

# Webb County Fairgrounds Master Plan

## TRAFFIC STUDY

## FINAL REPORT

### PREPARED FOR:

Webb County – City of Laredo  
Regional Mobility Authority &  
HNTB Corporation

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## FINAL REPORT



*RB Basavaraju*

JANUARY 31, 2023

**Prepared For:**  
**Webb County – City of Laredo**  
**Regional Mobility Authority &**  
**HNTB Corporation**

**Prepared By:**  
**Transcend Engineers & Planners, LLC**

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## Executive Summary

Transcend Engineers & Planners, LLC (Transcend) is pleased to submit this Traffic Study for the Webb County Fairgrounds Master Plan expansion to Webb County- City of Laredo Regional Mobility Authority (WCCL RMA). The objective of this study was to evaluate traffic impacts to surrounding roadway system, assess ingress/egress operations during various special events, and evaluate internal operations/circulation for efficiency and safety along US 59 adjoining the Fairgrounds. Operational and safety analysis was performed for four intersections: US 59 at Fairgrounds Entrance 1, US 59 at Fairgrounds Entrance 2, US 59 at Wilson Road, and US 59 at Heritage Court.

Study analysis focused on the following three conditions during a major trip generating event (Concert during a Rodeo). 2.2 occupants per vehicle was assumed to generate trips for Rodeo and Concert. Based on five years of historical TCDS counts and TxDOT Transportation Planning and Programming regression model linear annual growth, a 4.5% growth rate was applied to the existing volumes in order to determine 2025 and 2035 trips.

- I. **Existing Conditions** – 2022 traffic conditions with existing lane configuration along US 59 and two existing entrances to the Fairgrounds.
- II. **2025 Build Out Conditions**– 2025 traffic conditions with existing lane configuration along US 59 with proposed entrances to the Fairgrounds and trips generated as per the Site Plan.
- III. **2035 Build Out Conditions with US 59/ IH 69 improvements** – 2035 traffic conditions with improvements to US 59 as rural divided highway, three lanes in each direction along with projected trips generated by a major event with proposed entrances to the Fairgrounds as per the Site Plan

## Operational Analysis

Peak hour data at the Fairgrounds was collected during Laredo International Fair & Exposition Saturday concert event on March 5, 2022. This allowed us to capture the highest possible trips under current event conditions that would enable a comprehensive analysis of the impacts to the surrounding roadway system. 24-hr tube counts on US 59 were collected on Friday, March 4th and Saturday, March 5th, 2022, which helped determine that the peak hours occurred on Saturday from 7:45 to 8:45 PM and 12:00 AM to 1:00 AM (which coincided with concert start and end times, respectively). The study area was analyzed under the following two peak hour scenarios:

- Entry Peak Hour (7:45- 8:45 PM)
- Exit Peak Hour (12:00-1:00 AM)

Lane configurations were developed for both Entry and Exit Peak Hours to accomplish safe and efficient operations for all entrances and US 59. In addition to the proposed lane configurations, two (2) existing entrances for the existing conditions under 2022, three (3) proposed entrances under 2025 and four (4) entrances (3 proposed and 1 existing) under 2035 were taken into consideration.

The following (5) key factors were considered in developing lane configurations as well as ingress and egress designations for 2025 and 2035 Build Out Conditions.

1. Minimize conflicting movements
2. Maximize safety along US 59
3. Alleviate sight distance challenges for Wilson Road and Heritage Court
4. Efficient internal circulation
5. Effective emergency access

Major Issues Identified from the operational analysis for the different phases are as follows:

### Existing Conditions (2022)

- NB left turn movement along US 59 at Existing Entrance 2 is operating at LOS F during Entry Peak Hour.
- 0.3 miles queuing was observed along US 59 NB during Entry Peak Hour starting at the Existing Entrance 2.
- During Entry Peak Hour, Sight distance was obstructed for approximately 40 minutes at Wilson Road and 20 minutes at Heritage Court impacting the operations.
- Wb left turns at US 59 and Wilson Road as well as US 59 and Heritage Court intersections are operating at LOS C.

### **2025 Build Out Conditions**

- WB left turn at US 59 and Heritage Court will operate at LOS F during Entry Peak Hour due to high demand and limited gaps in the US 59 SB through traffic.
- EB right-turn at US 59 and Proposed Main Entrance will operate at LOS F during Exit Peak Hour due to limited gaps in the US 59 SB through traffic.

### **2035 Build Conditions with US 59/IH 69 improvements**

- WB left turn at US 59 and Heritage Court will continue to operate at LOS F during both Entry and Exit Peak Hours due to heavy US 59 SB through traffic.
- WB left turn at US 59 and Wilson Road will fail during Exit Peak Hour and operate at unacceptable LOS E during Entry Peak Hour due to heavy US 59 SB through traffic.

Operations at Proposed Main Entrance, Proposed Entrance 3 and Existing Entrance 2 along US 59 improved significantly during both peak hours to LOS D or better under 2035 build conditions due to the proposed improvements.

### **Recommendations**

- Relocate Proposed Main Entrance 2,500 feet away from Wilson Road and designate two Left-Turn lanes during Entry Peak Hour to double the storage capacity and allow vehicles to enter the Fairgrounds quickly to alleviate sight distance challenges for Wilson Road and Heritage Court.
- Provide 4 total lanes for the Proposed Main Entrance with 2 lanes in each direction and an option to implement temporary contraflow conditions depending on the major traffic flow direction.
- Provide an auxiliary lane between Proposed Main Entrance and Existing Entrance 2.
- Utilize Proposed Main Entrance and Existing Entrance 2 for ingress operations and Proposed Entrance 3 for egress during Entry Peak Hour to minimize conflicting movements.
- Utilize Proposed Main Entrance, Proposed Entrance 3, and Existing Entrance 2 for egress operations during Exit Peak Hour, to allow sufficient distance between the exits for the traffic to merge on to US 59 while maximizing safety along US 59.
- Utilize Proposed Entrance 2 for emergency access only during both peak hours.
- Connect Existing Entrance 2 and Proposed Entrance 3 for efficient internal circulation.
- Provide two long driveways on either side of the parking lot, for efficient internal circulation of traffic and storage capacity .
- Utilize various traffic control measures such as staff/security control, traffic cones, flares, directing traffic through staff and signs, for safe and efficient movement of traffic during both peak hours.

## 1. Project Description and Background

Webb County – City of Laredo Regional Mobility Authority (WCCL RMA) has initiated a traffic study for the Webb County Fairground Master Plan expansion in order to assess traffic impacts and identify mitigation measures as necessary along US 59 adjacent to the Fairgrounds. The Webb County Commissioners Court has been in the process of expanding the Fairgrounds since 2016 to serve a wide range of potential users and activities. As Master Plan and concept site plans are being finalized, the WCCL RMA has engaged the GEC team to evaluate traffic impacts to surrounding roadway system and assess ingress/egress operations during various special events and evaluate internal operations and circulation for efficiency and safety.

Webb County Fairgrounds is located along US 59, east of Laredo City limits. The study area is surrounded by Camp Huisache Aztc District to the north, vacant lands to the east, US 59 to the south, and Webb County Road and Bridge facility to the west. US 59 within study limits has been designated for Interstate conversion to IH 69 and TxDOT is in the process of developing schematic plans for the study corridor. It is expected that US 59 will be a rural divided highway with three lanes in each direction by the year 2035 with improved access for the main entrance to the Fairgrounds.

Fairgrounds are expected to be developed in four (4) Phases. The study assumes Phase 1 to be completed by 2025, phase 2 will be completed by 2035 and US 59 planned improvements to be completed by 2035. Phases 3 and 4 are in conceptual stage without specifics required for study and therefore only phase 1 and phase 2 are included in the analysis. Master Plan also suggested various land uses taking place in the Fairgrounds under various scenarios, however, this study focused on analyzing the land uses that are expected to generate the maximum number of development trips.

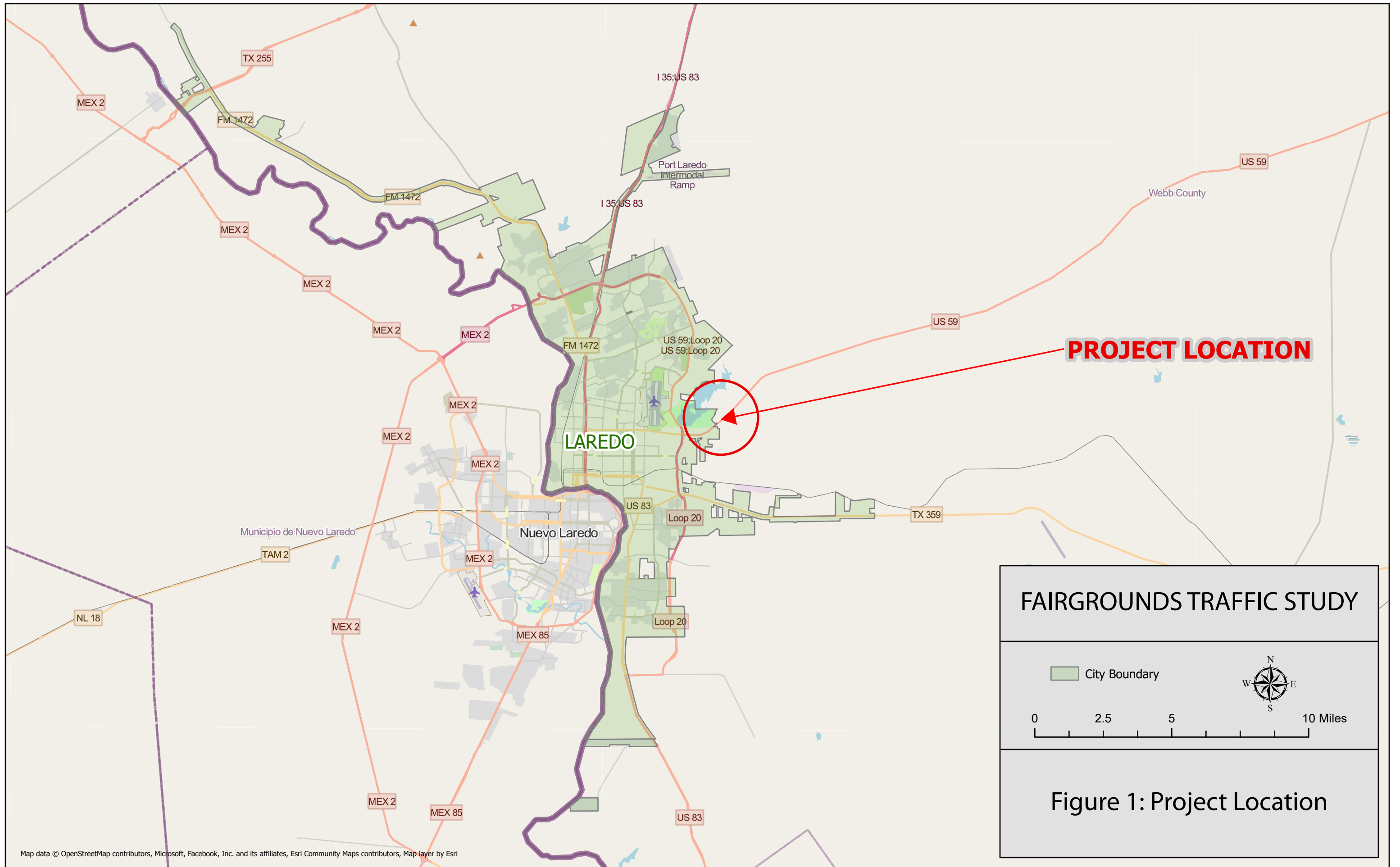
## 2. Study Area

US 59 is the major carrier of traffic volume through the study area which is comprised of institutional and single-family residential uses.

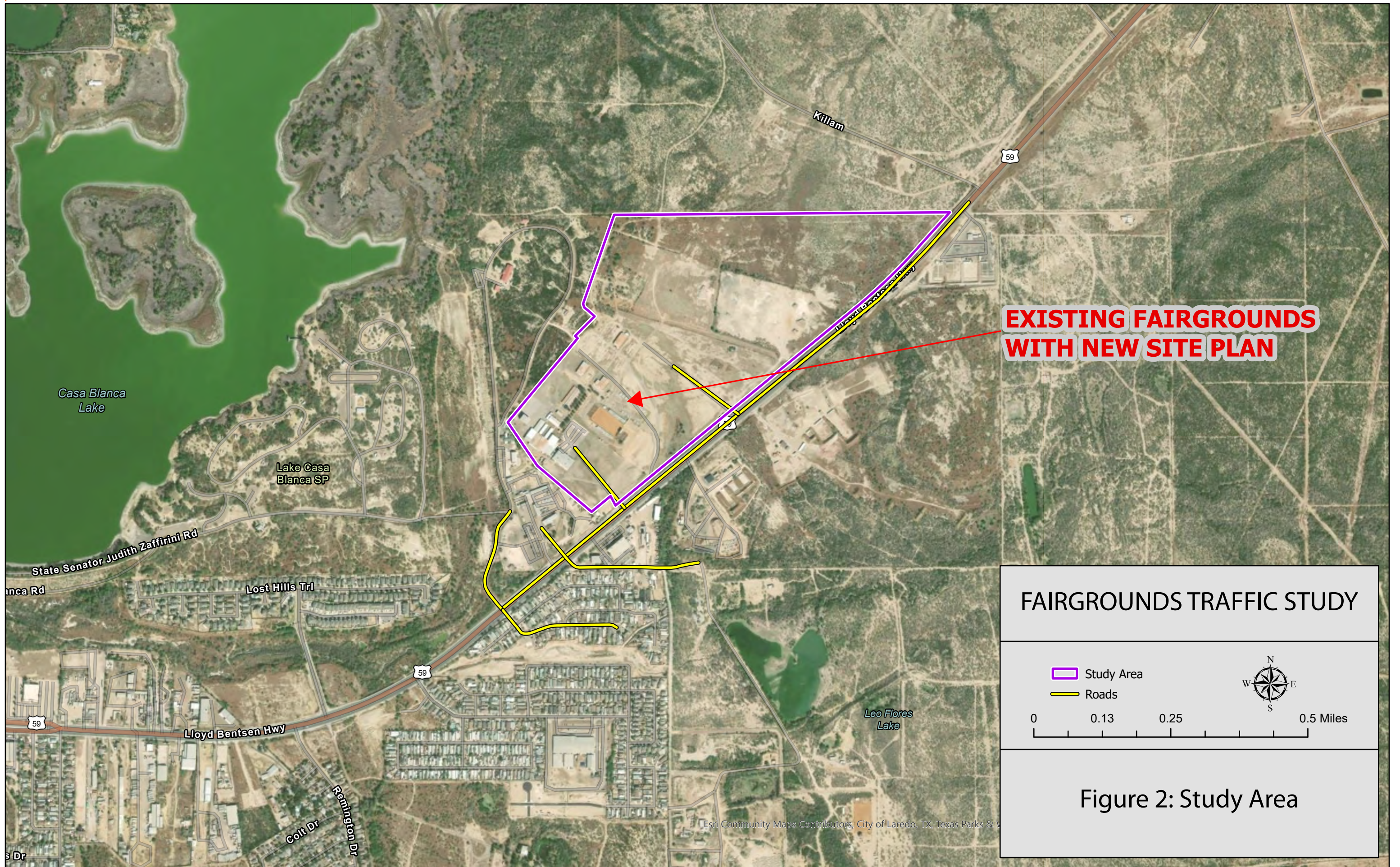
The fairgrounds consists of 140 acres with existing structures that are used for annual county fair, livestock shows, rodeo and riding events with two access points along US 59. Entrance 1, north of the property, is only used during large events when excess parking is required while Entrance 2, south of the property, close to the city limits and is the primary access to the Fairgrounds. Ingress/egress operations at the main entrance to the Fairgrounds is limited to/from City of Laredo to avoid conflicting movements. Webb County Sheriff's department controls the traffic flow during events.

The following four existing intersections are analyzed as part of this traffic study. All intersections in the study area are stop controlled. **Figure 1** shows the project location and **Figure 2** shows the study area.

Study Intersections	
1.	US 59 at Fairgrounds Entrance 1
2.	US 59 at Fairgrounds Entrance 2
3.	US 59 at Wilson Road
4.	US 59 at Heritage Court







### 3. Methodology

The study scenarios/conditions used for the analysis and an overview of the technical methodology employed to determine Level of Service (LOS) are detailed below.

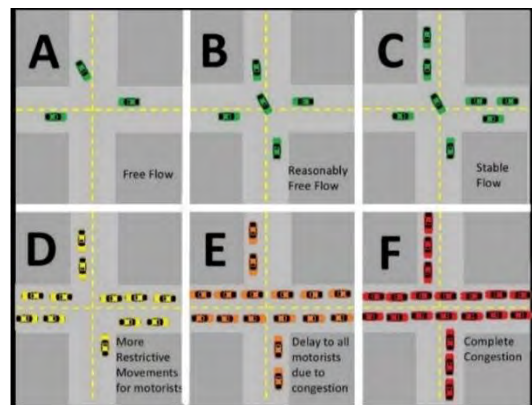
- 2022 Existing
- 2025 Phase 1 Build Out
- 2035 Phase 1 and Phase 2 Build Out with TxDOT improvements

Traffic and roadway characteristics for the study area roadways and intersections were gathered and incorporated into the microsimulation model (Synchro v10). Road characteristics such as number of lanes, speed limits, and modified travel patterns during Fairgrounds event were obtained from field observations. Queue lengths and traffic volumes were obtained from data collection. US 59 NB segment between Entrance 2 and Heritage Court was evaluated using SimTraffic simulation based on a calibrated Synchro model. Queuing during peak hours was also analyzed for sight distance and safety.

Study intersections were evaluated based on the methodologies outlined in the Highway Capacity Manual, published by the Transportation Research Board. The operating conditions at an intersection were graded by the LOS experienced by drivers. LOS describes the quality of traffic operating conditions and is rated from “A” to “F.” LOS A represents the most desirable condition with the free-flow movement of traffic with minimal delays. LOS F indicates severely congested conditions with excessive delays for motorists. Intermediate grades of B, C, D, and E reflect incremental increases in the average delay per stopped vehicle. Delay is measured in seconds per vehicle. **Table 1** shows the upper limit of delay associated with each level of service for unsignalized intersections.

**Table 1. LOS Criteria at Unsignalized Intersections**

Level of Service	Average Vehicle Delay (Seconds)
A	≤ 10
B	>10 - 15
C	>15 - 25
D	>25 - 35
E	>35 - 50
F	>50



Note that the HCM 2000 module was utilized for reporting LOS instead of HCM 6 due to the presence of unconventional intersections and missing movements at majority of the study area intersections.

## 4. Existing Conditions

Lane use and speed limit along US 59 vary within the study limits: two-lane, two-way with a speed limit of 75 mph on the north end of the study area; 4-lane highway with flushed median and a speed limit of 60 mph near Entrance 1; and 6-lane highway with flushed median and speed limit reduced to 50 mph near Entrance 2. Sidewalks are present on both sides of US 59 but marked pedestrian crossings are absent at the study intersections. Bus stops are located along US 59, but none are present within the study area.

Wilson Road is a two-way undivided and unmarked roadway with no posted speed limit signs. The sidewalk is present on one side of Wilson Road but marked pedestrian crossings are absent.

Heritage Court is a two-way undivided roadway with no posted speed limit signs. Sidewalks are present on both sides of Heritage Court but marked pedestrian crossings are absent. Two bus stops are located along Heritage Court.

### 4.1 Crash Analysis

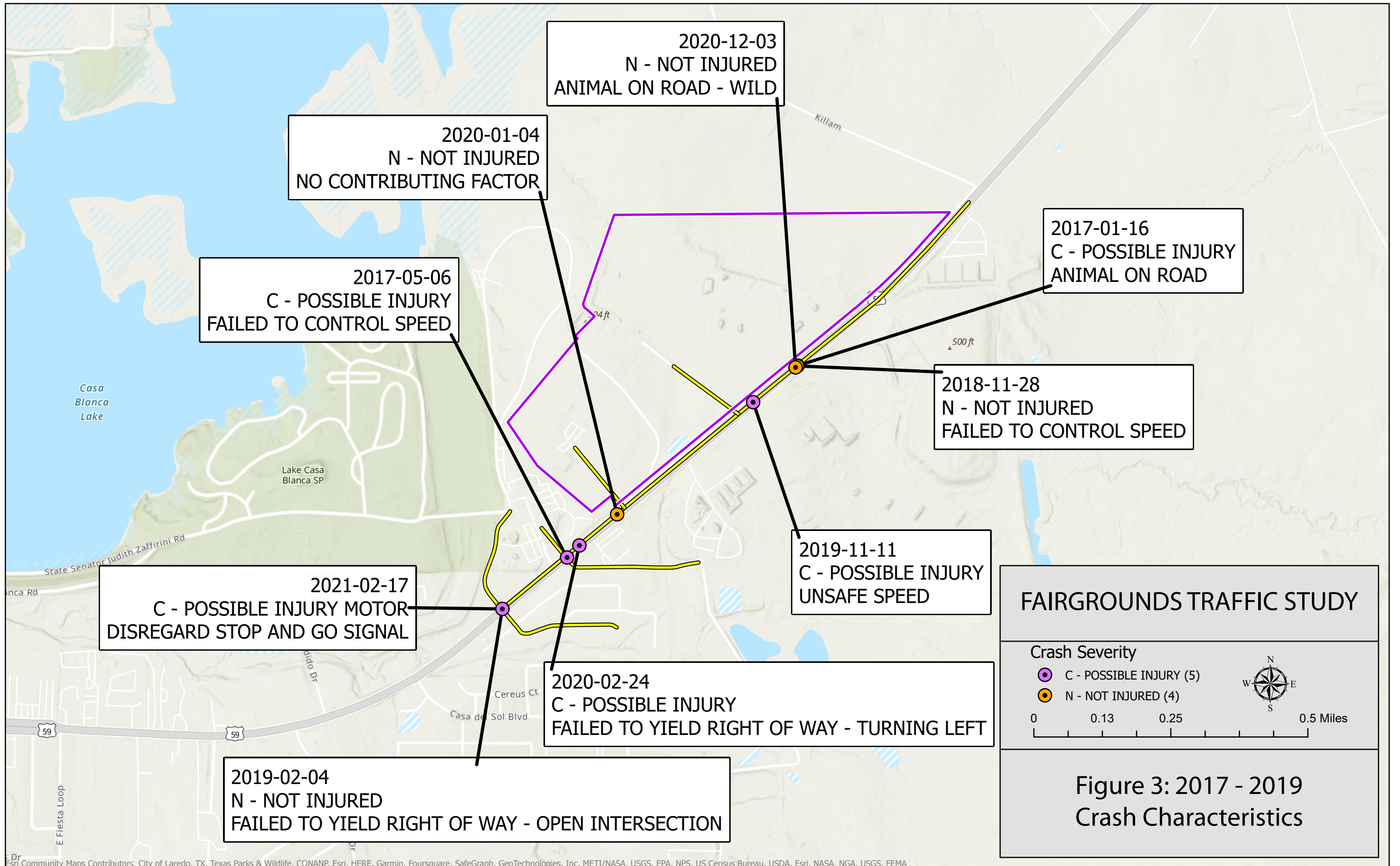
Crash data along US 59 within study limits was obtained from the Crash Records Information System (CRIS) database. A total of 9 crashes occurred between January 2017 and December of 2021 within the study area of which 5 crashes are categorized as possible injury and 4 crashes are not injured. There are zero (0) fatal or serious injury crashes within the study area. Two (2) crashes are intersection related and one (1) crash is driveway access related. Of the total nine (9) crashes, 3 crashes were caused by speed, 2 were caused by wild animals on the road, and 2 failed to yield right of way. Single vehicle going straight is the major crash type with five (5) out of 9 crashes and only one (1) crash occurred during rain and when the surface condition is wet. **Figure 3** shows the crash locations in the study area.

