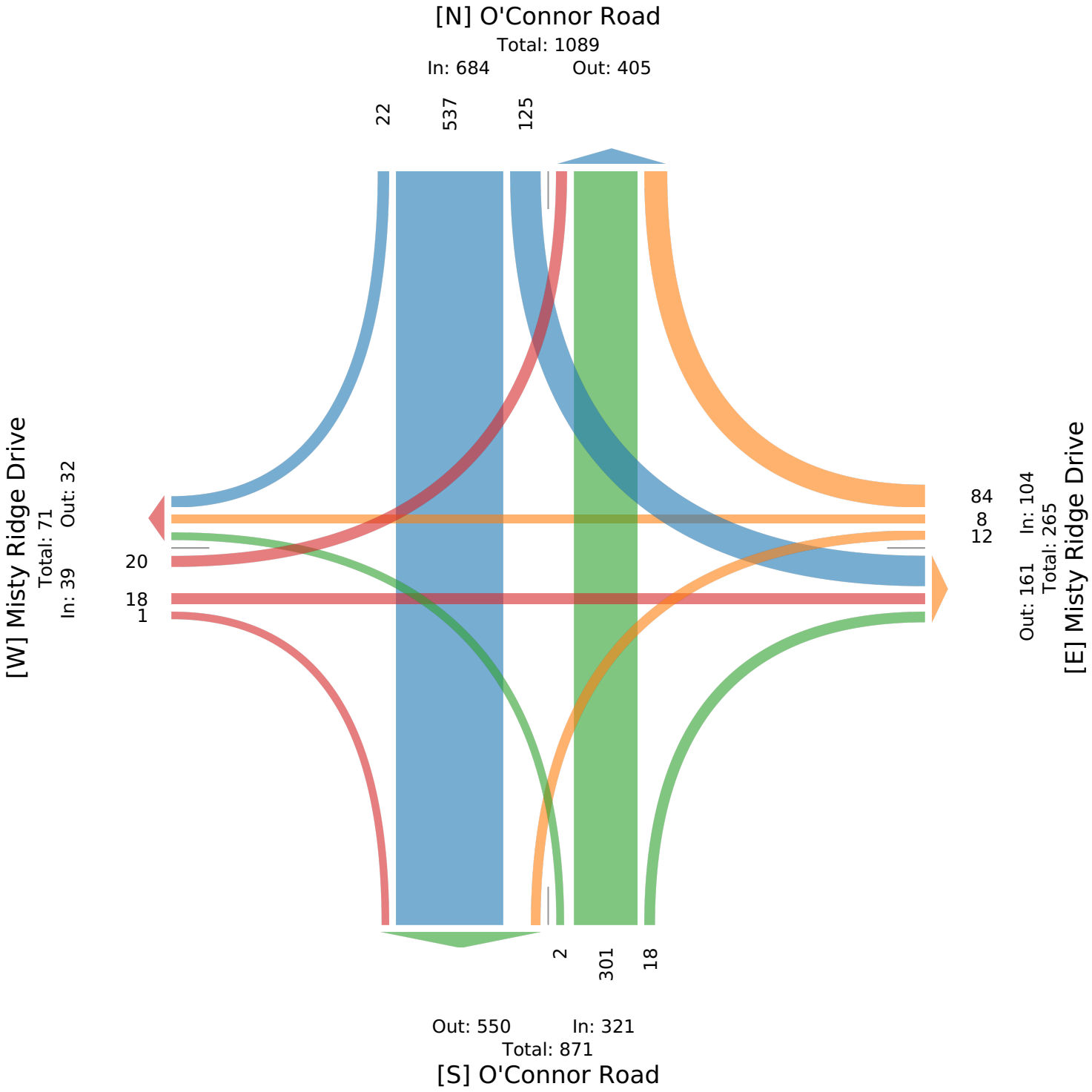
Leg / Direction	O'Connor Road Southbound						Misty Ridge Drive Westbound						O'Connor Road Northbound						Misty Ridge Drive Eastbound						
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2025-05-20 5:00PM	6	102	34	0	**142**	0	20	3	3	0	**26**	0	2	81	0	0	**83**	0	0	7	3	0	**10**	0	**261**
5:15PM	4	157	26	0	**187**	0	26	3	2	0	**31**	0	4	70	0	0	**74**	0	0	1	1	0	**2**	0	**294**
5:30PM	3	124	33	0	**160**	0	23	0	6	0	**29**	0	6	78	0	0	**84**	0	0	7	9	0	**16**	0	**289**
5:45PM	9	154	32	0	**195**	0	15	2	1	0	**18**	0	6	72	2	0	**80**	0	1	3	7	0	**11**	0	**304**
Total	22	537	125	0	**684**	0	84	8	12	0	**104**	0	18	301	2	0	**321**	0	1	18	20	0	**39**	0	**1148**
% Approach	3.2%	78.5%	18.3%	0%	**-**	-	80.8%	7.7%	11.5%	0%	**-**	-	5.6%	93.8%	0.6%	0%	**-**	-	2.6%	46.2%	51.3%	0%	**-**	-	-
% Total	1.9%	46.8%	10.9%	0%	**59.6%**	-	7.3%	0.7%	1.0%	0%	**9.1%**	-	1.6%	26.2%	0.2%	0%	**28.0%**	-	0.1%	1.6%	1.7%	0%	**3.4%**	-	-
PHF	0.611	0.855	0.919	-	**0.877**	-	0.808	0.667	0.500	-	**0.839**	-	0.750	0.929	0.250	-	**0.955**	-	0.250	0.643	0.556	-	**0.609**	-	0.944
Motorcycles	1	1	0	0	**2**	-	1	0	0	0	**1**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	3
% Motorcycles	4.5%	0.2%	0%	0%	**0.3%**	-	1.2%	0%	0%	0%	**1.0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.3%
Lights	21	531	125	0	**677**	-	82	8	12	0	**102**	-	17	298	2	0	**317**	-	1	17	20	0	**38**	-	1134
% Lights	95.5%	98.9%	100%	0%	**99.0%**	-	97.6%	100%	100%	0%	**98.1%**	-	94.4%	99.0%	100%	0%	**98.8%**	-	100%	94.4%	100%	0%	**97.4%**	-	98.8%
Single-Unit Trucks	0	4	0	0	**4**	-	1	0	0	0	**1**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	6
% Single-Unit Trucks	0%	0.7%	0%	0%	**0.6%**	-	1.2%	0%	0%	0%	**1.0%**	-	0%	0.3%	0%	0%	**0.3%**	-	0%	0%	0%	0%	**0%**	-	0.5%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	1
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.3%	0%	0%	**0.3%**	-	0%	0%	0%	0%	**0%**	-	0.1%
Buses	0	1	0	0	**1**	-	0	0	0	0	**0**	-	1	1	0	0	**2**	-	0	1	0	0	**1**	-	4
% Buses	0%	0.2%	0%	0%	**0.1%**	-	0%	0%	0%	0%	**0%**	-	5.6%	0.3%	0%	0%	**0.6%**	-	0%	5.6%	0%	0%	**2.6%**	-	0.3%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

O'Connor Road & Misty Ridge Drive - TMC

Tue May 20, 2025
PM Peak (5 PM - 6 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302415, Location: 29.527986, -98.349347

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



Misty Ridge Drive & Logans Ridge Drive - TMC

Tue May 20, 2025
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302416, Location: 29.528591, -98.348585

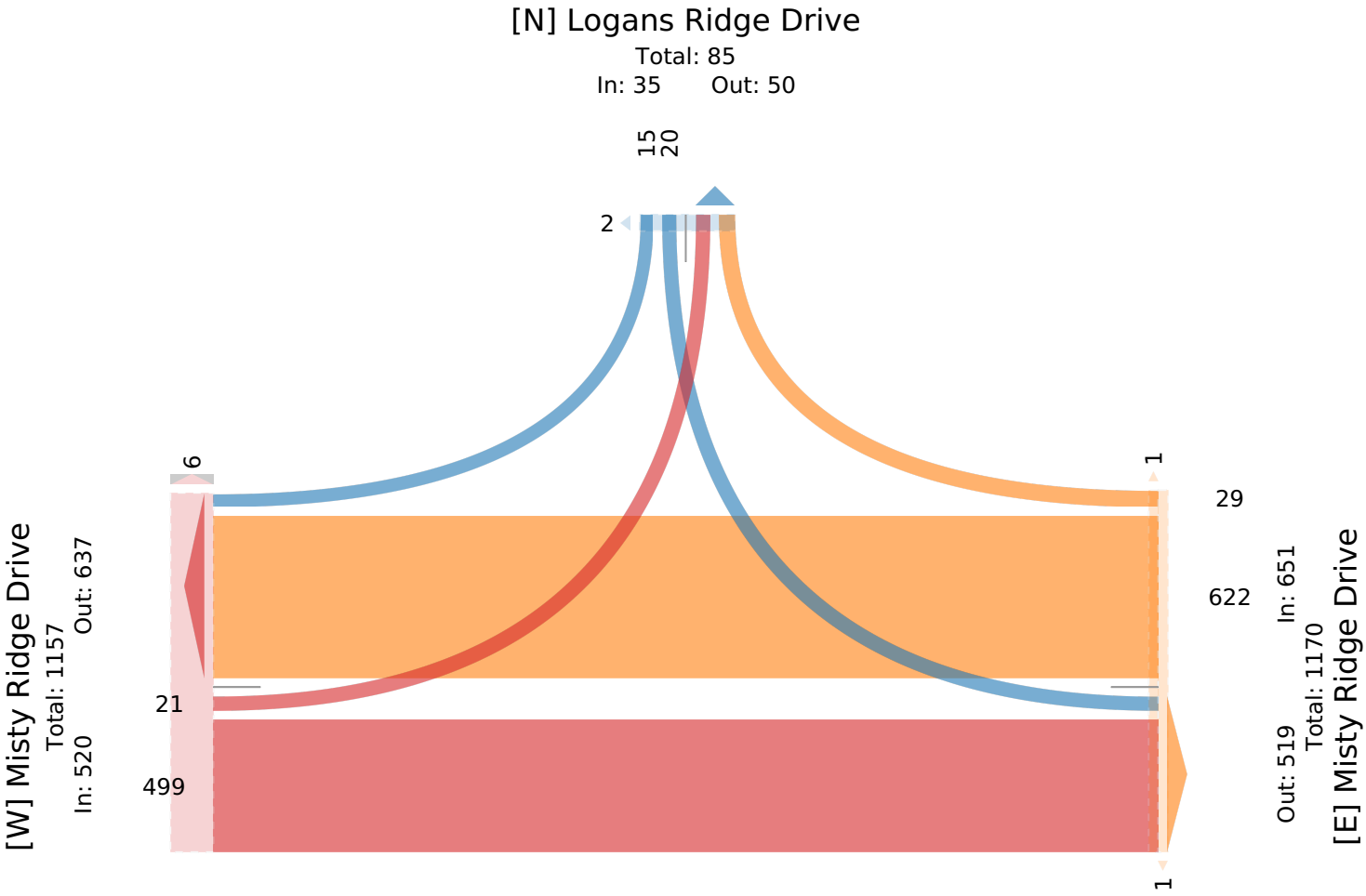
Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg	Logans Ridge Drive					Misty Ridge Drive					Misty Ridge Drive					
Direction	Southbound					Westbound					Eastbound					
Time	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	**Int**
2025-05-20 7:00AM	1	1	0	**2**	0	3	97	0	**100**	0	55	0	0	**55**	0	**157**
7:15AM	1	1	0	**2**	1	1	104	0	**105**	0	59	0	0	**59**	0	**166**
7:30AM	1	0	0	**1**	0	0	72	0	**72**	0	30	0	0	**30**	2	**103**
7:45AM	1	1	0	**2**	0	1	38	0	**39**	0	14	1	0	**15**	0	**56**
Hourly Total	4	3	0	**7**	1	5	311	0	**316**	0	158	1	0	**159**	2	**482**
8:00AM	0	0	0	**0**	0	0	22	0	**22**	0	15	1	0	**16**	0	**38**
8:15AM	1	1	0	**2**	0	1	40	0	**41**	0	16	0	0	**16**	0	**59**
8:30AM	1	2	0	**3**	0	1	27	0	**28**	0	8	0	0	**8**	0	**39**
8:45AM	2	0	0	**2**	0	1	26	0	**27**	0	10	4	0	**14**	0	**43**
Hourly Total	4	3	0	**7**	0	3	115	0	**118**	0	49	5	0	**54**	0	**179**
4:00PM	0	0	0	**0**	0	3	19	0	**22**	0	35	2	0	**37**	0	**59**
4:15PM	1	1	0	**2**	1	2	28	0	**30**	0	44	3	0	**47**	4	**79**
4:30PM	0	4	0	**4**	0	1	31	0	**32**	2	34	1	0	**35**	0	**71**
4:45PM	1	1	0	**2**	0	3	19	0	**22**	0	26	1	0	**27**	0	**51**
Hourly Total	2	6	0	**8**	1	9	97	0	**106**	2	139	7	0	**146**	4	**260**
5:00PM	1	2	0	**3**	0	4	25	0	**29**	0	39	3	0	**42**	0	**74**
5:15PM	2	3	0	**5**	0	4	28	0	**32**	0	28	0	0	**28**	0	**65**
5:30PM	1	1	0	**2**	0	2	30	0	**32**	0	47	3	0	**50**	0	**84**
5:45PM	1	2	0	**3**	0	2	16	0	**18**	0	39	2	0	**41**	0	**62**
Hourly Total	5	8	0	**13**	0	12	99	0	**111**	0	153	8	0	**161**	0	**285**
Total	15	20	0	**35**	2	29	622	0	**651**	2	499	21	0	**520**	6	**1206**
% Approach	42.9%	57.1%	0%	**-**	-	4.5%	95.5%	0%	**-**	-	96.0%	4.0%	0%	**-**	-	-
% Total	1.2%	1.7%	0%	**2.9%**	-	2.4%	51.6%	0%	**54.0%**	-	41.4%	1.7%	0%	**43.1%**	-	-
Motorcycles	0	0	0	**0**	-	0	2	0	**2**	-	1	0	0	**1**	-	3
% Motorcycles	0%	0%	0%	**0%**	-	0%	0.3%	0%	**0.3%**	-	0.2%	0%	0%	**0.2%**	-	0.2%
Lights	15	20	0	**35**	-	29	604	0	**633**	-	486	21	0	**507**	-	1175
% Lights	100%	100%	0%	**100%**	-	100%	97.1%	0%	**97.2%**	-	97.4%	100%	0%	**97.5%**	-	97.4%
Single-Unit Trucks	0	0	0	**0**	-	0	2	0	**2**	-	3	0	0	**3**	-	5
% Single-Unit Trucks	0%	0%	0%	**0%**	-	0%	0.3%	0%	**0.3%**	-	0.6%	0%	0%	**0.6%**	-	0.4%
Articulated Trucks	0	0	0	**0**	-	0	8	0	**8**	-	1	0	0	**1**	-	9
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	1.3%	0%	**1.2%**	-	0.2%	0%	0%	**0.2%**	-	0.7%
Buses	0	0	0	**0**	-	0	6	0	**6**	-	8	0	0	**8**	-	14
% Buses	0%	0%	0%	**0%**	-	0%	1.0%	0%	**0.9%**	-	1.6%	0%	0%	**1.5%**	-	1.2%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	2	-	-	-	-	2	-	-	-	-	6	
% Pedestrians	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Misty Ridge Drive & Logans Ridge Drive - TMC
Tue May 20, 2025
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302416, Location: 29.528591, -98.348585

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



Misty Ridge Drive & Logans Ridge Drive - TMC

Tue May 20, 2025
AM Peak (7 AM - 8 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302416, Location: 29.528591, -98.348585

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg	Logans Ridge Drive					Misty Ridge Drive					Misty Ridge Drive					
Direction	Southbound					Westbound					Eastbound					
Time	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	**Int**
2025-05-20 7:00AM	1	1	0	**2**	0	3	97	0	**100**	0	55	0	0	**55**	0	**157**
7:15AM	1	1	0	**2**	1	1	104	0	**105**	0	59	0	0	**59**	0	**166**
7:30AM	1	0	0	**1**	0	0	72	0	**72**	0	30	0	0	**30**	2	**103**
7:45AM	1	1	0	**2**	0	1	38	0	**39**	0	14	1	0	**15**	0	**56**
Total	4	3	0	**7**	1	5	311	0	**316**	0	158	1	0	**159**	2	**482**
% Approach	57.1%	42.9%	0%	**-**	-	1.6%	98.4%	0%	**-**	-	99.4%	0.6%	0%	**-**	-	**-**
% Total	0.8%	0.6%	0%	**1.5%**	-	1.0%	64.5%	0%	**65.6%**	-	32.8%	0.2%	0%	**33.0%**	-	**-**
PHF	1.000	0.750	-	**0.875**	-	0.417	0.748	-	**0.752**	-	0.669	0.250	-	**0.674**	-	0.726
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Lights	4	3	0	**7**	-	5	305	0	**310**	-	154	1	0	**155**	-	472
% Lights	100%	100%	0%	**100%**	-	100%	98.1%	0%	**98.1%**	-	97.5%	100%	0%	**97.5%**	-	97.9%
Single-Unit Trucks	0	0	0	**0**	-	0	1	0	**1**	-	1	0	0	**1**	-	2
% Single-Unit Trucks	0%	0%	0%	**0%**	-	0%	0.3%	0%	**0.3%**	-	0.6%	0%	0%	**0.6%**	-	0.4%
Articulated Trucks	0	0	0	**0**	-	0	1	0	**1**	-	1	0	0	**1**	-	2
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0.3%	0%	**0.3%**	-	0.6%	0%	0%	**0.6%**	-	0.4%
Buses	0	0	0	**0**	-	0	4	0	**4**	-	2	0	0	**2**	-	6
% Buses	0%	0%	0%	**0%**	-	0%	1.3%	0%	**1.3%**	-	1.3%	0%	0%	**1.3%**	-	1.2%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	1	-	-	-	-	0	-	-	-	-	2	
% Pedestrians	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Misty Ridge Drive & Logans Ridge Drive - TMC
Tue May 20, 2025
AM Peak (7 AM - 8 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302416, Location: 29.528591, -98.348585

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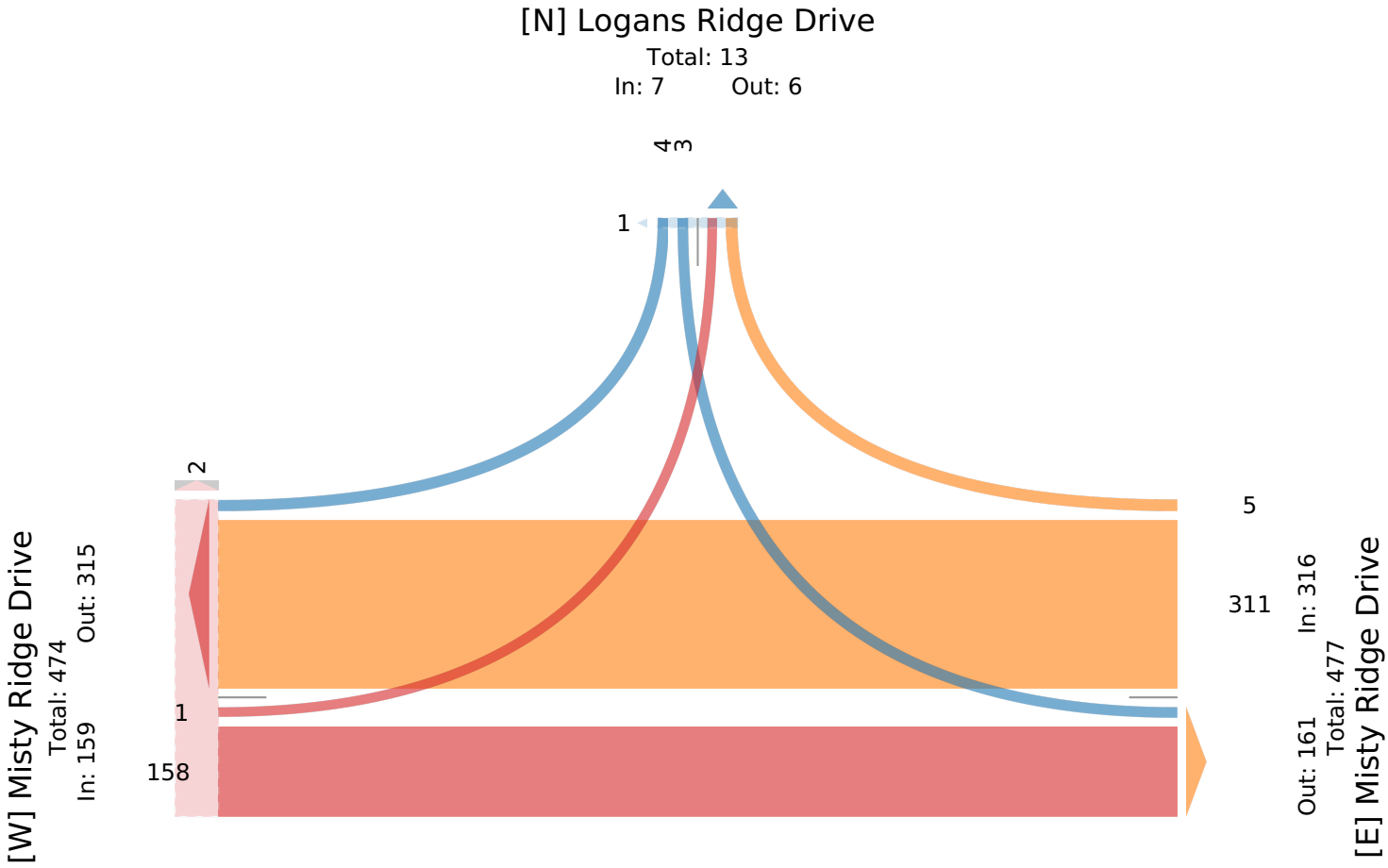


Misty Ridge Drive & Logans Ridge Drive - TMC

Tue May 20, 2025
PM Peak (5 PM - 6 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302416, Location: 29.528591, -98.348585