### 4.2 Data Collection & Traffic Volumes

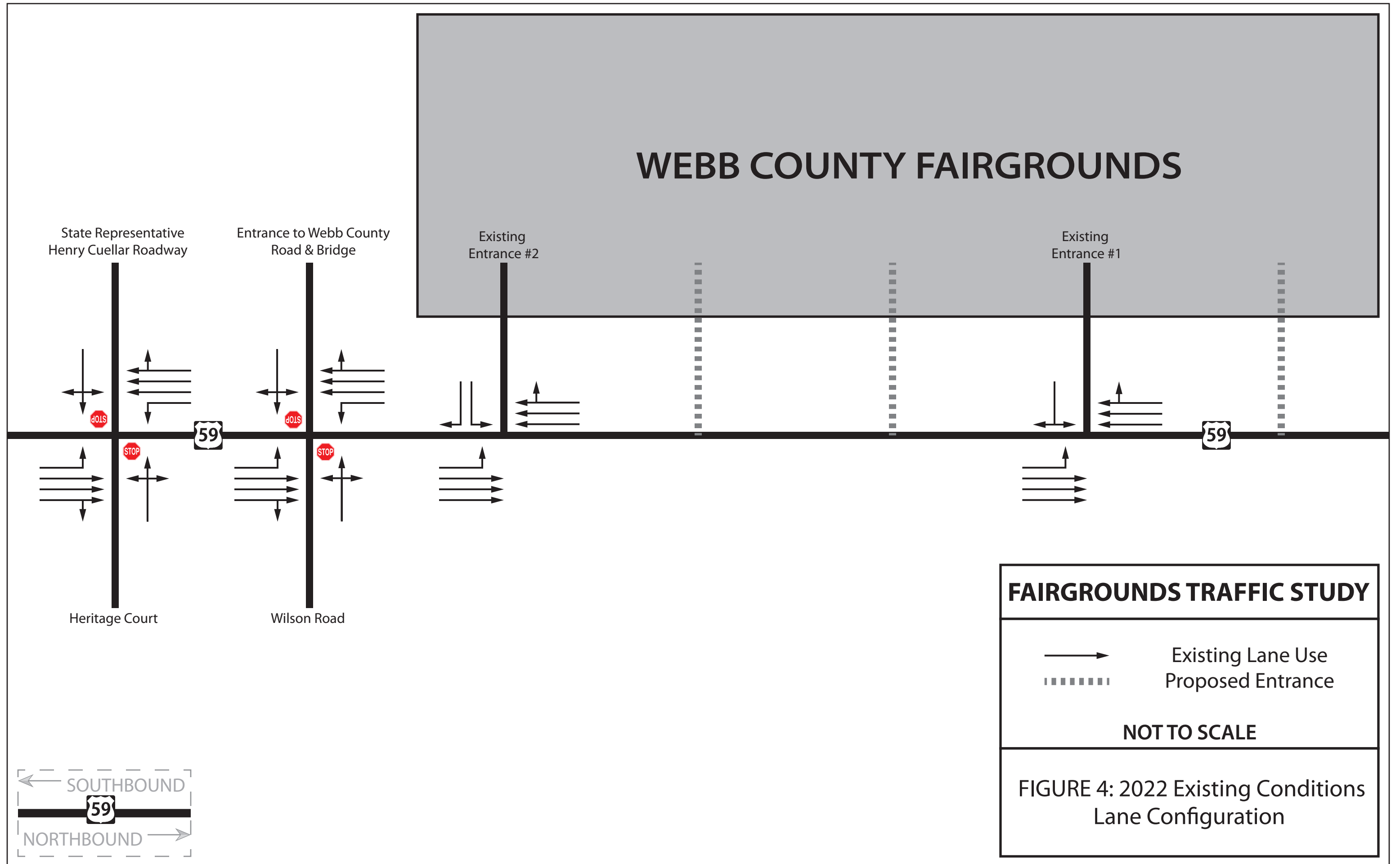
Laredo International Fair & Exposition (L.I.F.E.) is the largest event held at the Fairgrounds. This week-long fair happens every year at the end of February except during the peak of COVID-19. In 2022, the fair was held from Monday, February 28<sup>th</sup> to Saturday, March 5<sup>th</sup>. Saturday Concert was expected to attract most visitors and is considered to create largest backups on US 59. Data was collected during this event to capture the impacts on the surrounding roadway system for comprehensive analysis.

24-hr tube counts on US 59 were collected on Friday, March 4<sup>th</sup> and Saturday, March 5<sup>th</sup>, 2022, to determine peak hour volumes. Peak hours occurred on Saturday from 7:45 to 8:45 PM and 12:00 AM to 1:00 AM. These peak hours coincide with concert start and concert end times. In this study, peak hour from 7:45 to 8:45 PM will be referred as Entry Peak Hour and peak hour from 12:00 AM to 1:00 AM as Exit Peak Hour. Turning movement counts for the Entry and Exit peak hours at the study intersections were also obtained for analysis. 2022 Existing Conditions and Lane Configurations for the study area are shown in **Figure 4**.



*Raw Traffic Data is shown in **Appendix A**. Study Area photos are shown in **Appendix B**.*



# WEBB COUNTY FAIRGROUNDS



**FAIRGROUNDS TRAFFIC STUDY**

 Existing Lane Use  
 Proposed Entrance

**NOT TO SCALE**

FIGURE 4: 2022 Existing Conditions Lane Configuration

### 4.3 Traffic Operations Analysis

During the main event of the fair which includes a concert, traffic patterns are altered to manage the heavy volume and minimize impacts. Webb County Sheriff’s Office takes the responsibility of directing incoming and outgoing traffic for the Fairgrounds. Entry to the Fairgrounds is restricted to only Left-Turns from US 59 northbound. In addition, US 59 SB through traffic is altered from free flow to being controlled by marked Police Cars and Officers. Right-turn into the fairgrounds is restricted to eliminate conflicting movements.

It was observed in the field that the Officers were working diligently to the best of their abilities to ensure vehicles enter and exit the Fairgrounds efficiently and safely to the best extent possible. Due to high Entry Peak hour volumes, observed queuing for US 59 northbound left-turns was 0.3 miles through the intersections of Wilson Road and Heritage Court. To calibrate the Synchro model for existing conditions during entry and exit peak hours, a half-signal was added at Entrance 2 to mimic the traffic flow alteration and control by Police Officers.

#### 4.3.1 Level of Service

During Existing Conditions Entry Peak hour, all unsignalized movements are operating at an acceptable LOS C or better except northbound Left-Turn movement at Entrance 2 which is operating at an unacceptable LOS F. It should be noted that the westbound Left-Turn LOS at both Wilson Road and Heritage Court is impacted by the queuing on US 59 northbound. During Exit Peak Hour, all unsignalized movements are operating at an acceptable LOS C or better.

**Table 2** summarizes LOS for the study intersections along with Delay and V/C. **Figure 5** shows Entry Peak Hour and Exit Peak Hour volumes.

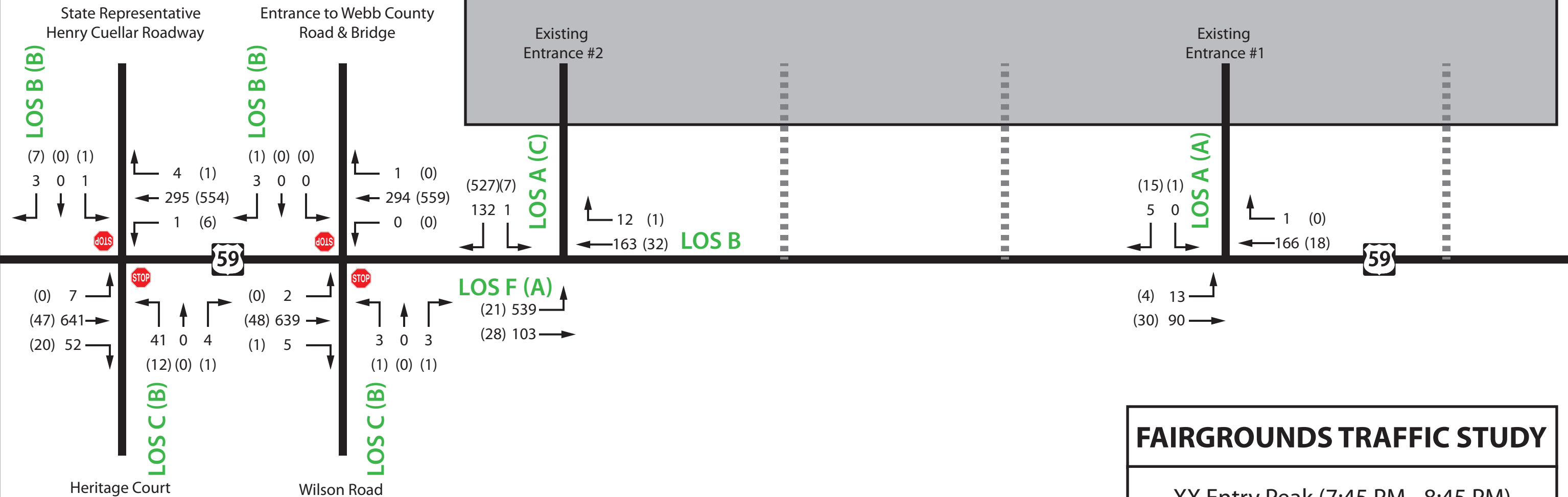
*Synchro Reports for Existing Conditions including delay and v/c ratio are shown in **Appendix C**.*

**Table 2. 2022 Existing Conditions LOS**

Intersections	Entry Peak Hour			Exit Peak Hour		
	LOS	Delay (sec/veh)	V/C	LOS	Delay (sec/veh)	V/C
<b>US 59 at Existing Entrance 1</b> <i>Eastbound</i>	A	9.7	0.01	A	9.2	0.05
<b>US 59 at Existing Entrance 2*</b> <i>Eastbound</i>	A	5.2	0.09	C	19.8	0.74
<i>Northbound</i>	<b>F</b>	<b>&gt;100</b>	<b>&gt;1</b>	A	8.5	0.03
<i>Southbound</i>	B	17.7	0.23	-	-	-
<b>US 59 at Wilson Road</b> <i>Eastbound</i>	B	13.1	0.03	B	14.5	0.03
<i>Westbound</i>	C	15.3	0.03	B	12.2	0.01
<b>US 59 at Heritage Court</b> <i>Eastbound</i>	B	13.4	0.03	B	12.5	0.05
<i>Westbound</i>	C	19.4	0.18	B	11.7	0.05

Note: LOS and V/C reported are for worst operating approach, \*LOS shown is from HCM 2000 module

# WEBB COUNTY FAIRGROUNDS

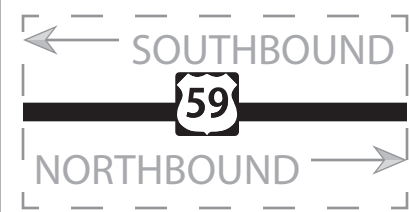


**FAIRGROUNDS TRAFFIC STUDY**

XX Entry Peak (7:45 PM - 8:45 PM)  
 (XX) Exit Peak (12:00 AM - 1:00 AM)  
**LOS** Level of Service

**NOT TO SCALE**

**FIGURE 5: 2022 Existing Conditions Entry & Exit Peak Volumes**



Note: Volumes may not sum from point to point due to rounding and presence of smaller driveways not included in the analysis.

#### 4.3.2 Queuing and Sight Distance

Given the long queuing along US 59 northbound during Entry Peak Hour, queuing was also analyzed for sight distance and safety for Left-Turns exiting Wilson Road and Heritage Court. Based on the speed limit on US 59, 570 feet of unobstructed sight distance is required to safely make a Left-Turn. In the existing conditions during Entry Peak, sight distance is obstructed for approximately 40 minutes at Wilson Road and approximately 20 minutes at Heritage Court.

*SimTraffic Report for Existing Conditions with Queuing and Blocking information is shown in **Appendix D**.*

**Table 3** below presents queuing observed on US 59 northbound at Wilson Road and Heritage Court during Entry Peak Hour. *Sight Triangles at Wilson Road and Heritage Court are shown in **Appendix E**.*

**Table 3. 2022 Existing Conditions Queuing During Entry Peak**

First Queue Time Stamp	Queue Length and Number of Vehicles	Duration of congested Intersection Between 8:00 PM and 9:00 PM
US 59 at Wilson Road 7:36 pm	Distance between Entrance 2 and Wilson Road is about 700 feet, equates to 28 vehicles.	Total queuing duration approximately 40 minutes Longest queue duration: 32 minutes
US 59 at Heritage Court 8:15 pm	Distance between Entrance 2 and Heritage Court is about 1,530 feet, equates to 61 vehicles.	Total queuing duration approximately 20 minutes Longest queue duration: 13 minutes

## 5. Background Growth

Historical TCDS (Traffic Count Database System) counts were used to determine growth trends in the project area. TxDOT’s Transportation Planning & Programming regression model for 5 years yields a 4.5% linear annual growth rate. Therefore, 4.5% was added to the existing volumes to determine 2025 Build Conditions and 2035 Build Conditions volumes.

A cross check of ADT along US 59 within the vicinity of study area indicated that the volumes increased at a steady pace even during the COVID-19 pandemic years.

Based on discussion with Webb County, there are no major planned improvements in the immediate vicinity of the study area between now and 2035. Therefore, no additional development traffic is included in the background growth along US 59.

## 6. Trip Generation & Distribution

### 6.1 Assumptions

#### 6.1.1 Phasing and Land Use

The proposed Master Plan includes two multipurpose buildings along with horse barns, exhibit hall buildings and show rings. The first multipurpose building is an Arena to accommodate concert, rodeo, sport or equestrian events and Banquet Hall. The second multipurpose building is to host small events such as trade shows, conferences, or ball/dinner. Fairgrounds development is planned in 4 phases. The scope of



this study was limited to the land use(s) that generate more trips than other land uses and to phases that has a build out year within the study period.

**Table 4** lists the proposed land uses along with their intensity, phasing, and buildout year.

**Table 4. Webb County Fairgrounds Master Plan  
Proposed Land Use Phases**

Land Use	Intensity	Phase/ Build Out Year
Banquet Hall	20,000 sq.ft.	Phase 1 / 2025
Small Convention	20,000 sq.ft.	Phase 1 / 2025
Rodeo/ Fair	10,000 People	Phase 1 / 2025
Concert	4,500 Seats	Phase 1 / 2025
Convert existing banquet hall to office space	20,000 sq.ft.	Phase 2 / 2035
Outdoor Amphitheater	Intensity unknown at this time	Phase 3 / Likely beyond 2035
Hotel	Intensity unknown at this time	Phase 4 / Likely beyond 2035

Based on existing conditions and the type of proposed development, non-event trips generated at any of the study area intersections should not warrant additional traffic control.

### 6.1.2 Rodeo & Concert Trips

Among the five land uses, Rodeo and Concert are the major trip generators with both of them taking place on the same day during the Fair. It should be noted that there are no standard trip generation tables available for these two land uses in ITE Trip Generation manual. Based on relevant research, it is assumed that both Rodeo and Concert result in 2.2 occupants per vehicle.

For event-based land uses, the majority of traffic enters at the start of the event and exits at the end of the event. Therefore, two distributions were analyzed i.e., Entry Peak Hour and Exit Peak Hour. Phase 2 land use, Office, will not have any trips generated on a Saturday evening when the Concert happens.

*Rodeo Trips:* Applying 2.2 occupancy per vehicle for 10,000 attendees results in 4,545 trips. Given that Entry Peak Hour is the end of the Rodeo, only exit trips from the Rodeo are considered for this analysis. Based on research and existing conditions, it is estimated that 10% of the total Rodeo trips (455 trips) will exit.

*Concert Trips:* Applying 2.2 occupancy per vehicle for 4,500 attendees results in 2,045 trips. An estimated 25% (511 trips) internal trip reduction is applied for Entry Peak Hour trips. No internal trip reduction is applied to Exit Peak Hour trips.

## 6.2 Trip Generation

**Table 5** on the next page presents the Entry Peak Hour and Exit Peak Hour trip generation for Rodeo and Concert based on the land use and trip assumptions detailed above.

**Table 5. Trip Generation**

Land Use	Intensity		Event Trip Rate	Entry Peak Hour					Exit Peak Hour				
				Total	% In	% Out	In	Out	Total	% In	% Out	In	Out
<b>Rodeo (Phase 1)</b>	10,000	people	0.45	4,545		10%		455	0	0%	100%		0
<b>Concert (Phase 1)</b>	4,500	seats	0.45	2,045	80%	20%	1,636		4,545	0%	100%	0	4,545
<b>Office (Phase 2)</b>	20,000	Sq.ft.		0	0%	0%	0	0	0	0%	0%	0	0
<b>Office (Phase 2)</b>	20,000	Sq.ft.		0	0%	0%	0	0	0	0%	0%	0	0
<b>Internal Trips between Rodeo and Concert</b>			25%				(511)	0	0			0	0
<b>Concert Trips after Internal Trip Reduction</b>				1,534	80%	20%	1,125		4,545	0%	100%	0	4,545
<b>Total Future Phase Only Development Trips added to Adjacent Street</b>				<b>1,682</b>			<b>1,125</b>	<b>455</b>	<b>4,545</b>			<b>0</b>	<b>4,545</b>

### 6.3 Trip Distribution

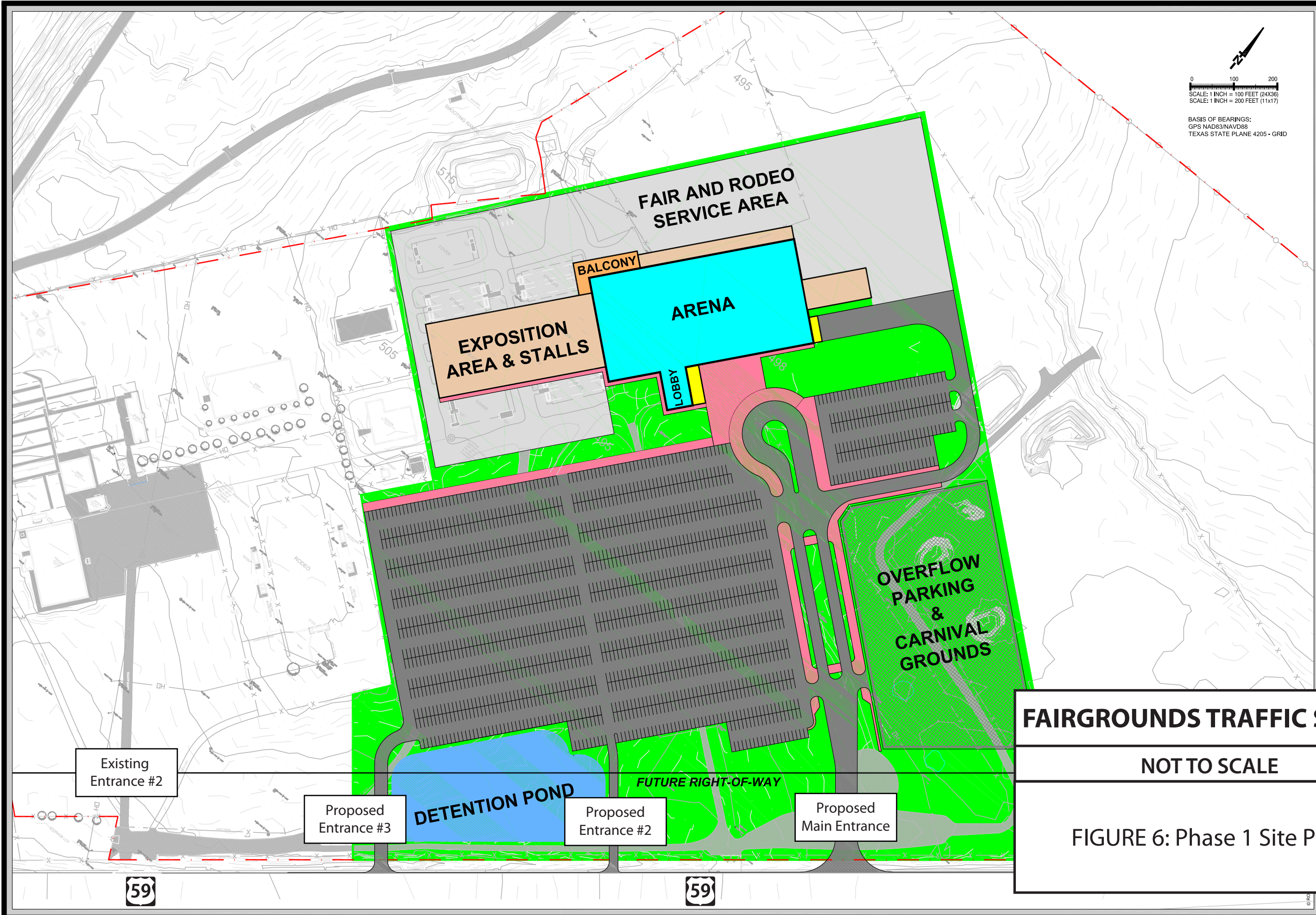
Based on existing traffic patterns and assumptions described in Section 6.1, 90% of the trips are distributed to/from US 59 northbound and 10% trips to/from US 59 SB.

Furthermore, to achieve comprehensive and effective distribution of trips during both Entry and Exit Peak Hours that would result not only in safe/quick ingress/egress to the Fairgrounds but also maintain safe operations along US 59, the following key factors were considered:

6. Minimize conflicting movements
7. Maximize safety along US 59
8. Alleviate sight distance challenges for Wilson Road and Heritage Court
9. Efficient internal circulation
10. Effective emergency access

### 7 2025 Build Conditions

The proposed Phase 1 Site Plan includes a total of four entrances to the Fairgrounds (three proposed and one existing). All three proposed entrances are north of current Entrance 2. **Figure 6** shows the Proposed Phase 1 Site Plan.



0 100 200  
 SCALE: 1 INCH = 100 FEET (24X36)  
 SCALE: 1 INCH = 200 FEET (11x17)

BASIS OF BEARINGS:  
 GPS NAD83/NAVD88  
 TEXAS STATE PLANE 4205 - GRID

DATE	02-15-2022
REVISION	
AS-BUILT	

**FAIRGROUNDS TRAFFIC STUDY**

**NOT TO SCALE**

**FIGURE 6: Phase 1 Site Plan**

59

59

## 7.1 Site Access

### 7.1.1 Lane Configuration

Lane configurations were developed for both Entry and Exit Peak Hours to accomplish safe and efficient operations for all entrances and US 59 and satisfy the five key factors mentioned in section 6.3.

1. Proposed Main Entrance and Proposed Entrance 3 will be utilized for ingress while Proposed Entrance 2 will be utilized for egress during Entry Peak Hour to **minimize conflicting movements**.
2. Designating Proposed Main Entrance and Proposed Entrance 3 for exit trips during Exit Peak Hour will allow sufficient distance between the exits for traffic to merge on to US 59 to **maximize safety along US 59**.
3. Proposing Main Entrance 2,500 feet away from Wilson Road and designating two Left-Turn lanes during Entry Peak Hour doubles the storage capacity and allow vehicles to enter the Fairgrounds quickly will **alleviate sight distance challenges** for Wilson Road and Heritage Court.
4. Two long driveways on either side of the parking lot will facilitate **efficient internal circulation** and will provide storage when necessary, during Entry and Exit Peak Hours.
5. During Exit Peak Hour, Proposed Entrance 2 will operate as **emergency access** to disperse traffic efficiently and as exclusive access to EMS vehicles during emergencies.

### 7.1.2 Ingress and egress designations

The following ingress and egress designations were developed to account for the key considerations above:

- Proposed Main Entrance is assigned 60% of the Entry Peak Hour ingress trips and 50% of Exit Peak Hour egress trips. Of the 60% ingress trips, 50% are Left-Turns and 10% are Right-Turns.
- Proposed Entrance 2 is designated for all egress trips during Entry Peak Hour and no trips during Exit Peak Hour. In addition, Proposed Entrance 2 will be utilized for emergency access.
- Proposed Entrance 3 is designated to receive 40% of the Entry Peak Hour ingress trips and 35% of Exit Peak Hour egress trips.

#### **Entry Peak hour**

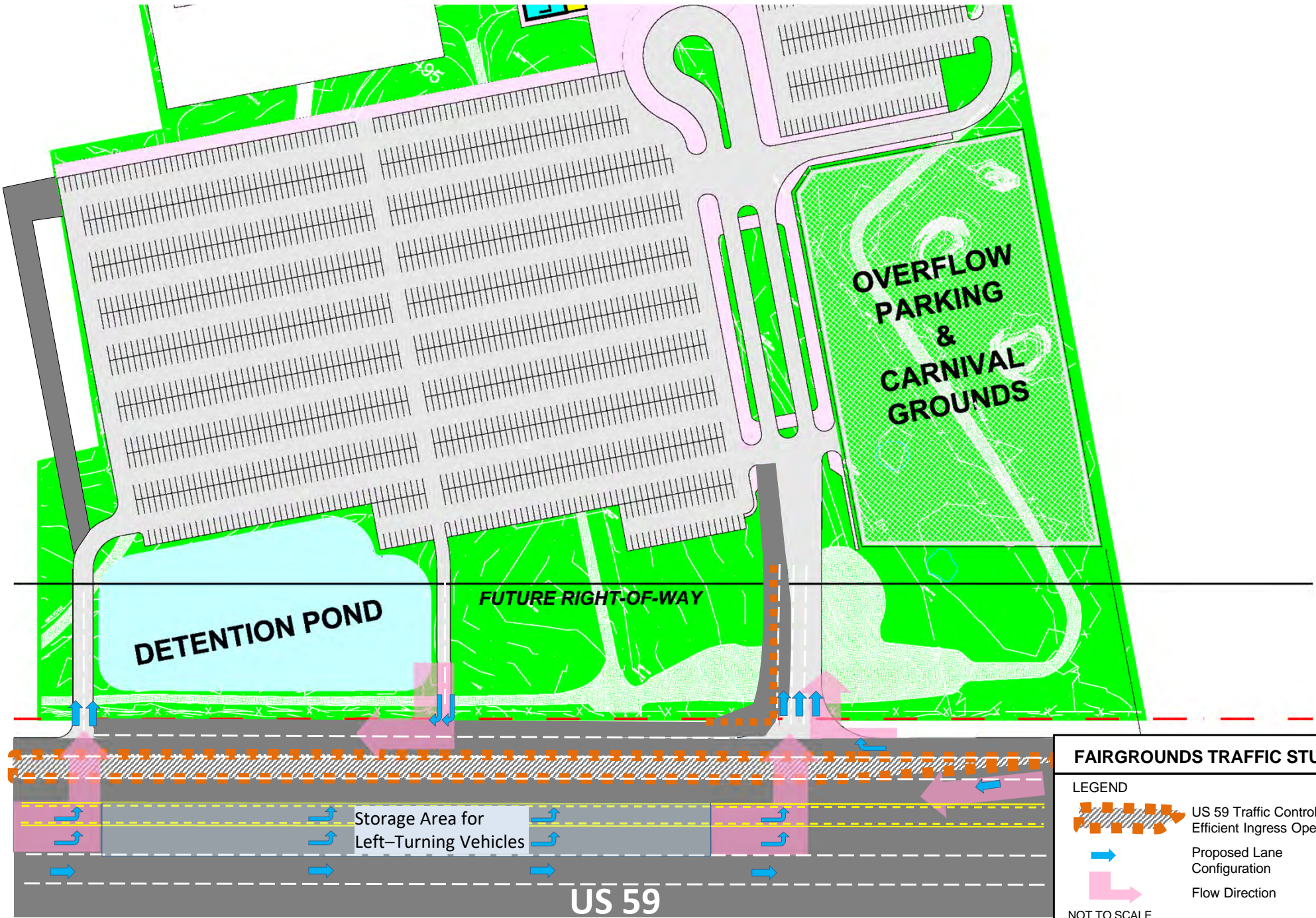
- US 59 northbound: reconfigured to one-lane between Wilson Road and Proposed Main Entrance and two left-turn lanes between Proposed Main Entrance and south of Proposed Entrance 3.
- Proposed Main Entrance: three lanes for ingress (two-lanes for northbound Left-Turns and one-lane for southbound Right-Turns)
- Proposed Entrance 2: eastbound turn right only for egress to avoid conflicting movements.
- Proposed Entrance 3: two northbound Left-Turn only lanes for ingress and southbound Right-Turns prohibited.

**Figure 7** shows the lane configuration and ingress/egress operations for Entry Peak Hour.




#### **Exit Peak hour**

- US 59 SB: reconfigured to one-lane north of Proposed Main Entrance to accommodate safe/efficient egress for all entrances.
- Proposed Main Entrance: three lanes for egress (two-lanes for eastbound Right-Turns and one-lane for eastbound Left-Turn) and one-lane for ingress
- Proposed Entrance 2: no ingress/egress; emergency access only.
- Proposed Entrance 3: two eastbound turn right only lanes for egress.

**Figure 8** shows the lane configuration and ingress/egress operations for Exit Peak Hour.

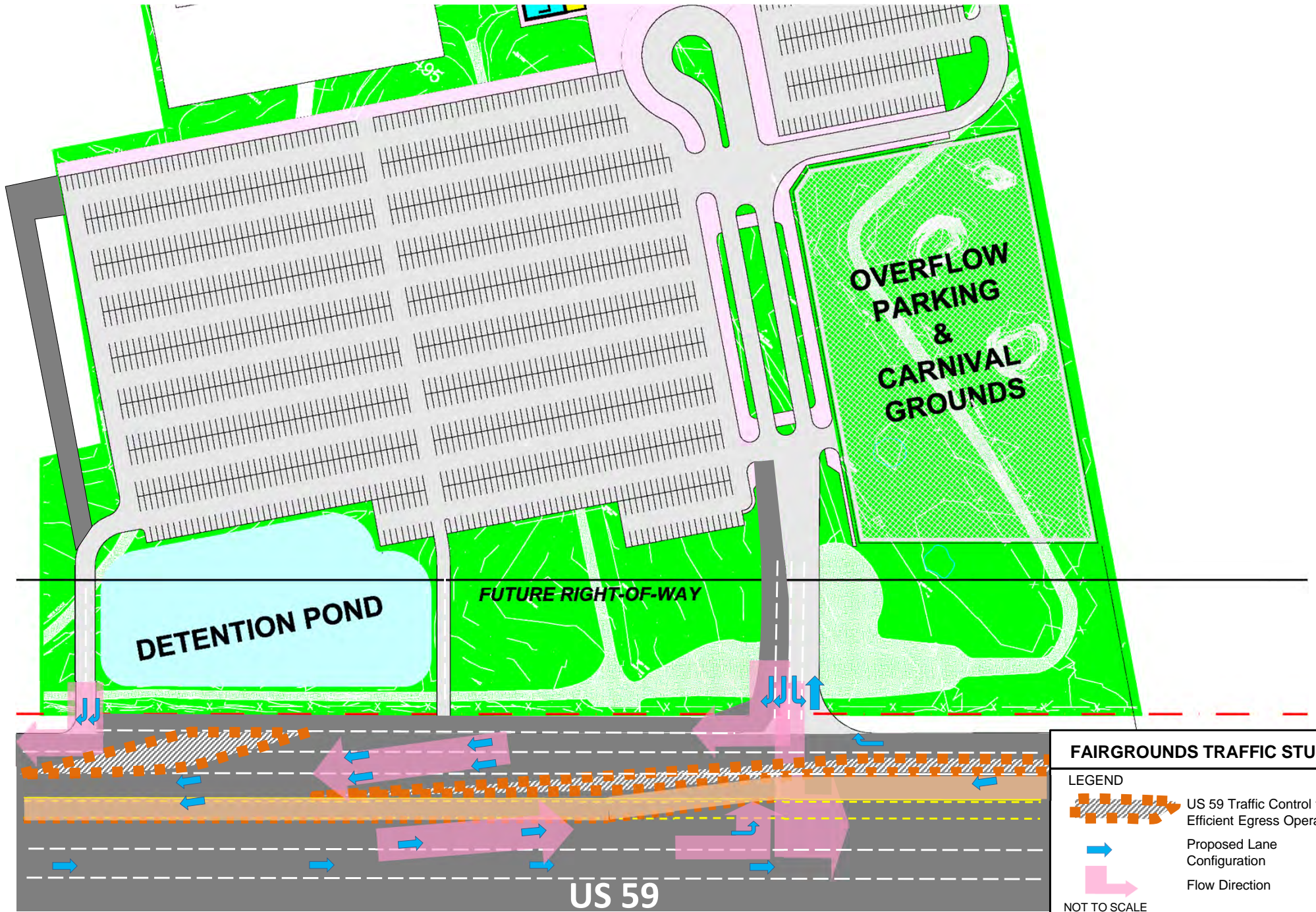


**FAIRGROUNDS TRAFFIC STUDY**

- LEGEND**
-  US 59 Traffic Control for Efficient Ingress Operations
  -  Proposed Lane Configuration
  -  Flow Direction




NOT TO SCALE

**FIGURE 7: 2025 Build Conditions Lane Configuration- Entry Peak Hour**



**FAIRGROUNDS TRAFFIC STUDY**

**LEGEND**

-  US 59 Traffic Control for Efficient Egress Operations
-  Proposed Lane Configuration
-  Flow Direction

NOT TO SCALE

FIGURE 8: 2025 Build Conditions Lane Configuration- Exit Peak Hour

## 7.2 Traffic Operations Analysis

During 2025 Build Conditions Exit Peak, eastbound Right-Turn movement at US 59 and Proposed Main Entrance operates at unacceptable LOS F due to excessive demand. During 2025 Build Conditions Entry Peak, westbound left-turn movement at US 59 and Heritage Court operates at unacceptable LOS F due to limited gaps in the heavy US 59 SB through traffic. All remaining unsignalized movements at the study intersections are operating at an acceptable LOS D or better.

**Table 6** summarizes LOS for the study intersections along with Delay and V/C. **Figure 9** shows Entry Peak Hour and Exit Peak Hour volumes under 2025 Build Conditions.

*Synchro Reports for 2025 Build Conditions including delay and v/c ratio are shown in **Appendix F**.*

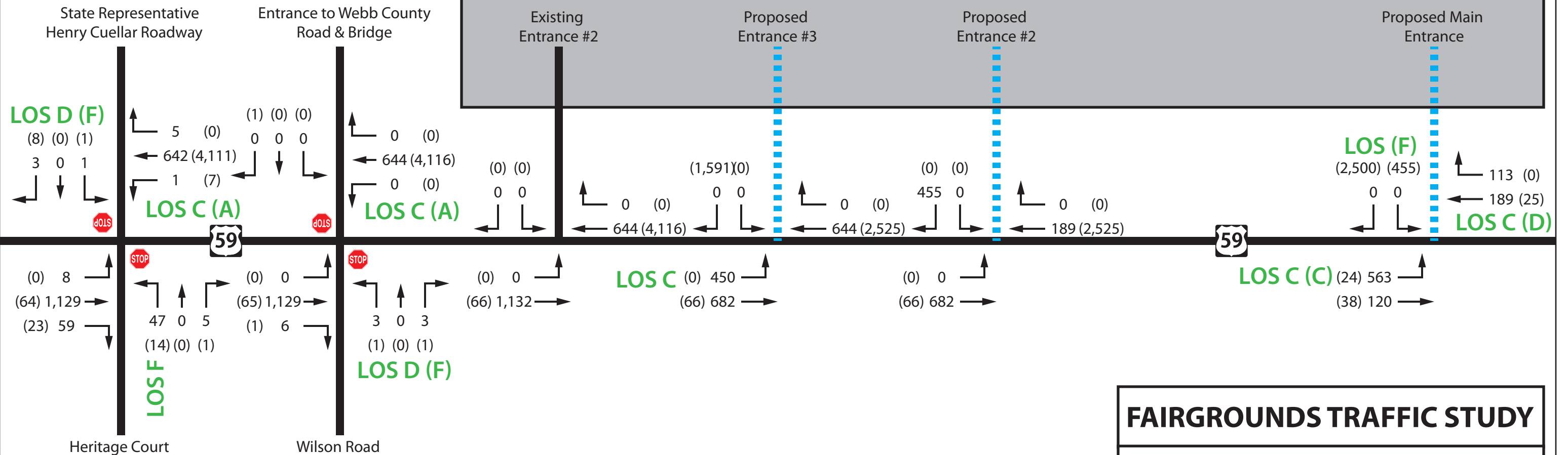
**Table 6. 2025 Build Condition LOS**

Intersections	Entry Peak Hour			Exit Peak Hour		
	LOS	Delay (sec/veh)	V/C	LOS	Delay (sec/veh)	V/C
<b>US 59 at Proposed Main Entrance*</b> <i>Northbound</i> <i>Eastbound</i>	C	25.5	0.74	F	89.2	>1
<b>US 59 at Proposed Entrance 2</b>	Free flowing traffic			Emergency Access Only		
<b>US 59 at Proposed Entrance 3*</b> <i>Northbound</i>	C	17.2	0.66	Free flowing traffic		
<b>US 59 at Wilson Road</b> <i>Westbound</i> <i>Southbound</i>	D C	32.3 17.1	0.07 0.00	A	8.5	0.00
<b>US 59 at Heritage Court</b> <i>Westbound</i> <i>Southbound</i>	F C	65.8 17.7	0.53 0.00	A	8.5	0.01

Note: LOS and V/C reported are for worst operating approach, \*LOS shown is from HCM 2000 module

*SimTraffic Report for 2025 Build Conditions with Queuing and Blocking information is shown in **Appendix G**.*

# WEBB COUNTY FAIRGROUNDS

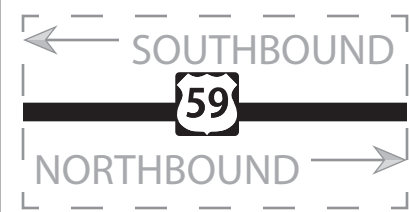


## FAIRGROUNDS TRAFFIC STUDY

XX Entry Peak (7:45 PM - 8:45 PM)  
 (XX) Exit Peak (12:00 AM - 1:00 AM)  
 LOS Level of Service

NOT TO SCALE

FIGURE 9: 2025 Build Conditions  
 Entry & Exit Peak Volumes



Note: Volumes may not sum from point to point due to rounding and presence of smaller driveways not included in the analysis.



## 8 2035 Build Conditions with US 59/IH 69 improvements

Phase 2, conversion of existing banquet hall to office space, is expected to be completed before 2035. However, this land use will not generate any trips during Entry Peak Hour and Exit Peak Hour as mentioned in section 6.1.2. Henceforth, 2035 Build Condition is similar to 2025 Build Conditions except background growth.

As part of US 59 conversion to IH 69, TxDOT is developing a schematic that includes the study limits. During project scoping, TxDOT clarified that under 2035 conditions, US 59 should be considered as a rural divided highway with three lanes in each direction with improved access at the Proposed Main Entrance. As part of this traffic study, grade access is proposed in order to provide TxDOT the flexibility to evaluate the best long-term solution. It should be noted that TxDOT is currently implementing a systemic raised median project district wide which includes the study segment of US 59.

### 8.1 Site Access

#### 8.1.1 Lane Configuration

2035 Lane configurations were developed with US 59 TxDOT suggested improvements for both Entry and Exit Peak Hours that satisfies the five key factors mentioned in section 6.3.

1. Proposed Main Entrance and Existing Entrance #2 will be utilized for ingress while Proposed Entrance 3 will be utilized for egress during Entry Peak Hour to **minimize conflicting movements**.
2. Designating Proposed Main Entrance and Existing Entrance #2 for egress during Exit Peak Hour will allow sufficient distance between the exits for traffic to merge on to US 59 to **maximize safety along US 59**.
3. Relocated Main Entrance 2,500 feet away from Wilson Road and designated two Left-Turn lanes to alleviate sight distance challenges for Wilson Road and Heritage Court from 2025 Build Conditions also applies to 2035 Build Conditions.
4. Two long driveways on either side of the parking lot to facilitate **efficient internal circulation** from 2025 Build Conditions scenario also applies to 2035 Build Conditions.
5. During both Peak Hours, Proposed Entrance 2 will operate as **emergency access** to disperse traffic efficiently and as exclusive access to EMS vehicles during emergencies.

#### 8.1.2 Ingress and egress designations

The following ingress and egress designations were developed to account for the key considerations above:

- Proposed Main Entrance is assigned 60% of the Entry Peak Hour ingress trips and 45% of Exit Peak Hour egress trips. Of the 60% ingress trips, 50% are Left-Turns and 10% are Right-Turns. Of the 45% of the egress trips, 35% are Right-Turns and 10% are Left-Turns.
- Proposed Entrance 2 will be utilized for emergency access only.
- Proposed Entrance 3 is designated for all egress trips during Entry Peak Hour and 20% egress trips during Exit Peak Hour. Egress trips at this entrance is only by Right-Turns.
- Existing Entrance 2 is designated to receive 40% of the Entry Peak Hour ingress trips by Left-Turns. 35% of Exit Peak Hour egress trips are Right-Turns only.

#### Entry Peak hour

- US 59 northbound: reconfigured to one-lane between Wilson Road and Proposed Main Entrance and two left-turn lanes between Proposed Main Entrance and south of Proposed Entrance 3.
- Proposed Main Entrance: three lanes for ingress (two-lanes for northbound Left-Turns and one-lane for southbound Right-Turns).

- Proposed Entrance 2: no ingress/egress; emergency access only.
- Proposed Entrance 3: two southbound Right-Turn only lanes for egress.
- Existing Entrance 2: two-lanes for ingress and northbound Left-Turn only.

**Figure 10** shows lane configuration and ingress/egress operations for 2035 Build Conditions Entry Peak.

**Exit Peak hour**

- US 59 SB: reconfigured to one-lane north of Proposed Main Entrance to accommodate safe/efficient egress for all entrances.
- Proposed Main Entrance: three lanes for egress (two-lanes for eastbound Right-Turns and one-lane for eastbound Left-Turn) and one-lane for ingress.
- Proposed Entrance 2: no ingress/egress; emergency access only.
- Proposed Entrance 3: one eastbound turn right only lanes for egress.
- Existing Entrance 2: one eastbound turn right only lanes for egress.

**Figure 11** shows lane configuration and ingress/egress operations for 2035 Build Conditions Exit Peak.

**8.2 Traffic Operations Analysis**

During 2035 Build Conditions, US 59 at the Proposed Main Entrance and US 59 at the Existing Entrance 2, where the primary access to the Fairgrounds is proposed, are operating at acceptable LOS D or better during Entry and Exit Peak Hours. At Proposed Entrance 3, traffic is free flowing during both peak hours. During both Entry and Exit Peak conditions, westbound left-turn movement at US 59 and Heritage Court is failing due to limited gaps in the heavy US 59 through traffic. During Exit Peak Hour, westbound left-turn movement at US 59 and Wilson Road is also failing due to heavy US 59 through traffic.