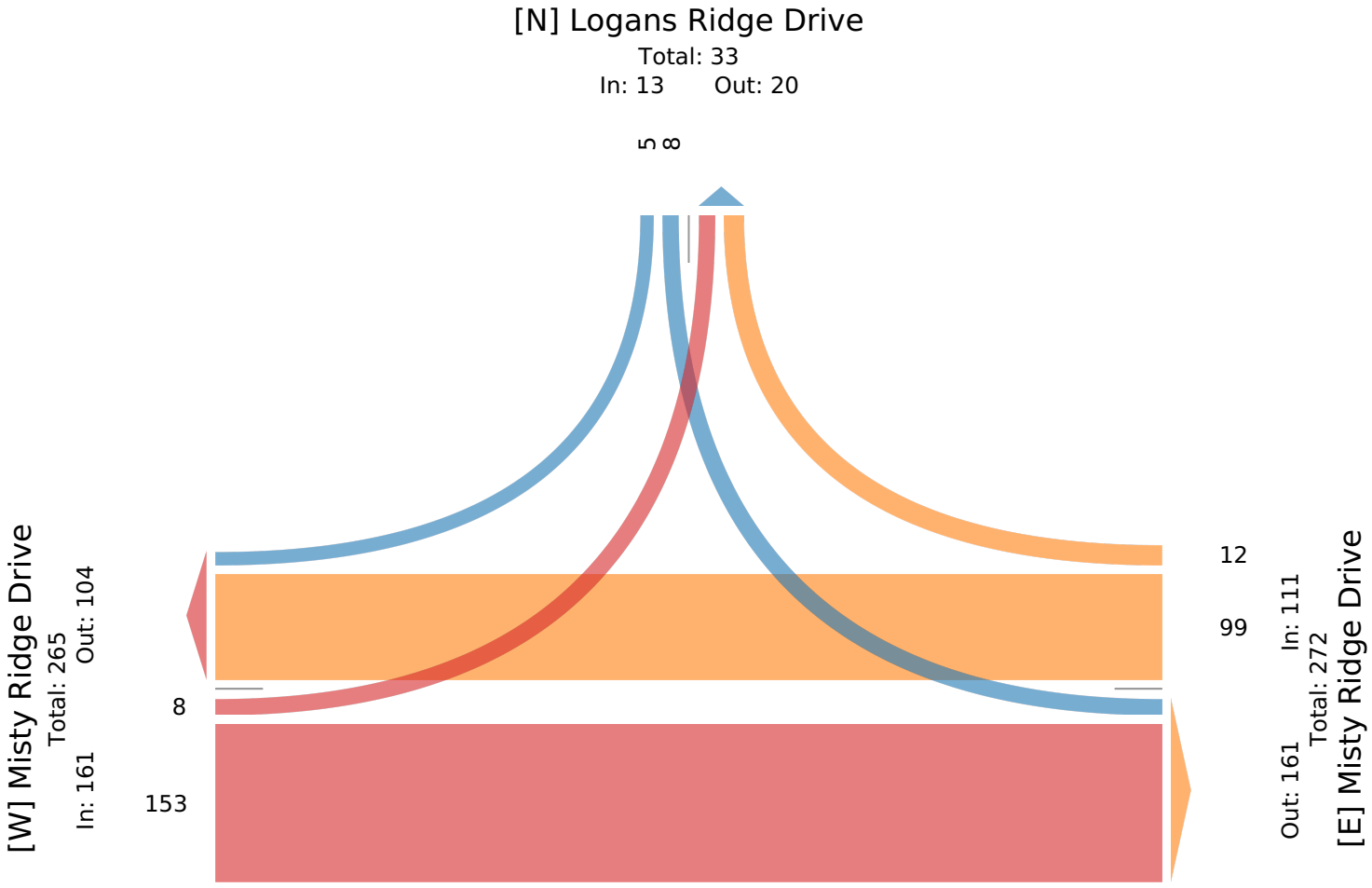
Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg	Logans Ridge Drive					Misty Ridge Drive					Misty Ridge Drive					
Direction	Southbound					Westbound					Eastbound					
Time	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	**Int**
2025-05-20 5:00PM	1	2	0	**3**	0	4	25	0	**29**	0	39	3	0	**42**	0	**74**
5:15PM	2	3	0	**5**	0	4	28	0	**32**	0	28	0	0	**28**	0	**65**
5:30PM	1	1	0	**2**	0	2	30	0	**32**	0	47	3	0	**50**	0	**84**
5:45PM	1	2	0	**3**	0	2	16	0	**18**	0	39	2	0	**41**	0	**62**
Total	5	8	0	**13**	0	12	99	0	**111**	0	153	8	0	**161**	0	**285**
% Approach	38.5%	61.5%	0%	**-**	-	10.8%	89.2%	0%	**-**	-	95.0%	5.0%	0%	**-**	-	-
% Total	1.8%	2.8%	0%	**4.6%**	-	4.2%	34.7%	0%	**38.9%**	-	53.7%	2.8%	0%	**56.5%**	-	-
PHF	0.625	0.667	-	**0.650**	-	0.750	0.825	-	**0.867**	-	0.814	0.667	-	**0.805**	-	0.848
Motorcycles	0	0	0	**0**	-	0	1	0	**1**	-	0	0	0	**0**	-	1
% Motorcycles	0%	0%	0%	**0%**	-	0%	1.0%	0%	**0.9%**	-	0%	0%	0%	**0%**	-	0.4%
Lights	5	8	0	**13**	-	12	97	0	**109**	-	150	8	0	**158**	-	280
% Lights	100%	100%	0%	**100%**	-	100%	98.0%	0%	**98.2%**	-	98.0%	100%	0%	**98.1%**	-	98.2%
Single-Unit Trucks	0	0	0	**0**	-	0	1	0	**1**	-	1	0	0	**1**	-	2
% Single-Unit Trucks	0%	0%	0%	**0%**	-	0%	1.0%	0%	**0.9%**	-	0.7%	0%	0%	**0.6%**	-	0.7%
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Buses	0	0	0	**0**	-	0	0	0	**0**	-	2	0	0	**2**	-	2
% Buses	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	1.3%	0%	0%	**1.2%**	-	0.7%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Misty Ridge Drive & Logans Ridge Drive - TMC
Tue May 20, 2025
PM Peak (5 PM - 6 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302416, Location: 29.528591, -98.348585

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



Misty Ridge Drive & Spruce Ridge Drive - TMC

Tue May 20, 2025
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302417, Location: 29.527274, -98.341312

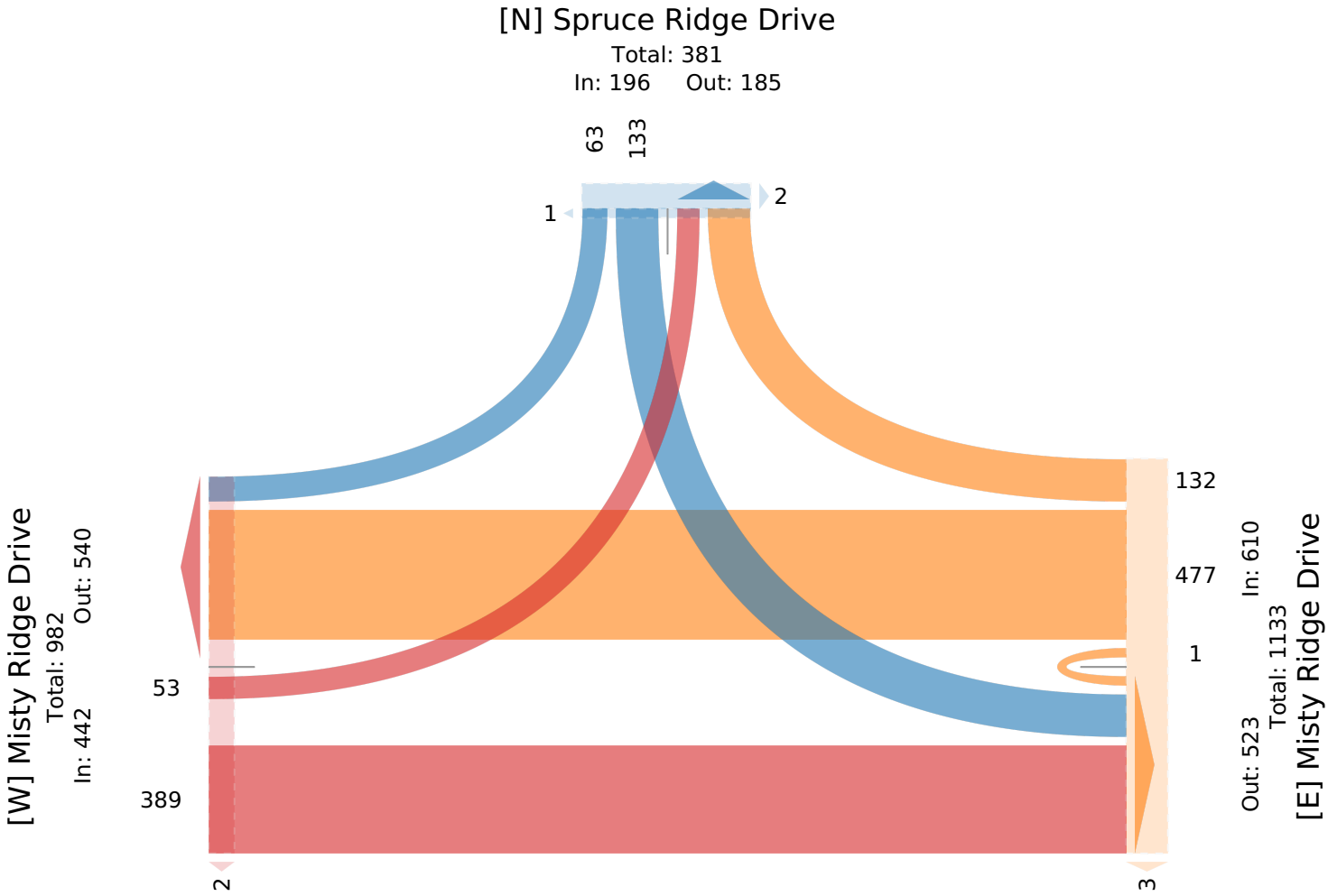
Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg	Spruce Ridge Drive					Misty Ridge Drive					Misty Ridge Drive					
Direction	Southbound					Westbound					Eastbound					
Time	R	L	U	App	Ped*	R	T	U	App	Ped*	T	L	U	App	Ped*	Int
2025-05-20 7:00AM	14	18	0	**32**	0	5	54	0	**59**	0	30	5	0	**35**	2	**126**
7:15AM	6	11	0	**17**	0	5	51	0	**56**	0	43	1	0	**44**	0	**117**
7:30AM	7	10	0	**17**	0	4	33	0	**37**	0	22	4	0	**26**	0	**80**
7:45AM	5	9	0	**14**	0	6	25	0	**31**	0	20	0	0	**20**	0	**65**
Hourly Total	32	48	0	**80**	0	20	163	0	**183**	0	115	10	0	**125**	2	**388**
8:00AM	1	3	0	**4**	1	8	22	0	**30**	0	16	1	0	**17**	0	**51**
8:15AM	6	12	0	**18**	1	7	23	0	**30**	0	13	1	0	**14**	0	**62**
8:30AM	1	10	0	**11**	0	3	21	0	**24**	0	13	2	0	**15**	0	**50**
8:45AM	2	3	0	**5**	0	1	25	0	**26**	0	13	1	0	**14**	0	**45**
Hourly Total	10	28	0	**38**	2	19	91	0	**110**	0	55	5	0	**60**	0	**208**
4:00PM	4	9	0	**13**	0	13	23	0	**36**	2	21	5	0	**26**	0	**75**
4:15PM	4	7	0	**11**	0	10	27	0	**37**	0	30	5	0	**35**	0	**83**
4:30PM	1	7	0	**8**	0	12	38	0	**50**	0	35	8	0	**43**	0	**101**
4:45PM	2	8	0	**10**	0	15	25	0	**40**	0	21	5	0	**26**	0	**76**
Hourly Total	11	31	0	**42**	0	50	113	0	**163**	2	107	23	0	**130**	0	**335**
5:00PM	2	3	0	**5**	0	11	26	0	**37**	0	35	3	0	**38**	0	**80**
5:15PM	3	10	0	**13**	0	9	29	0	**38**	0	23	3	0	**26**	0	**77**
5:30PM	4	5	0	**9**	0	13	32	1	**46**	1	24	4	0	**28**	0	**83**
5:45PM	1	8	0	**9**	1	10	23	0	**33**	0	30	5	0	**35**	0	**77**
Hourly Total	10	26	0	**36**	1	43	110	1	**154**	1	112	15	0	**127**	0	**317**
Total	63	133	0	**196**	3	132	477	1	**610**	3	389	53	0	**442**	2	**1248**
% Approach	32.1%	67.9%	0%	**-**	-	21.6%	78.2%	0.2%	**-**	-	88.0%	12.0%	0%	**-**	-	-
% Total	5.0%	10.7%	0%	**15.7%**	-	10.6%	38.2%	0.1%	**48.9%**	-	31.2%	4.2%	0%	**35.4%**	-	-
Motorcycles	1	0	0	**1**	-	0	0	0	**0**	-	0	0	0	**0**	-	1
% Motorcycles	1.6%	0%	0%	**0.5%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0.1%
Lights	62	128	0	**190**	-	127	475	1	**603**	-	381	53	0	**434**	-	1227
% Lights	98.4%	96.2%	0%	**96.9%**	-	96.2%	99.6%	100%	**98.9%**	-	97.9%	100%	0%	**98.2%**	-	98.3%
Single-Unit Trucks	0	1	0	**1**	-	1	1	0	**2**	-	1	0	0	**1**	-	4
% Single-Unit Trucks	0%	0.8%	0%	**0.5%**	-	0.8%	0.2%	0%	**0.3%**	-	0.3%	0%	0%	**0.2%**	-	0.3%
Articulated Trucks	0	0	0	**0**	-	0	1	0	**1**	-	0	0	0	**0**	-	1
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0.2%	0%	**0.2%**	-	0%	0%	0%	**0%**	-	0.1%
Buses	0	4	0	**4**	-	4	0	0	**4**	-	7	0	0	**7**	-	15
% Buses	0%	3.0%	0%	**2.0%**	-	3.0%	0%	0%	**0.7%**	-	1.8%	0%	0%	**1.6%**	-	1.2%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	3	-	-	-	-	3	-	-	-	-	2	
% Pedestrians	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Misty Ridge Drive & Spruce Ridge Drive - TMC
Tue May 20, 2025
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302417, Location: 29.527274, -98.341312

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



Misty Ridge Drive & Spruce Ridge Drive - TMC

Tue May 20, 2025
AM Peak (7 AM - 8 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302417, Location: 29.527274, -98.341312

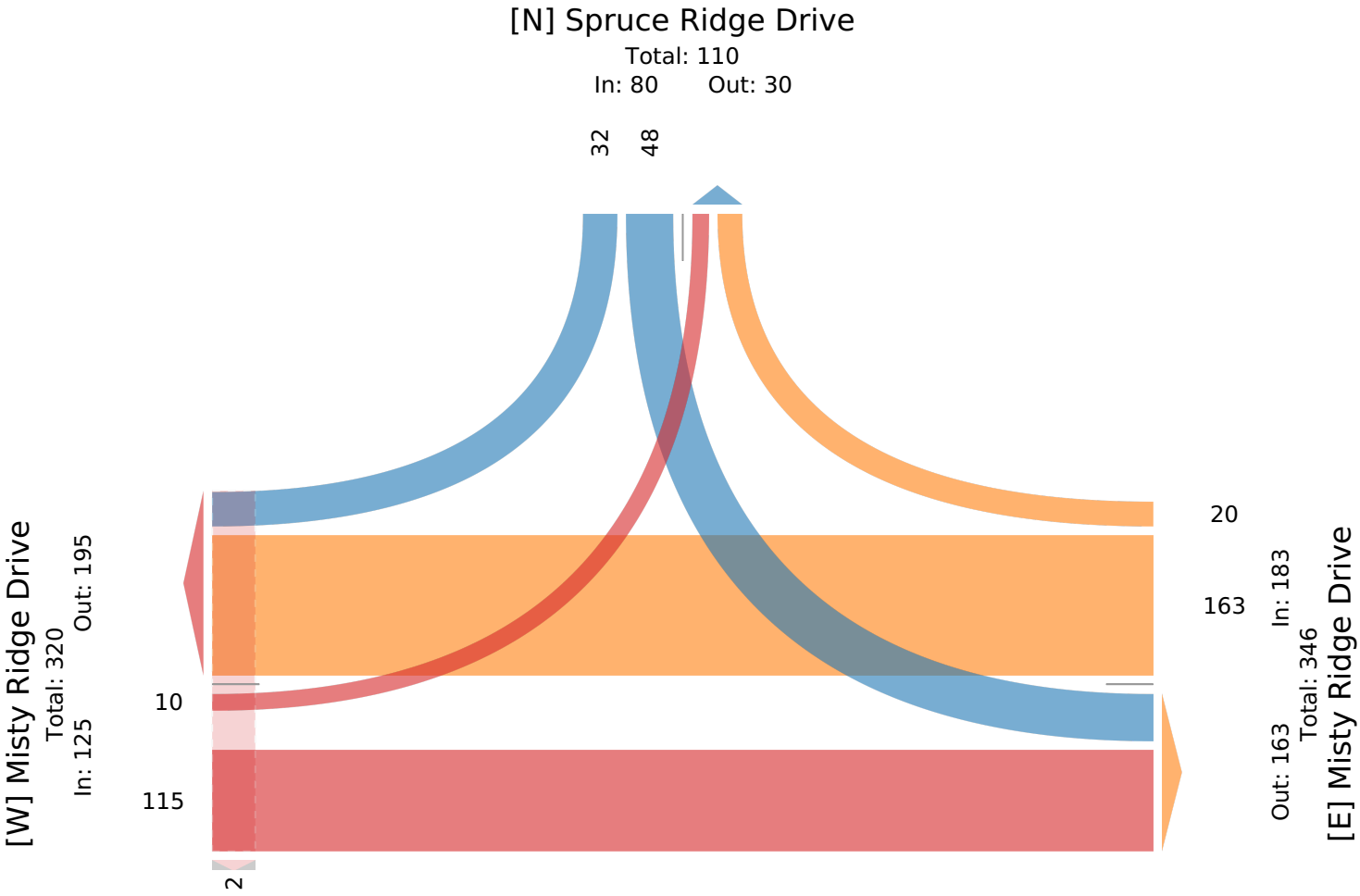
Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg	Spruce Ridge Drive					Misty Ridge Drive					Misty Ridge Drive					
Direction	Southbound					Westbound					Eastbound					
Time	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	**Int**
2025-05-20 7:00AM	14	18	0	**32**	0	5	54	0	**59**	0	30	5	0	**35**	2	**126**
7:15AM	6	11	0	**17**	0	5	51	0	**56**	0	43	1	0	**44**	0	**117**
7:30AM	7	10	0	**17**	0	4	33	0	**37**	0	22	4	0	**26**	0	**80**
7:45AM	5	9	0	**14**	0	6	25	0	**31**	0	20	0	0	**20**	0	**65**
Total	32	48	0	**80**	0	20	163	0	**183**	0	115	10	0	**125**	2	**388**
% Approach	40.0%	60.0%	0%	**-**	-	10.9%	89.1%	0%	**-**	-	92.0%	8.0%	0%	**-**	-	**-**
% Total	8.2%	12.4%	0%	**20.6%**	-	5.2%	42.0%	0%	**47.2%**	-	29.6%	2.6%	0%	**32.2%**	-	**-**
PHF	0.571	0.667	-	**0.625**	-	0.833	0.755	-	**0.775**	-	0.669	0.500	-	**0.710**	-	0.770
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Lights	32	47	0	**79**	-	18	162	0	**180**	-	112	10	0	**122**	-	381
% Lights	100%	97.9%	0%	**98.8%**	-	90.0%	99.4%	0%	**98.4%**	-	97.4%	100%	0%	**97.6%**	-	98.2%
Single-Unit Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Single-Unit Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Articulated Trucks	0	0	0	**0**	-	0	1	0	**1**	-	0	0	0	**0**	-	1
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0.6%	0%	**0.5%**	-	0%	0%	0%	**0%**	-	0.3%
Buses	0	1	0	**1**	-	2	0	0	**2**	-	3	0	0	**3**	-	6
% Buses	0%	2.1%	0%	**1.3%**	-	10.0%	0%	0%	**1.1%**	-	2.6%	0%	0%	**2.4%**	-	1.5%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	2	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Misty Ridge Drive & Spruce Ridge Drive - TMC
Tue May 20, 2025
AM Peak (7 AM - 8 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302417, Location: 29.527274, -98.341312

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



Misty Ridge Drive & Spruce Ridge Drive - TMC

Tue May 20, 2025
PM Peak (4:15 PM - 5:15 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302417, Location: 29.527274, -98.341312

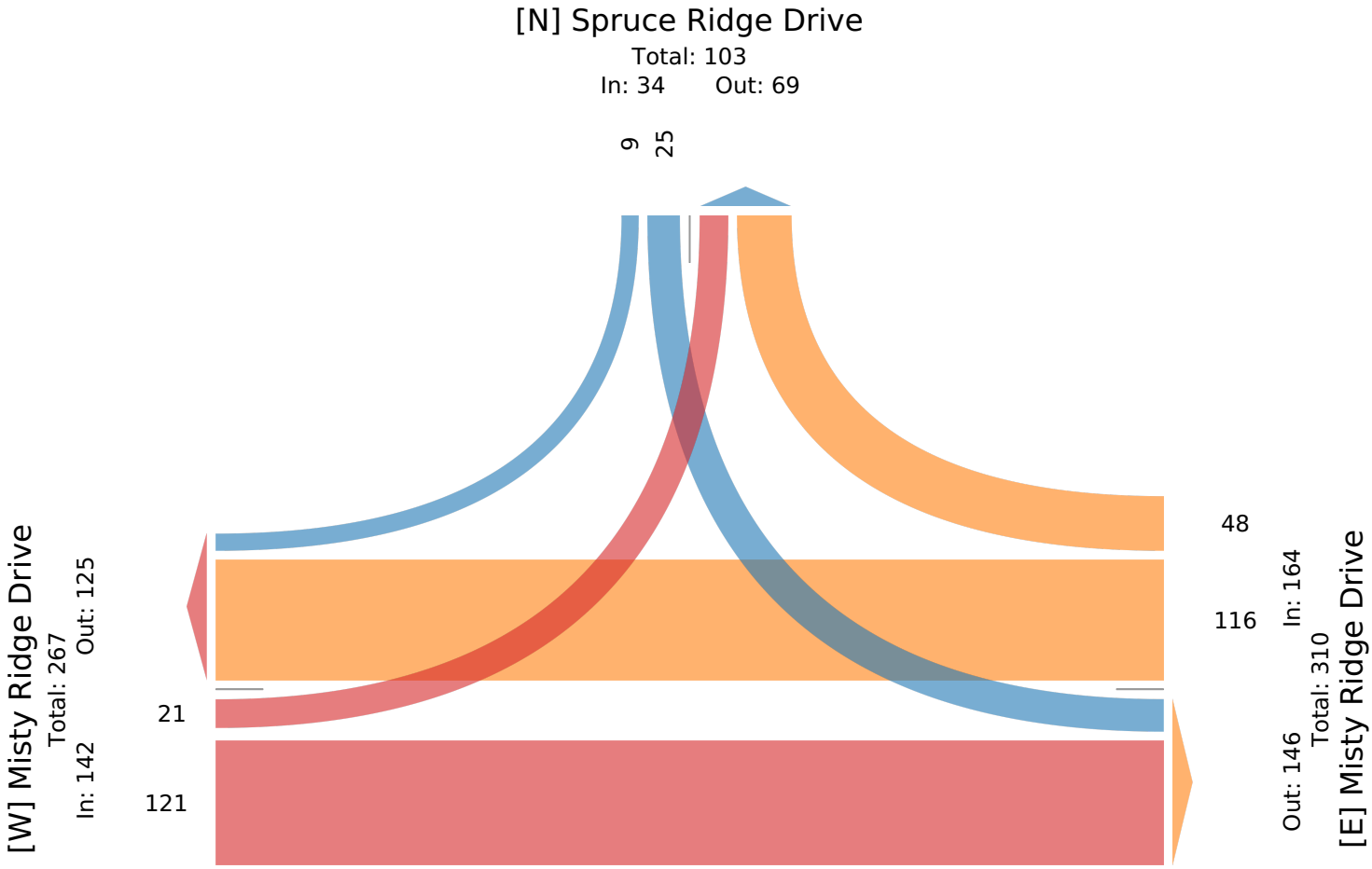
Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg	Spruce Ridge Drive					Misty Ridge Drive					Misty Ridge Drive					
Direction	Southbound					Westbound					Eastbound					
Time	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	**Int**
2025-05-20 4:15PM	4	7	0	**11**	0	10	27	0	**37**	0	30	5	0	**35**	0	**83**
4:30PM	1	7	0	**8**	0	12	38	0	**50**	0	35	8	0	**43**	0	**101**
4:45PM	2	8	0	**10**	0	15	25	0	**40**	0	21	5	0	**26**	0	**76**
5:00PM	2	3	0	**5**	0	11	26	0	**37**	0	35	3	0	**38**	0	**80**
Total	9	25	0	**34**	0	48	116	0	**164**	0	121	21	0	**142**	0	**340**
% Approach	26.5%	73.5%	0%	**-**	-	29.3%	70.7%	0%	**-**	-	85.2%	14.8%	0%	**-**	-	-
% Total	2.6%	7.4%	0%	**10.0%**	-	14.1%	34.1%	0%	**48.2%**	-	35.6%	6.2%	0%	**41.8%**	-	-
PHF	0.563	0.781	-	**0.773**	-	0.800	0.763	-	**0.820**	-	0.864	0.656	-	**0.826**	-	0.842
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Lights	9	24	0	**33**	-	46	116	0	**162**	-	119	21	0	**140**	-	335
% Lights	100%	96.0%	0%	**97.1%**	-	95.8%	100%	0%	**98.8%**	-	98.3%	100%	0%	**98.6%**	-	98.5%
Single-Unit Trucks	0	0	0	**0**	-	1	0	0	**1**	-	0	0	0	**0**	-	1
% Single-Unit Trucks	0%	0%	0%	**0%**	-	2.1%	0%	0%	**0.6%**	-	0%	0%	0%	**0%**	-	0.3%
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Buses	0	1	0	**1**	-	1	0	0	**1**	-	2	0	0	**2**	-	4
% Buses	0%	4.0%	0%	**2.9%**	-	2.1%	0%	0%	**0.6%**	-	1.7%	0%	0%	**1.4%**	-	1.2%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Misty Ridge Drive & Spruce Ridge Drive - TMC
Tue May 20, 2025
PM Peak (4:15 PM - 5:15 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302417, Location: 29.527274, -98.341312