**Table 7** summarizes LOS for the study intersections along with Delay and V/C. **Figure 12** shows Entry Peak Hour and Exit Peak Hour volumes under 2035 Build Conditions.

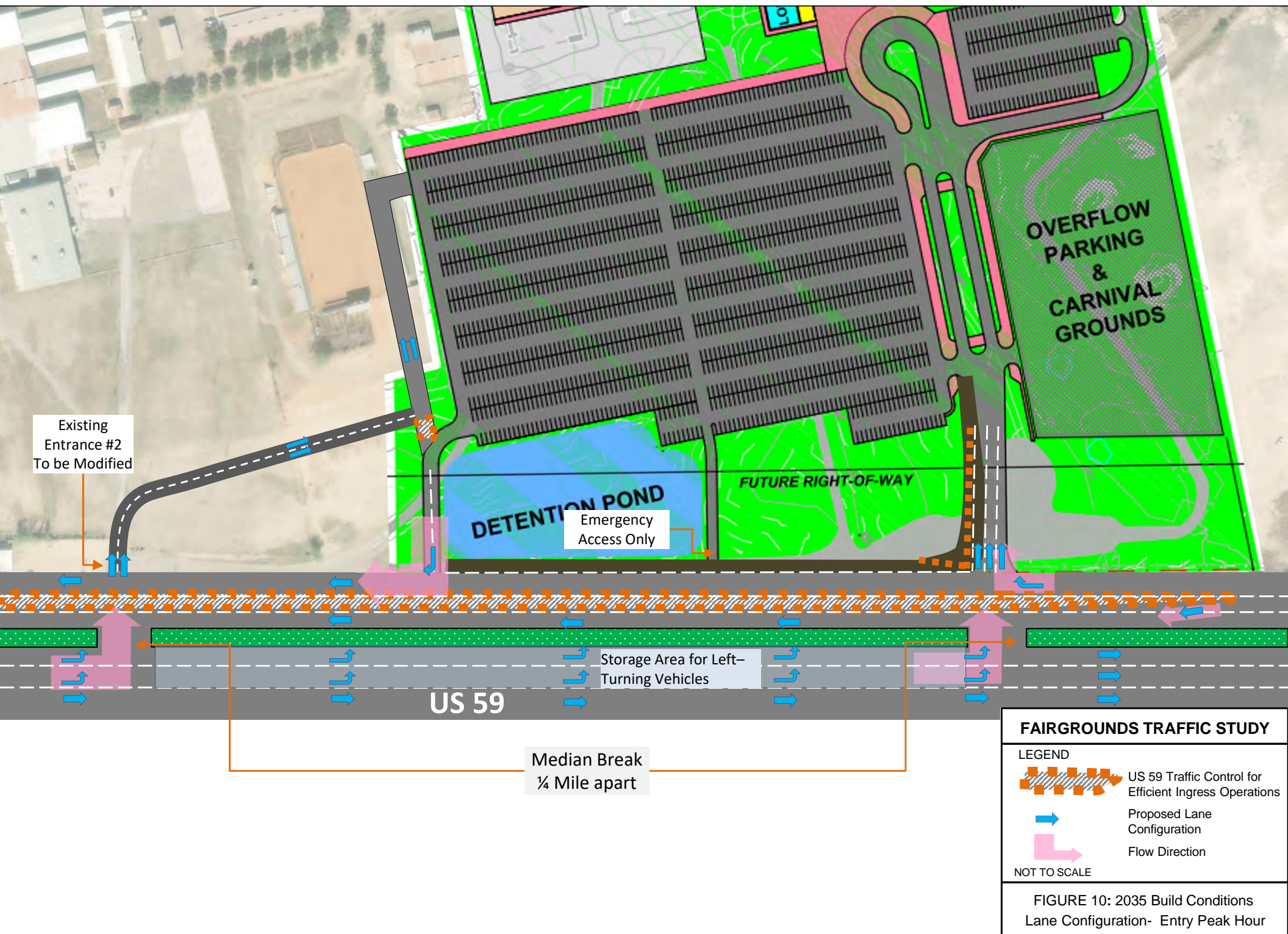
*Synchro Reports for 2035 Build Conditions including delay and v/c ratio are shown in **Appendix HF**.*

*SimTraffic Report for 2025 Build Conditions with Queuing and Blocking information is shown in **Appendix G**.*

**Table 7. 2035 Build Condition LOS**

Intersections	Entry Peak Hour			Exit Peak Hour		
	LOS	Delay (sec/veh)	V/C	LOS	Delay (sec/veh)	V/C
<b>US 59 at Proposed Main Entrance*</b> <i>Southbound</i>	C	32.7	0.78	D	38	0.20
<b>US 59 at Proposed Entrance 2</b>	Emergency Access Only			Emergency Access Only		
<b>US 59 at Proposed Entrance 3*</b>	Free flowing traffic			Free flowing traffic		
<b>US 59 at Existing Entrance 2*</b> <i>Northbound</i>	D	38.4	0.86	Free flowing traffic		
<b>US 59 at Wilson Road</b> <i>Westbound</i>	E	36.7	0.12	F	>100	0.39
<b>US 59 at Heritage Court</b> <i>Westbound</i>	F	>100	1.00	F	>100	>1

Note: LOS and V/C reported are for worst operating approach, \*LOS shown is from HCM 2000 module



Existing Entrance #2 To be Modified

DETENTION POND  
Emergency Access Only

FUTURE RIGHT-OF-WAY

OVERFLOW PARKING & CARNIVAL GROUNDS




Storage Area for Left-Turning Vehicles

US 59

Median Break 1/4 Mile apart

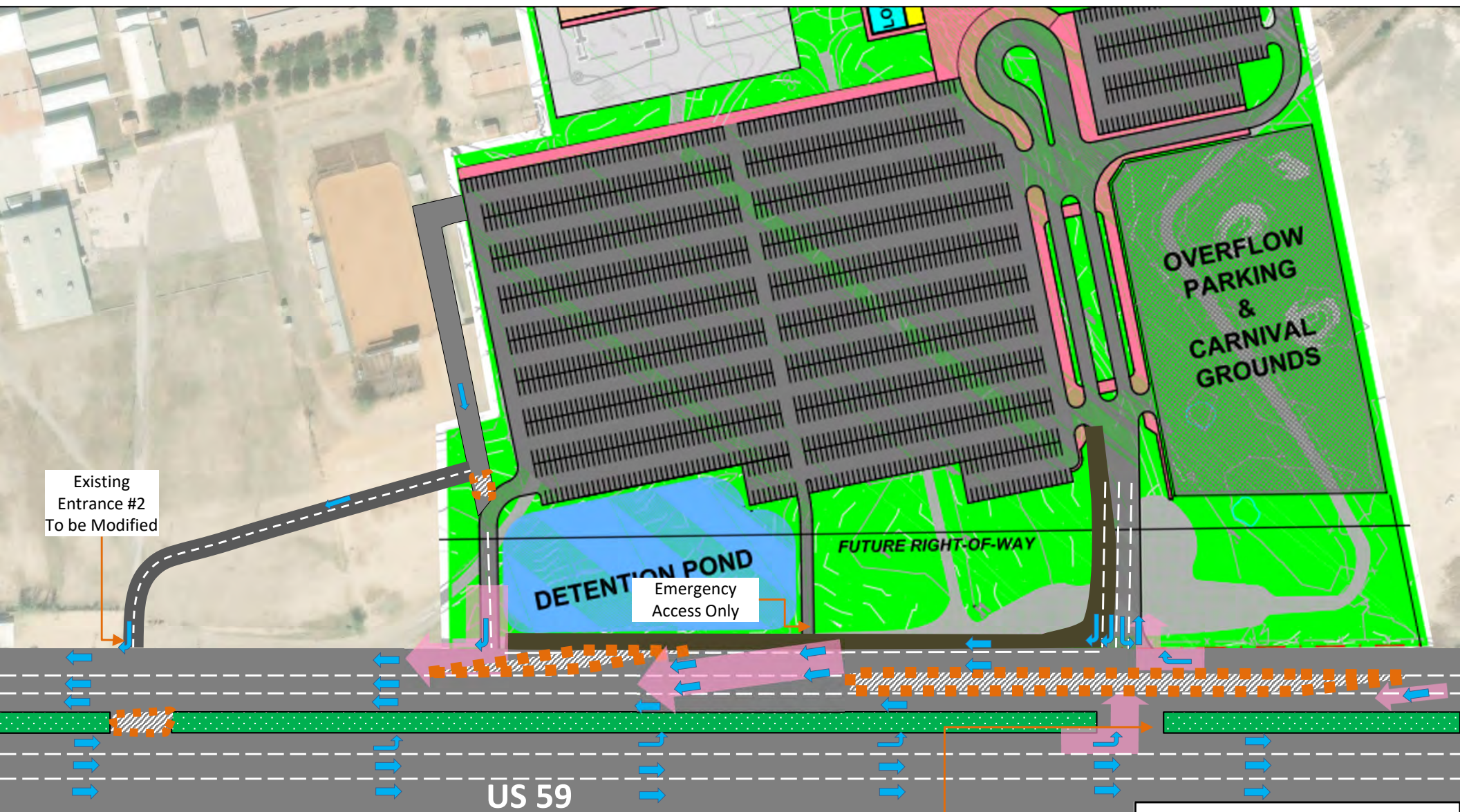
**FAIRGROUNDS TRAFFIC STUDY**

LEGEND

-  US 59 Traffic Control for Efficient Ingress Operations
-  Proposed Lane Configuration
-  Flow Direction

NOT TO SCALE

FIGURE 10: 2035 Build Conditions Lane Configuration- Entry Peak Hour



Existing Entrance #2 To be Modified

US 59

Median Break

DETENTION POND




Emergency Access Only

FUTURE RIGHT-OF-WAY

OVERFLOW PARKING & CARNIVAL GROUNDS

**FAIRGROUNDS TRAFFIC STUDY**

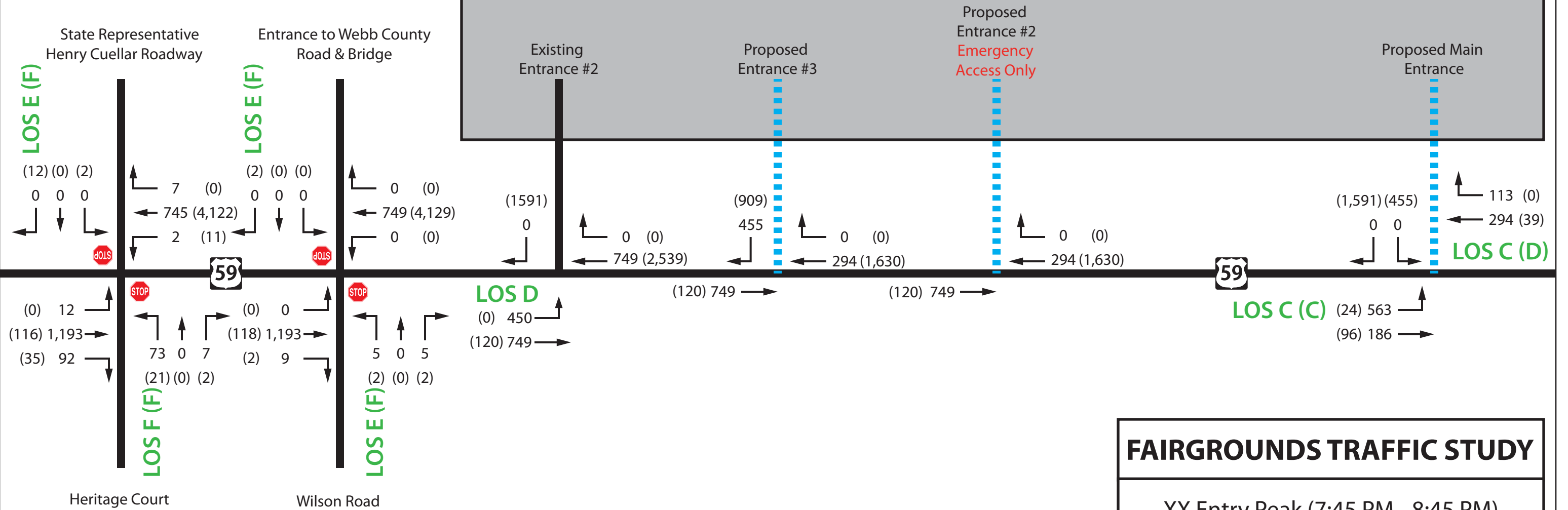
LEGEND

-  US 59 Traffic Control for Efficient Egress Operations
-  Proposed Lane Configuration
-  Flow Direction

NOT TO SCALE

FIGURE 11: 2035 Build Conditions Lane Configuration- Exit Peak Hour

# WEBB COUNTY FAIRGROUNDS

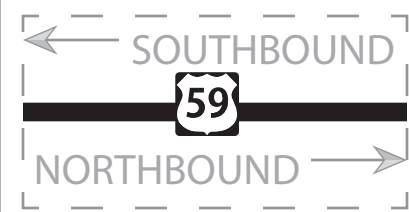


## FAIRGROUNDS TRAFFIC STUDY

XX Entry Peak (7:45 PM - 8:45 PM)  
 (XX) Exit Peak (12:00 AM - 1:00 AM)  
 LOS Level of Service

NOT TO SCALE

FIGURE 12: 2035 Build Conditions  
 Entry & Exit Peak Volumes



Note: Volumes may not sum from point to point due to rounding and presence of smaller driveways not included in the analysis.

## 9. Evaluation of Final Site Plan for Internal Operations and Circulations

Internal circulations for the proposed site plan was developed that satisfies the five key factors mentioned in section 6.3 and US 59 TxDOT suggested improvements for both Entry and Exit Peak Hours. Following traffic control measures will be utilized for safe/quick ingress/egress to the Fairgrounds:

- Staff/security control of inbound and outbound traffic from/to US 59
- Lane revisions/enhancements using traffic cones and flares to temporarily “add/remove” lanes
- Staff/security directing to/from parking lots
- Signs to direct traffic to/from parking areas

### 9.1 Entry Peak Hour Operations

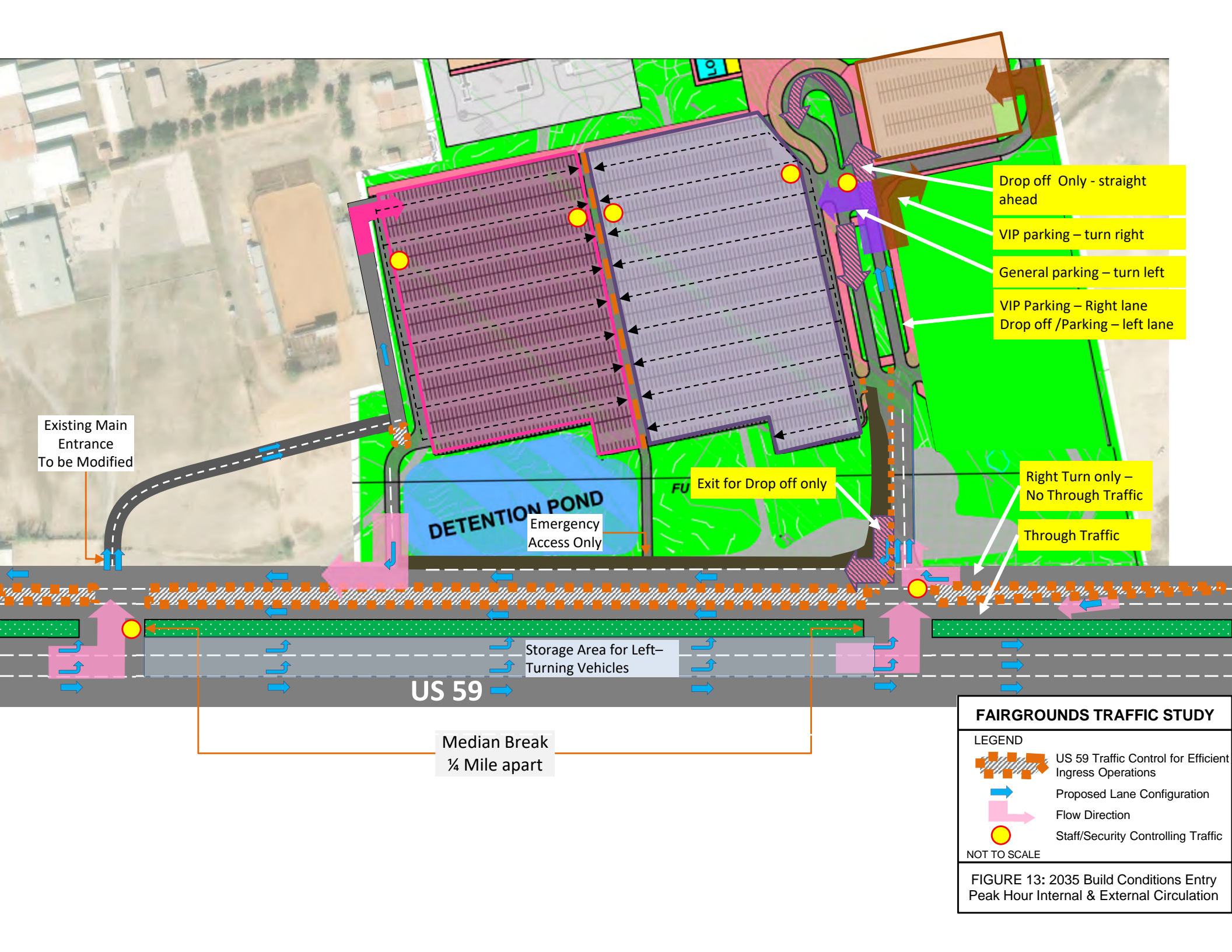
Entry Peak Hour internal/external circulation is shown on **Figure 13** under 2035 Build Conditions. Internal circulation and travel movements during this peak hour at each of the entrances is elaborated below.

*Proposed Main Entrance and US 59:* Traffic at this intersection will be controlled by staff/security to direct Left-Turns from US 59 northbound and the through traffic on US 59 SB. US 59 SB traffic entering the Fairgrounds is limited to the Proposed Main Entrance. Out of four lanes, two-lanes are dedicated to incoming traffic at the entrance and one-lane is dedicated to the outgoing traffic. Only outgoing traffic at this entrance is drop-offs/taxi/limo services. Signs will be posted for the incoming traffic limiting VIP parking to the Right-Lane general parking and drop-offs to the Left-Lane. Drop off traffic will be permitted to enter the turn-around at the main entrance and exit the Fairgrounds by making a Right-Turn. Vehicles entering the general parking turn left at the northern most entrance. General parking lot will be managed by staff/security such that the parking spots are utilized effectively and in a synchronized manner.

*Proposed Entrance 2:* Entrance 2 is restricted to emergency access only.

*Proposed Entrance 3:* As mentioned in section 6.2, 455 vehicles will be exiting the Fairgrounds during the Entry Peak Hour and all the exit movements will be restricted to utilize Proposed Entrance 3. Entrance 3 Driveway is two-lanes but will be restricted to one-lane during Entry Peak Hour operations.

*Existing Main Entrance and US 59:* Existing driveway at this entrance will be reconfigured to meet the Entrance 3 driveway. Traffic movement at this intersection will be controlled by staff/security to direct Left-Turns from US 59 northbound and the through traffic on US 59 SB. This entrance is limited to general parking of ingress operations only. This entrance will have two-lanes and both lanes will be dedicated to incoming traffic during Entry Peak Hour. General parking lot will again be managed by staff/security so the parking spots are utilized effectively and in synchronized manner.



Drop off Only - straight ahead  
 VIP parking - turn right  
 General parking - turn left  
 VIP Parking - Right lane  
 Drop off /Parking - left lane

Existing Main Entrance To be Modified

DETENTION POND  
 Emergency Access Only  
 FU

Exit for Drop off only

Right Turn only - No Through Traffic  
 Through Traffic

Storage Area for Left-Turning Vehicles

US 59

Median Break 1/4 Mile apart

**FAIRGROUNDS TRAFFIC STUDY**

- LEGEND
- US 59 Traffic Control for Efficient Ingress Operations
  - Proposed Lane Configuration
  - Flow Direction
  - Staff/Security Controlling Traffic

NOT TO SCALE

FIGURE 13: 2035 Build Conditions Entry Peak Hour Internal & External Circulation

## 9.2 Exit Peak Hour Operations

Exit Peak Hour internal/external circulation is shown on **Figure 14** under 2035 Build Conditions. Internal circulation and travel movements during this peak hour at each of the entrances is elaborated below.

*Proposed Main Entrance and US 59:* Traffic at this intersection will be controlled by staff/security as it is during Entry Peak Hour operations to direct Left-Turns from US 59 northbound pick-up/taxi/limo service and the through traffic on US 59 SB. Out of four lanes, two-lanes are dedicated to outgoing Right-Turn movement at the entrance, one-lane is dedicated to outgoing Left-Turn movement, and one-lane for incoming pick-up/taxi/limo service. Only incoming traffic at this entrance is drop-offs/ taxi/ limo services. Vehicles exiting the general parking can use one of the two exits depending on their parked location. The parking lot will be managed by staff/security for safe and effective flow of the traffic.

*Proposed Entrance 2:* Entrance 2 is restricted to emergency access only.

*Proposed Entrance 3:* Entrance 3 Driveway is two-lane but only one-lane will be utilized during Exit Peak Hour operations. All traffic exiting will be limited to Right-Turns.

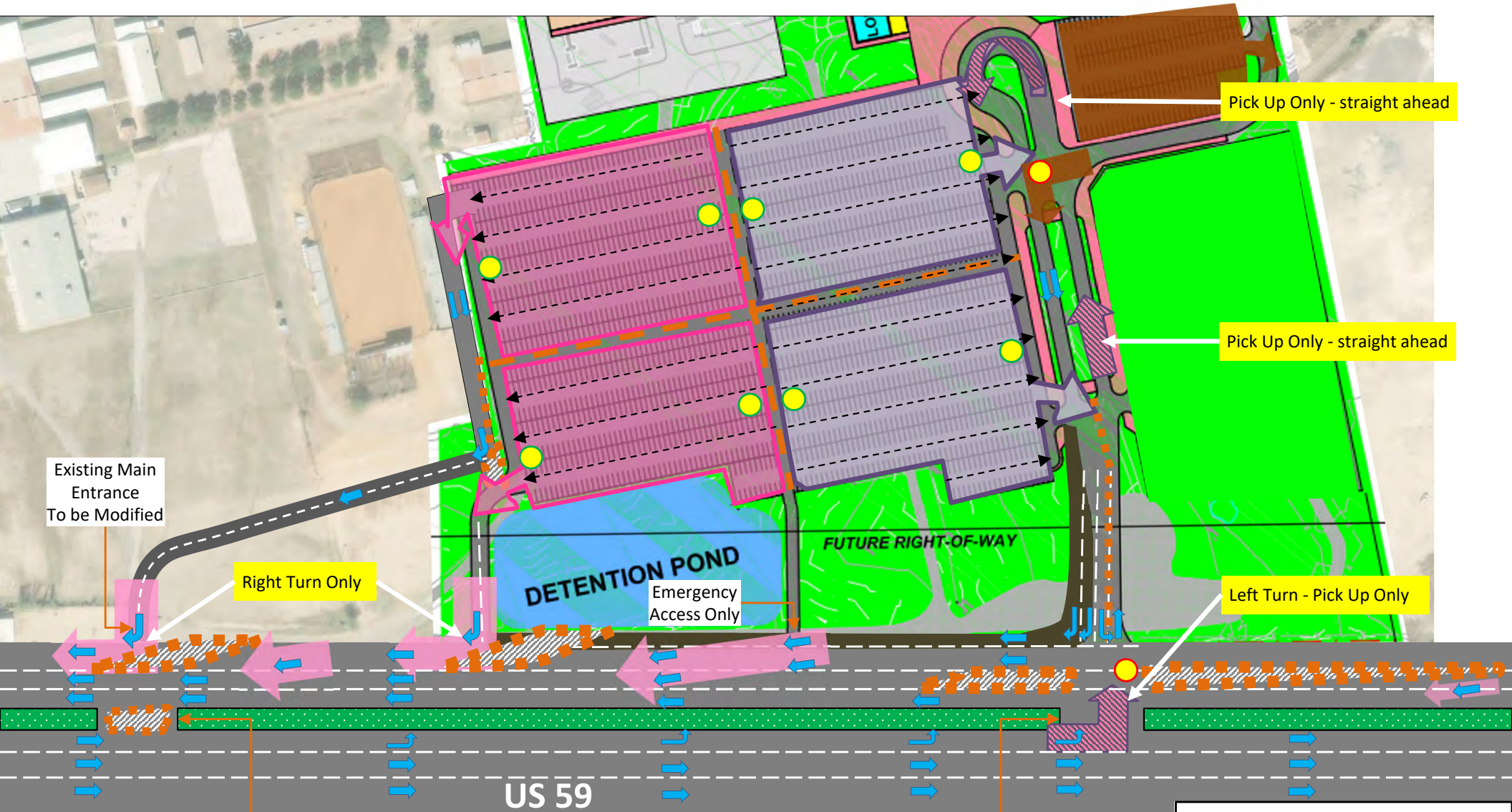
*Existing Main Entrance and US 59:* This two-lane entrance will be utilizing only one-lane during Exit Peak Hour operations and will be limited to Right-Turns.

## 9.3 Operations Along US 59/IH 69

Operations along US 59/IH 69 will be impacted during the events based on the proposed lane configuration under 2025 and 2035 Build Conditions. The scope of this study does not include Traffic Management along US 59/IH 69 and it is recommended that a detailed Traffic Management Plan be developed for events at the Fairgrounds.

This traffic study recognizes the need for dynamic message signs (DMSs) along US 59 NB and US 59 SB to alert/warn oncoming traffic of lane closures and altered traffic controls due to a major event. **Figure 15** Traffic Management Sign Locations suggests approximate location of DMS signs along US 59 and event warning signs along Heritage Court and Wilson Road.





Existing Main Entrance To be Modified

Right Turn Only

Emergency Access Only

Pick Up Only - straight ahead

Pick Up Only - straight ahead




Left Turn - Pick Up Only

US 59

Median Break  
¼ Mile apart

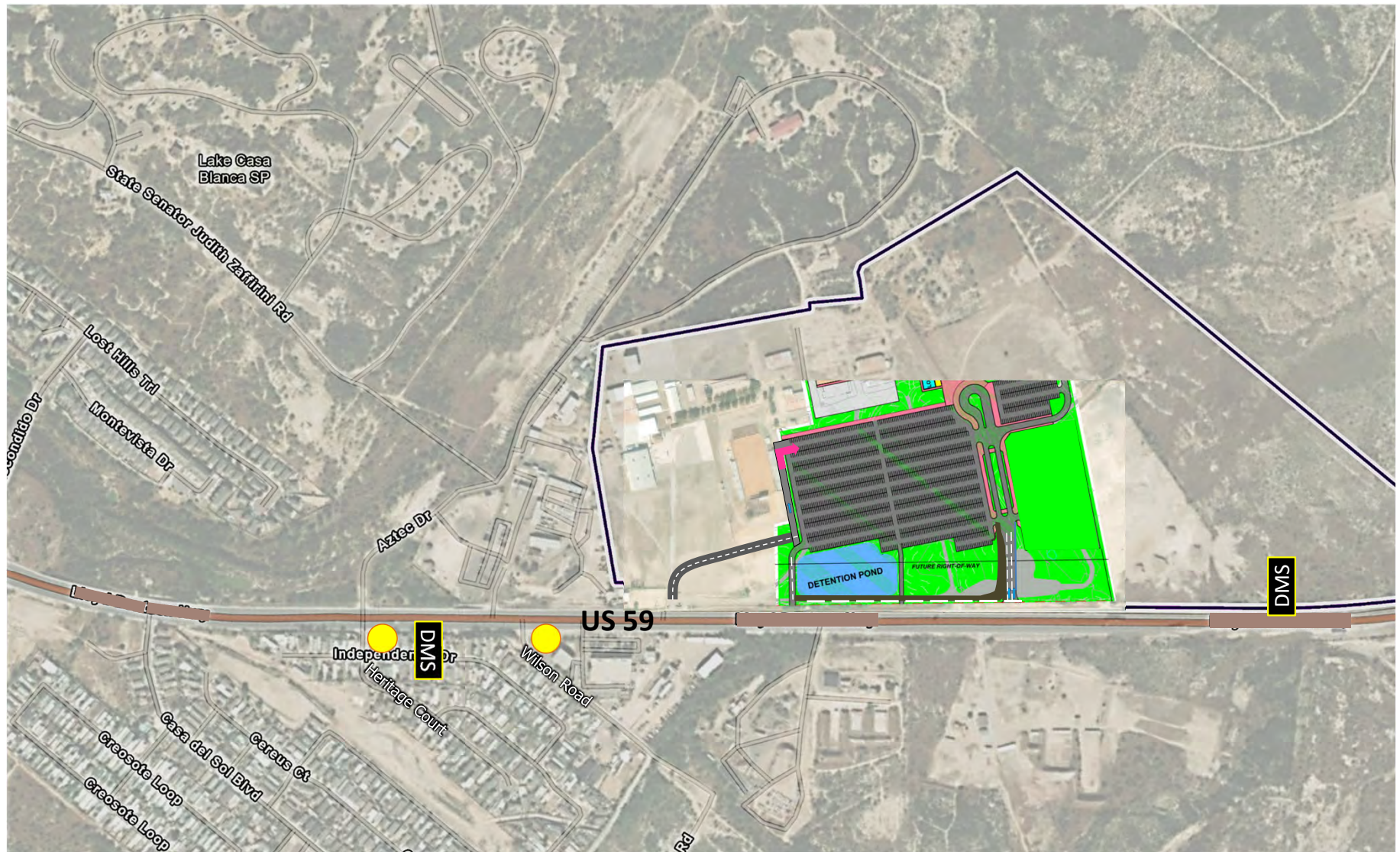
**FAIRGROUNDS TRAFFIC STUDY**

**LEGEND**

-  US 59 Traffic Control for Efficient Egress Operations
-  Proposed Lane Configuration
-  Flow Direction

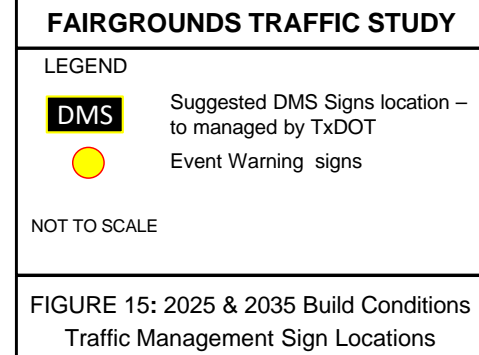
NOT TO SCALE

FIGURE 14: 2035 Build Conditions Exit Peak Hour Internal & External Circulation



Note:

- DMS sign along US 59 NB and US 59 SB will operate during major events when lane closures and altered traffic controls are necessary.
- Placement of DMS sign location is representation purpose only. Traffic Management Plan in the future will define accurate placement and message to be displayed.
- Event warning signs need to be part of Traffic Management Plan.



## 10. Recommendations and Conclusions

### 10.1 Recommended Improvements

After evaluating 2025 Build Conditions and 2035 Build Conditions with TxDOT improvements, the following recommendations are proposed.

- Proposed Main Entrance – Driveway is assumed to be 4 lanes, 2 lanes in each direction with option to do lane revisions depending on the major traffic flow direction.
  - General Engineer Contractor should request Webb County consultant to ensure that driveway is wide enough to accommodate number of lanes and turning radius to accommodate 18-wheeler trucks and school buses.
- Entrance 2 – Emergency entrance/exit only.
- Entrance 3 – Extending driveway close to the Arena to increase on site storage and reduce queuing on US 59.
- Exiting Entrance 2 – Enhance entrance and driveway to meet Entrance 3 driveway as shown in Figures 10 and 11.
- Add an auxiliary lane between proposed main entrance and existing main entrance as indicated on Figures 10 and 11.

### 10.2 Conclusions

Lane configurations for both Entry and Exit Peak Hours that satisfy the five key factors below will help accomplish safe and efficient operations for all entrances and US 59.

- Utilize Proposed Main Entrance and existing Main Entrance for ingress and Proposed Entrance 3 for egress during Entry Peak Hour to **minimize conflicting movements**.
- Designate Proposed Main Entrance, Proposed Entrance 3, and existing Main Entrance for exit trips during Exit Peak Hour to allow sufficient distance between the exits for traffic to merge on to US 59 while **maximizing safety along US 59**.
- Propose Main Entrance 2,500 feet away from Wilson Road and designate two Left-Turn lanes during Entry Peak Hour to double the storage capacity and allow vehicles to enter the Fairgrounds quickly in order to **alleviate sight distance challenges** for Wilson Road and Heritage Court.
- Provide two long driveways on either side of the parking lot to facilitate **efficient internal circulation** and provide storage when necessary, during Entry and Exit Peak Hours.
- During Entry and Exit Peak Hours, operate Proposed Entrance 2 as **emergency access** to disperse traffic efficiently and as exclusive access to EMS vehicles during emergencies.

In addition, utilize the following traffic control measures for safe/quick ingress/egress to the Fairgrounds:

- Staff/security control of inbound and outbound traffic from/to US 59
- Lane revisions/enhancements using traffic cones and flares to temporarily “add/remove” lanes
- Staff/security directing to/from parking lots
- Signs to direct traffic to/from parking areas
- DMSs along US 59 to alert/warn oncoming traffic of lane closures and altered traffic controls
- Event warning signs on cross streets.

Finally, based on the traffic analysis conducted to determine the impacts on study area by the proposed Site Plan, the public roadway system serving the site as well as the study intersections can accommodate traffic generated at the Fairgrounds during major events provided the above recommended improvements in Section 10.1 are considered for implementation.

## ***Appendix A: Traffic Count Data***

**NB/SB US 59 north of Entrance 1 - ATR**

Fri Mar 4, 2022

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 927846, Location: 27.5379, -99.419616



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

Leg Direction	North Southbound		South Northbound		Int
	T	App	T	App	
2022-03-04 12:00AM	29	29	18	18	47
1:00AM	19	19	19	19	38
2:00AM	12	12	12	12	24
3:00AM	15	15	5	5	20
4:00AM	15	15	34	34	49
5:00AM	38	38	50	50	88
6:00AM	63	63	80	80	143
7:00AM	124	124	87	87	211
8:00AM	137	137	144	144	281
9:00AM	142	142	109	109	251
10:00AM	146	146	119	119	265
11:00AM	164	164	132	132	296
12:00PM	127	127	146	146	273
1:00PM	134	134	149	149	283
2:00PM	169	169	133	133	302
3:00PM	164	164	165	165	329
4:00PM	198	198	175	175	373
5:00PM	169	169	153	153	322
6:00PM	195	195	135	135	330
7:00PM	145	145	125	125	270
8:00PM	104	104	78	78	182
9:00PM	94	94	54	54	148
10:00PM	55	55	29	29	84
11:00PM	34	34	32	32	66
<b>Total</b>	2492	2492	2183	2183	4675
<b>% Approach</b>	100%	-	100%	-	-
<b>% Total</b>	53.3%	53.3%	46.7%	46.7%	-
<b>Lights</b>	1937	1937	1786	1786	3723
<b>% Lights</b>	77.7%	77.7%	81.8%	81.8%	79.6%
<b>Articulated Trucks</b>	461	461	303	303	764
<b>% Articulated Trucks</b>	18.5%	18.5%	13.9%	13.9%	16.3%
<b>Buses and Single-Unit Trucks</b>	94	94	94	94	188
<b>% Buses and Single-Unit Trucks</b>	3.8%	3.8%	4.3%	4.3%	4.0%

\*T: Thru

**NB/SB US 59 north of Entrance 1 - ATR**

Fri Mar 4, 2022

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 927846, Location: 27.5379, -99.419616



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



**NB/SB US 59 north of Entrance 1 - ATR**

Fri Mar 4, 2022

AM Peak (Mar 04 2022 8:15AM - 9:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 927846, Location: 27.5379, -99.419616



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

Leg Direction	North Southbound		South Northbound		Int
	T	App	T	App	
Time					
2022-03-04 8:15AM	37	37	41	41	78
8:30AM	36	36	33	33	69
8:45AM	34	34	37	37	71
9:00AM	38	38	33	33	71
<b>Total</b>	145	145	144	144	289
<b>% Approach</b>	100%	-	100%	-	-
<b>% Total</b>	50.2%	50.2%	49.8%	49.8%	-
<b>PHF</b>	0.954	0.954	0.878	0.878	0.926
<b>Lights</b>	114	114	118	118	232
<b>% Lights</b>	78.6%	78.6%	81.9%	81.9%	80.3%
<b>Articulated Trucks</b>	25	25	21	21	46
<b>% Articulated Trucks</b>	17.2%	17.2%	14.6%	14.6%	15.9%
<b>Buses and Single-Unit Trucks</b>	6	6	5	5	11
<b>% Buses and Single-Unit Trucks</b>	4.1%	4.1%	3.5%	3.5%	3.8%

\*T: Thru

NB/SB US 59 north of Entrance 1 - ATR

Fri Mar 4, 2022

AM Peak (Mar 04 2022 8:15AM - 9:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 927846, Location: 27.5379, -99.419616



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





**NB/SB US 59 north of Entrance 1 - ATR**

Fri Mar 4, 2022

Midday Peak (Mar 04 2022 11AM - 12 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 927846, Location: 27.5379, -99.419616



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

Leg Direction	North Southbound		South Northbound		Int
	T	App	T	App	
Time					
2022-03-04 11:00AM	50	50	29	29	79
11:15AM	43	43	37	37	80
11:30AM	31	31	39	39	70
11:45AM	40	40	27	27	67
<b>Total</b>	164	164	132	132	296
<b>% Approach</b>	100%	-	100%	-	-
<b>% Total</b>	55.4%	55.4%	44.6%	44.6%	-
<b>PHF</b>	0.820	0.820	0.846	0.846	0.925
<b>Lights</b>	128	128	95	95	223
<b>% Lights</b>	78.0%	78.0%	72.0%	72.0%	75.3%
<b>Articulated Trucks</b>	28	28	26	26	54
<b>% Articulated Trucks</b>	17.1%	17.1%	19.7%	19.7%	18.2%
<b>Buses and Single-Unit Trucks</b>	8	8	11	11	19
<b>% Buses and Single-Unit Trucks</b>	4.9%	4.9%	8.3%	8.3%	6.4%

\*T: Thru

NB/SB US 59 north of Entrance 1 - ATR

Fri Mar 4, 2022

Midday Peak (Mar 04 2022 11AM - 12 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 927846, Location: 27.5379, -99.419616



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



**NB/SB US 59 north of Entrance 1 - ATR**

Fri Mar 4, 2022

PM Peak (Mar 04 2022 4PM - 5 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 927846, Location: 27.5379, -99.419616



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

Leg Direction	North Southbound		South Northbound		Int
	T	App	T	App	
Time					
2022-03-04 4:00PM	58	<b>58</b>	50	<b>50</b>	<b>108</b>
4:15PM	30	<b>30</b>	43	<b>43</b>	<b>73</b>
4:30PM	48	<b>48</b>	30	<b>30</b>	<b>78</b>
4:45PM	62	<b>62</b>	52	<b>52</b>	<b>114</b>
<b>Total</b>	198	<b>198</b>	175	<b>175</b>	<b>373</b>
<b>% Approach</b>	100%	-	100%	-	-
<b>% Total</b>	53.1%	<b>53.1%</b>	46.9%	<b>46.9%</b>	-
<b>PHF</b>	0.798	<b>0.798</b>	0.841	<b>0.841</b>	0.818
<b>Lights</b>	156	<b>156</b>	149	<b>149</b>	305
<b>% Lights</b>	78.8%	<b>78.8%</b>	85.1%	<b>85.1%</b>	81.8%
<b>Articulated Trucks</b>	36	<b>36</b>	20	<b>20</b>	56
<b>% Articulated Trucks</b>	18.2%	<b>18.2%</b>	11.4%	<b>11.4%</b>	15.0%
<b>Buses and Single-Unit Trucks</b>	6	<b>6</b>	6	<b>6</b>	12
<b>% Buses and Single-Unit Trucks</b>	3.0%	<b>3.0%</b>	3.4%	<b>3.4%</b>	3.2%

\*T: Thru

**NB/SB US 59 north of Entrance 1 - ATR**

Fri Mar 4, 2022

PM Peak (Mar 04 2022 4PM - 5 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 927846, Location: 27.5379, -99.419616



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



**NB/SB US 59 north of Entrance 1 - ATR**

Sat Mar 5, 2022

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 927847, Location: 27.5379, -99.419616



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

Leg Direction	North Southbound		South Northbound		Int
	T	App	T	App	
2022-03-05 12:00AM	18	18	36	36	54
1:00AM	19	19	23	23	42
2:00AM	19	19	8	8	27
3:00AM	13	13	13	13	26
4:00AM	8	8	13	13	21
5:00AM	23	23	39	39	62
6:00AM	30	30	64	64	94
7:00AM	51	51	102	102	153
8:00AM	96	96	133	133	229
9:00AM	114	114	173	173	287
10:00AM	115	115	146	146	261
11:00AM	159	159	155	155	314
12:00PM	125	125	177	177	302
1:00PM	132	132	171	171	303
2:00PM	122	122	175	175	297
3:00PM	110	110	159	159	269
4:00PM	149	149	146	146	295
5:00PM	157	157	135	135	292
6:00PM	143	143	108	108	251
7:00PM	144	144	60	60	204
8:00PM	147	147	73	73	220
9:00PM	151	151	56	56	207
10:00PM	96	96	42	42	138
11:00PM	72	72	32	32	104
<b>Total</b>	2213	2213	2239	2239	4452
<b>% Approach</b>	100%	-	100%	-	-
<b>% Total</b>	49.7%	49.7%	50.3%	50.3%	-
<b>Lights</b>	1997	1997	2058	2058	4055
<b>% Lights</b>	90.2%	90.2%	91.9%	91.9%	91.1%
<b>Articulated Trucks</b>	174	174	133	133	307
<b>% Articulated Trucks</b>	7.9%	7.9%	5.9%	5.9%	6.9%
<b>Buses and Single-Unit Trucks</b>	42	42	48	48	90
<b>% Buses and Single-Unit Trucks</b>	1.9%	1.9%	2.1%	2.1%	2.0%

\*T: Thru

**NB/SB US 59 north of Entrance 1 - ATR**

Sat Mar 5, 2022

Full Length (12 AM-12 AM (+1))

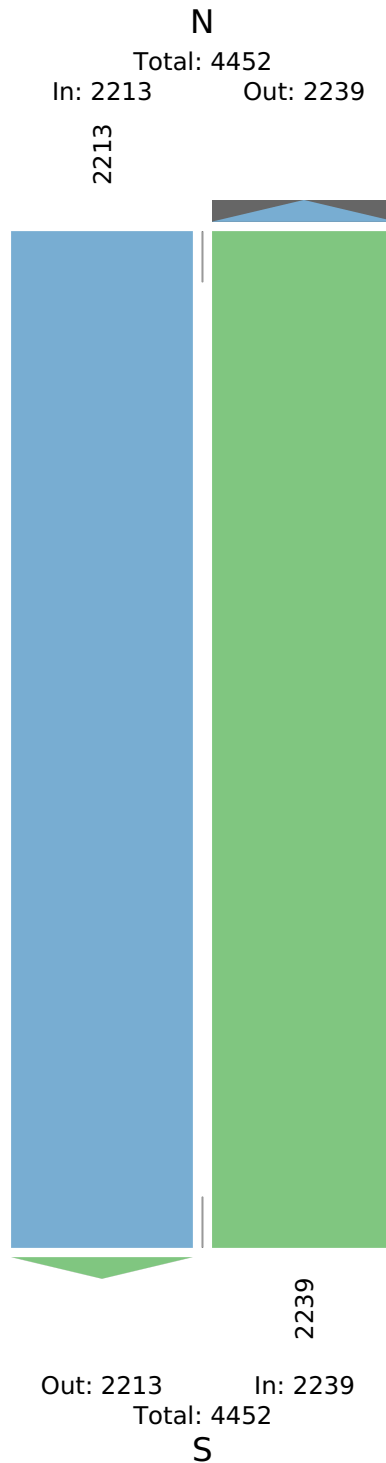
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 927847, Location: 27.5379, -99.419616



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



**NB/SB US 59 north of Entrance 1 - ATR**

Sat Mar 5, 2022

AM Peak (WKND) (9 AM - 10 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 927847, Location: 27.5379, -99.419616