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



Kitty Hawk Road & Misty Ridge Drive - TMC

Tue May 20, 2025
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302414, Location: 29.52629, -98.340414

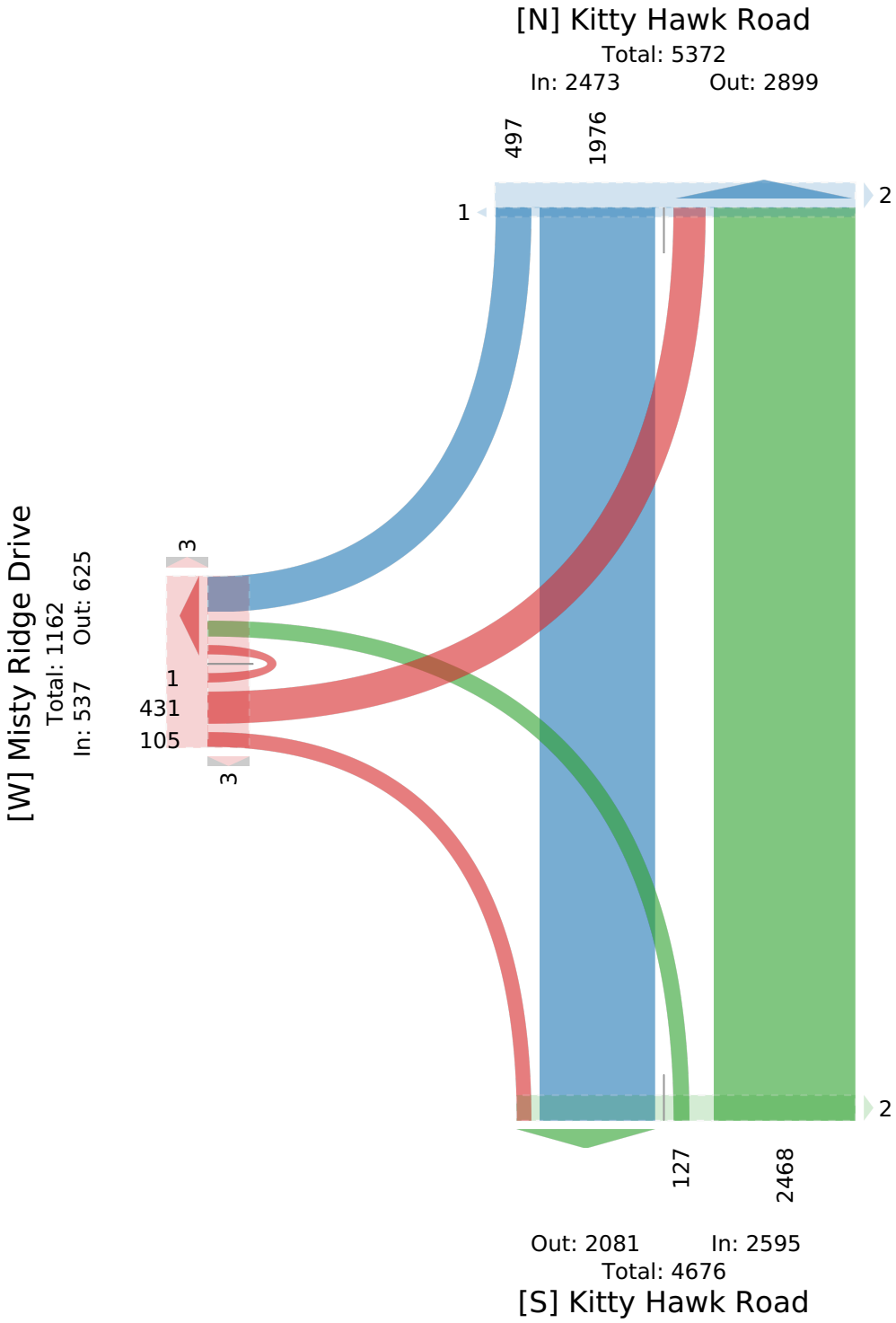
Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg	Kitty Hawk Road					Kitty Hawk Road					Misty Ridge Drive					
Direction	Southbound					Northbound					Eastbound					
Time	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	**Int**
2025-05-20 7:00AM	41	121	0	**162**	0	109	19	0	**128**	0	11	40	0	**51**	1	**341**
7:15AM	37	128	0	**165**	0	117	15	0	**132**	0	13	39	0	**52**	0	**349**
7:30AM	33	132	0	**165**	0	131	2	0	**133**	0	6	30	0	**36**	1	**334**
7:45AM	26	111	0	**137**	0	117	3	0	**120**	0	2	26	0	**28**	0	**285**
Hourly Total	137	492	0	**629**	0	474	39	0	**513**	0	32	135	0	**167**	2	**1309**
8:00AM	28	128	0	**156**	0	93	3	0	**96**	0	5	17	0	**22**	0	**274**
8:15AM	27	94	0	**121**	0	111	6	0	**117**	0	7	16	0	**23**	0	**261**
8:30AM	21	84	0	**105**	0	74	5	0	**79**	0	10	16	0	**26**	0	**210**
8:45AM	26	89	0	**115**	0	88	3	0	**91**	0	4	14	0	**18**	0	**224**
Hourly Total	102	395	0	**497**	0	366	17	0	**383**	0	26	63	0	**89**	0	**969**
4:00PM	28	171	0	**199**	0	181	10	0	**191**	0	3	26	0	**29**	2	**419**
4:15PM	31	132	0	**163**	0	166	8	0	**174**	0	10	25	0	**35**	0	**372**
4:30PM	41	128	0	**169**	1	176	11	0	**187**	0	5	42	0	**47**	0	**403**
4:45PM	35	133	0	**168**	0	221	10	0	**231**	0	7	22	0	**29**	0	**428**
Hourly Total	135	564	0	**699**	1	744	39	0	**783**	0	25	115	0	**140**	2	**1622**
5:00PM	25	165	0	**190**	0	231	9	0	**240**	1	3	32	1	**36**	1	**466**
5:15PM	33	134	0	**167**	0	224	6	0	**230**	0	6	29	0	**35**	1	**432**
5:30PM	39	107	0	**146**	1	219	9	0	**228**	0	2	26	0	**28**	0	**402**
5:45PM	26	119	0	**145**	1	210	8	0	**218**	1	11	31	0	**42**	0	**405**
Hourly Total	123	525	0	**648**	2	884	32	0	**916**	2	22	118	1	**141**	2	**1705**
Total	497	1976	0	**2473**	3	2468	127	0	**2595**	2	105	431	1	**537**	6	**5605**
% Approach	20.1%	79.9%	0%	**-**	-	95.1%	4.9%	0%	**-**	-	19.6%	80.3%	0.2%	**-**	-	-
% Total	8.9%	35.3%	0%	**44.1%**	-	44.0%	2.3%	0%	**46.3%**	-	1.9%	7.7%	0%	**9.6%**	-	-
Motorcycles	0	11	0	**11**	-	8	0	0	**8**	-	0	0	0	**0**	-	19
% Motorcycles	0%	0.6%	0%	**0.4%**	-	0.3%	0%	0%	**0.3%**	-	0%	0%	0%	**0%**	-	0.3%
Lights	489	1942	0	**2431**	-	2430	126	0	**2556**	-	98	425	1	**524**	-	5511
% Lights	98.4%	98.3%	0%	**98.3%**	-	98.5%	99.2%	0%	**98.5%**	-	93.3%	98.6%	100%	**97.6%**	-	98.3%
Single-Unit Trucks	3	6	0	**9**	-	12	0	0	**12**	-	1	1	0	**2**	-	23
% Single-Unit Trucks	0.6%	0.3%	0%	**0.4%**	-	0.5%	0%	0%	**0.5%**	-	1.0%	0.2%	0%	**0.4%**	-	0.4%
Articulated Trucks	0	1	0	**1**	-	1	1	0	**2**	-	0	0	0	**0**	-	3
% Articulated Trucks	0%	0.1%	0%	**0%**	-	0%	0.8%	0%	**0.1%**	-	0%	0%	0%	**0%**	-	0.1%
Buses	5	16	0	**21**	-	15	0	0	**15**	-	6	5	0	**11**	-	47
% Buses	1.0%	0.8%	0%	**0.8%**	-	0.6%	0%	0%	**0.6%**	-	5.7%	1.2%	0%	**2.0%**	-	0.8%
Bicycles on Road	0	0	0	**0**	-	2	0	0	**2**	-	0	0	0	**0**	-	2
% Bicycles on Road	0%	0%	0%	**0%**	-	0.1%	0%	0%	**0.1%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	1	-	-	-	-	2	-	-	-	-	5	
% Pedestrians	-	-	-	-	33.3%	-	-	-	-	100%	-	-	-	-	83.3%	-
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	0	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	66.7%	-	-	-	-	0%	-	-	-	-	16.7%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Kitty Hawk Road & Misty Ridge Drive - TMC
Tue May 20, 2025
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302414, Location: 29.52629, -98.340414

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



Kitty Hawk Road & Misty Ridge Drive - TMC

Tue May 20, 2025
AM Peak (7 AM - 8 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302414, Location: 29.52629, -98.340414

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg / Direction	Kitty Hawk Road Southbound					Kitty Hawk Road Northbound					Misty Ridge Drive Eastbound					
Time	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	**Int**
2025-05-20 7:00AM	41	121	0	**162**	0	109	19	0	**128**	0	11	40	0	**51**	1	**341**
7:15AM	37	128	0	**165**	0	117	15	0	**132**	0	13	39	0	**52**	0	**349**
7:30AM	33	132	0	**165**	0	131	2	0	**133**	0	6	30	0	**36**	1	**334**
7:45AM	26	111	0	**137**	0	117	3	0	**120**	0	2	26	0	**28**	0	**285**
Total	137	492	0	**629**	0	474	39	0	**513**	0	32	135	0	**167**	2	**1309**
% Approach	21.8%	78.2%	0%	**-**	-	92.4%	7.6%	0%	**-**	-	19.2%	80.8%	0%	**-**	-	-
% Total	10.5%	37.6%	0%	**48.1%**	-	36.2%	3.0%	0%	**39.2%**	-	2.4%	10.3%	0%	**12.8%**	-	-
PHF	0.835	0.932	-	**0.953**	-	0.905	0.513	-	**0.964**	-	0.615	0.844	-	**0.803**	-	0.938
Motorcycles	0	2	0	**2**	-	3	0	0	**3**	-	0	0	0	**0**	-	5
% Motorcycles	0%	0.4%	0%	**0.3%**	-	0.6%	0%	0%	**0.6%**	-	0%	0%	0%	**0%**	-	0.4%
Lights	134	484	0	**618**	-	468	38	0	**506**	-	30	133	0	**163**	-	1287
% Lights	97.8%	98.4%	0%	**98.3%**	-	98.7%	97.4%	0%	**98.6%**	-	93.8%	98.5%	0%	**97.6%**	-	98.3%
Single-Unit Trucks	1	3	0	**4**	-	0	0	0	**0**	-	0	0	0	**0**	-	4
% Single-Unit Trucks	0.7%	0.6%	0%	**0.6%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0.3%
Articulated Trucks	0	0	0	**0**	-	0	1	0	**1**	-	0	0	0	**0**	-	1
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	2.6%	0%	**0.2%**	-	0%	0%	0%	**0%**	-	0.1%
Buses	2	3	0	**5**	-	3	0	0	**3**	-	2	2	0	**4**	-	12
% Buses	1.5%	0.6%	0%	**0.8%**	-	0.6%	0%	0%	**0.6%**	-	6.3%	1.5%	0%	**2.4%**	-	0.9%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	2	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Kitty Hawk Road & Misty Ridge Drive - TMC
Tue May 20, 2025
AM Peak (7 AM - 8 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302414, Location: 29.52629, -98.340414

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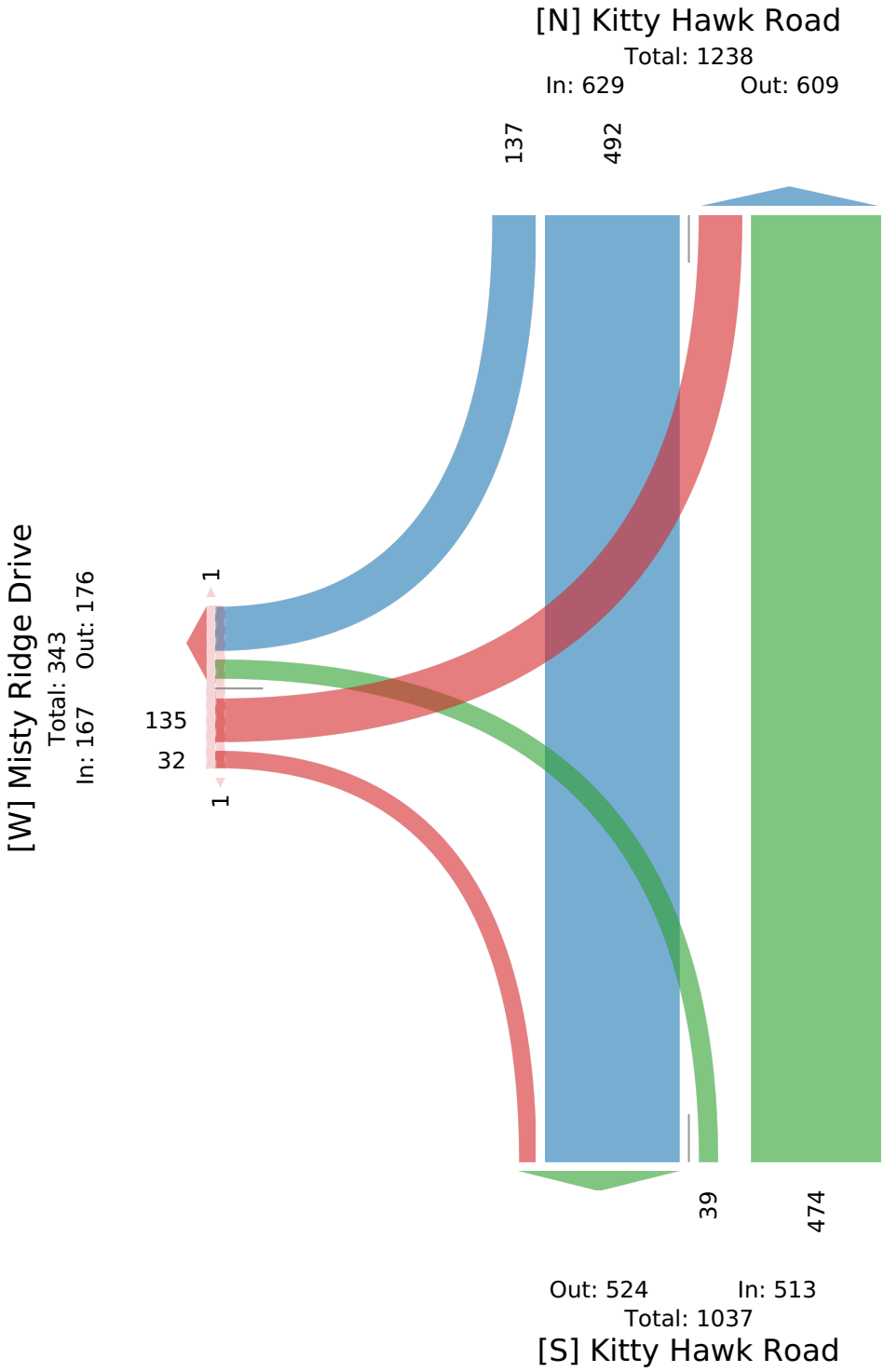

Kitty Hawk Road & Misty Ridge Drive - TMC

Tue May 20, 2025
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302414, Location: 29.52629, -98.340414

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg	Kitty Hawk Road					Kitty Hawk Road					Misty Ridge Drive					
Direction	Southbound					Northbound					Eastbound					
Time	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	**Int**
2025-05-20 4:30PM	41	128	0	**169**	1	176	11	0	**187**	0	5	42	0	**47**	0	**403**
4:45PM	35	133	0	**168**	0	221	10	0	**231**	0	7	22	0	**29**	0	**428**
5:00PM	25	165	0	**190**	0	231	9	0	**240**	1	3	32	1	**36**	1	**466**
5:15PM	33	134	0	**167**	0	224	6	0	**230**	0	6	29	0	**35**	1	**432**
Total	134	560	0	**694**	1	852	36	0	**888**	1	21	125	1	**147**	2	**1729**
% Approach	19.3%	80.7%	0%	**-**	-	95.9%	4.1%	0%	**-**	-	14.3%	85.0%	0.7%	**-**	-	**-**
% Total	7.8%	32.4%	0%	**40.1%**	-	49.3%	2.1%	0%	**51.4%**	-	1.2%	7.2%	0.1%	**8.5%**	-	**-**
PHF	0.817	0.848	-	**0.913**	-	0.922	0.818	-	**0.925**	-	0.750	0.744	0.250	**0.782**	-	0.928
Motorcycles	0	3	0	**3**	-	2	0	0	**2**	-	0	0	0	**0**	-	5
% Motorcycles	0%	0.5%	0%	**0.4%**	-	0.2%	0%	0%	**0.2%**	-	0%	0%	0%	**0%**	-	0.3%
Lights	132	552	0	**684**	-	841	36	0	**877**	-	20	123	1	**144**	-	1705
% Lights	98.5%	98.6%	0%	**98.6%**	-	98.7%	100%	0%	**98.8%**	-	95.2%	98.4%	100%	**98.0%**	-	98.6%
Single-Unit Trucks	2	0	0	**2**	-	5	0	0	**5**	-	0	1	0	**1**	-	8
% Single-Unit Trucks	1.5%	0%	0%	**0.3%**	-	0.6%	0%	0%	**0.6%**	-	0%	0.8%	0%	**0.7%**	-	0.5%
Articulated Trucks	0	1	0	**1**	-	0	0	0	**0**	-	0	0	0	**0**	-	1
% Articulated Trucks	0%	0.2%	0%	**0.1%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0.1%
Buses	0	4	0	**4**	-	4	0	0	**4**	-	1	1	0	**2**	-	10
% Buses	0%	0.7%	0%	**0.6%**	-	0.5%	0%	0%	**0.5%**	-	4.8%	0.8%	0%	**1.4%**	-	0.6%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	1	-	-	-	-	2	
% Pedestrians	-	-	-	-	0%	-	-	-	-	100%	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	100%	-	-	-	-	0%	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Kitty Hawk Road & Misty Ridge Drive - TMC

Tue May 20, 2025
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1302414, Location: 29.52629, -98.340414

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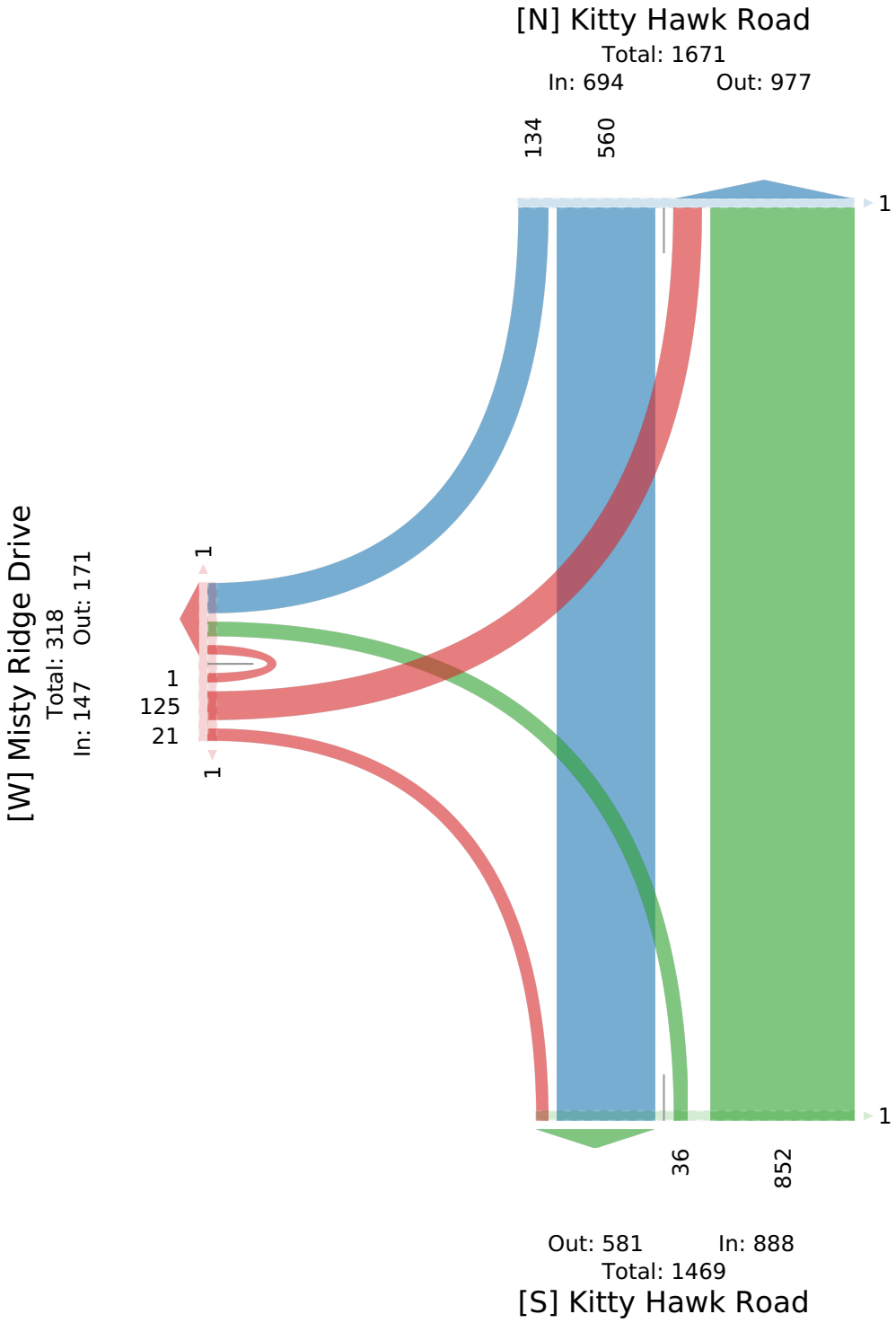