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

Leg Direction	North Southbound		South Northbound		Int
	T	App	T	App	
Time					
2022-03-05 9:00AM	25	25	36	36	61
9:15AM	26	26	38	38	64
9:30AM	33	33	48	48	81
9:45AM	30	30	51	51	81
<b>Total</b>	114	114	173	173	287
<b>% Approach</b>	100%	-	100%	-	-
<b>% Total</b>	39.7%	39.7%	60.3%	60.3%	-
<b>PHF</b>	0.864	0.864	0.848	0.848	0.886
<b>Lights</b>	94	94	167	167	261
<b>% Lights</b>	82.5%	82.5%	96.5%	96.5%	90.9%
<b>Articulated Trucks</b>	18	18	5	5	23
<b>% Articulated Trucks</b>	15.8%	15.8%	2.9%	2.9%	8.0%
<b>Buses and Single-Unit Trucks</b>	2	2	1	1	3
<b>% Buses and Single-Unit Trucks</b>	1.8%	1.8%	0.6%	0.6%	1.0%

\*T: Thru

**NB/SB US 59 north of Entrance 1 - ATR**

Sat Mar 5, 2022

AM Peak (WKND) (9 AM - 10 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 927847, Location: 27.5379, -99.419616



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





**NB/SB US 59 north of Entrance 1 - ATR**

Sat Mar 5, 2022

Midday Peak (WKND) (12:45 PM - 1:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 927847, Location: 27.5379, -99.419616



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

Leg Direction	North Southbound		South Northbound		Int
	T	App	T	App	
Time					
2022-03-05 12:45PM	43	43	52	52	95
1:00PM	30	30	43	43	73
1:15PM	24	24	50	50	74
1:30PM	46	46	43	43	89
<b>Total</b>	143	143	188	188	331
<b>% Approach</b>	100%	-	100%	-	-
<b>% Total</b>	43.2%	43.2%	56.8%	56.8%	-
<b>PHF</b>	0.777	0.777	0.904	0.904	0.871
<b>Lights</b>	131	131	175	175	306
<b>% Lights</b>	91.6%	91.6%	93.1%	93.1%	92.4%
<b>Articulated Trucks</b>	11	11	10	10	21
<b>% Articulated Trucks</b>	7.7%	7.7%	5.3%	5.3%	6.3%
<b>Buses and Single-Unit Trucks</b>	1	1	3	3	4
<b>% Buses and Single-Unit Trucks</b>	0.7%	0.7%	1.6%	1.6%	1.2%

\*T: Thru

NB/SB US 59 north of Entrance 1 - ATR

Sat Mar 5, 2022

Midday Peak (WKND) (12:45 PM - 1:45 PM) - Overall Peak Hour

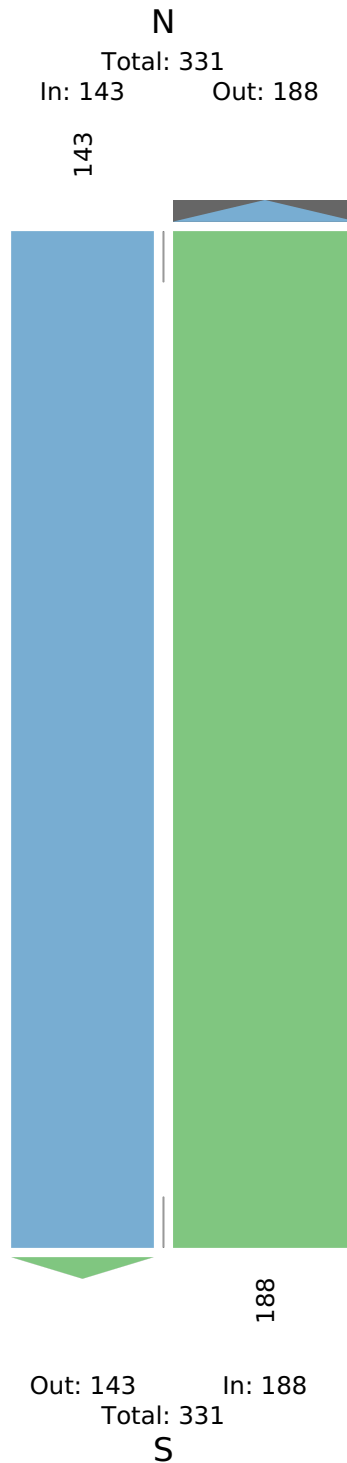
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 927847, Location: 27.5379, -99.419616



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



**NB/SB US 59 north of Entrance 1 - ATR**

Sat Mar 5, 2022

PM Peak (WKND) (3:45 PM - 4:45 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 927847, Location: 27.5379, -99.419616



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

Leg Direction	North Southbound		South Northbound		Int
	T	App	T	App	
Time					
2022-03-05 3:45PM	38	<b>38</b>	47	<b>47</b>	<b>85</b>
4:00PM	44	<b>44</b>	25	<b>25</b>	<b>69</b>
4:15PM	46	<b>46</b>	42	<b>42</b>	<b>88</b>
4:30PM	23	<b>23</b>	48	<b>48</b>	<b>71</b>
<b>Total</b>	151	<b>151</b>	162	<b>162</b>	<b>313</b>
<b>% Approach</b>	100%	-	100%	-	-
<b>% Total</b>	48.2%	<b>48.2%</b>	51.8%	<b>51.8%</b>	-
<b>PHF</b>	0.821	<b>0.821</b>	0.844	<b>0.844</b>	0.889
<b>Lights</b>	143	<b>143</b>	150	<b>150</b>	293
<b>% Lights</b>	94.7%	<b>94.7%</b>	92.6%	<b>92.6%</b>	93.6%
<b>Articulated Trucks</b>	7	<b>7</b>	5	<b>5</b>	12
<b>% Articulated Trucks</b>	4.6%	<b>4.6%</b>	3.1%	<b>3.1%</b>	3.8%
<b>Buses and Single-Unit Trucks</b>	1	<b>1</b>	7	<b>7</b>	8
<b>% Buses and Single-Unit Trucks</b>	0.7%	<b>0.7%</b>	4.3%	<b>4.3%</b>	2.6%

\*T: Thru

**NB/SB US 59 north of Entrance 1 - ATR**

Sat Mar 5, 2022

PM Peak (WKND) (3:45 PM - 4:45 PM)

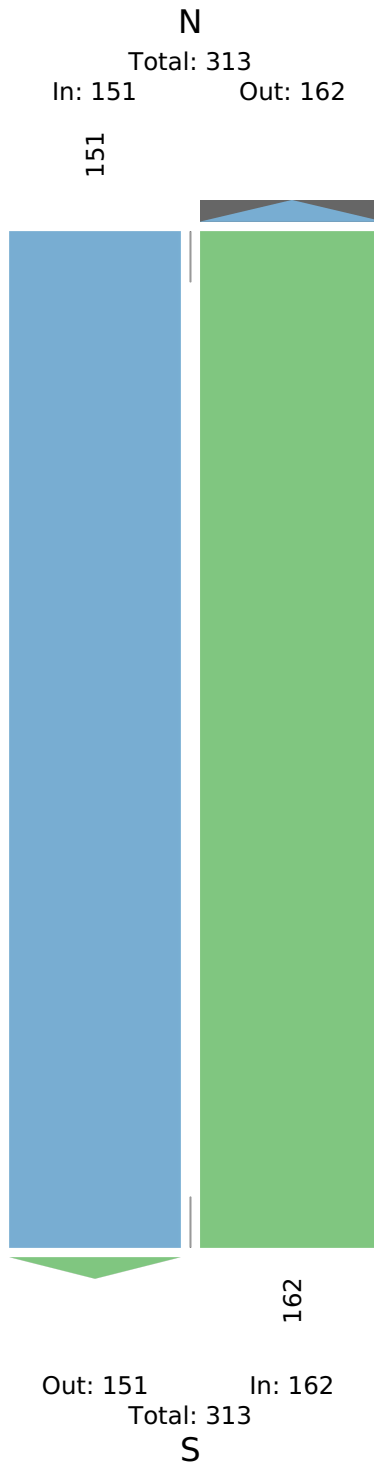
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 927847, Location: 27.5379, -99.419616



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



**US 59 at Entrance 1 - add'l - TMC**

Sat Mar 5, 2022

Full Length (12 AM-1 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 975541, Location: 27.536488, -99.42162



Provided by: C. J. Hensch & Associates  
Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US

Leg Direction	US 59 Southbound					US 59 Northbound					Entrance 1 Eastbound					Int
	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	
Time	0	18	0	18	0	35	4	0	39	0	15	1	0	16	0	73
2022-03-05 12:00AM	0	18	0	18	0	35	4	0	39	0	15	1	0	16	0	73
<b>Total</b>	0	18	0	18	0	35	4	0	39	0	15	1	0	16	0	73
<b>% Approach</b>	0%	100%	0%	-	-	89.7%	10.3%	0%	-	-	93.8%	6.3%	0%	-	-	-
<b>% Total</b>	0%	24.7%	0%	24.7%	-	47.9%	5.5%	0%	53.4%	-	20.5%	1.4%	0%	21.9%	-	-
<b>Lights</b>	0	13	0	13	-	31	4	0	35	-	15	1	0	16	-	64
<b>% Lights</b>	0%	72.2%	0%	72.2%	-	88.6%	100%	0%	89.7%	-	100%	100%	0%	100%	-	87.7%
<b>Articulated Trucks</b>	0	4	0	4	-	4	0	0	4	-	0	0	0	0	-	8
<b>% Articulated Trucks</b>	0%	22.2%	0%	22.2%	-	11.4%	0%	0%	10.3%	-	0%	0%	0%	0%	-	11.0%
<b>Buses and Single-Unit Trucks</b>	0	1	0	1	-	0	0	0	0	-	0	0	0	0	-	1
<b>% Buses and Single-Unit Trucks</b>	0%	5.6%	0%	5.6%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	1.4%
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

**US 59 at Entrance 1 - add'l - TMC**

Sat Mar 5, 2022

Full Length (12 AM-1 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

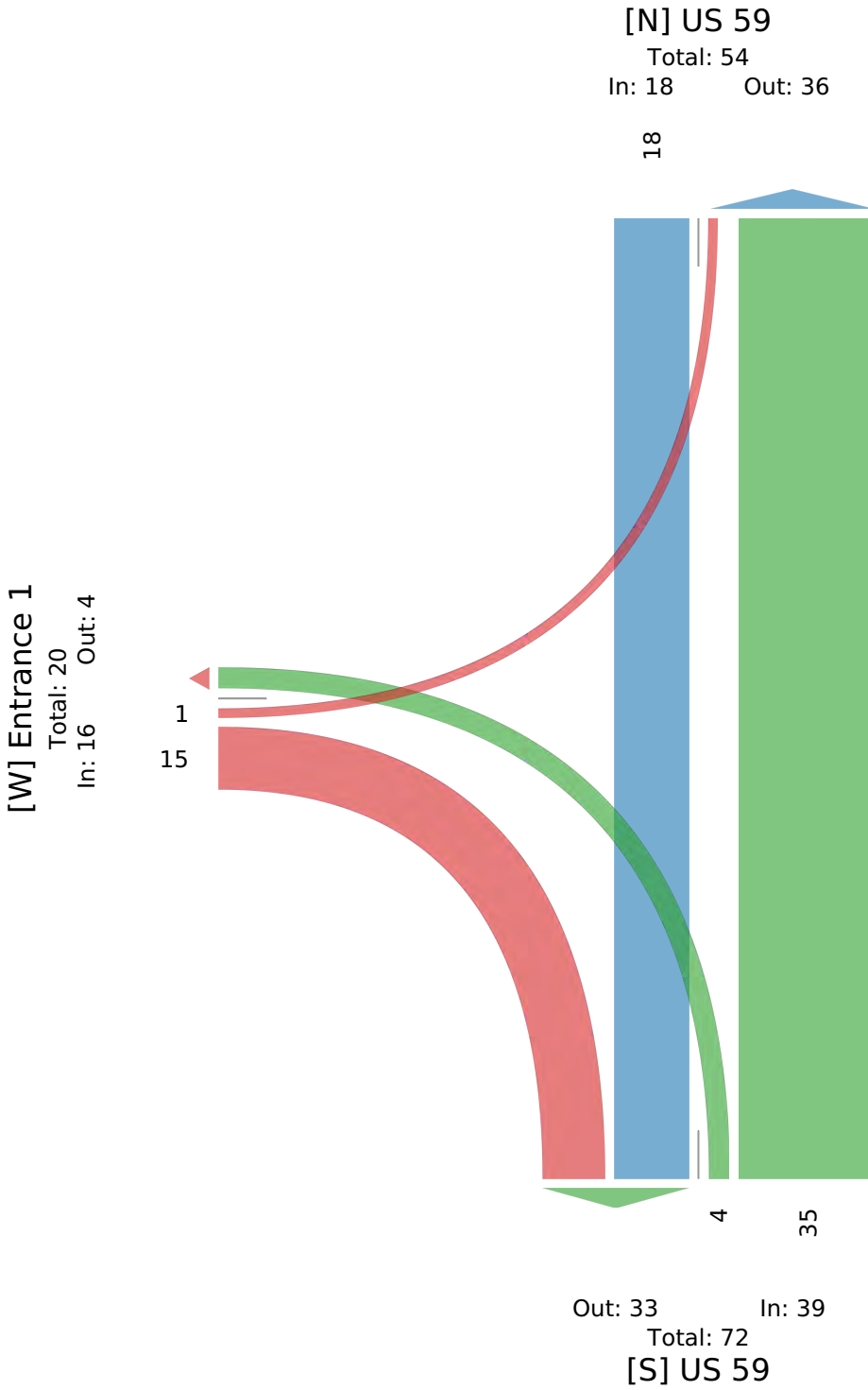
All Movements

ID: 975541, Location: 27.536488, -99.42162



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US



**US 59 at Entrance 1 - TMC**

Sat Mar 5, 2022

Full Length (7:45 PM-8:45 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927843, Location: 27.536488, -99.42162



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US

Leg Direction	US 59 Southbound					US 59 Northbound					Entrance 1 Eastbound					Int
	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	
2022-03-05 7:45PM	0	48	0	<b>48</b>	0	14	2	0	<b>16</b>	0	1	0	0	<b>1</b>	0	<b>65</b>
8:00PM	0	38	0	<b>38</b>	0	17	2	0	<b>19</b>	0	0	0	0	<b>0</b>	0	<b>57</b>
8:15PM	1	46	0	<b>47</b>	0	17	4	2	<b>23</b>	0	2	0	0	<b>2</b>	0	<b>72</b>
8:30PM	0	30	0	<b>30</b>	0	26	1	2	<b>29</b>	0	2	0	0	<b>2</b>	0	<b>61</b>
<b>Total</b>	<b>1</b>	<b>162</b>	<b>0</b>	<b>163</b>	<b>0</b>	<b>74</b>	<b>9</b>	<b>4</b>	<b>87</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>255</b>
<b>% Approach</b>	0.6%	99.4%	0%	-	-	85.1%	10.3%	4.6%	-	-	100%	0%	0%	-	-	-
<b>% Total</b>	0.4%	63.5%	0%	<b>63.9%</b>	-	29.0%	3.5%	1.6%	<b>34.1%</b>	-	2.0%	0%	0%	<b>2.0%</b>	-	-
<b>PHF</b>	0.250	0.844	-	<b>0.849</b>	-	0.712	0.563	0.500	<b>0.750</b>	-	0.625	-	-	<b>0.625</b>	-	0.885
<b>Lights</b>	1	157	0	<b>158</b>	-	70	9	4	<b>83</b>	-	5	0	0	<b>5</b>	-	246
<b>% Lights</b>	100%	96.9%	0%	<b>96.9%</b>	-	94.6%	100%	100%	<b>95.4%</b>	-	100%	0%	0%	<b>100%</b>	-	96.5%
<b>Articulated Trucks</b>	0	2	0	<b>2</b>	-	1	0	0	<b>1</b>	-	0	0	0	<b>0</b>	-	3
<b>% Articulated Trucks</b>	0%	1.2%	0%	<b>1.2%</b>	-	1.4%	0%	0%	<b>1.1%</b>	-	0%	0%	0%	<b>0%</b>	-	1.2%
<b>Buses and Single-Unit Trucks</b>	0	3	0	<b>3</b>	-	3	0	0	<b>3</b>	-	0	0	0	<b>0</b>	-	6
<b>% Buses and Single-Unit Trucks</b>	0%	1.9%	0%	<b>1.8%</b>	-	4.1%	0%	0%	<b>3.4%</b>	-	0%	0%	0%	<b>0%</b>	-	2.4%
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

**US 59 at Entrance 1 - TMC**

Sat Mar 5, 2022

Full Length (7:45 PM-8:45 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

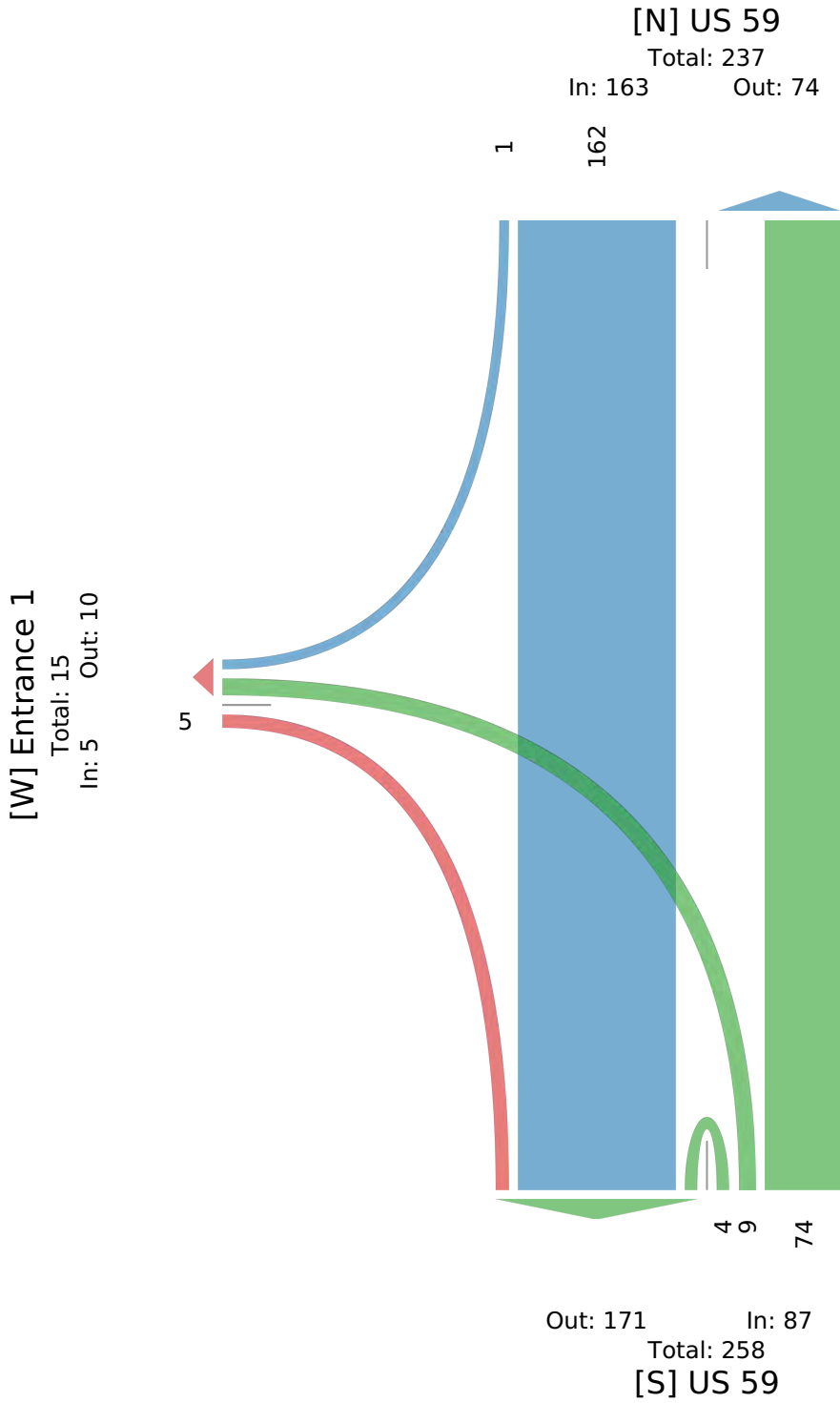
All Movements

ID: 927843, Location: 27.536488, -99.42162



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US





US 59 at Entrance 2 - add'l - TMC

Sat Mar 5, 2022

Full Length (12 AM-1 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 975543, Location: 27.534036, -99.424882



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US

Leg Direction	US 59 Southbound					US 59 Northbound					Entrance 2 Eastbound					Int
	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	
Time																
2022-03-05 12:00AM	1	32	0	33	0	30	21	0	51	0	527	6	1	534	3	618
<b>Total</b>	1	32	0	33	0	30	21	0	51	0	527	6	1	534	3	618
<b>% Approach</b>	3.0%	97.0%	0%	-	-	58.8%	41.2%	0%	-	-	98.7%	1.1%	0.2%	-	-	-
<b>% Total</b>	0.2%	5.2%	0%	5.3%	-	4.9%	3.4%	0%	8.3%	-	85.3%	1.0%	0.2%	86.4%	-	-
<b>Lights</b>	1	28	0	29	-	28	21	0	49	-	527	6	1	534	-	612
<b>% Lights</b>	100%	87.5%	0%	87.9%	-	93.3%	100%	0%	96.1%	-	100%	100%	100%	100%	-	99.0%
<b>Articulated Trucks</b>	0	4	0	4	-	2	0	0	2	-	0	0	0	0	-	6
<b>% Articulated Trucks</b>	0%	12.5%	0%	12.1%	-	6.7%	0%	0%	3.9%	-	0%	0%	0%	0%	-	1.0%
<b>Buses and Single-Unit Trucks</b>	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
<b>% Buses and Single-Unit Trucks</b>	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	3	-
% 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