APPENDIX C – CRASH DATA

Crash ID	City	County	Crash Date	Crash Severity	Crash Time	Crash Year	Day of Week	First Harmful Event	Intersecting Street Name	Intersection Related	Latitude	Light Condition	Longitude	Object Struck	Other Factor	Roadway Part	Roadway Relation	Street Name	Surface Condition	TxDOT Reportable Flag	Weather Condition	Accident T Notes
17517384	OUTSIDE C	BEXAR	1/10/2020	N - NOT INJURED	2002	2020	FRIDAY	MOTOR VEHICLE IN TRAN	MISTY RIDGE DR	INTERSECTION RELATED	29.52624	2 - DARK, NOT LIGHTI	-98.3404808	NOT APPLICABLE	SLOWING/STOPP	1 - MAIN/PROPER L	ON ROADWAY	KITTY HAWK	2 - WET	No	3 - RAIN	Hit and Run
17566163	OUTSIDE C	BEXAR	2/10/2020	N - NOT INJURED	2117	2020	MONDAY	MOTOR VEHICLE IN TRAN	MISTY RIDGE DR	INTERSECTION	29.526245	3 - DARK, LIGHTED	-98.3404724	NOT APPLICABLE	ATTENTION DIVER	1 - MAIN/PROPER L	ON ROADWAY	KITTY HAWK RD	2 - WET	Yes	2 - CLOUDY	Failed to Yield ROW
17598488	OUTSIDE C	BEXAR	2/16/2020	N - NOT INJURED	1124	2020	SUNDAY	MOTOR VEHICLE IN TRAN	N/A	NON INTERSECTION	29.529119	1 - DAYLIGHT	-98.3453993	NOT APPLICABLE	NOT APPLICABLE	1 - MAIN/PROPER L	ON ROADWAY	FORTUNE RIDGE [	1 - DRY	Yes	1 - CLEAR	Wide Turn
17766399	OUTSIDE C	BEXAR	6/28/2020	N - NOT INJURED	1707	2020	SUNDAY	MOTOR VEHICLE IN TRAN	MISTY RIDGE DR	INTERSECTION RELATED	29.526245	1 - DAYLIGHT	-98.3404724	NOT APPLICABLE	ATTENTION DIVER	1 - MAIN/PROPER L	ON ROADWAY	KITTY HAWK RD	1 - DRY	Yes	1 - CLEAR	Rear-End
17774845	OUTSIDE C	BEXAR	7/2/2020	N - NOT INJURED	1735	2020	THURSDAY	PARKED CAR	N/A	NON INTERSECTION	29.527773	1 - DAYLIGHT	-98.3406416	NOT APPLICABLE	SWERVED OR VEE	1 - MAIN/PROPER L	ON ROADWAY	SPRUCE RIDGE DI	1 - DRY	Yes	1 - CLEAR	Hit a Parked Car
17824444	OUTSIDE C	BEXAR	7/30/2020	N - NOT INJURED	1525	2020	THURSDAY	MOTOR VEHICLE IN TRAN	N/A	NON INTERSECTION	29.528581	1 - DAYLIGHT	-98.3395267	NOT APPLICABLE	SLOWING/STOPP	1 - MAIN/PROPER L	ON ROADWAY	MISTY ASH DR	1 - DRY	No	1 - CLEAR	Rear-End
17832794	OUTSIDE C	BEXAR	8/25/2020	N - NOT INJURED	1829	2020	TUESDAY	PARKED CAR	N/A	NON INTERSECTION	29.532659	1 - DAYLIGHT	-98.3403678	NOT APPLICABLE	ATTENTION DIVER	1 - MAIN/PROPER L	ON ROADWAY	SPRUCE RIDGE DI	1 - DRY	Yes	1 - CLEAR	Hit a Parked Car
17947620	OUTSIDE C	BEXAR	10/20/2020	N - NOT INJURED	1727	2020	TUESDAY	MOTOR VEHICLE IN TRAN	BLUELAKE RIDGE DR	INTERSECTION	29.534093	1 - DAYLIGHT	-98.3447765	NOT APPLICABLE	ATTENTION DIVER	1 - MAIN/PROPER L	ON ROADWAY	FORTUNE RIDGE [	1 - DRY	Yes	1 - CLEAR	Hit While Reversing
17967484	OUTSIDE C	BEXAR	10/26/2020	N - NOT INJURED	726	2020	MONDAY	MOTOR VEHICLE IN TRAN	LOGANS RIDGE DR	INTERSECTION RELATED	29.528591	2 - DARK, NOT LIGHTI	-98.3485072	NOT APPLICABLE	SLOWING/STOPP	1 - MAIN/PROPER L	ON ROADWAY	MISTY RIDGE DR	2 - WET	No	3 - RAIN	Rear-End
17981032	OUTSIDE C	BEXAR	11/14/2020	N - NOT INJURED	1712	2020	SATURDAY	MOTOR VEHICLE IN TRAN	UNKNOWN	INTERSECTION	29.526283	1 - DAYLIGHT	-98.3404004	NOT APPLICABLE	VISION OBSTRUC	1 - MAIN/PROPER L	ON ROADWAY	KITTY HAWK RD	1 - DRY	Yes	1 - CLEAR	Failed to Yield ROW
17981037	OUTSIDE C	BEXAR	11/23/2020	C - POSSIBLE INJUR\	1842	2020	MONDAY	FIXED OBJECT	N/A	NON INTERSECTION	29.526245	3 - DARK, LIGHTED	-98.3404724	HIT LUMINAIRE POI	ATTENTION DIVER	1 - MAIN/PROPER L	OFF ROADWAY	KITTY HAWK RD	1 - DRY	Yes	1 - CLEAR	Lost Control
18057398	OUTSIDE C	BEXAR	1/12/2021	N - NOT INJURED	1645	2021	TUESDAY	MOTOR VEHICLE IN TRAN	MISTY RIDGE DR	INTERSECTION	29.526335	1 - DAYLIGHT	-98.3403024	NOT APPLICABLE	NOT APPLICABLE	1 - MAIN/PROPER L	ON ROADWAY	KITTY HAWK	1 - DRY	Yes	1 - CLEAR	Failed to Yield ROW
18256010	OUTSIDE C	BEXAR	5/3/2021	N - NOT INJURED	743	2021	MONDAY	MOTOR VEHICLE IN TRAN	N/A	DRIVEWAY ACCESS	29.52896	1 - DAYLIGHT	-98.3471374	NOT APPLICABLE	SLOWING/STOPP	1 - MAIN/PROPER L	ON ROADWAY	MISTY RIDGE DR	1 - DRY	Yes	1 - CLEAR	Rear-End
18322628	OUTSIDE C	BEXAR	6/14/2021	N - NOT INJURED	1420	2021	MONDAY	MOTOR VEHICLE IN TRAN	MISTY RIDGE DR	INTERSECTION RELATED	29.526474	1 - DAYLIGHT	-98.340058	NOT APPLICABLE	SLOWING/STOPP	1 - MAIN/PROPER L	ON ROADWAY	KITTY HAWK	1 - DRY	Yes	1 - CLEAR	Rear-End
18329081	OUTSIDE C	BEXAR	6/20/2021	99 - UNKNOWN	2241	2021	SUNDAY	PARKED CAR	GOLDEN RIDGE DR	NON INTERSECTION	29.528706	3 - DARK, LIGHTED	-98.3446359	NOT APPLICABLE	NOT APPLICABLE	1 - MAIN/PROPER L	ON ROADWAY	MISTY RIDGE DR	1 - DRY	Yes	1 - CLEAR	Hit a Parked Car
18365466	OUTSIDE C	BEXAR	7/13/2021	N - NOT INJURED	1155	2021	TUESDAY	PARKED CAR	GOLDEN RIDGE DR	NON INTERSECTION	29.528667	1 - DAYLIGHT	-98.3443882	NOT APPLICABLE	ATTENTION DIVER	1 - MAIN/PROPER L	ON ROADWAY	MISTY RIDGE DR	1 - DRY	Yes	2 - CLOUDY	Hit a Parked Car
18651740	OUTSIDE C	BEXAR	12/16/2021	N - NOT INJURED	1643	2021	THURSDAY	MOTOR VEHICLE IN TRAN	MISTY RIDGE DR	INTERSECTION RELATED	29.526245	1 - DAYLIGHT	-98.3404724	NOT APPLICABLE	SLOWING/STOPP	1 - MAIN/PROPER L	ON ROADWAY	KITTY HAWK RD	1 - DRY	Yes	1 - CLEAR	Rear-End
18725888	OUTSIDE C	BEXAR	1/27/2022	99 - UNKNOWN	400	2022	THURSDAY	PARKED CAR	LOGANS RIDGE DR	NON INTERSECTION	29.528455	4 - DARK, UNKNOWN	-98.3436223	NOT APPLICABLE	ATTENTION DIVER	1 - MAIN/PROPER L	ON ROADWAY	MISTY RIDGE DR	99 - UNKNOWN	Yes	99 - UNKNOWN	Hit a Parked Car
18792555	OUTSIDE C	BEXAR	3/11/2022	99 - UNKNOWN	1715	2022	FRIDAY	PARKED CAR	N/A	NON INTERSECTION	29.527773	99 - UNKNOWN	-98.3406416	NOT APPLICABLE	NOT APPLICABLE	1 - MAIN/PROPER L	ON ROADWAY	SPRUCE RIDGE DI	99 - UNKNOWN	Yes	99 - UNKNOWN	Hit a Parked Car
18825372	OUTSIDE C	BEXAR	3/29/2022	C - POSSIBLE INJUR\	2325	2022	TUESDAY	PARKED CAR	N/A	NON INTERSECTION	29.528639	3 - DARK, LIGHTED	-98.344234	NOT APPLICABLE	ATTENTION DIVER	1 - MAIN/PROPER L	ON ROADWAY	MISTY RIDGE DR	1 - DRY	Yes	2 - CLOUDY	Hit a Parked Car
19276583	OUTSIDE C	BEXAR	12/11/2022	N - NOT INJURED	852	2022	SUNDAY	PARKED CAR	N/A	NON INTERSECTION	29.532837	4 - DARK, UNKNOWN	-98.3404959	NOT APPLICABLE	ATTENTION DIVER	1 - MAIN/PROPER L	ON ROADWAY	SPRUCE RIDGE DI	2 - WET	Yes	99 - UNKNOWN	Hit a Parked Car
19353891	OUTSIDE C	BEXAR	1/22/2023	N - NOT INJURED	1616	2023	SUNDAY	PARKED CAR	MISTY RIDGE DR	INTERSECTION RELATED	29.528805	1 - DAYLIGHT	-98.3454324	NOT APPLICABLE	NOT APPLICABLE	1 - MAIN/PROPER L	ON ROADWAY	FORTUNE RIDGE [	1 - DRY	Yes	1 - CLEAR	Hit a Parked Car
20119103	OUTSIDE C	BEXAR	3/26/2024	N - NOT INJURED	1323	2024	TUESDAY	MOTOR VEHICLE IN TRAN	KITTY HAWK	INTERSECTION RELATED	29.526245	1 - DAYLIGHT	-98.3404724	NOT APPLICABLE	SLOWING/STOPP	1 - MAIN/PROPER L	ON ROADWAY	MISTY RIDGE DR	1 - DRY	No	1 - CLEAR	Rear-End
20109831	OUTSIDE C	BEXAR	3/29/2024	N - NOT INJURED	845	2024	FRIDAY	MOTOR VEHICLE IN TRAN	N/A	NON INTERSECTION	29.526208	1 - DAYLIGHT	-98.3405385	NOT APPLICABLE	ATTENTION DIVER	1 - MAIN/PROPER L	ON ROADWAY	KITTY HAWK RD	1 - DRY	Yes	1 - CLEAR	Rear-End
20205955	OUTSIDE C	BEXAR	5/22/2024	N - NOT INJURED	1824	2024	WEDNESDAY	MOTOR VEHICLE IN TRAN	N/A	NON INTERSECTION	29.528296	1 - DAYLIGHT	-98.3397666	NOT APPLICABLE	NOT APPLICABLE	1 - MAIN/PROPER L	ON ROADWAY	SPRUCE RIDGE DI	1 - DRY	Yes	1 - CLEAR	Sideswipe
20365236	OUTSIDE C	BEXAR	8/21/2024	N - NOT INJURED	1517	2024	WEDNESDAY	MOTOR VEHICLE IN TRAN	N/A	NON INTERSECTION	29.528779	1 - DAYLIGHT	-98.3480092	NOT APPLICABLE	NOT APPLICABLE	1 - MAIN/PROPER L	ON ROADWAY	MISTY RIDGE DR	1 - DRY	Yes	1 - CLEAR	Sideswipe
20400003	OUTSIDE C	BEXAR	9/16/2024	99 - UNKNOWN	1615	2024	MONDAY	PARKED CAR	N/A	NON INTERSECTION	29.529554	1 - DAYLIGHT	-98.3391703	NOT APPLICABLE	NOT APPLICABLE	1 - MAIN/PROPER L	ON ROADWAY	CYLBURN PARK	1 - DRY	Yes	1 - CLEAR	Hit a Parked Car

APPENDIX D – CRASH DIAGRAMS

8:02 P.M. FRI. JAN. 10
DARK, WET 2020

9:17 P.M. MON. FEB. 10
DARK, WET 2020

5:07 P.M. SUN. JUN. 28
DAY, DRY 2020

2:20 P.M. MON. JUN. 14
DAY, DRY 2021

1:23 P.M. TUE. MAR. 26
DAY, DRY 2024

5:12 P.M. SAT. NOV. 14
DAY, DRY 2020

4:45 P.M. TUE. JAN. 12
DAY, DRY 2021

MISTY RIDGE DRIVE
ROAD NAME

4:43 P.M. THU. DEC. 16
DAY, DRY 2021

KITTY HAWK ROAD
ROAD NAME

LEGEND

- REAR-END COLLISION
- REVERSING COLLISION
- PEDESTRIAN COLLISION
- HEAD-ON COLLISION
- SIDESWIPE COLLISION SAME DIRECTION
- SIDESWIPE COLLISION OPPOSITE DIRECTION
- BICYCLE & VEHICLE COLLISION
- OUT OF CONTROL
- LEFT TURN COLLISION
- RIGHT ANGLE COLLISION
- LEFT & RIGHT TURN COLLISION
- OVERTAKE COLLISION

LEGACY ENGINEERING GROUP

Legacy Engineering Group, PLLC
7800 W Interstate 10, Ste. 830, San Antonio, Texas 78230, 210.660.1960
TBPE Firm Registration No. 20623

MISTY RIDGE DRIVE

COLLISION DIAGRAM

KITTY HAWK RD AT MISTY RIDGE DR

N. T. S.

FED. RD. DIV. NO.	PROJECT NO.		SHEET
-	-		01
STATE	DIST.	COUNTY	
TEXAS		BEXAR	
CONT.	SECT.	JOB	ROADWAY
-	-	-	MISTY RIDGE DRIVE

FORTUNE RIDGE DRIVE
ROAD NAME

7:26 A.M. MON. OCT. 26
DARK, WET 2020

4:16 P.M. SUN. JAN. 22
DAY, DRY 2023

MISTY RIDGE DRIVE
ROAD NAME

LEGEND

REAR-END COLLISION

REVERSING COLLISION

PEDESTRIAN COLLISION

HEAD-ON COLLISION

SIDESWIPE COLLISION
SAME DIRECTION

SIDESWIPE COLLISION
OPPOSITE DIRECTION

BICYCLE & VEHICLE COLLISION

OUT OF CONTROL

LEFT TURN COLLISION

RIGHT ANGLE COLLISION

LEFT & RIGHT TURN COLLISION

OVERTAKE COLLISION

RIGHT TURN COLLISION

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MISTY RIDGE DRIVE

COLLISION DIAGRAM

FORTUNE RIDGE DR AT MISTY RIDGE DR

N. T. S.

FED. RD. DIV. NO.	PROJECT NO.		SHEET
-	-		01
STATE	DIST.	COUNTY	
TEXAS		BEXAR	
CONT.	SECT.	JOB	ROADWAY
-	-	-	MISTY RIDGE DRIVE

LOGANS RIDGE DRIVE
ROAD NAME

7:26 A.M. MON. OCT. 26
DARK, WET 2020

MISTY RIDGE DRIVE
ROAD NAME

LEGEND

- REAR-END COLLISION
- REVERSING COLLISION
- PEDESTRIAN COLLISION
- HEAD-ON COLLISION
- SIDESWIPE COLLISION SAME DIRECTION
- SIDESWIPE COLLISION OPPOSITE DIRECTION
- BICYCLE & VEHICLE COLLISION
- OUT OF CONTROL
- LEFT TURN COLLISION
- RIGHT ANGLE COLLISION
- LEFT & RIGHT TURN COLLISION
- OVERTAKE COLLISION

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MISTY RIDGE DRIVE

COLLISION DIAGRAM

LOGANS RIDGE DR AT MISTY RIDGE DR

N. T. S.

FED. RD. DIV. NO.	PROJECT NO.		SHEET
-	-		01
STATE	DIST.	COUNTY	
TEXAS		BEXAR	
CONT.	SECT.	JOB	ROADWAY
-	-	-	MISTY RIDGE DRIVE

APPENDIX E – DISTRACTED DRIVING SUMMARY FACT SHEET (NHTSA)

U.S. Department of Transportation
National Highway Traffic Safety Administration

TRAFFIC SAFETY FACTS
Research Note

NHTSA

DOT HS 813 443 | Summary of Statistical Findings | May 2023

Distracted Driving in 2021

The National Highway Traffic Safety Administration works to reduce the occurrence of distracted driving and raise awareness of its dangers. This risky driving behavior poses a danger not only to vehicle occupants but pedestrians and pedalcyclists as well. Driver distraction is a specific type of driver inattention that occurs when drivers divert attention from the driving task to focus on some other activity. Often discussions regarding distracted driving center around cell phone use and texting, but distracted driving also includes things such as eating, talking to passengers, adjusting the radio/climate controls, or adjusting other vehicle controls. A distraction-affected crash is any traffic crash in which a driver was identified as distracted at the time of the crash.

- Eight percent of fatal crashes, 14 percent of injury crashes, and 13 percent of all police-reported motor vehicle traffic crashes in 2021 were reported as distraction-affected crashes.
- In 2021 there were 3,522 people killed and an estimated additional 362,415 people injured in motor vehicle traffic crashes involving distracted drivers.
- Five percent of all drivers involved in fatal traffic crashes in 2021 were reported as distracted at the time of the crashes. Seven percent of drivers 15 to 20 years old involved in fatal crashes were reported as distracted. This age group has the largest proportion of drivers who were distracted at the time of the fatal crashes.
- In 2021 there were 644 nonoccupants (pedestrians, pedalcyclists, and others) killed in distraction-affected traffic crashes.

Methodology

This research note contains information on fatal motor vehicle traffic crashes based on data from the Fatality Analysis Reporting System (FARS) and non-fatal motor vehicle traffic crashes from the Crash Report Sampling System (CRSS). A change instituted with the release of 2020 data is rounding estimates to the nearest whole number instead of the nearest thousand for all police-reported crashes, including injury estimates. Refer to the end of this publication for more information on FARS and CRSS. In this note the terms "motor vehicle traffic crashes" and "traffic crashes" are used interchangeably. Also "cell phones" and "mobile phones" are used interchangeably.

The national estimates produced from CRSS data are subject to sampling errors. The CRSS Analytic User's Manual 2016-2021 (Report No. DOT HS 813 436) contains information on sampling errors and generalized variance function standard errors for 2016-2021 CRSS estimates.

As defined in the *Overview of the National Highway Traffic Safety Administration's Driver Distraction Program* (Report No. DOT HS 811 299), distraction is a specific type of inattention that occurs when drivers divert their attention from the driving task to focus on some other activity. It describes distraction as a subset of inattention (which includes fatigue, and physical and emotional conditions of the driver). However, while NHTSA may define the terms in this manner, inattention and distraction are often used interchangeably or simultaneously in other material, including police crash reports (PCRs). It is important that users of NHTSA data be aware of these differences in definitions. It is also important to acknowledge the inherent limitations in the data collection for distraction-affected crashes and the resulting injuries and fatalities. This report's appendix has a table describing the coding for distraction-affected crashes for FARS and CRSS, and discusses limitations in the distracted driving data.

Data

Economic Cost for All Traffic Crashes

The estimated economic cost of all motor vehicle traffic crashes in the United States in 2019 (the most recent year for which cost data is available) was $340 billion,

of which $98 billion resulted from distracted-driving crashes. Included in the economic costs are:

- Lost productivity,
- Workplace costs,
- Legal and court costs,
- Medical costs,
- Emergency medical services,
- Insurance administration costs,
- Congestion impacts, and
- Property damage.

These costs represent the tangible losses that result from motor vehicle traffic crashes. However, in cases of serious injury or death, such costs fail to capture the intangible value of lost quality-of-life from these injuries. When quality-of-life valuations are considered, the total value of societal harm from motor vehicle traffic crashes in the United States in 2019 was an estimated $1.37 trillion, of which $395 billion resulted from distracted-driving crashes.

For further information on cost estimates, see *The Economic and Societal Impact of Motor Vehicle Crashes, 2019.*[1] This report estimated distraction from a naturalistic observation study and found that distraction was involved in 29 percent of all crashes, resulting in 10,546 fatalities, 1.3 million nonfatal injuries, and $98.2 billion in economic costs in 2019. These estimates are different from FARS/CRSS numbers used in this research note.

Fatalities in Distraction-Affected Traffic Crashes

In 2021 there were 3,211 fatal motor vehicle traffic crashes that involved distraction (8% of 39,508 fatal crashes) nationwide. These crashes involved 3,346 distracted drivers, since some crashes each involved more than one distracted driver. Five percent (3,346 of 60,904) of drivers involved in fatal crashes were distracted. In distraction-affected crashes, 3,522 fatalities (8% of 42,939 fatalities) occurred. Table 1 provides information on fatal crashes, drivers involved in these crashes, and fatalities in distraction-affected crashes from 2017 to 2021.

Much attention has been focused on the dangers of using cell phones and other electronic devices while driving. In 2021 there were 377 fatal crashes reported as having cell phone use as a distraction (12% of all distraction-affected fatal crashes). For these distraction-affected crashes, the PCRs each stated that at least one of the involved drivers was talking on, listening to, or engaged in some other cell phone activity at the time of the crash. In 2021 a total of 410 people died in crashes involving at least one driver who was engaged in cell-phone-related activities.

Table 1
Fatal Traffic Crashes, Drivers Involved in Fatal Crashes, and Fatalities in Distraction-Affected Crashes, and Cell Phone Use by Distracted Drivers, 2017–2021

Year	Total	Distraction-Affected (D-A)		Cell Phone in Use	
		Number	Percentage of Total	Number	Percentage of D-A
Fatal Traffic Crashes					
2017	34,560	3,003	9%	418	14%
2018	33,919	2,645	8%	356	13%
2019	33,487	2,872	9%	395	14%
2020	35,935	2,889	8%	355	12%
2021	39,508	3,211	8%	377	12%
Drivers Involved in Fatal Crashes					
2017	52,752	3,065	6%	421	14%
2018	51,905	2,704	5%	361	13%
2019	51,302	2,979	6%	399	13%
2020	54,165	2,977	5%	357	12%
2021	60,904	3,346	5%	382	11%
Fatalities					
2017	37,473	3,242	9%	450	14%
2018	36,835	2,858	8%	393	14%
2019	36,355	3,119	9%	430	14%
2020	39,007	3,154	8%	397	13%
2021	42,939	3,522	8%	410	12%

Source: FARS 2017-2020 Final File, 2021 Annual Report File (ARF)

[1] Blincoe, L., Miller, T., Wang, J.-S., Swedler, D., Coughlin, T., Lawrence, B., Guo, F., Klauer, S., & Dingus, T. (2023, February). *The economic and societal impact of motor vehicle crashes, 2019 (Revised)* (Report No. DOT HS 813 403). National Highway Traffic Safety Administration. https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813403

Table 2 presents data on drivers involved in fatal crashes in 2021 by age group. Seven percent (368 of 5,088) of drivers 15 to 20 years old involved in fatal crashes were distracted at the time of the crashes. This age group has the largest proportion of drivers within each age group who were distracted (column titled "All Distracted Drivers: Percentage of Total Drivers in This Age Group").

Table 2
Drivers Involved in Fatal Traffic Crashes, by Age Group, Distraction, and Cell Phone Use, 2021

Age Group	Total Drivers		All Distracted Drivers			Drivers Using Cell Phones		
	Number	Percentage of Total Drivers	Number	Percentage of Total Drivers in This Age Group	Percentage of All Distracted Drivers	Number	Percentage of All Distracted Drivers In This Age Group	Percentage of Drivers Using Cell Phones
15–20	5,088	8%	368	7%	11%	61	17%	16%
21–24	5,513	9%	357	6%	11%	58	16%	15%
25–34	13,200	22%	820	6%	25%	113	14%	30%
35–44	10,291	17%	543	5%	16%	70	13%	18%
45–54	8,764	14%	425	5%	13%	34	8%	9%
55–64	8,085	13%	318	4%	10%	26	8%	7%
65–74	4,768	8%	216	5%	6%	17	8%	4%
75+	3,263	5%	192	6%	6%	3	2%	1%
Total	**60,904**	**100%**	**3,346**	**5%**	**100%**	**382**	**12%**	**100%**

Source: FARS 2021 ARF
Notes: The total includes 94 drivers 14 and younger, 7 of whom were noted as distracted. Additionally, the total includes 1,838 of unknown age, 100 of whom were noted as distracted.

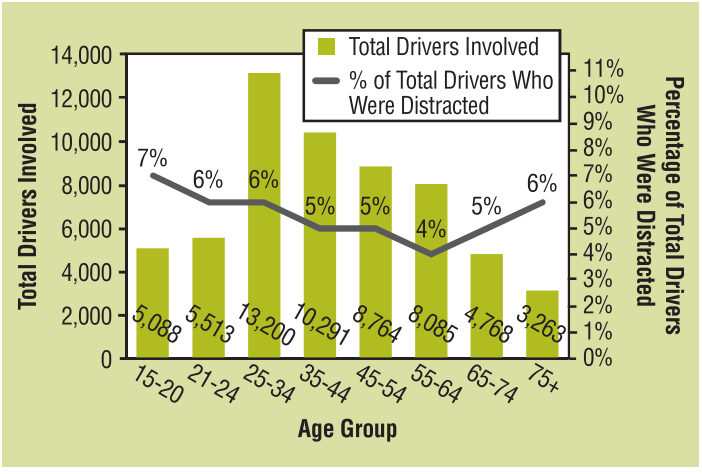
Comparing the percentages of drivers of each age group involved in fatal crashes to the percentages involved in distraction-affected fatal crashes points to overrepresentation of distraction in drivers under 35. This is seen by comparing the columns titled "Total Drivers: Percentage of Total Drivers" and "All Distracted Drivers: Percentage of All Distracted Drivers." In summary:

- Drivers in the 15-to-20 age group made up 8 percent of drivers in fatal crashes, but were 11 percent of all distracted drivers and 16 percent of drivers distracted by cell phones in fatal crashes.
- Drivers in the 21-to-24 age group made up 9 percent of drivers in fatal crashes, but were 11 percent of all distracted drivers and 15 percent of drivers distracted by cell phones in fatal crashes.
- Drivers in the 25-to-34 age group made up 22 percent of drivers in fatal crashes, but were 25 percent of all distracted drivers and 30 percent of drivers distracted by cell phones in fatal crashes.

Looking at the "All Distracted Drivers: Percentage of Total Drivers in This Age Group" column, the percentages gradually declined from 7 percent for the 15-to-20 age group to 4 percent for the 55-to-64 age group, and then gradually increased to 6 percent for the 75+ age group.

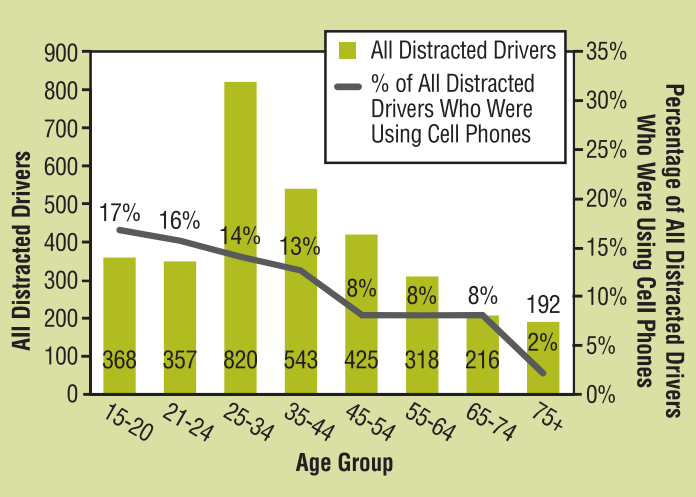
The distributions of drivers by age group for total drivers involved in fatal crashes and percentage of distracted drivers involved in fatal crashes, and distracted drivers involved in fatal crashes and percentage of distracted drivers using cell phones during fatal crashes, are shown in Figures 1a and 1b.

Figure 1a
Drivers Involved and Percentage of Drivers Involved in Fatal Traffic Crashes Who Were Distracted, by Age Group, 2021



Source: FARS 2021 ARF

Figure 1b
Distracted Drivers and Percentage of Distracted Drivers Involved in Fatal Traffic Crashes Who Were Using Cell Phones, by Age Group, 2021



Source: FARS 2021 ARF

Table 3 shows the role of the people killed in distraction-affected crashes in 2021. The large majority of fatalities in distraction-affected crashes (and in all fatal crashes) were motor vehicle occupants (including motorcyclists): 80 percent for all fatal crashes and 82 percent for distraction-affected fatal crashes. The other victims were nonoccupants – pedestrians, pedalcyclists, and others. Distracted drivers were involved in the deaths of 644 nonoccupants in 2021. In general, looking at person type, the proportion of fatalities in distraction-affected fatal crashes is very similar to that in all fatal crashes.

Table 3
Fatalities in All Traffic Crashes and Distraction-Affected Crashes, by Person Type, 2021

Person Type	Total Fatalities		Distraction-Affected (D-A) Fatalities	
	Number	Percent	Number	Percent
Total	**42,939**	**100%**	**3,522**	**100%**
Occupants				
Driver	27,422	64%	2,079	59%
Passenger	6,868	16%	799	23%
Total Occupants	34,290	80%	2,878	82%
Nonocccupants				
Pedestrian	7,388	17%	543	15%
Pedalcyclist	966	2%	75	2%
Other/Unknown	295	1%	26	1%
Total Nonoccupants	8,649	20%	644	18%

Source: FARS 2021 ARF

Seventy-one percent of the distracted drivers involved in fatal crashes were males as compared to 72 percent of drivers in all fatal crashes in 2021.

Estimates of People Injured in Distraction-Affected Traffic Crashes

In 2021 an estimated 2,497,657 people were injured in police-reported traffic crashes (Table 4). The number of people injured in distraction-affected crashes in 2021 was estimated at 326,415 (15% of all people injured). An estimated 28,994 people were injured in 2021 in crashes involving cell phone use or other cell-phone-related activities (8% of all people injured in distraction-affected crashes).

Table 4
People Injured in All Crashes and Distraction-Affected Crashes, 2017–2021

Year	Total	Distracted-Affected (D-A) Crashes			
				Cell Phone Use	
		Number	Percentage of Total	Number	Percentage of D-A
2017	2,745,268	434,733	16%	31,076	7%
2018	2,710,059	400,303	15%	32,632	8%
2019	2,740,141	423,847	15%	28,300	7%
2020	2,282,209	324,663	14%	30,000	9%
2021	2,497,657	362,415	15%	28,994	8%

Sources: FARS 2017–2020 Final File, 2021 ARF; CRSS 2017–2021

Over the past 5 years, the *estimated number* of people injured in distraction-affected crashes has shown decreases and increases. The *percentage* of injured people in distraction-affected crashes as a portion of all people injured has remained relatively constant.

Traffic Crashes of All Severity

Table 5 provides information for all police-reported traffic crashes from 2017 through 2021 including fatal crashes, injury crashes, and property-damage-only (PDO) crashes for the year. During this period, the percentages of crashes of all severities that involve distractions fluctuated very little.

In 2021 there were an estimated 248,327 distraction-affected injury crashes (14% of all injury crashes). In these crashes, an estimated 254,834 drivers (8% of all drivers in injury crashes) were distracted at the time of the crashes.

Table 5
Traffic Crashes and Distraction-Affected Crashes, by Crash Severity, 2017–2021

Year	Crash Severity	Total	Distracted-Affected (D-A) Crashes			
			Number	Percentage of Total	Cell Phone Use	
					Number	Percentage of D-A
2017	Fatal Crash	34,560	3,003	9%	418	14%
	Injury Crash	1,888,525	285,416	15%	20,539	7%
	PDO Crash	4,529,513	623,963	14%	49,929	8%
	Total	**6,452,598**	**912,382**	**14%**	**70,886**	**8%**
2018	Fatal Crash	33,919	2,645	8%	356	13%
	Injury Crash	1,893,704	276,553	15%	21,191	8%
	PDO Crash	4,807,058	659,615	14%	37,991	6%
	Total	**6,734,681**	**938,812**	**14%**	**59,537**	**6%**
2019	Fatal Crash	33,487	2,872	9%	395	14%
	Injury Crash	1,916,344	286,993	15%	20,527	7%
	PDO Crash	4,806,253	696,339	14%	40,166	6%
	Total	**6,756,084**	**986,204**	**15%**	**61,088**	**6%**
2020	Fatal Crash	35,935	2,889	8%	355	12%
	Injury Crash	1,593,390	215,310	14%	19,660	9%
	PDO Crash	3,621,681	462,106	13%	39,084	8%
	Total	**5,251,006**	**680,305**	**13%**	**59,099**	**9%**
2021	Fatal Crash	39,508	3,211	8%	377	12%
	Injury Crash	1,727,608	248,327	14%	20,015	8%
	PDO Crash	4,335,820	553,389	13%	44,518	8%
	Total	**6,102,936**	**804,928**	**13%**	**64,910**	**8%**

Sources: FARS 2017–2020 Final File, 2021 ARF; CRSS 2017–2021

Attribute Selection

As discussed in the Methodology section of this Research Note, FARS and CRSS were accessed to retrieve data on distraction-affected crashes. Table A-1 contains every variable attribute available for coding for driver distraction along with examples to illustrate the meaning of the attribute. This is the coding scheme available for FARS and CRSS. Table A-1 further indicates whether that attribute was included in the analysis for distraction-affected crashes.

In 2012 the variable attributes changed to account for different ways that PCRs from States describe general categories of distraction, inattention, and careless driving. These additional attributes provide a more accurate classification of the behavior indicated on the PCR.

Data Limitations

NHTSA recognizes that there are limitations to the collection and reporting of FARS and CRSS data with regard to driver distraction. The data collections for FARS and CRSS are based on PCRs and information gathered after the crashes have occurred.

One noteworthy challenge for collection of distracted driving data is the PCR itself. PCRs vary across jurisdictions, creating inconsistencies in reporting. Many variables on the PCR are nearly universal, but distraction is not one of those variables. Some PCRs identify distraction as a distinct reporting field while others do not have such a field and identification of distraction is based upon the narrative portion of the report. This variation in reporting forms contributes to variation in the reported number of distraction-affected crashes. Any national or State count of distraction-affected crashes should be interpreted with this limitation in mind due to potential underreporting in some States and overreporting in others.

Table A-1
Attributes Included in "Driver Distracted by" Element and Indication of Inclusion in Distraction-Affected Definitions, FARS and CRSS, 2017–2021

Attribute	Description
Not Included	
Not Distracted	Completely attentive to driving; no indication of distraction or noted as "Not Distracted"
Looked But Did Not See (deleted in 2018)	Used when the driver was paying attention to driving (not distracted), but did not see the relevant vehicle, object, etc.
No Driver Present/Unknown if Driver Present	Used when no driver is in this vehicle or when it is unknown if there was a driver present in this vehicle at the time of the crash
Not Reported	No field available on PCR; field on PCR left blank; no other information available
Reported as Unknown if Distracted	Used when the case material specifically indicates unknown
Included	
By Other Occupant(s)	Used when the driver was distracted by another occupant in this driver's vehicle prior to realization of impending danger; includes conversing with or looking at another occupant
By a Moving Object in Vehicle	Used when the driver was distracted by a moving object in this driver's vehicle prior to realization of impending danger; includes a dropped object, a moving pet, insect, or cargo
While Talking or Listening to Cell Phone	Used when the driver was talking or listening on a mobile phone; includes talking or listening on a "hands-free" or Bluetooth-enabled phone
While Manipulating Mobile Phone	Used when the driver was dialing or text messaging (texting) on a mobile phone; any manual button/control actuation on the phone qualifies
Other Mobile Phone Related	Used when the case material indicates the driver was distracted from the driving task due to mobile phone involvement, but none of the specified codes are applicable (reaching for mobile phone, etc.). This attribute is also applied when specific details regarding mobile phone distraction/usage are not provided.
Adjusting Audio or Climate Controls	Used when the driver was distracted from the driving task while adjusting the air conditioner, heater, radio, cassette, using the radio, using the cassette, or CD that are mounted in the vehicle
While Using Other Component/Controls Integral to Vehicle	Used when the driver was distracted while manipulating a control in the vehicle including adjusting headlamps or interior lights, controlling windows (power or manual), manipulating door locks (power or manual), adjusting side view mirrors (power or manual), adjusting rear view mirror, adjusting seat (power or manual), adjusting steering wheel, adjusting seat belt, on-board navigational devices, etc.
While Using or Reaching for Device/ Object Brought Into Vehicle	Used when the driver was distracted while using or reaching for a device in the vehicle including a radar detector, CDs, razor, music portable CD player, headphones, a navigational device, laptop or tablet PC, etc.
Distracted by Outside Person, Object, or Event	Used when the driver was distracted by an outside person, object, or event prior to realization of impending danger; includes animals on the roadside, a previous crash, or non-traffic-related sign (advertisement, electronic billboard, etc.). Do not use this attribute for a person, object, or event that the driver has recognized and for which the driver has taken some action (e.g., avoiding a pedestrian on the roadway).
Eating or Drinking	Used when the driver was eating or drinking or involved in an activity related to these actions (e.g., picking food from carton placed on passenger seat, reaching to throw out used food wrapper)
Smoking Related	Used when the driver was smoking or involved in an activity related to smoking, such as lighting a cigarette, putting ashes in the ash tray, etc.
Distraction/Inattention	Used exclusively when "Distraction/Inattention" or "Inattention/Distraction" is noted in the case material as one combined attribute
Distraction/Careless	Used exclusively when "Distraction/Careless" or "Careless/Distraction" is noted in the case material as one combined attribute
Careless/Inattentive	Used exclusively when "Careless/Inattentive" or "Inattentive/Careless" is noted in the case material as one combined attribute

Continued on next page.

Table A-1 (continued)
Attributes Included in "Driver Distracted by" Element and Indication of Inclusion in Distraction-Affected Definitions, FARS and CRSS, 2017–2021

Attribute	Description
Distraction (Distracted), Details Unknown	Used when "distraction" or "distracted" is noted in the case material, but specific distractions cannot be identified
Inattention (inattentive), Details Unknown	Used when "inattention" or "inattentive" is noted in the case material, but it cannot be identified if this refers to a distraction
Lost in Thought/Day Dreaming	Used when the driver was not completely attentive to driving because he/she was thinking about items other than the driving task
Other Distraction	Used when details regarding this driver's distraction are known but none of the specified codes are applicable
Distracted Driver of a Non-Contact Vehicle (new in 2018 from Related Factors - Crash Level Element)	Used for situations where the investigating officer indicates that the driver of a non-contact vehicle ("phantom vehicle") was distracted.

The following are potential reasons for underreporting of distraction-affected crashes.

1. Self-reported data elements, such as admitting to texting while driving, are always subject to bias (underreporting or false reporting). In some cases, the only source of distraction information for an investigating police officer may be the surviving driver's account of the crash and the likelihood that the driver might admit to a negative behavior such as texting while driving might be small.
2. If a driver fatality occurs in the crash, law enforcement must rely on the crash investigation in order to report on whether driver distraction was involved. Law enforcement may not have information to indicate distraction. These investigations may rely on witness account and oftentimes these accounts may not be available either.
3. Technologies are changing at a rapid speed and it is difficult to update PCRs to accommodate these changes. Without broad-sweeping changes to PCRs to incorporate new technologies and features of technologies, it is difficult to capture the data that involves driver interaction with these devices.

The following is a challenge in quantifying external distractions.

1. In the reporting of distraction-affected crashes, oftentimes an external distraction is identified as a distinct type of distraction. Some scenarios captured under external distractions might actually be related to the task of driving (e.g., looking at a street sign). However, the crash reports may not differentiate these driving-related tasks from other external distractions (looking at previous crash or billboard). Currently, the category of external distractions is included in the counts of distraction-affected crashes.

The most current information on distracted-driving laws by State is available on the Governors Highway Safety Association website at https://ghsa.org/state-laws/issues/distracted%20driving.

Fatality Analysis Reporting System

FARS contains data on every fatal motor vehicle traffic crash within the 50 States, the District of Columbia, and Puerto Rico. To be included in FARS, a traffic crash must involve a motor vehicle traveling on a public trafficway that results in the death of a vehicle occupant or a nonoccupant within 30 days of the crash. The Annual Report File (ARF) is the FARS data file associated with the most recent available year, which is subject to change when it is finalized the following year to the final version known as the Final File. The additional time between the ARF and the Final File provides the opportunity for submission of important variable data requiring outside sources, which may lead to changes in the final counts. More information on FARS can be found at www.nhtsa.gov/crash-data-systems/fatality-analysis-reporting-system.

The updated final counts for the previous data year will be reflected with the release of the recent year's ARF. For example, along with the release of the 2021 ARF, the 2020 Final File was released to replace the 2020 ARF. The final fatality count in motor vehicle traffic crashes for 2020 was 39,007, which was updated from 38,824 in the 2020 ARF.

Crash Report Sampling System

NHTSA's National Center for Statistics and Analysis (NCSA) redesigned the nationally representative sample of police-reported traffic crashes, which estimates the number of police-reported injury and property-damage-only crashes in the United States. CRSS replaced the National Automotive Sampling System (NASS) General Estimates System (GES) in 2016. More information on CRSS can be found at www.nhtsa.gov/crash-data-systems/crash-report-sampling-system-crss.

The suggested APA format citation for this document is:

National Center for Statistics and Analysis. (2023, May). *Distracted driving in 2021* (Research Note. Report No. DOT HS 813 443). National Highway Traffic Safety Administration.