**US 59 at Entrance 2 - add'l - TMC**

Sat Mar 5, 2022

Full Length (12 AM-1 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

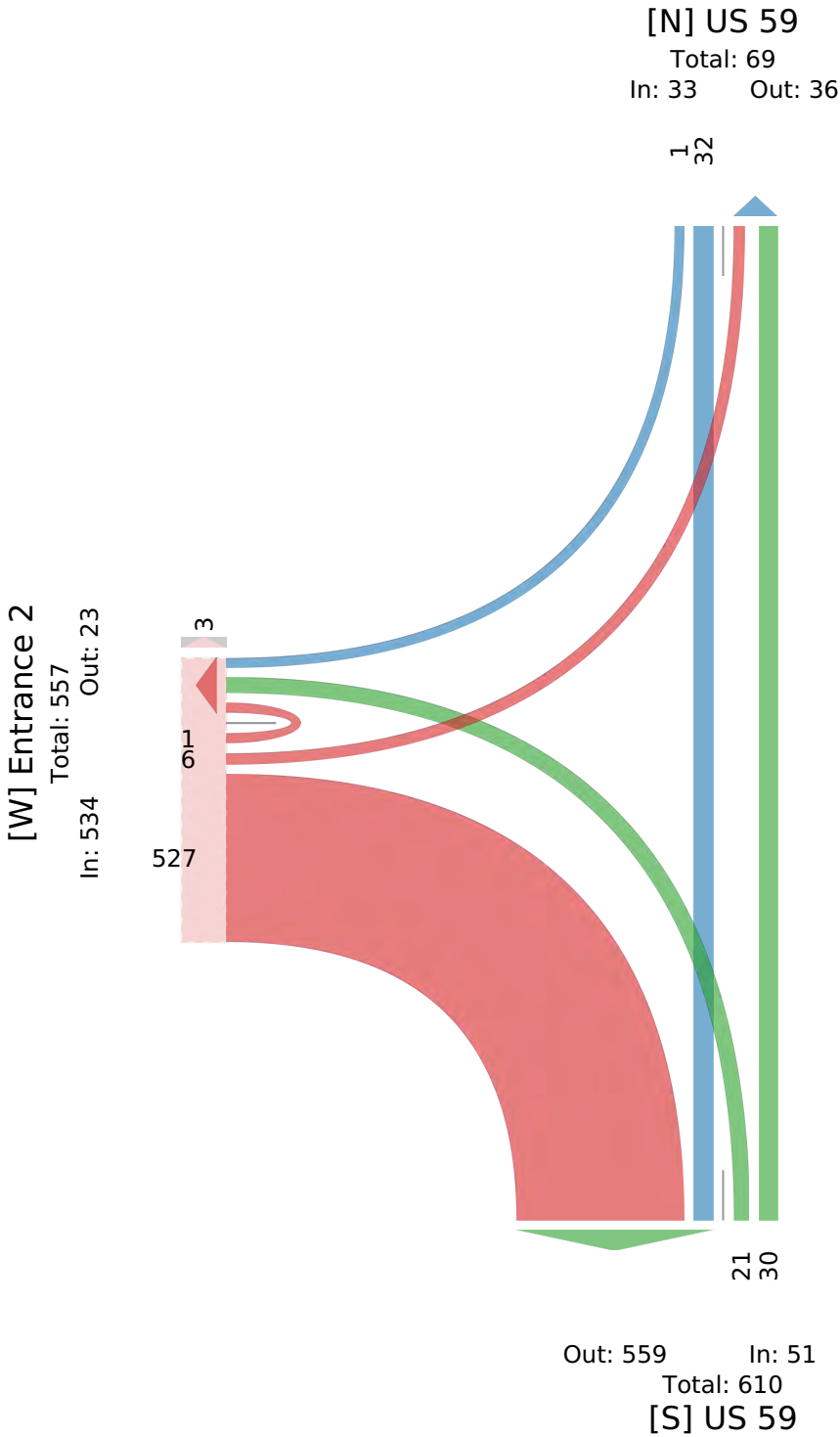
All Movements

ID: 975543, Location: 27.534036, -99.424882



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US



**US 59 at Entrance 2 - TMC**

Sat Mar 5, 2022

Full Length (7:45 PM-8:45 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927842, Location: 27.534036, -99.424882



Provided by: C. J. Hensch & Associates  
Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US

Leg Direction	US 59 Southbound					US 59 Northbound					Entrance 2 Eastbound					Int
	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	
2022-03-05 7:00PM	0	45	0	45	0	17	127	0	144	0	25	0	0	25	0	214
8:00PM	12	118	0	130	0	77	412	0	489	0	107	0	1	108	0	727
<b>Total</b>	12	163	0	175	0	94	539	0	633	0	132	0	1	133	0	941
<b>% Approach</b>	6.9%	93.1%	0%	-	-	14.8%	85.2%	0%	-	-	99.2%	0%	0.8%	-	-	-
<b>% Total</b>	1.3%	17.3%	0%	18.6%	-	10.0%	57.3%	0%	67.3%	-	14.0%	0%	0.1%	14.1%	-	-
<b>Lights</b>	12	160	0	172	-	88	538	0	626	-	132	0	0	132	-	930
<b>% Lights</b>	100%	98.2%	0%	98.3%	-	93.6%	99.8%	0%	98.9%	-	100%	0%	0%	99.2%	-	98.8%
<b>Articulated Trucks</b>	0	1	0	1	-	2	0	0	2	-	0	0	0	0	-	3
<b>% Articulated Trucks</b>	0%	0.6%	0%	0.6%	-	2.1%	0%	0%	0.3%	-	0%	0%	0%	0%	-	0.3%
<b>Buses and Single-Unit Trucks</b>	0	2	0	2	-	4	1	0	5	-	0	0	1	1	-	8
<b>% Buses and Single-Unit Trucks</b>	0%	1.2%	0%	1.1%	-	4.3%	0.2%	0%	0.8%	-	0%	0%	100%	0.8%	-	0.9%
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

**US 59 at Entrance 2 - TMC**

Sat Mar 5, 2022

Full Length (7:45 PM-8:45 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

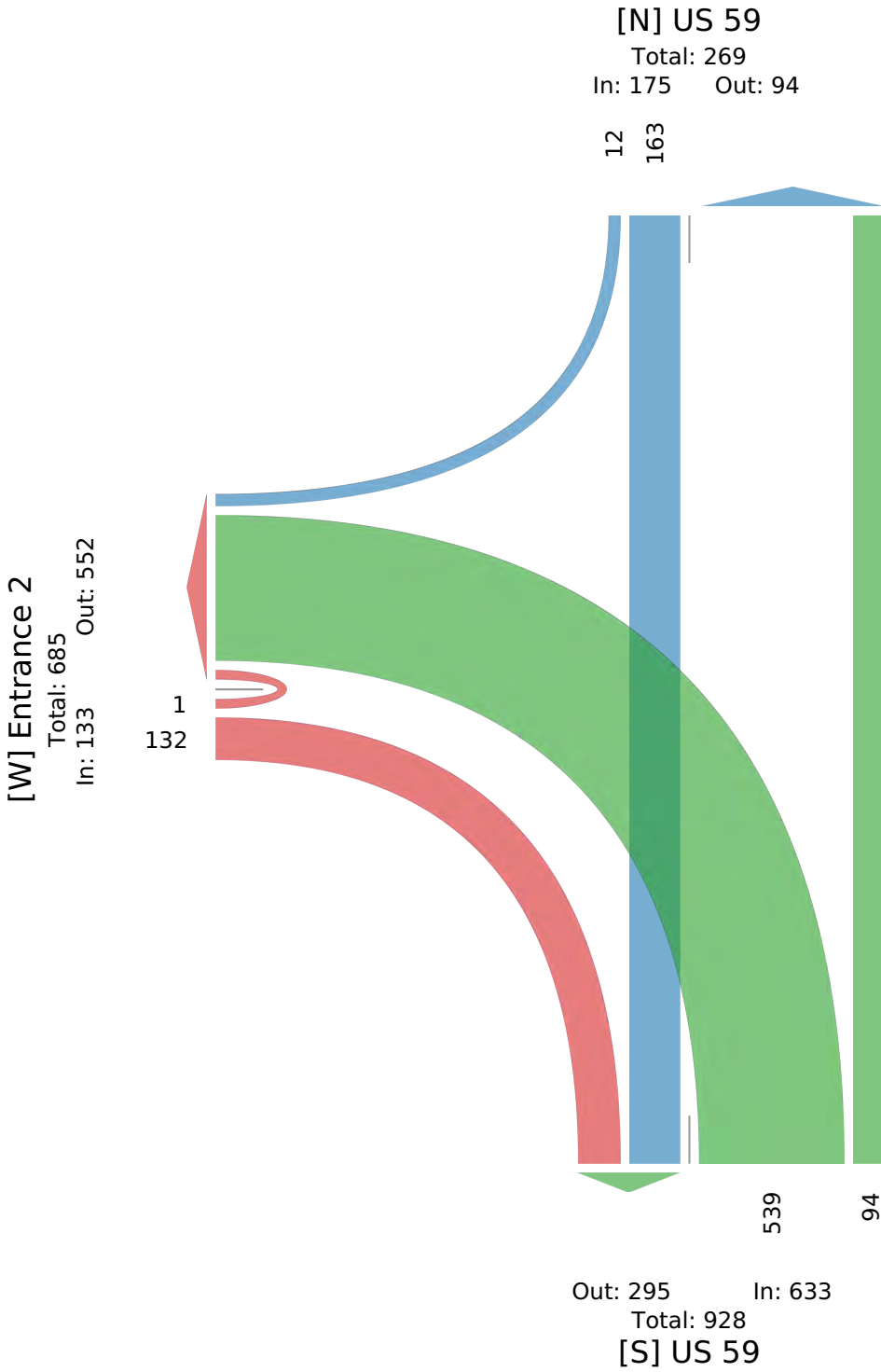
All Movements

ID: 927842, Location: 27.534036, -99.424882



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US



**US 59 at Entrance 3 - add'l - TMC**

Sat Mar 5, 2022

Full Length (12 AM-1 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 975546, Location: 27.532723, -99.426673



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US

Leg Direction	US 59 Southbound						Wilson Rd Westbound						US 59 Northbound						Entrance 3 Eastbound						Int
	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	
2022-03-05 12:00AM	0	548	0	0	548	0	1	0	1	0	2	0	1	50	0	0	51	0	1	0	0	0	1	0	602
<b>Total</b>	0	548	0	0	548	0	1	0	1	0	2	0	1	50	0	0	51	0	1	0	0	0	1	0	602
<b>% Approach</b>	0%	100%	0%	0%	-	-	50.0%	0%	50.0%	0%	-	-	2.0%	98.0%	0%	0%	-	-	100%	0%	0%	0%	-	-	-
<b>% Total</b>	0%	91.0%	0%	0%	91.0%	-	0.2%	0%	0.2%	0%	0.3%	-	0.2%	8.3%	0%	0%	8.5%	-	0.2%	0%	0%	0%	0.2%	-	-
<b>Lights</b>	0	539	0	0	539	-	1	0	1	0	2	-	1	48	0	0	49	-	1	0	0	0	1	-	591
<b>% Lights</b>	0%	98.4%	0%	0%	98.4%	-	100%	0%	100%	0%	100%	-	100%	96.0%	0%	0%	96.1%	-	100%	0%	0%	0%	100%	-	98.2%
<b>Articulated Trucks</b>	0	5	0	0	5	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	7
<b>% Articulated Trucks</b>	0%	0.9%	0%	0%	0.9%	-	0%	0%	0%	0%	0%	-	0%	4.0%	0%	0%	3.9%	-	0%	0%	0%	0%	0%	-	1.2%
<b>Buses and Single-Unit Trucks</b>	0	4	0	0	4	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	4
<b>% Buses and Single-Unit Trucks</b>	0%	0.7%	0%	0%	0.7%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.7%
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

US 59 at Entrance 3 - add'l - TMC

Sat Mar 5, 2022

Full Length (12 AM-1 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

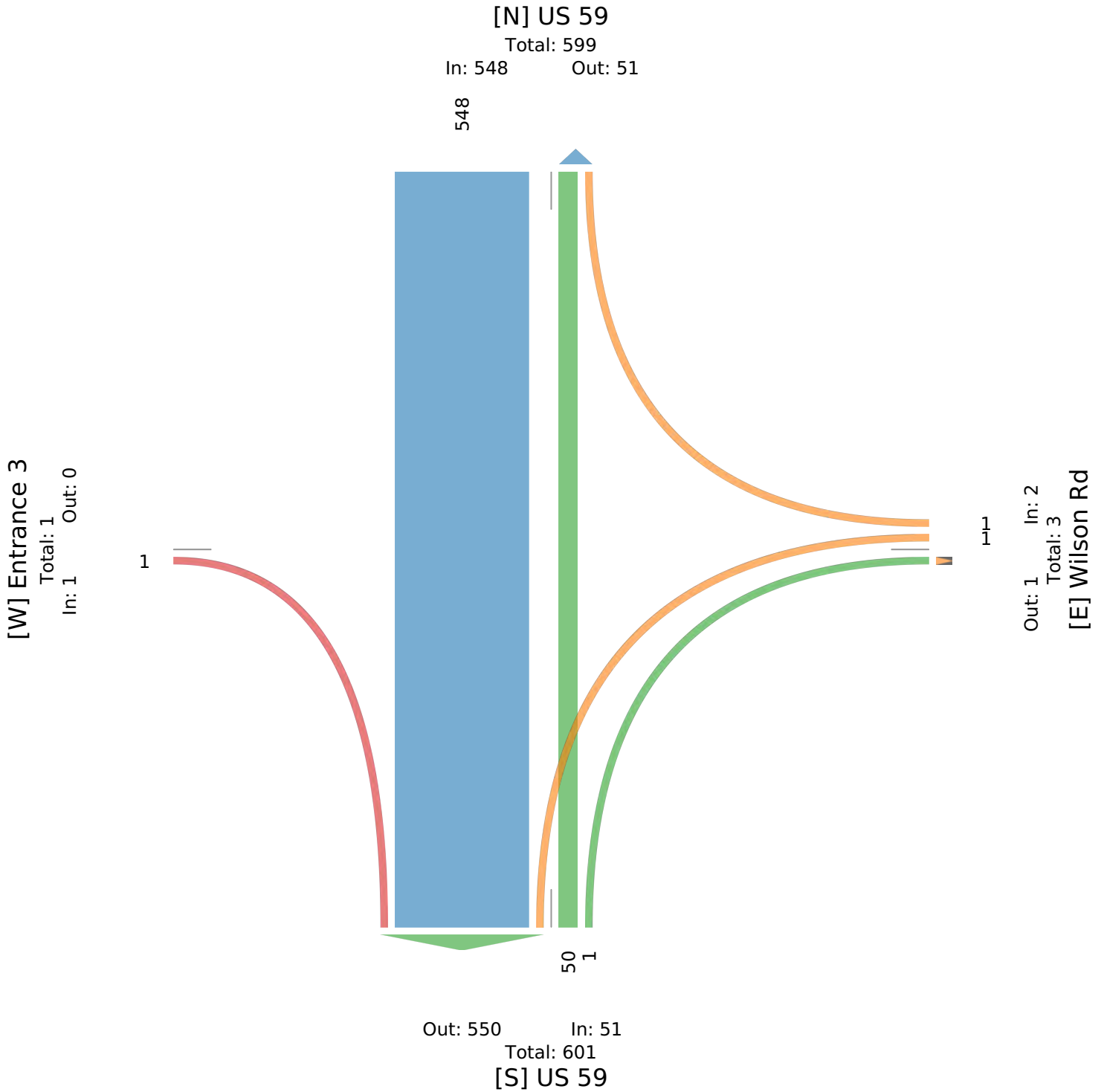
All Movements

ID: 975546, Location: 27.532723, -99.426673



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US



**US 59 at Entrance 3 - TMC**

Sat Mar 5, 2022

Full Length (7:45 PM-8:45 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927841, Location: 27.532723, -99.426673



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US

Leg Direction	US 59 Southbound						Wilson Rd Westbound						US 59 Northbound						Entrance 3 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
2022-03-05 7:00PM	1	68	0	0	69	0	1	0	1	0	2	0	1	144	2	0	147	0	1	0	0	0	1	0	219
8:00PM	0	219	0	0	219	0	2	0	2	0	4	0	4	487	0	0	491	0	2	0	0	0	2	0	716
<b>Total</b>	1	287	0	0	288	0	3	0	3	0	6	0	5	631	2	0	638	0	3	0	0	0	3	0	935
<b>% Approach</b>	0.3%	99.7%	0%	0%	-	-	50.0%	0%	50.0%	0%	-	-	0.8%	98.9%	0.3%	0%	-	-	100%	0%	0%	0%	-	-	-
<b>% Total</b>	0.1%	30.7%	0%	0%	30.8%	-	0.3%	0%	0.3%	0%	0.6%	-	0.5%	67.5%	0.2%	0%	68.2%	-	0.3%	0%	0%	0%	0.3%	-	-
<b>Lights</b>	1	283	0	0	284	-	3	0	3	0	6	-	4	626	0	0	630	-	1	0	0	0	1	-	921
<b>% Lights</b>	100%	98.6%	0%	0%	98.6%	-	100%	0%	100%	0%	100%	-	80.0%	99.2%	0%	0%	98.7%	-	33.3%	0%	0%	0%	33.3%	-	98.5%
<b>Articulated Trucks</b>	0	2	0	0	2	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	4
<b>% Articulated Trucks</b>	0%	0.7%	0%	0%	0.7%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.4%
<b>Buses and Single-Unit Trucks</b>	0	2	0	0	2	-	0	0	0	0	0	-	1	3	2	0	6	-	2	0	0	0	2	-	10
<b>% Buses and Single-Unit Trucks</b>	0%	0.7%	0%	0%	0.7%	-	0%	0%	0%	0%	0%	-	20.0%	0.5%	100%	0%	0.9%	-	66.7%	0%	0%	0%	66.7%	-	1.1%
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

**US 59 at Entrance 3 - TMC**

Sat Mar 5, 2022

Full Length (7:45 PM-8:45 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

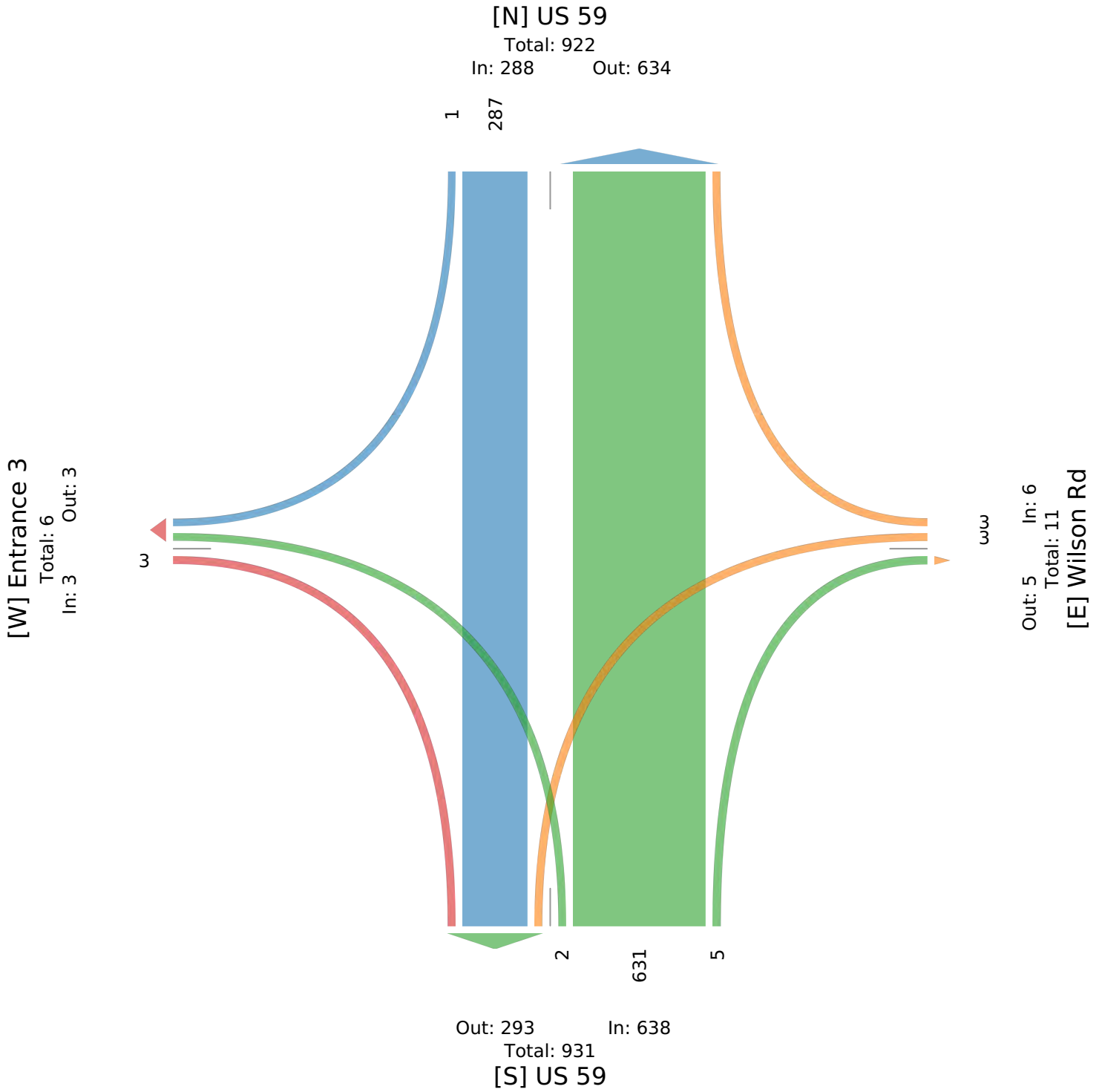
All Movements

ID: 927841, Location: 27.532723, -99.426673



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US





US 59 at Heritage Ct/State Representative He... - TMC

Fri Mar 4, 2022

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927844, Location: 27.531324, -99.428482