This research note and other general information on highway traffic safety may be found at: https://crashstats.nhtsa.dot.gov/#/

U.S. Department of Transportation

National Highway Traffic Safety Administration

APPENDIX F – SYNCHRO OUTPUT REPORTS

HCM 6th Signalized Intersection Summary
1: O'Connor Rd & Millers Ridge/Misty Ridge Drive

07/06/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	14	1	79	22	220	0	486	69	68	241	6
Future Volume (veh/h)	41	14	1	79	22	220	0	486	69	68	241	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1767	1856	1900	1885	1885	1841	1870	1900
Adj Flow Rate, veh/h	68	32	4	152	40	247	0	546	119	84	265	8
Peak Hour Factor	0.60	0.44	0.25	0.52	0.55	0.89	0.92	0.89	0.58	0.81	0.91	0.75
Percent Heavy Veh, %	0	0	0	1	9	3	0	1	1	4	2	0
Cap, veh/h	292	123	13	223	62	267	496	1186	258	325	1428	43
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.00	0.41	0.41	0.06	0.41	0.41
Sat Flow, veh/h	619	387	40	457	193	836	1810	2926	635	1753	3522	106
Grp Volume(v), veh/h	104	0	0	439	0	0	0	333	332	84	133	140
Grp Sat Flow(s),veh/h/ln	1047	0	0	1486	0	0	1810	1791	1771	1753	1777	1851
Q Serve(g_s), s	0.0	0.0	0.0	13.8	0.0	0.0	0.0	8.6	8.6	2.0	3.0	3.1
Cycle Q Clear(g_c), s	4.1	0.0	0.0	17.9	0.0	0.0	0.0	8.6	8.6	2.0	3.0	3.1
Prop In Lane	0.65		0.04	0.35		0.56	1.00		0.36	1.00		0.06
Lane Grp Cap(c), veh/h	428	0	0	551	0	0	496	726	718	325	720	750
V/C Ratio(X)	0.24	0.00	0.00	0.80	0.00	0.00	0.00	0.46	0.46	0.26	0.19	0.19
Avail Cap(c_a), veh/h	437	0	0	561	0	0	543	726	718	371	720	750
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	0.0	0.0	20.5	0.0	0.0	0.0	13.7	13.7	14.3	12.0	12.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	7.8	0.0	0.0	0.0	2.1	2.1	0.4	0.6	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	6.8	0.0	0.0	0.0	3.4	3.4	0.7	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.0	0.0	0.0	28.2	0.0	0.0	0.0	15.8	15.8	14.7	12.6	12.6
LnGrp LOS	B			C				B	B	B	B	B
Approach Vol, veh/h		104			439			665			357	
Approach Delay, s/veh		16.0			28.2			15.8			13.1	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	30.0		24.6	8.3	30.0		24.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	25.5		20.5	5.5	25.5		20.5				
Max Q Clear Time (g_c+I1), s	4.0	10.6		6.1	0.0	5.1		19.9				
Green Ext Time (p_c), s	0.0	3.5		0.4	0.0	1.4		0.2				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			18.7									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	158	311	5	3	4
Future Vol, veh/h	1	158	311	5	3	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	25	67	75	42	75	100
Heavy Vehicles, %	0	3	2	0	0	0
Mvmt Flow	4	236	415	12	4	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	427	0	-	0	665	421
Stage 1	-	-	-	-	421	-
Stage 2	-	-	-	-	244	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1143	-	-	-	428	637
Stage 1	-	-	-	-	667	-
Stage 2	-	-	-	-	801	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1143	-	-	-	426	637
Mov Cap-2 Maneuver	-	-	-	-	426	-
Stage 1	-	-	-	-	664	-
Stage 2	-	-	-	-	801	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.1	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1143	-	-	-	511
HCM Lane V/C Ratio	0.003	-	-	-	0.016
HCM Control Delay (s/veh)	8.2	0	-	-	12.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q (veh)	0	-	-	-	0

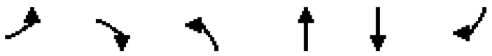
Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	115	163	20	48	32
Future Vol, veh/h	10	115	163	20	48	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	50	67	76	83	67	57
Heavy Vehicles, %	0	3	1	10	2	0
Mvmt Flow	20	172	214	24	72	56

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	238	0	-	0	438	226
Stage 1	-	-	-	-	226	-
Stage 2	-	-	-	-	212	-
Critical Hdwy	4.1	-	-	-	6.42	6.2
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.2	-	-	-	3.518	3.3
Pot Cap-1 Maneuver	1341	-	-	-	576	818
Stage 1	-	-	-	-	812	-
Stage 2	-	-	-	-	823	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1341	-	-	-	567	818
Mov Cap-2 Maneuver	-	-	-	-	567	-
Stage 1	-	-	-	-	799	-
Stage 2	-	-	-	-	823	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.8	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1341	-	-	-	655
HCM Lane V/C Ratio	0.015	-	-	-	0.195
HCM Control Delay (s/veh)	7.7	0	-	-	11.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q (veh)	0	-	-	-	0.7



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	135	32	39	474	492	137
Future Volume (veh/h)	135	32	39	474	492	137
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1811	1856	1885	1885	1870
Adj Flow Rate, veh/h	161	52	76	521	529	163
Peak Hour Factor	0.84	0.62	0.51	0.91	0.93	0.84
Percent Heavy Veh, %	1	6	3	1	1	2
Cap, veh/h	237	203	556	2353	1300	399
Arrive On Green	0.13	0.13	0.07	0.66	0.48	0.48
Sat Flow, veh/h	1795	1535	1767	3676	2793	828
Grp Volume(v), veh/h	161	52	76	521	350	342
Grp Sat Flow(s),veh/h/ln	1795	1535	1767	1791	1791	1736
Q Serve(g_s), s	3.6	1.3	0.8	2.5	5.4	5.4
Cycle Q Clear(g_c), s	3.6	1.3	0.8	2.5	5.4	5.4
Prop In Lane	1.00	1.00	1.00			0.48
Lane Grp Cap(c), veh/h	237	203	556	2353	863	836
V/C Ratio(X)	0.68	0.26	0.14	0.22	0.41	0.41
Avail Cap(c_a), veh/h	758	648	661	2353	863	836
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.6	16.6	4.3	2.9	7.1	7.1
Incr Delay (d2), s/veh	3.4	0.7	0.1	0.2	1.4	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.1	0.4	1.7	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	21.0	17.3	4.4	3.2	8.5	8.6
LnGrp LOS	C	B	A	A	A	A
Approach Vol, veh/h	213			597	692	
Approach Delay, s/veh	20.1			3.3	8.6	
Approach LOS	C			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		32.5		10.1	7.5	25.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		28.0		18.0	5.5	18.0
Max Q Clear Time (g_c+I1), s		4.5		5.6	2.8	7.4
Green Ext Time (p_c), s		3.4		0.5	0.0	3.1

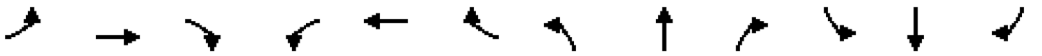
Intersection Summary	
HCM 6th Ctrl Delay, s/veh	8.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
1: O'Connor Rd & MIllers Ridge/Misty Ridge Drive

07/06/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	18	1	12	8	84	2	301	18	125	537	22
Future Volume (veh/h)	20	18	1	12	8	84	2	301	18	125	537	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1811	1900	1900	1900	1885	1900	1885	1811	1900	1885	1900
Adj Flow Rate, veh/h	36	28	4	24	12	104	8	324	24	136	624	36
Peak Hour Factor	0.56	0.64	0.25	0.50	0.67	0.81	0.25	0.93	0.75	0.92	0.86	0.61
Percent Heavy Veh, %	0	6	0	0	0	1	0	1	6	0	1	0
Cap, veh/h	99	65	7	55	21	114	650	2527	186	810	2572	148
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.04	0.75	0.75	0.04	0.75	0.75
Sat Flow, veh/h	549	707	79	203	228	1246	1810	3382	249	1810	3442	198
Grp Volume(v), veh/h	68	0	0	140	0	0	8	171	177	136	324	336
Grp Sat Flow(s),veh/h/ln	1335	0	0	1677	0	0	1810	1791	1840	1810	1791	1849
Q Serve(g_s), s	0.0	0.0	0.0	4.1	0.0	0.0	0.0	3.0	3.1	2.6	6.4	6.4
Cycle Q Clear(g_c), s	5.3	0.0	0.0	9.4	0.0	0.0	0.0	3.0	3.1	2.6	6.4	6.4
Prop In Lane	0.53		0.06	0.17		0.74	1.00		0.14	1.00		0.11
Lane Grp Cap(c), veh/h	171	0	0	191	0	0	650	1338	1375	810	1338	1382
V/C Ratio(X)	0.40	0.00	0.00	0.73	0.00	0.00	0.01	0.13	0.13	0.17	0.24	0.24
Avail Cap(c_a), veh/h	171	0	0	191	0	0	738	1338	1375	898	1338	1382
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.4	0.0	0.0	51.4	0.0	0.0	5.5	4.0	4.0	4.8	4.5	4.5
Incr Delay (d2), s/veh	1.5	0.0	0.0	13.6	0.0	0.0	0.0	0.2	0.2	0.1	0.4	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	4.7	0.0	0.0	0.1	1.0	1.0	0.8	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.9	0.0	0.0	65.0	0.0	0.0	5.5	4.2	4.2	4.9	4.9	4.9
LnGrp LOS	D			E			A	A	A	A	A	A
Approach Vol, veh/h		68			140			356			796	
Approach Delay, s/veh		50.9			65.0			4.3			4.9	
Approach LOS		D			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.4	90.0		15.0	9.4	90.0		15.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	85.5		10.5	10.5	85.5		10.5				
Max Q Clear Time (g_c+I1), s	4.6	5.1		7.3	2.0	8.4		11.4				
Green Ext Time (p_c), s	0.2	2.1		0.1	0.0	4.5		0.0				

Intersection Summary			
HCM 6th Ctrl Delay, s/veh		13.2	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	153	99	12	8	5
Future Vol, veh/h	8	153	99	12	8	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	81	67	83	75	67	63
Heavy Vehicles, %	0	2	1	0	0	0
Mvmt Flow	10	228	119	16	12	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	135	0	-	0	375	127
Stage 1	-	-	-	-	127	-
Stage 2	-	-	-	-	248	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1462	-	-	-	630	929
Stage 1	-	-	-	-	904	-
Stage 2	-	-	-	-	798	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1462	-	-	-	625	929
Mov Cap-2 Maneuver	-	-	-	-	625	-
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	798	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.3	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1462	-	-	-	719
HCM Lane V/C Ratio	0.007	-	-	-	0.028
HCM Control Delay (s/veh)	7.5	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q (veh)	0	-	-	-	0.1

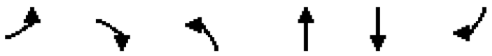
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	112	110	43	26	10
Future Vol, veh/h	15	112	110	43	26	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	66	86	76	80	78	56
Heavy Vehicles, %	0	2	0	4	4	0
Mvmt Flow	23	130	145	54	33	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	199	0	-	0	348	172
Stage 1	-	-	-	-	172	-
Stage 2	-	-	-	-	176	-
Critical Hdwy	4.1	-	-	-	6.44	6.2
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.2	-	-	-	3.536	3.3
Pot Cap-1 Maneuver	1385	-	-	-	645	877
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	850	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1385	-	-	-	633	877
Mov Cap-2 Maneuver	-	-	-	-	633	-
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	850	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.1	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1385	-	-	-	701
HCM Lane V/C Ratio	0.016	-	-	-	0.073
HCM Control Delay (s/veh)	7.6	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q (veh)	0.1	-	-	-	0.2



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	118	22	32	884	525	123
Future Volume (veh/h)	118	22	32	884	525	123
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1826	1885	1900	1885	1885
Adj Flow Rate, veh/h	159	29	35	1078	640	145
Peak Hour Factor	0.74	0.75	0.92	0.82	0.82	0.85
Percent Heavy Veh, %	2	5	1	0	1	1
Cap, veh/h	218	189	514	2447	1562	353
Arrive On Green	0.12	0.12	0.04	0.68	0.54	0.54
Sat Flow, veh/h	1781	1547	1795	3705	2996	656
Grp Volume(v), veh/h	159	29	35	1078	395	390
Grp Sat Flow(s),veh/h/ln	1781	1547	1795	1805	1791	1767
Q Serve(g_s), s	3.9	0.8	0.3	6.2	5.9	5.9
Cycle Q Clear(g_c), s	3.9	0.8	0.3	6.2	5.9	5.9
Prop In Lane	1.00	1.00	1.00			0.37
Lane Grp Cap(c), veh/h	218	189	514	2447	964	951
V/C Ratio(X)	0.73	0.15	0.07	0.44	0.41	0.41
Avail Cap(c_a), veh/h	416	361	663	2447	964	951
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	17.7	4.0	3.3	6.1	6.2
Incr Delay (d2), s/veh	4.7	0.4	0.1	0.6	1.3	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.7	0.1	0.9	1.7	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	23.7	18.0	4.1	3.9	7.4	7.5
LnGrp LOS	C	B	A	A	A	A
Approach Vol, veh/h	188			1113	785	
Approach Delay, s/veh	22.8			3.9	7.4	
Approach LOS	C			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		35.0		10.0	6.3	28.7
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		30.5		10.5	5.5	20.5
Max Q Clear Time (g_c+I1), s		8.2		5.9	2.3	7.9
Green Ext Time (p_c), s		8.0		0.2	0.0	3.9

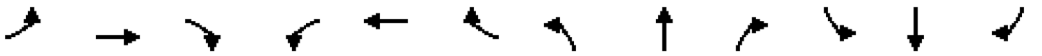
Intersection Summary	
HCM 6th Ctrl Delay, s/veh	6.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
1: O'Connor Rd & Millers Ridge/Misty Ridge Drive

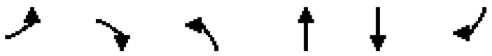
07/06/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	14	1	79	22	220	0	486	69	68	241	6
Future Volume (veh/h)	41	14	1	79	22	220	0	486	69	68	241	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1767	1856	1900	1885	1885	1841	1870	1900
Adj Flow Rate, veh/h	68	32	4	152	40	247	0	546	119	84	265	8
Peak Hour Factor	0.60	0.44	0.25	0.52	0.55	0.89	0.92	0.89	0.58	0.81	0.91	0.75
Percent Heavy Veh, %	0	0	0	1	9	3	0	1	1	4	2	0
Cap, veh/h	292	123	13	223	62	267	496	1186	258	325	1428	43
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.00	0.41	0.41	0.06	0.41	0.41
Sat Flow, veh/h	619	387	40	457	193	836	1810	2926	635	1753	3522	106
Grp Volume(v), veh/h	104	0	0	439	0	0	0	333	332	84	133	140
Grp Sat Flow(s),veh/h/ln	1047	0	0	1486	0	0	1810	1791	1771	1753	1777	1851
Q Serve(g_s), s	0.0	0.0	0.0	13.8	0.0	0.0	0.0	8.6	8.6	2.0	3.0	3.1
Cycle Q Clear(g_c), s	4.1	0.0	0.0	17.9	0.0	0.0	0.0	8.6	8.6	2.0	3.0	3.1
Prop In Lane	0.65		0.04	0.35		0.56	1.00		0.36	1.00		0.06
Lane Grp Cap(c), veh/h	428	0	0	551	0	0	496	726	718	325	720	750
V/C Ratio(X)	0.24	0.00	0.00	0.80	0.00	0.00	0.00	0.46	0.46	0.26	0.19	0.19
Avail Cap(c_a), veh/h	437	0	0	561	0	0	543	726	718	371	720	750
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	0.0	0.0	20.5	0.0	0.0	0.0	13.7	13.7	14.3	12.0	12.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	7.8	0.0	0.0	0.0	2.1	2.1	0.4	0.6	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	6.8	0.0	0.0	0.0	3.4	3.4	0.7	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.0	0.0	0.0	28.2	0.0	0.0	0.0	15.8	15.8	14.7	12.6	12.6
LnGrp LOS	B			C				B	B	B	B	B
Approach Vol, veh/h		104			439			665			357	
Approach Delay, s/veh		16.0			28.2			15.8			13.1	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	30.0		24.6	8.3	30.0		24.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	25.5		20.5	5.5	25.5		20.5				
Max Q Clear Time (g_c+I1), s	4.0	10.6		6.1	0.0	5.1		19.9				
Green Ext Time (p_c), s	0.0	3.5		0.4	0.0	1.4		0.2				

Intersection Summary			
HCM 6th Ctrl Delay, s/veh		18.7	
HCM 6th LOS		B	



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	135	32	39	474	492	137
Future Volume (veh/h)	135	32	39	474	492	137
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1811	1856	1885	1885	1870
Adj Flow Rate, veh/h	161	52	76	521	529	163
Peak Hour Factor	0.84	0.62	0.51	0.91	0.93	0.84
Percent Heavy Veh, %	1	6	3	1	1	2
Cap, veh/h	197	169	592	2543	1497	459
Arrive On Green	0.11	0.11	0.07	0.71	0.55	0.55
Sat Flow, veh/h	1795	1535	1767	3676	2793	828
Grp Volume(v), veh/h	161	52	76	521	350	342
Grp Sat Flow(s),veh/h/ln	1795	1535	1767	1791	1791	1736
Q Serve(g_s), s	4.4	1.6	0.8	2.5	5.4	5.5
Cycle Q Clear(g_c), s	4.4	1.6	0.8	2.5	5.4	5.5
Prop In Lane	1.00	1.00	1.00			0.48
Lane Grp Cap(c), veh/h	197	169	592	2543	994	963
V/C Ratio(X)	0.82	0.31	0.13	0.20	0.35	0.35
Avail Cap(c_a), veh/h	197	169	847	2543	994	963
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.8	20.5	3.6	2.5	6.2	6.2
Incr Delay (d2), s/veh	22.5	1.0	0.1	0.2	1.0	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	1.4	0.1	0.3	1.6	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	44.2	21.5	3.7	2.6	7.1	7.2
LnGrp LOS	D	C	A	A	A	A
Approach Vol, veh/h	213			597	692	
Approach Delay, s/veh	38.7			2.8	7.2	
Approach LOS	D			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		40.0		10.0	7.8	32.2
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		35.5		5.5	10.5	20.5
Max Q Clear Time (g_c+I1), s		4.5		6.4	2.8	7.5
Green Ext Time (p_c), s		3.6		0.0	0.1	3.5

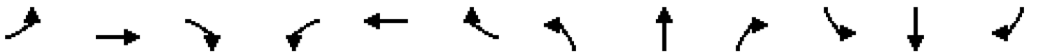
Intersection Summary	
HCM 6th Ctrl Delay, s/veh	9.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
1: O'Connor Rd & MIllers Ridge/Misty Ridge Drive

07/06/2025



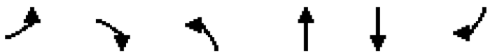
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	18	1	12	8	84	2	301	18	125	537	22
Future Volume (veh/h)	20	18	1	12	8	84	2	301	18	125	537	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1811	1900	1900	1900	1885	1900	1885	1811	1900	1885	1900
Adj Flow Rate, veh/h	36	28	4	24	12	104	8	324	24	136	624	36
Peak Hour Factor	0.56	0.64	0.25	0.50	0.67	0.81	0.25	0.93	0.75	0.92	0.86	0.61
Percent Heavy Veh, %	0	6	0	0	0	1	0	1	6	0	1	0
Cap, veh/h	220	118	13	128	30	157	485	1494	110	548	1563	90
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.08	0.44	0.44	0.10	0.45	0.45
Sat Flow, veh/h	648	905	97	188	227	1201	1810	3382	249	1810	3442	198
Grp Volume(v), veh/h	68	0	0	140	0	0	8	171	177	136	324	336
Grp Sat Flow(s),veh/h/ln	1649	0	0	1616	0	0	1810	1791	1840	1810	1791	1849
Q Serve(g_s), s	0.0	0.0	0.0	1.7	0.0	0.0	0.0	2.4	2.4	2.0	4.9	4.9
Cycle Q Clear(g_c), s	1.4	0.0	0.0	3.3	0.0	0.0	0.0	2.4	2.4	2.0	4.9	4.9
Prop In Lane	0.53		0.06	0.17		0.74	1.00		0.14	1.00		0.11
Lane Grp Cap(c), veh/h	351	0	0	315	0	0	485	791	813	548	813	840
V/C Ratio(X)	0.19	0.00	0.00	0.44	0.00	0.00	0.02	0.22	0.22	0.25	0.40	0.40
Avail Cap(c_a), veh/h	799	0	0	809	0	0	555	791	813	618	813	840
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	0.0	0.0	16.8	0.0	0.0	10.6	7.0	7.0	8.4	7.4	7.4
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.0	0.0	0.0	0.0	0.6	0.6	0.2	1.5	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	1.2	0.0	0.0	0.0	0.7	0.8	0.6	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.3	0.0	0.0	17.8	0.0	0.0	10.6	7.6	7.6	8.6	8.9	8.8
LnGrp LOS	B			B			B	A	A	A	A	A
Approach Vol, veh/h		68			140			356			796	
Approach Delay, s/veh		16.3			17.8			7.7			8.8	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	22.5		9.8	7.9	23.0		9.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	18.0		18.0	5.0	18.5		18.0				
Max Q Clear Time (g_c+I1), s	4.0	4.4		3.4	2.0	6.9		5.3				
Green Ext Time (p_c), s	0.0	1.6		0.2	0.0	3.0		0.6				

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	9.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	118	22	32	884	525	123
Future Volume (veh/h)	118	22	32	884	525	123
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1826	1885	1900	1885	1885
Adj Flow Rate, veh/h	159	29	35	1078	640	145
Peak Hour Factor	0.74	0.75	0.92	0.82	0.82	0.85
Percent Heavy Veh, %	2	5	1	0	1	1
Cap, veh/h	218	189	514	2447	1562	353
Arrive On Green	0.12	0.12	0.04	0.68	0.54	0.54
Sat Flow, veh/h	1781	1547	1795	3705	2996	656
Grp Volume(v), veh/h	159	29	35	1078	395	390
Grp Sat Flow(s),veh/h/ln	1781	1547	1795	1805	1791	1767
Q Serve(g_s), s	3.9	0.8	0.3	6.2	5.9	5.9
Cycle Q Clear(g_c), s	3.9	0.8	0.3	6.2	5.9	5.9
Prop In Lane	1.00	1.00	1.00			0.37
Lane Grp Cap(c), veh/h	218	189	514	2447	964	951
V/C Ratio(X)	0.73	0.15	0.07	0.44	0.41	0.41
Avail Cap(c_a), veh/h	416	361	663	2447	964	951
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	17.7	4.0	3.3	6.1	6.2
Incr Delay (d2), s/veh	4.7	0.4	0.1	0.6	1.3	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.7	0.1	0.9	1.7	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	23.7	18.0	4.1	3.9	7.4	7.5
LnGrp LOS	C	B	A	A	A	A
Approach Vol, veh/h	188			1113	785	
Approach Delay, s/veh	22.8			3.9	7.4	
Approach LOS	C			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		35.0		10.0	6.3	28.7
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		30.5		10.5	5.5	20.5
Max Q Clear Time (g_c+I1), s		8.2		5.9	2.3	7.9
Green Ext Time (p_c), s		8.0		0.2	0.0	3.9

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	6.9
HCM 6th LOS	A

Notes

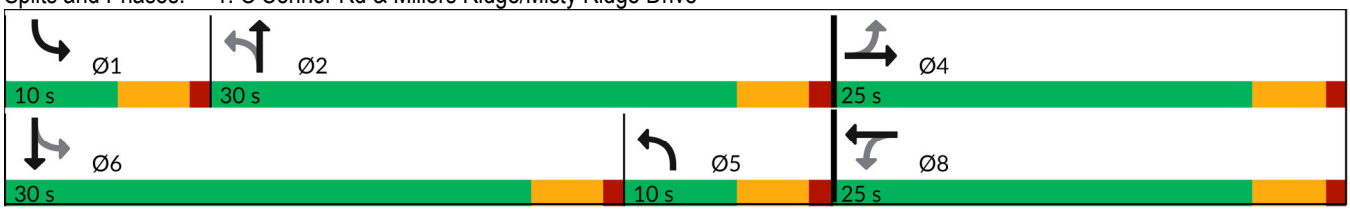
User approved pedestrian interval to be less than phase max green.

APPENDIX G – RECOMMENDED SIGNAL TIMING SHEETS

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	Ø5
Lane Configurations								
Traffic Volume (vph)	41	14	79	22	486	68	241	
Future Volume (vph)	41	14	79	22	486	68	241	
Turn Type	Perm	NA	Perm	NA	NA	pm+pt	NA	
Protected Phases		4		8	2	1	6	5
Permitted Phases	4		8			6		
Detector Phase	4	4	8	8	2	1	6	
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	9.5
Total Split (s)	25.0	25.0	25.0	25.0	30.0	10.0	30.0	10.0
Total Split (%)	38.5%	38.5%	38.5%	38.5%	46.2%	15.4%	46.2%	15%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	
Lead/Lag					Lag	Lead	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	Max	None
Act Effct Green (s)		18.0		18.0	26.0	33.5	33.5	
Actuated g/C Ratio		0.30		0.30	0.43	0.55	0.55	
v/c Ratio		0.30		0.86	0.43	0.20	0.13	
Control Delay (s/veh)		19.5		35.4	13.7	8.2	7.0	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay (s/veh)		19.5		35.4	13.7	8.2	7.0	
LOS		B		D	B	A	A	
Approach Delay (s/veh)		19.5		35.4	13.8		7.4	
Approach LOS		B		D	B		A	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 60.7	
Natural Cycle: 55	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay (s/veh): 18.8	Intersection LOS: B
Intersection Capacity Utilization 49.5%	ICU Level of Service A
Analysis Period (min) 15	

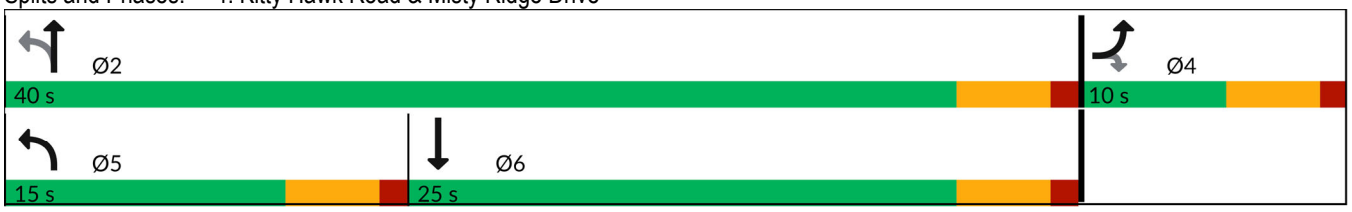
Splits and Phases: 1: O'Connor Rd & Millers Ridge/Misty Ridge Drive



Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	135	32	39	474	492
Future Volume (vph)	135	32	39	474	492
Turn Type	Prot	Perm	pm+pt	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5
Total Split (s)	10.0	10.0	15.0	40.0	25.0
Total Split (%)	20.0%	20.0%	30.0%	80.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Max	Max
Act Effct Green (s)	5.6	5.6	39.2	39.2	32.1
Actuated g/C Ratio	0.10	0.10	0.73	0.73	0.60
v/c Ratio	0.87	0.25	0.13	0.20	0.33
Control Delay (s/veh)	68.4	10.9	2.7	2.5	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	68.4	10.9	2.7	2.5	6.1
LOS	E	B	A	A	A
Approach Delay (s/veh)	54.4			2.6	6.2
Approach LOS	D			A	A

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 53.9	
Natural Cycle: 55	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay (s/veh): 11.6	Intersection LOS: B
Intersection Capacity Utilization 40.9%	ICU Level of Service A
Analysis Period (min) 15	

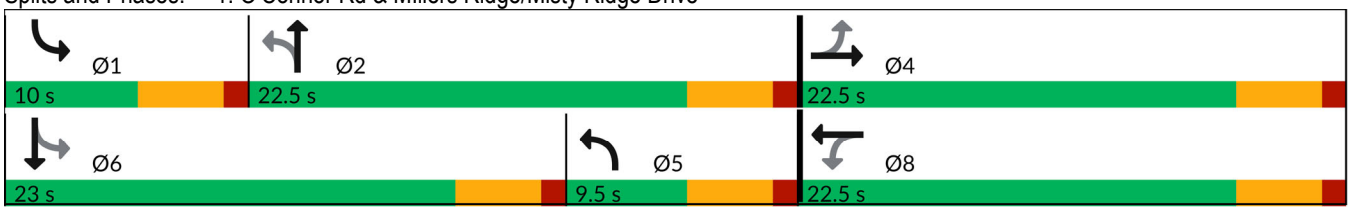
Splits and Phases: 4: Kitty Hawk Road & Misty Ridge Drive



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	20	18	12	8	2	301	125	537
Future Volume (vph)	20	18	12	8	2	301	125	537
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	10.0	23.0
Total Split (%)	40.9%	40.9%	40.9%	40.9%	17.3%	40.9%	18.2%	41.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)		7.4		7.4	21.6	22.7	27.6	28.7
Actuated g/C Ratio		0.17		0.17	0.50	0.52	0.63	0.66
v/c Ratio		0.26		0.39	0.01	0.18	0.20	0.28
Control Delay (s/veh)		17.9		10.3	9.0	8.6	6.7	5.8
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		17.9		10.3	9.0	8.6	6.7	5.8
LOS		B		B	A	A	A	A
Approach Delay (s/veh)		17.9		10.3		8.6		6.0
Approach LOS		B		B		A		A

Intersection Summary	
Cycle Length: 55	
Actuated Cycle Length: 43.5	
Natural Cycle: 55	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay (s/veh): 7.7	Intersection LOS: A
Intersection Capacity Utilization 37.4%	ICU Level of Service A
Analysis Period (min) 15	

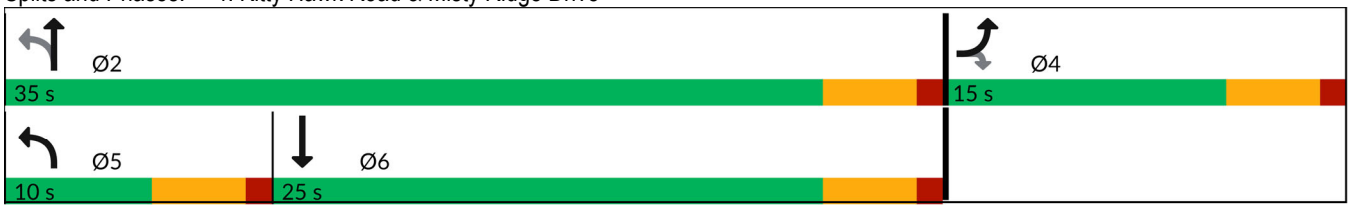
Splits and Phases: 1: O'Connor Rd & MIllers Ridge/Misty Ridge Drive



Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	118	22	32	884	525
Future Volume (vph)	118	22	32	884	525
Turn Type	Prot	Perm	pm+pt	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5
Total Split (s)	15.0	15.0	10.0	35.0	25.0
Total Split (%)	30.0%	30.0%	20.0%	70.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Max	Max
Act Effct Green (s)	9.1	9.1	35.4	36.3	32.2
Actuated g/C Ratio	0.18	0.18	0.69	0.71	0.63
v/c Ratio	0.50	0.09	0.06	0.42	0.35
Control Delay (s/veh)	24.4	8.2	4.1	5.1	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.4	8.2	4.1	5.1	7.4
LOS	C	A	A	A	A
Approach Delay (s/veh)	22.0			5.1	7.5
Approach LOS	C			A	A

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 51.3	
Natural Cycle: 55	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay (s/veh): 7.5	Intersection LOS: A
Intersection Capacity Utilization 40.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Kitty Hawk Road & Misty Ridge Drive



APPENDIX H – SIGNING LAYOUT

LEGACY ENGINEERING GROUP
Legacy Engineering Group, PLLC
7800 W Interstate 10, Ste 830, San Antonio, Texas 78230
210.860.1960 / TBPE Firm Registration No. 20623

S.I.T.E. Analysis

Misty Ridge Drive

Existing Sign Inventory

Legend

DATE:
7/10/2025

SCALE:
1" = 200'

PAGE:

APPENDIX I – SPEED DATA

cj hensch & associates

TRAFFIC DATA REPORT
SPEED STUDY

Location: Misty Ridge Dr west of Fortune Ridge Dr
Start Date: 5/20/2025

Direction: Eastbound

5/20/2025 Time	0 - 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
0:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2
0:15	0	0	1	2	0	0	0	0	0	0	0	0	0	3
0:30	0	0	0	2	0	1	0	0	0	0	0	0	0	3
0:45	0	0	0	4	3	0	0	0	0	0	0	0	0	7
	0	0	1	9	4	1	0	0	0	0	0	0	0	15
1:00	0	0	1	0	2	0	0	0	0	0	0	0	0	3
1:15	0	0	1	0	1	1	0	0	0	0	0	0	0	3
1:30	0	0	0	2	1	0	0	0	0	0	0	0	0	3
1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	2	2	4	1	0	0	0	0	0	0	0	9
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15	0	0	0	1	0	0	0	0	0	0	0	0	0	1
2:30	0	0	0	0	1	0	0	0	0	0	0	0	0	1
2:45	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	0	0	0	2	1	0	0	0	0	0	0	0	0	3
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15	0	0	0	0	2	0	0	0	0	0	0	0	0	2
3:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45	0	0	1	0	1	1	0	0	0	0	0	0	0	3
	0	0	1	0	3	1	0	0	0	0	0	0	0	5
4:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
4:15	0	0	1	1	1	0	0	0	0	0	0	0	0	3
4:30	0	0	0	2	0	0	0	0	0	0	0	0	0	2
4:45	0	0	0	1	0	1	0	0	0	0	0	0	0	2
	0	0	1	4	2	1	0	0	0	0	0	0	0	8
5:00	0	1	0	1	0	0	0	0	0	0	0	0	0	2
5:15	2	1	2	0	0	0	0	0	0	0	0	0	0	5
5:30	0	0	0	1	1	1	0	0	0	0	0	0	0	3
5:45	0	1	1	2	1	1	0	0	0	0	0	0	0	6
	2	3	3	4	2	2	0	0	0	0	0	0	0	16
6:00	0	1	0	0	1	1	0	0	0	0	0	0	0	3
6:15	1	5	3	5	1	0	0	0	0	0	0	0	0	15
6:30	13	8	3	0	0	0	0	0	0	0	0	0	0	24
6:45	34	19	2	0	0	0	0	0	0	0	0	0	0	55
	48	33	8	5	2	1	0	0	0	0	0	0	0	97
7:00	67	11	2	0	0	0	0	0	0	0	0	0	0	80
7:15	63	19	1	1	0	0	0	0	0	0	0	0	0	84
7:30	12	19	7	0	0	0	0	0	0	0	0	0	0	38
7:45	2	13	3	1	1	0	0	0	0	0	0	0	0	20
	144	62	13	2	1	0	0	0	0	0	0	0	0	222
8:00	0	7	7	2	0	0	0	0	0	0	0	0	0	16
8:15	1	1	10	2	1	0	0	0	0	0	0	0	0	15
8:30	0	0	6	3	0	0	0	0	0	0	0	0	0	9
8:45	2	3	3	2	1	0	0	0	0	0	0	0	0	11
	3	11	26	9	2	0	0	0	0	0	0	0	0	51
9:00	0	3	8	3	2	0	0	0	0	0	0	0	0	16
9:15	3	3	0	7	0	1	0	0	0	0	0	0	0	14
9:30	0	2	8	5	3	1	0	0	0	0	0	0	0	19
9:45	1	1	6	7	4	0	0	0	0	0	0	0	0	19
	4	9	22	22	9	2	0	0	0	0	0	0	0	68
10:00	1	1	3	5	4	0	0	0	0	0	0	0	0	14
10:15	1	4	2	4	3	0	0	0	0	0	0	0	0	14
10:30	0	4	3	5	1	0	0	0	0	0	0	0	0	13
10:45	0	3	2	5	2	1	0	0	0	0	0	0	0	13
	2	12	10	19	10	1	0	0	0	0	0	0	0	54
11:00	0	2	2	12	3	0	0	0	0	0	0	0	0	19
11:15	0	2	7	10	2	0	0	0	0	0	0	0	0	21
11:30	0	0	4	9	5	0	0	0	0	0	0	0	0	18
11:45	2	3	3	14	4	1	0	0	0	0	0	0	0	27
	2	7	16	45	14	1	0	0	0	0	0	0	0	85
12:00	0	1	2	5	5	1	0	0	0	0	0	0	0	14

cj hensch & associates

TRAFFIC DATA REPORT
SPEED STUDY

Location: Misty Ridge Dr west of Fortune Ridge Dr
Start Date: 5/20/2025

12:15	2	1	2	10	9	1	0	0	0	0	0	0	0	25
12:30	0	1	4	11	5	1	0	0	0	0	0	0	0	22
12:45	1	1	6	7	3	0	0	0	0	0	0	0	0	18
	3	4	14	33	22	3	0	0	0	0	0	0	0	79
13:00	1	2	6	10	3	2	0	0	0	0	0	0	0	24
13:15	1	4	9	7	0	2	0	0	0	0	0	0	0	23
13:30	1	7	1	10	3	1	1	0	0	0	0	0	0	24
13:45	1	4	8	12	3	0	0	0	0	0	0	0	0	28
	4	17	24	39	9	5	1	0	0	0	0	0	0	99
14:00	5	6	8	4	0	0	0	0	0	0	0	0	0	23
14:15	2	7	13	4	2	0	0	0	0	0	0	0	0	28
14:30	2	9	9	2	0	0	0	0	0	0	0	0	0	22
14:45	14	17	5	1	0	0	0	0	0	0	0	0	0	37
	23	39	35	11	2	0	0	0	0	0	0	0	0	110
15:00	30	30	6	0	0	0	0	0	0	0	0	0	0	66
15:15	9	27	17	5	2	0	0	0	0	0	0	0	0	60
15:30	0	15	18	4	4	0	0	0	0	0	0	0	0	41
15:45	0	12	15	5	3	1	0	0	0	0	0	0	0	36
	39	84	56	14	9	1	0	0	0	0	0	0	0	203
16:00	1	2	0	17	11	4	0	0	0	0	0	0	0	35
16:15	1	9	3	21	9	5	0	0	0	0	0	0	0	48
16:30	0	2	4	15	19	1	0	0	0	0	0	0	0	41
16:45	0	2	1	12	12	2	0	0	0	0	0	0	0	29
	2	15	8	65	51	12	0	0	0	0	0	0	0	153
17:00	0	0	5	17	19	1	0	0	0	0	0	0	0	42
17:15	1	0	6	7	13	6	0	0	0	0	0	0	0	33
17:30	0	4	5	19	13	7	0	0	0	0	0	0	0	48
17:45	0	0	2	15	18	6	0	0	0	0	0	0	0	41
	1	4	18	58	63	20	0	0	0	0	0	0	0	164
18:00	0	1	4	16	7	2	0	0	0	0	0	0	0	30
18:15	0	0	1	8	11	2	0	0	0	0	0	0	0	22
18:30	0	1	1	18	6	3	0	0	0	0	0	0	0	29
18:45	0	0	3	8	5	0	0	0	0	0	0	0	0	16
	0	2	9	50	29	7	0	0	0	0	0	0	0	97
19:00	0	0	3	6	8	1	0	0	0	0	0	0	0	18
19:15	2	0	2	10	8	1	0	0	0	0	0	0	0	23
19:30	0	1	3	8	5	1	0	0	0	0	0	0	0	18
19:45	0	1	6	9	7	0	0	0	0	0	0	0	0	23
	2	2	14	33	28	3	0	0	0	0	0	0	0	82
20:00	0	0	0	10	5	1	0	0	0	0	0	0	0	16
20:15	0	1	3	6	3	0	0	0	0	0	0	0	0	13
20:30	0	0	0	8	4	2	0	0	0	0	0	0	0	14
20:45	0	1	0	7	10	0	0	0	0	0	0	0	0	18
	0	2	3	31	22	3	0	0	0	0	0	0	0	61
21:00	0	0	0	6	4	0	0	0	0	0	0	0	0	10
21:15	0	0	2	15	3	1	0	0	0	0	0	0	0	21
21:30	0	0	1	9	3	0	0	0	0	0	0	0	0	13
21:45	0	2	3	3	6	1	0	0	0	0	0	0	0	15
	0	2	6	33	16	2	0	0	0	0	0	0	0	59
22:00	0	0	1	9	2	0	0	0	0	0	0	0	0	12
22:15	0	1	2	5	0	1	0	0	0	0	0	0	0	9
22:30	0	0	4	8	0	0	0	0	0	0	0	0	0	12
22:45	0	0	0	8	1	0	0	0	0	0	0	0	0	9
	0	1	7	30	3	1	0	0	0	0	0	0	0	42
23:00	0	0	3	2	0	0	0	0	0	0	0	0	0	5
23:15	0	0	3	2	2	0	0	0	0	0	0	0	0	7
23:30	0	0	1	3	5	1	0	0	0	0	0	0	0	10
23:45	0	0	1	5	2	0	1	0	0	0	0	0	0	9
	0	0	8	12	9	1	1	0	0	0	0	0	0	31
Total	279	309	305	532	317	69	2	0	0	0	0	0	0	1813

	15th	50th	85th	95th
Percentile Speed	14	24	30	33
Mean Speed (Average)	23.7			
10 MPH Pace Speed	24-33			

cj hensch & associates

TRAFFIC DATA REPORT
SPEED STUDY

Location: Misty Ridge Dr west of Fortune Ridge Dr
Start Date: 5/20/2025

Number in Pace	883
Percent in Pace	49.0%
Number > 30 MPH	388
Percent > 30 MPH	21.4%

cj hensch & associates

TRAFFIC DATA REPORT
SPEED STUDY

Location: Misty Ridge Dr west of Frontier Ridge Dr
Start Date: 5/20/2025

Direction: Eastbound

5/20/2025 Time	0 - 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
0:00	0	0	1	1	0	0	0	0	0	0	0	0	0	2
0:15	0	0	0	3	0	0	0	0	0	0	0	0	0	3
0:30	0	0	0	1	0	0	0	0	0	0	0	0	0	1
0:45	0	0	0	3	1	0	0	0	0	0	0	0	0	4
	0	0	1	8	1	0	0	0	0	0	0	0	0	10
1:00	0	0	0	2	1	1	0	0	0	0	0	0	0	4
1:15	0	0	0	2	1	0	0	0	0	0	0	0	0	3
1:30	0	0	1	0	1	0	0	0	0	0	0	0	0	2
1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	1	4	3	1	0	0	0	0	0	0	0	9
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30	0	0	0	0	1	0	0	0	0	0	0	0	0	1
2:45	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	0	0	0	0	2	0	0	0	0	0	0	0	0	2
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15	0	0	0	1	1	0	0	0	0	0	0	0	0	2
3:30	0	0	0	0	1	0	0	0	0	0	0	0	0	1
3:45	0	0	0	1	1	1	0	0	0	0	0	0	0	3
	0	0	0	2	3	1	0	0	0	0	0	0	0	6
4:00	0	0	1	2	0	0	0	0	0	0	0	0	0	3
4:15	0	0	1	2	3	0	0	0	0	0	0	0	0	6
4:30	0	0	1	2	0	0	0	0	0	0	0	0	0	3
4:45	0	0	0	3	1	0	0	0	0	0	0	0	0	4
	0	0	3	9	4	0	0	0	0	0	0	0	0	16
5:00	0	0	2	1	1	0	0	0	0	0	0	0	0	4
5:15	1	0	2	5	0	0	0	0	0	0	0	0	0	8
5:30	0	0	0	0	2	1	0	0	0	0	0	0	0	3
5:45	0	0	0	3	3	0	0	0	0	0	0	0	0	6
	1	0	4	9	6	1	0	0	0	0	0	0	0	21
6:00	0	0	0	4	2	0	0	0	0	0	0	0	0	6
6:15	0	0	1	6	5	0	0	0	0	0	0	0	0	12
6:30	0	1	3	5	1	0	0	0	0	0	0	0	0	10
6:45	0	2	12	8	0	0	0	0	0	0	0	0	0	22
	0	3	16	23	8	0	0	0	0	0	0	0	0	50
7:00	0	3	22	11	1	0	0	0	0	0	0	0	0	37
7:15	0	1	9	31	1	1	0	0	0	0	0	0	0	43
7:30	0	0	10	9	2	0	0	0	0	0	0	0	0	21
7:45	1	1	4	6	2	3	0	0	0	0	0	0	0	17
	1	5	45	57	6	4	0	0	0	0	0	0	0	118
8:00	0	1	7	4	2	0	0	0	0	0	0	0	0	14
8:15	0	0	3	7	2	0	0	0	0	0	0	0	0	12
8:30	0	1	3	5	1	0	0	0	0	0	0	0	0	10
8:45	0	0	3	5	1	0	0	0	0	0	0	0	0	9
	0	2	16	21	6	0	0	0	0	0	0	0	0	45
9:00	0	1	2	7	1	0	0	0	0	0	0	0	0	11
9:15	0	0	3	4	3	0	0	0	0	0	0	0	0	10
9:30	0	0	2	10	3	1	0	0	0	0	0	0	0	16
9:45	0	1	3	3	2	0	0	0	0	0	0	0	0	9
	0	2	10	24	9	1	0	0	0	0	0	0	0	46
10:00	0	1	3	4	4	0	0	0	0	0	0	0	0	12
10:15	0	0	4	1	3	0	0	0	0	0	0	0	0	8
10:30	0	0	3	5	4	0	0	0	0	0	0	0	0	12
10:45	1	0	2	6	3	1	0	0	0	0	0	0	0	13
	1	1	12	16	14	1	0	0	0	0	0	0	0	45
11:00	0	0	3	8	6	1	0	0	0	0	0	0	0	18
11:15	0	0	4	7	1	1	0	0	0	0	0	0	0	13
11:30	0	0	3	9	3	1	0	0	0	0	0	0	0	16
11:45	0	1	4	9	3	0	0	0	0	0	0	0	0	17
	0	1	14	33	13	3	0	0	0	0	0	0	0	64
12:00	0	1	1	9	3	0	0	0	0	0	0	0	0	14

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TRAFFIC DATA REPORT
SPEED STUDY

Location: Misty Ridge Dr west of Frontier Ridge Dr
Start Date: 5/20/2025

12:15	0	1	2	7	5	1	0	0	0	0	0	0	0	16
12:30	0	0	4	10	2	0	0	0	0	0	0	0	0	16
12:45	0	0	3	10	3	0	0	0	0	0	0	0	0	16
	0	2	10	36	13	1	0	0	0	0	0	0	0	62
13:00	0	2	1	13	4	1	0	0	0	0	0	0	0	21
13:15	0	2	4	10	2	1	0	0	0	0	0	0	0	19
13:30	0	1	2	13	5	2	0	0	0	0	0	0	0	23
13:45	0	0	5	11	5	0	0	0	0	0	0	0	0	21
	0	5	12	47	16	4	0	0	0	0	0	0	0	84
14:00	0	2	3	11	7	0	0	0	0	0	0	0	0	23
14:15	0	0	3	9	5	1	1	0	0	0	0	0	0	19
14:30	0	1	4	8	2	0	0	0	0	0	0	0	0	15
14:45	0	3	4	8	3	0	0	0	0	0	0	0	0	18
	0	6	14	36	17	1	1	0	0	0	0	0	0	75
15:00	0	4	37	17	2	0	0	0	0	0	0	0	0	60
15:15	0	1	7	28	3	0	0	0	0	0	0	0	0	39
15:30	0	0	8	17	10	0	0	0	0	0	0	0	0	35
15:45	0	0	6	20	8	0	0	0	0	0	0	0	0	34
	0	5	58	82	23	0	0	0	0	0	0	0	0	168
16:00	0	0	3	12	10	2	0	0	0	0	0	0	0	27
16:15	0	0	10	14	10	3	0	0	0	0	0	0	0	37
16:30	1	0	2	21	18	1	0	0	0	0	0	0	0	43
16:45	0	2	1	12	6	2	0	1	0	0	0	0	0	24
	1	2	16	59	44	8	0	1	0	0	0	0	0	131
17:00	1	0	3	12	18	1	0	0	0	0	0	0	0	35
17:15	0	1	3	7	9	3	0	0	0	0	0	0	0	23
17:30	0	1	5	13	10	4	0	0	0	0	0	0	0	33
17:45	0	0	1	18	9	1	0	0	0	0	0	0	0	29
	1	2	12	50	46	9	0	0	0	0	0	0	0	120
18:00	0	0	1	12	8	2	0	0	0	0	0	0	0	23
18:15	0	1	0	6	8	1	0	0	0	0	0	0	0	16
18:30	0	2	3	13	10	2	0	0	0	0	0	0	0	30
18:45	0	1	0	10	6	0	0	0	0	0	0	0	0	17
	0	4	4	41	32	5	0	0	0	0	0	0	0	86
19:00	0	0	2	3	3	1	0	0	0	0	0	0	0	9
19:15	0	1	8	7	3	1	0	0	0	0	0	0	0	20
19:30	0	1	5	5	5	0	0	0	0	0	0	0	0	16
19:45	0	0	5	12	4	1	0	0	0	0	0	0	0	22
	0	2	20	27	15	3	0	0	0	0	0	0	0	67
20:00	0	1	2	4	3	1	0	0	0	0	0	0	0	11
20:15	0	0	0	9	4	0	0	0	0	0	0	0	0	13
20:30	0	0	3	6	2	2	0	0	0	0	0	0	0	13
20:45	0	1	2	8	2	1	0	0	0	0	0	0	0	14
	0	2	7	27	11	4	0	0	0	0	0	0	0	51
21:00	0	0	1	5	4	1	0	0	0	0	0	0	0	11
21:15	0	2	2	8	3	0	0	0	0	0	0	0	0	15
21:30	0	0	4	7	3	0	0	0	0	0	0	0	0	14
21:45	0	0	3	4	3	1	0	0	0	0	0	0	0	11
	0	2	10	24	13	2	0	0	0	0	0	0	0	51
22:00	0	0	4	3	4	0	0	0	0	0	0	0	0	11
22:15	0	0	1	4	3	0	0	0	0	0	0	0	0	8
22:30	0	0	3	5	2	0	0	0	0	0	0	0	0	10
22:45	0	0	0	4	2	0	0	0	0	0	0	0	0	6
	0	0	8	16	11	0	0	0	0	0	0	0	0	35
23:00	0	1	2	2	1	0	0	0	0	0	0	0	0	6
23:15	0	1	1	2	0	0	0	0	0	0	0	0	0	4
23:30	0	0	0	2	2	0	0	0	0	0	0	0	0	4
23:45	0	0	0	3	4	0	0	0	0	0	0	0	0	7
	0	2	3	9	7	0	0	0	0	0	0	0	0	21
Total	5	48	296	660	323	49	1	1	0	0	0	0	0	1383