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

Leg Direction	US 59 Southbound						Heritage Ct/State Representative Henry Cuellar Roadway Westbound						US 59 Northbound						Heritage Ct/State Representative Henry Cuellar Roadway Eastbound						Int
	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	
2022-03-04 12:00AM	0	260	0	0	260	0	0	0	9	0	9	0	11	23	1	0	35	0	12	0	3	0	15	0	319
1:00AM	0	33	0	0	33	0	0	0	5	0	5	0	8	17	0	0	25	0	1	0	0	0	1	0	64
2:00AM	0	17	0	0	17	0	0	0	2	0	2	0	2	18	0	0	20	0	0	0	0	0	0	0	39
3:00AM	0	18	0	0	18	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	24
4:00AM	0	15	0	0	15	0	0	0	7	0	7	0	3	35	0	0	38	0	0	0	0	0	0	0	60
5:00AM	0	42	0	0	42	0	0	0	17	0	17	0	2	84	1	0	87	0	0	0	0	0	0	0	146
6:00AM	0	87	0	0	87	0	0	0	26	0	26	0	11	114	1	0	126	0	3	0	0	0	3	0	242
7:00AM	1	150	2	0	153	0	1	0	78	0	79	0	38	185	9	1	233	0	1	0	0	0	1	0	466
8:00AM	0	235	0	0	235	1	0	0	51	0	51	1	24	325	10	0	359	0	6	0	2	0	8	0	653
9:00AM	0	222	1	0	223	0	0	0	35	0	35	0	27	277	11	0	315	0	2	0	1	0	3	0	576
10:00AM	1	248	0	0	249	0	1	0	36	0	37	0	24	287	7	0	318	0	9	0	2	0	11	0	615
11:00AM	0	268	2	0	270	0	0	0	34	0	34	0	32	279	7	0	318	0	8	0	0	0	8	0	630
12:00PM	1	281	0	0	282	0	1	0	34	0	35	0	40	345	7	0	392	0	9	0	0	0	9	1	718
1:00PM	1	329	0	0	330	0	1	0	30	0	31	0	23	355	10	0	388	0	3	0	1	0	4	1	753
2:00PM	3	330	1	0	334	0	0	0	31	0	31	0	36	278	5	0	319	0	6	0	0	0	6	0	690
3:00PM	4	326	1	0	331	0	1	0	31	0	32	0	36	311	9	0	356	0	10	0	2	0	12	0	731
4:00PM	0	353	1	0	354	0	1	0	41	0	42	2	43	316	4	0	363	0	4	0	0	0	4	0	763
5:00PM	3	265	2	0	270	0	5	0	42	0	47	2	69	367	2	0	438	0	17	0	0	0	17	0	772
6:00PM	9	308	1	0	318	0	0	0	52	1	53	2	73	454	4	1	532	0	3	0	1	0	4	1	907
7:00PM	0	240	1	0	241	0	7	1	46	0	54	1	63	599	6	0	668	0	3	1	1	0	5	0	968
8:00PM	0	224	1	0	225	0	1	0	41	0	42	0	71	477	11	1	560	0	14	0	1	1	16	0	843
9:00PM	3	266	3	1	273	0	3	0	38	0	41	0	32	266	0	1	299	0	2	0	0	0	2	0	615
10:00PM	2	341	0	0	343	0	0	0	29	0	29	1	30	129	6	0	165	0	3	0	2	0	5	0	542
11:00PM	3	361	0	0	364	0	0	0	12	0	12	0	27	90	4	0	121	0	6	0	0	0	6	0	503
<b>Total</b>	31	5219	16	1	5267	1	22	1	727	1	751	9	725	5637	115	4	6481	0	122	1	16	1	140	3	12639
<b>% Approach</b>	0.6%	99.1%	0.3%	0%	-	-	2.9%	0.1%	96.8%	0.1%	-	-	11.2%	87.0%	1.8%	0.1%	-	-	87.1%	0.7%	11.4%	0.7%	-	-	-
<b>% Total</b>	0.2%	41.3%	0.1%	0%	41.7%	-	0.2%	0%	5.8%	0%	5.9%	-	5.7%	44.6%	0.9%	0%	51.3%	-	1.0%	0%	0.1%	0%	1.1%	-	-
<b>Lights</b>	29	4627	15	1	4672	-	21	1	696	1	719	-	692	5181	113	3	5989	-	119	1	15	1	136	-	11516
<b>% Lights</b>	93.5%	88.7%	93.8%	100%	88.7%	-	95.5%	100%	95.7%	100%	95.7%	-	95.4%	91.9%	98.3%	75.0%	92.4%	-	97.5%	100%	93.8%	100%	97.1%	-	91.1%
<b>Articulated Trucks</b>	0	451	0	0	451	-	0	0	0	0	0	-	0	314	1	1	316	-	0	0	0	0	0	-	767
<b>% Articulated Trucks</b>	0%	8.6%	0%	0%	8.6%	-	0%	0%	0%	0%	0%	-	0%	5.6%	0.9%	25.0%	4.9%	-	0%	0%	0%	0%	0%	-	6.1%
<b>Buses and Single-Unit Trucks</b>	2	141	1	0	144	-	1	0	31	0	32	-	33	142	1	0	176	-	3	0	1	0	4	-	356
<b>% Buses and Single-Unit Trucks</b>	6.5%	2.7%	6.3%	0%	2.7%	-	4.5%	0%	4.3%	0%	4.3%	-	4.6%	2.5%	0.9%	0%	2.7%	-	2.5%	0%	6.3%	0%	2.9%	-	2.8%
<b>Pedestrians</b>	-	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	3	-
<b>% Pedestrians</b>	-	-	-	-	-	100%	-	-	-	-	-	33.3%	-	-	-	-	-	-	-	-	-	-	-	100%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	0%	-	-	-	-	-	66.7%	-	-	-	-	-	-	-	-	-	-	-	0%	-

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

US 59 at Heritage Ct/State Representative He... - TMC

Fri Mar 4, 2022

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927844, Location: 27.531324, -99.428482



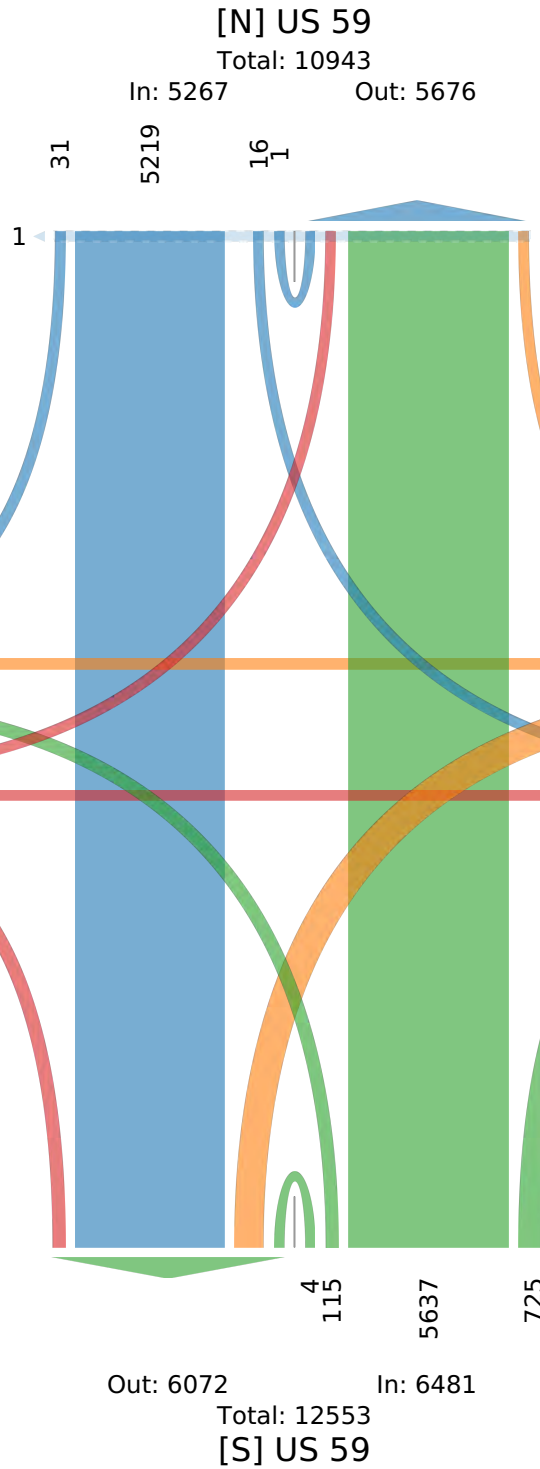
Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US

[W] Heritage Ct/State Representative Henry Cuellar Roadway

Total: 288  
In: 140 Out: 148

12  
1  
1  
1  
2



[E] Heritage Ct/State Representative Henry Cuellar Roadway

US 59 at Heritage Ct/State Representative He... - TMC

Fri Mar 4, 2022

AM Peak (Mar 04 2022 8:15AM - 9:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927844, Location: 27.531324, -99.428482



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave., Pasadena, TX, 77503, US

Leg Direction	US 59 Southbound						Heritage Ct/State Representative Henry Cuellar Roadway Westbound						US 59 Northbound						Heritage Ct/State Representative Henry Cuellar Roadway Eastbound						Int
	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	
2022-03-04 8:15AM	0	60	0	0	60	0	0	0	14	0	14	0	7	69	2	0	78	0	0	0	0	0	0	0	152
8:30AM	0	59	0	0	59	0	0	0	10	0	10	0	6	75	4	0	85	0	2	0	0	0	2	0	156
8:45AM	0	68	0	0	68	0	0	0	11	0	11	1	7	102	1	0	110	0	3	0	0	0	3	0	192
9:00AM	0	65	0	0	65	0	0	0	8	0	8	0	10	72	3	0	85	0	1	0	0	0	1	0	159
<b>Total</b>	0	252	0	0	252	0	0	0	43	0	43	1	30	318	10	0	358	0	6	0	0	0	6	0	659
<b>% Approach</b>	0%	100%	0%	0%	-	-	0%	0%	100%	0%	-	-	8.4%	88.8%	2.8%	0%	-	-	100%	0%	0%	0%	-	-	-
<b>% Total</b>	0%	38.2%	0%	0%	38.2%	-	0%	0%	6.5%	0%	6.5%	-	4.6%	48.3%	1.5%	0%	54.3%	-	0.9%	0%	0%	0%	0.9%	-	-
<b>PHF</b>	-	0.926	-	-	0.926	-	-	-	0.768	-	0.768	-	0.750	0.779	0.625	-	0.814	-	0.500	-	-	-	0.500	-	0.858
<b>Lights</b>	0	219	0	0	219	-	0	0	42	0	42	-	29	286	10	0	325	-	6	0	0	0	6	-	592
<b>% Lights</b>	0%	86.9%	0%	0%	86.9%	-	0%	0%	97.7%	0%	97.7%	-	96.7%	89.9%	100%	0%	90.8%	-	100%	0%	0%	0%	100%	-	89.8%
<b>Articulated Trucks</b>	0	25	0	0	25	-	0	0	0	0	0	-	0	20	0	0	20	-	0	0	0	0	0	-	45
<b>% Articulated Trucks</b>	0%	9.9%	0%	0%	9.9%	-	0%	0%	0%	0%	0%	-	0%	6.3%	0%	0%	5.6%	-	0%	0%	0%	0%	0%	-	6.8%
<b>Buses and Single-Unit Trucks</b>	0	8	0	0	8	-	0	0	1	0	1	-	1	12	0	0	13	-	0	0	0	0	0	-	22
<b>% Buses and Single-Unit Trucks</b>	0%	3.2%	0%	0%	3.2%	-	0%	0%	2.3%	0%	2.3%	-	3.3%	3.8%	0%	0%	3.6%	-	0%	0%	0%	0%	0%	-	3.3%
<b>Pedestrians</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-

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

US 59 at Heritage Ct/State Representative He... - TMC

Fri Mar 4, 2022

AM Peak (Mar 04 2022 8:15AM - 9:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

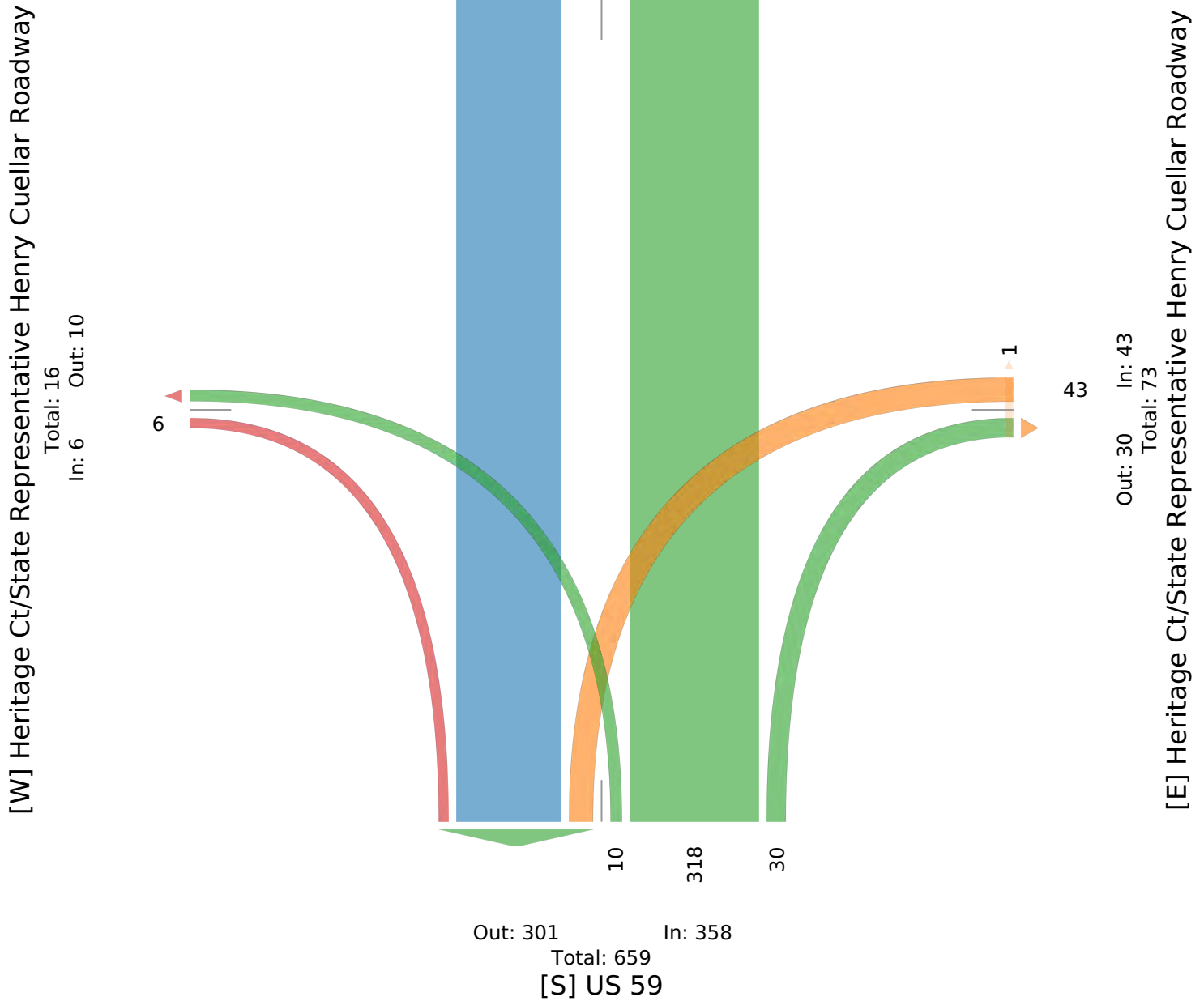
All Movements

ID: 927844, Location: 27.531324, -99.428482



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US



US 59 at Heritage Ct/State Representative He... - TMC

Fri Mar 4, 2022

Midday Peak (Mar 04 2022 12:45PM - 1:45 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927844, Location: 27.531324, -99.428482



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave., Pasadena, TX, 77503, US

Leg	US 59					Heritage Ct/State Representative Henry Cuellar Roadway					US 59					Heritage Ct/State Representative Henry Cuellar Roadway					Int					
	Southbound					Westbound					Northbound					Eastbound										
Direction	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	
2022-03-04 12:45PM	1	68	0	0	69	0	0	0	14	0	14	0	9	95	0	0	104	0	2	0	0	0	2	0	189	
1:00PM	0	88	0	0	88	0	0	0	12	0	12	0	3	93	4	0	100	0	0	0	0	0	0	0	1	200
1:15PM	0	93	0	0	93	0	0	0	8	0	8	0	10	91	2	0	103	0	0	0	0	0	0	0	0	204
1:30PM	0	81	0	0	81	0	0	0	8	0	8	0	6	95	1	0	102	0	1	0	0	0	1	0	192	
<b>Total</b>	1	330	0	0	331	0	0	0	42	0	42	0	28	374	7	0	409	0	3	0	0	0	3	1	785	
<b>% Approach</b>	0.3%	99.7%	0%	0%	-	-	0%	0%	100%	0%	-	-	6.8%	91.4%	1.7%	0%	-	-	100%	0%	0%	0%	-	-	-	
<b>% Total</b>	0.1%	42.0%	0%	0%	42.2%	-	0%	0%	5.4%	0%	5.4%	-	3.6%	47.6%	0.9%	0%	52.1%	-	0.4%	0%	0%	0%	0.4%	-	-	
<b>PHF</b>	0.250	0.887	-	-	0.890	-	-	-	0.750	-	0.750	-	0.700	0.984	0.438	-	0.983	-	0.375	-	-	-	-	0.375	-	0.962
<b>Lights</b>	1	281	0	0	282	-	0	0	40	0	40	-	28	334	7	0	369	-	3	0	0	0	3	-	694	
<b>% Lights</b>	100%	85.2%	0%	0%	85.2%	-	0%	0%	95.2%	0%	95.2%	-	100%	89.3%	100%	0%	90.2%	-	100%	0%	0%	0%	100%	-	88.4%	
<b>Articulated Trucks</b>	0	29	0	0	29	-	0	0	0	0	0	-	0	27	0	0	27	-	0	0	0	0	0	0	-	56
<b>% Articulated Trucks</b>	0%	8.8%	0%	0%	8.8%	-	0%	0%	0%	0%	0%	-	0%	7.2%	0%	0%	6.6%	-	0%	0%	0%	0%	0%	0%	-	7.1%
<b>Buses and Single-Unit Trucks</b>	0	20	0	0	20	-	0	0	2	0	2	-	0	13	0	0	13	-	0	0	0	0	0	0	-	35
<b>% Buses and Single-Unit Trucks</b>	0%	6.1%	0%	0%	6.0%	-	0%	0%	4.8%	0%	4.8%	-	0%	3.5%	0%	0%	3.2%	-	0%	0%	0%	0%	0%	0%	-	4.5%
<b>Pedestrians</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	1	
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0	
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	

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

US 59 at Heritage Ct/State Representative He... - TMC

Fri Mar 4, 2022

Midday Peak (Mar 04 2022 12:45PM - 1:45 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927844, Location: 27.531324, -99.428482

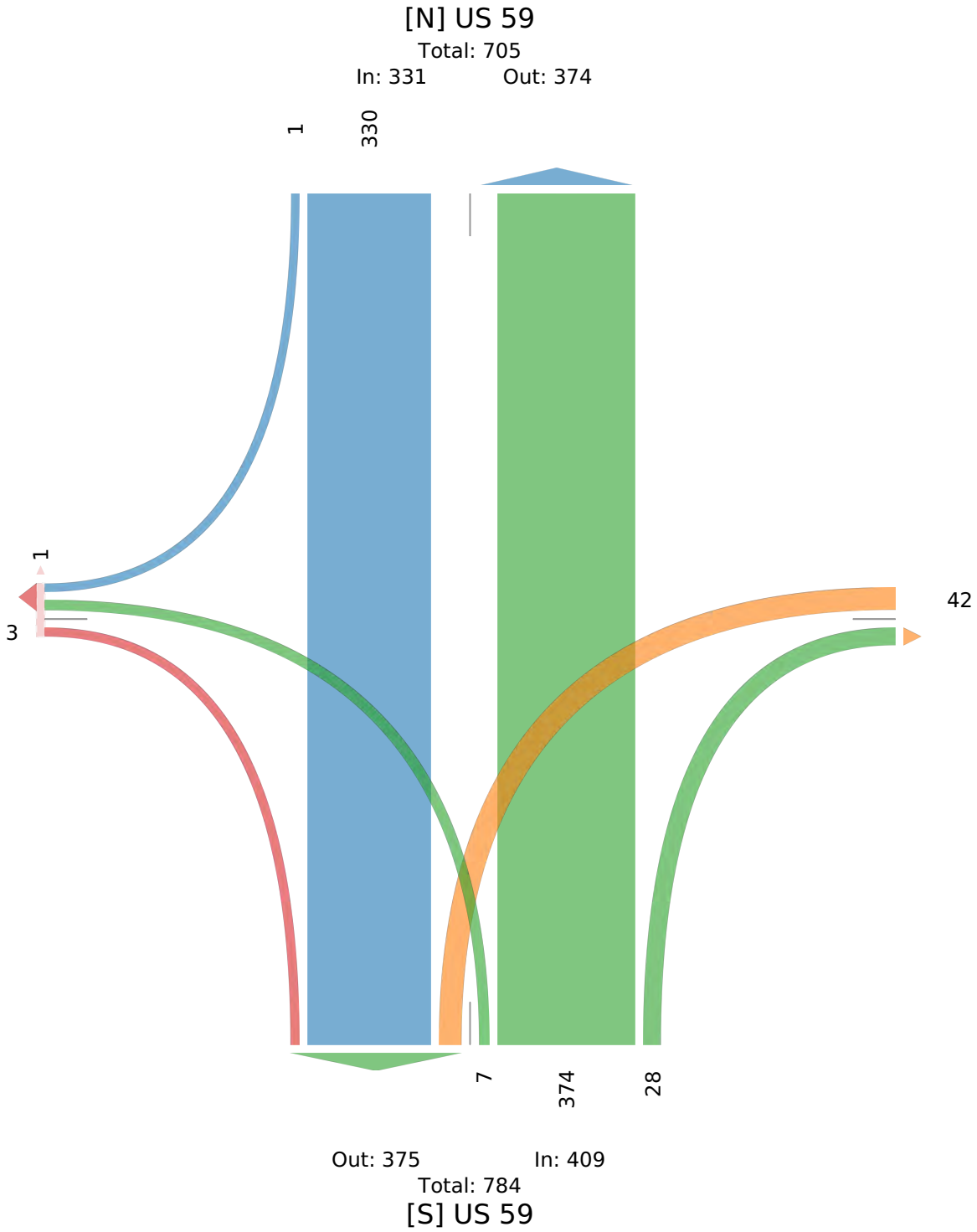


Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US

[W] Heritage Ct/State Representative Henry Cuellar Roadway

Total: 11  
In: 3 Out: 8



US 59 at Heritage Ct/State Representative