Percentile	15th	50th	85th	95th
Speed	22	27	31	34
Mean Speed (Average)	27.9			
10 MPH Pace Speed	24-33			

cj hensch & associates

TRAFFIC DATA REPORT
SPEED STUDY

Location: Misty Ridge Dr west of Frontier Ridge Dr
Start Date: 5/20/2025

Number in Pace	1050
Percent in Pace	77.0%
Number > 30 MPH	374
Percent > 30 MPH	27.0%

cj hensch & associates

TRAFFIC DATA REPORT
SPEED STUDY

Location: Misty Ridge Dr west of Fortune Ridge Dr
Start Date: 5/20/2025

Direction: Westbound

5/20/2025 Time	0 - 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
0:00	0	0	0	1	0	1	0	0	0	0	0	0	0	2
0:15	0	0	1	0	1	0	0	0	0	0	0	0	0	2
0:30	0	0	0	2	0	1	0	0	0	0	0	0	0	3
0:45	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	0	0	1	4	1	2	0	0	0	0	0	0	0	8
1:00	0	0	1	0	1	0	0	0	0	0	0	0	0	2
1:15	0	0	0	1	1	0	0	0	0	0	0	0	0	2
1:30	0	0	1	1	0	0	1	0	0	0	0	0	0	3
1:45	0	0	0	2	0	0	0	0	0	0	0	0	0	2
	0	0	2	4	2	0	1	0	0	0	0	0	0	9
2:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
2:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	0	0	0	1	1	0	0	0	0	0	0	0	0	2
3:00	0	0	1	1	0	0	0	0	0	0	0	0	0	2
3:15	0	0	0	1	0	0	0	0	0	0	0	0	0	1
3:30	0	0	0	1	0	1	0	0	0	0	0	0	0	2
3:45	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	0	0	2	3	0	1	0	0	0	0	0	0	0	6
4:00	0	1	1	0	2	0	0	0	0	0	0	0	0	4
4:15	0	0	0	2	1	2	0	0	0	0	0	0	0	5
4:30	0	0	0	2	2	0	0	0	0	0	0	0	0	4
4:45	0	0	1	0	2	1	0	0	0	0	0	0	0	4
	0	1	2	4	7	3	0	0	0	0	0	0	0	17
5:00	0	0	2	2	5	3	1	0	0	0	0	0	0	13
5:15	0	0	1	5	6	1	0	0	0	0	0	0	0	13
5:30	0	0	5	6	5	0	0	0	0	0	0	0	0	16
5:45	4	2	0	5	5	2	0	0	0	0	0	0	0	18
	4	2	8	18	21	6	1	0	0	0	0	0	0	60
6:00	0	0	2	11	12	0	0	0	0	0	0	0	0	25
6:15	0	0	9	11	5	3	0	0	0	0	0	0	0	28
6:30	2	8	10	4	1	0	0	0	0	0	0	0	0	25
6:45	1	17	12	0	0	0	0	0	0	0	0	0	0	30
	3	25	33	26	18	3	0	0	0	0	0	0	0	108
7:00	9	25	10	1	0	0	0	0	0	0	0	0	0	45
7:15	8	19	5	1	0	0	0	0	0	0	0	0	0	33
7:30	2	23	20	7	2	0	0	0	0	0	0	0	0	54
7:45	0	12	16	5	2	0	0	0	0	0	0	0	0	35
	19	79	51	14	4	0	0	0	0	0	0	0	0	167
8:00	0	7	8	3	3	1	0	0	0	0	0	0	0	22
8:15	0	9	19	7	1	0	0	0	0	0	0	0	0	36
8:30	0	2	13	6	1	0	0	0	0	0	0	0	0	22
8:45	1	7	8	8	1	0	0	0	0	0	0	0	0	25
	1	25	48	24	6	1	0	0	0	0	0	0	0	105
9:00	1	1	9	11	2	0	0	0	0	0	0	0	0	24
9:15	3	1	8	9	5	1	0	0	0	0	0	0	0	27
9:30	1	1	4	11	4	0	0	0	0	0	0	0	0	21
9:45	0	2	5	12	6	1	0	0	0	0	0	0	0	26
	5	5	26	43	17	2	0	0	0	0	0	0	0	98
10:00	1	2	3	8	1	0	0	0	0	0	0	0	0	15
10:15	0	0	4	9	10	0	0	0	0	0	0	0	0	23
10:30	0	2	7	11	7	0	0	0	0	0	0	0	0	27
10:45	0	0	3	10	3	2	0	0	0	0	0	0	0	18
	1	4	17	38	21	2	0	0	0	0	0	0	0	83
11:00	0	0	7	11	3	0	0	0	0	0	0	0	0	21
11:15	0	2	4	5	5	0	0	0	0	0	0	0	0	16
11:30	0	0	4	7	4	1	0	0	0	0	0	0	0	16
11:45	0	0	6	7	6	2	0	0	0	0	0	0	0	21
	0	2	21	30	18	3	0	0	0	0	0	0	0	74
12:00	1	1	6	15	6	1	0	0	0	0	0	0	0	30

cj hensch & associates

TRAFFIC DATA REPORT
SPEED STUDY

Location: Misty Ridge Dr west of Fortune Ridge Dr
Start Date: 5/20/2025

12:15	1	1	4	17	7	0	0	0	0	0	0	0	0	30
12:30	1	1	4	9	4	1	0	0	0	0	0	0	0	20
12:45	0	0	5	14	8	1	0	0	0	0	0	0	0	28
	3	3	19	55	25	3	0	0	0	0	0	0	0	108
13:00	0	4	11	5	5	1	0	0	0	0	0	0	0	26
13:15	0	1	6	19	1	2	0	0	0	0	0	0	0	29
13:30	0	0	1	13	3	3	0	0	0	0	0	0	0	20
13:45	1	3	3	7	8	0	0	0	0	0	0	0	0	22
	1	8	21	44	17	6	0	0	0	0	0	0	0	97
14:00	6	16	7	3	2	0	0	0	0	0	0	0	0	34
14:15	1	6	7	6	1	0	0	0	0	0	0	0	0	21
14:30	1	5	6	1	1	0	0	0	0	0	0	0	0	14
14:45	2	14	9	1	0	0	0	0	0	0	0	0	0	26
	10	41	29	11	4	0	0	0	0	0	0	0	0	95
15:00	10	8	3	0	0	0	0	0	0	0	0	0	0	21
15:15	0	3	12	3	1	0	0	0	0	0	0	0	0	19
15:30	0	2	10	4	2	1	0	0	0	0	0	0	0	19
15:45	0	3	5	3	1	0	0	0	0	0	0	0	0	12
	10	16	30	10	4	1	0	0	0	0	0	0	0	71
16:00	0	0	6	12	2	0	0	0	0	0	0	0	0	20
16:15	1	2	6	14	4	1	0	0	0	0	0	0	0	28
16:30	0	0	1	13	12	1	0	0	0	0	0	0	0	27
16:45	0	0	2	11	5	1	0	0	0	0	0	0	0	19
	1	2	15	50	23	3	0	0	0	0	0	0	0	94
17:00	0	0	5	11	10	1	0	0	0	0	0	0	0	27
17:15	0	0	2	17	9	2	0	0	0	0	0	0	0	30
17:30	0	0	6	12	6	2	0	0	0	0	0	0	0	26
17:45	1	0	1	6	8	1	0	0	0	0	0	0	0	17
	1	0	14	46	33	6	0	0	0	0	0	0	0	100
18:00	0	1	5	15	7	0	0	0	0	0	0	0	0	28
18:15	0	0	1	9	9	0	0	0	0	0	0	0	0	19
18:30	0	0	3	6	7	0	0	0	0	0	0	0	0	16
18:45	0	1	3	6	6	0	0	0	0	0	0	0	0	16
	0	2	12	36	29	0	0	0	0	0	0	0	0	79
19:00	0	0	2	13	3	1	0	0	0	0	0	0	0	19
19:15	0	2	1	5	2	0	0	0	0	0	0	0	0	10
19:30	1	2	3	9	3	0	0	0	0	0	0	0	0	18
19:45	0	1	2	8	4	2	0	0	0	0	0	0	0	17
	1	5	8	35	12	3	0	0	0	0	0	0	0	64
20:00	0	0	6	7	3	0	1	0	0	0	0	0	0	17
20:15	0	0	3	8	1	0	0	0	0	0	0	0	0	12
20:30	0	0	5	5	4	0	0	0	0	0	0	0	0	14
20:45	0	1	1	6	3	2	0	0	0	0	0	0	0	13
	0	1	15	26	11	2	1	0	0	0	0	0	0	56
21:00	0	1	5	5	4	0	0	0	0	0	0	0	0	15
21:15	0	0	0	8	2	2	0	0	0	0	0	0	0	12
21:30	0	0	1	6	3	1	0	0	0	0	0	0	0	11
21:45	0	0	1	5	3	0	0	0	0	0	0	0	0	9
	0	1	7	24	12	3	0	0	0	0	0	0	0	47
22:00	0	0	0	1	5	0	0	0	0	0	0	0	0	6
22:15	0	1	0	6	6	1	0	0	0	0	0	0	0	14
22:30	0	1	2	1	1	0	0	0	0	0	0	0	0	5
22:45	0	0	1	3	2	0	0	0	0	0	0	0	0	6
	0	2	3	11	14	1	0	0	0	0	0	0	0	31
23:00	0	0	5	6	1	0	0	0	0	0	0	0	0	12
23:15	0	0	1	2	2	0	0	0	0	0	0	0	0	5
23:30	0	0	1	1	0	0	0	0	0	0	0	0	0	2
23:45	0	0	0	1	3	1	0	0	0	0	0	0	0	5
	0	0	7	10	6	1	0	0	0	0	0	0	0	24
Total	60	224	391	567	306	52	3	0	0	0	0	0	0	1603

	15th	50th	85th	95th
Percentile Speed	18	25	30	33

Mean Speed (Average): 25.9
10 MPH Pace Speed: 23-32

cj hensch & associates

TRAFFIC DATA REPORT
SPEED STUDY

Location: Misty Ridge Dr west of Fortune Ridge Dr
Start Date: 5/20/2025

Number in Pace	980
Percent in Pace	61.0%
Number > 30 MPH	361
Percent > 30 MPH	22.5%

cj hensch & associates

TRAFFIC DATA REPORT
SPEED STUDY

Location: Misty Ridge Dr west of Frontier Ridge Dr
Start Date: 5/20/2025

Direction: Westbound

5/20/2025 Time	0 - 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
0:00	0	1	0	1	0	0	0	0	0	0	0	0	0	2
0:15	0	0	1	0	1	1	0	0	0	0	0	0	0	3
0:30	0	0	0	2	0	0	0	0	0	0	0	0	0	2
0:45	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	0	1	1	3	2	1	0	0	0	0	0	0	0	8
1:00	0	0	0	2	1	0	0	0	0	0	0	0	0	3
1:15	0	0	0	0	1	0	0	0	0	0	0	0	0	1
1:30	0	0	1	0	0	0	1	0	0	0	0	0	0	2
1:45	0	0	0	2	0	0	0	0	0	0	0	0	0	2
	0	0	1	4	2	0	1	0	0	0	0	0	0	8
2:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
2:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30	0	0	0	0	1	0	0	0	0	0	0	0	0	1
2:45	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	0	0	0	1	2	0	0	0	0	0	0	0	0	3
3:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
3:15	0	0	0	0	1	0	0	0	0	0	0	0	0	1
3:30	0	0	0	1	1	1	0	0	0	0	0	0	0	3
3:45	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	0	0	0	3	2	1	0	0	0	0	0	0	0	6
4:00	0	0	1	1	1	0	0	0	0	0	0	0	0	3
4:15	0	0	1	1	1	1	0	0	0	0	0	0	0	4
4:30	0	0	0	1	1	0	0	0	0	0	0	0	0	2
4:45	0	0	0	1	1	1	0	0	0	0	0	0	0	3
	0	0	2	4	4	2	0	0	0	0	0	0	0	12
5:00	0	0	0	2	5	3	1	0	0	0	0	0	0	11
5:15	0	1	1	0	6	5	0	0	0	0	0	0	0	13
5:30	0	0	0	5	5	3	0	0	0	0	0	0	0	13
5:45	0	0	0	4	4	1	2	0	0	0	0	0	0	11
	0	1	1	11	20	12	3	0	0	0	0	0	0	48
6:00	0	1	1	5	13	2	0	0	0	0	0	0	0	22
6:15	0	0	3	9	11	1	2	0	0	0	0	0	0	26
6:30	0	2	15	10	5	1	0	0	0	0	0	0	0	33
6:45	0	8	17	27	9	2	0	0	0	0	0	0	0	63
	0	11	36	51	38	6	2	0	0	0	0	0	0	144
7:00	0	2	23	32	14	0	0	0	0	0	0	0	0	71
7:15	0	1	7	41	17	1	0	0	0	0	0	0	0	67
7:30	0	0	8	20	13	0	0	0	0	0	0	0	0	41
7:45	0	0	3	19	8	0	1	0	0	0	0	0	0	31
	0	3	41	112	52	1	1	0	0	0	0	0	0	210
8:00	0	2	2	14	6	1	0	0	0	0	0	0	0	25
8:15	0	1	2	9	13	1	0	0	0	0	0	0	0	26
8:30	0	1	3	10	8	1	0	0	0	0	0	0	0	23
8:45	0	1	2	9	10	1	0	0	0	0	0	0	0	23
	0	5	9	42	37	4	0	0	0	0	0	0	0	97
9:00	0	1	2	4	8	1	0	0	0	0	0	0	0	16
9:15	0	1	3	11	8	1	1	0	0	0	0	0	0	25
9:30	0	0	2	5	5	2	0	0	0	0	0	0	0	14
9:45	0	1	1	10	7	1	1	0	0	0	0	0	0	21
	0	3	8	30	28	5	2	0	0	0	0	0	0	76
10:00	1	0	3	6	1	0	0	0	0	0	0	0	0	11
10:15	0	0	3	7	9	2	0	0	0	0	0	0	0	21
10:30	0	2	3	6	9	2	0	0	0	0	0	0	0	22
10:45	0	0	1	6	7	2	0	0	0	0	0	0	0	16
	1	2	10	25	26	6	0	0	0	0	0	0	0	70
11:00	0	1	3	6	9	3	0	0	0	0	0	0	0	22
11:15	0	1	0	7	5	3	0	0	0	0	0	0	0	16
11:30	0	0	1	8	8	2	0	0	0	0	0	0	0	19
11:45	0	0	4	10	6	1	0	0	0	0	0	0	0	21
	0	2	8	31	28	9	0	0	0	0	0	0	0	78
12:00	1	1	5	4	12	1	0	0	0	0	0	0	0	24

cj hensch & associates

TRAFFIC DATA REPORT
SPEED STUDY

Location: Misty Ridge Dr west of Frontier Ridge Dr
Start Date: 5/20/2025

12:15	0	0	3	12	12	1	0	0	0	0	0	0	0	28
12:30	0	1	7	5	7	0	1	0	0	0	0	0	0	21
12:45	1	4	4	8	16	2	0	0	0	0	0	0	0	35
	2	6	19	29	47	4	1	0	0	0	0	0	0	108
13:00	0	0	6	12	6	3	0	0	0	0	0	0	0	27
13:15	0	0	1	18	7	0	0	0	0	0	0	0	0	26
13:30	0	0	3	7	8	2	0	1	0	0	0	0	0	21
13:45	0	0	3	7	11	2	0	1	0	0	0	0	0	24
	0	0	13	44	32	7	0	2	0	0	0	0	0	98
14:00	0	0	8	18	6	2	1	0	0	0	0	0	0	35
14:15	0	1	7	14	3	0	0	0	0	0	0	0	0	25
14:30	0	0	8	11	4	1	0	0	0	0	0	0	0	24
14:45	1	3	16	16	4	0	0	0	0	0	0	0	0	40
	1	4	39	59	17	3	1	0	0	0	0	0	0	124
15:00	14	3	13	13	2	0	0	0	0	0	0	0	0	45
15:15	0	0	9	7	5	1	0	0	0	0	0	0	0	22
15:30	0	2	3	8	6	1	0	0	0	0	0	0	0	20
15:45	0	0	4	8	1	1	0	0	0	0	0	0	0	14
	14	5	29	36	14	3	0	0	0	0	0	0	0	101
16:00	0	0	2	13	7	0	0	0	0	0	0	0	1	23
16:15	0	1	4	7	13	2	0	0	0	0	0	0	0	27
16:30	0	0	1	14	15	1	0	0	0	0	0	0	0	31
16:45	0	0	0	16	8	1	0	0	0	0	0	0	0	25
	0	1	7	50	43	4	0	0	0	0	0	0	1	106
17:00	0	0	3	6	14	2	0	0	0	0	0	0	0	25
17:15	0	0	3	11	13	0	1	0	0	0	0	0	0	28
17:30	0	0	3	16	5	4	1	0	0	0	0	0	0	29
17:45	0	0	4	5	8	1	0	0	0	0	0	0	0	18
	0	0	13	38	40	7	2	0	0	0	0	0	0	100
18:00	0	0	3	9	14	1	0	0	0	0	0	0	0	27
18:15	0	1	1	2	12	3	0	0	0	0	0	0	0	19
18:30	0	0	2	9	10	0	0	0	0	0	0	0	0	21
18:45	0	0	4	4	5	1	0	0	0	0	0	0	0	14
	0	1	10	24	41	5	0	0	0	0	0	0	0	81
19:00	0	0	3	8	5	1	0	0	0	0	0	0	0	17
19:15	0	0	3	6	4	1	0	0	0	0	0	0	0	14
19:30	0	1	5	11	4	2	0	0	0	0	0	0	0	23
19:45	0	1	2	16	6	3	0	0	0	0	0	0	0	28
	0	2	13	41	19	7	0	0	0	0	0	0	0	82
20:00	0	0	4	10	4	1	0	0	0	0	0	0	0	19
20:15	0	1	5	3	4	0	0	0	0	0	0	0	0	13
20:30	0	2	2	8	3	0	0	0	0	0	0	0	0	15
20:45	0	0	6	8	2	2	0	0	0	0	0	0	0	18
	0	3	17	29	13	3	0	0	0	0	0	0	0	65
21:00	0	0	1	4	8	0	1	0	0	0	0	0	0	14
21:15	0	0	1	5	4	2	0	0	0	0	0	0	0	12
21:30	0	0	1	6	2	1	2	0	0	0	0	0	0	12
21:45	1	0	1	6	5	1	0	0	0	0	0	0	0	14
	1	0	4	21	19	4	3	0	0	0	0	0	0	52
22:00	0	0	0	3	1	1	1	0	0	0	0	0	0	6
22:15	0	0	0	8	2	1	0	0	0	0	0	0	0	11
22:30	0	0	1	2	1	0	0	0	0	0	0	0	0	4
22:45	0	0	0	2	5	0	0	0	0	0	0	0	0	7
	0	0	1	15	9	2	1	0	0	0	0	0	0	28
23:00	0	2	2	3	5	0	0	0	0	0	0	0	0	12
23:15	0	0	1	1	1	1	0	0	0	0	0	0	0	4
23:30	0	1	0	1	0	0	0	0	0	0	0	0	0	2
23:45	0	0	1	1	3	0	0	0	0	0	0	0	0	5
	0	3	4	6	9	1	0	0	0	0	0	0	0	23
Total	19	53	286	709	544	97	17	2	0	0	0	0	1	1728

Percentile	15th	50th	85th	95th
Speed	23	28	32	35

Mean Speed (Average) 28.9

10 MPH Pace Speed 25-34

cj hensch & associates

TRAFFIC DATA REPORT
SPEED STUDY

Location: Misty Ridge Dr west of Frontier Ridge Dr
Start Date: 5/20/2025

Number in Pace	1254
Percent in Pace	73.0%
Number > 30 MPH	661
Percent > 30 MPH	38.3%

APPENDIX J – INTERSECTION SIGHT DISTANCE

SIGHT-DISTANCE REQUIREMENTS
ISD_L = 420 LF
ISD_R = 375 LF

LEGACY
ENGINEERING GROUP

Legacy Engineering Group, PLLC
7800 W Interstate 10, Ste 830, San Antonio, Texas 78230
210.660.1960 / TBPE Firm Registration No. 20623

S.I.T.E. Analysis

Misty Ridge Drive

Intersection Sight Distance (1 / 4)

Legend

DATE:
7/10/2025
SCALE:
1" = 100'

PAGE:

SIGHT-DISTANCE REQUIREMENTS
ISD_L = 420 LF
ISD_R = 375 LF

LEGACY ENGINEERING GROUP

Legacy Engineering Group, PLLC
7800 W Interstate 10, Ste 830, San Antonio, Texas 78230
210.660.1960 / TBPE Firm Registration No. 20623

S.I.T.E. Analysis

Misty Ridge Drive

Intersection Sight Distance (2 / 4)

Legend

DATE:
7/10/2025
SCALE:
1" = 100'

PAGE:

MISTY RIDGE DRIVE

FRONTIER RIDGE DRIVE

420 LF

375 LF

SIGHT-DISTANCE REQUIREMENTS
ISD_L = 420 LF
ISD_R = 375 LF

LEGACY ENGINEERING GROUP

Legacy Engineering Group, PLLC
7800 W Interstate 10, Ste 830, San Antonio, Texas 78230
210.660.1960 / TBPE Firm Registration No. 20623

S.I.T.E. Analysis

Misty Ridge Drive

Intersection Sight Distance (3 / 4)

Legend

DATE:
7/10/2025
SCALE:
1" = 100'

PAGE:

SIGHT-DISTANCE REQUIREMENTS
ISD_L = 420 LF
ISD_R = 375 LF

LEGACY ENGINEERING GROUP

Legacy Engineering Group, PLLC
7800 W Interstate 10, Ste 830, San Antonio, Texas 78230
210.660.1960 / TBPE Firm Registration No. 20623

S.I.T.E. Analysis

Misty Ridge Drive

Intersection Sight Distance (4 / 4)

Legend

DATE:
7/10/2025
SCALE:
1" = 100'

PAGE: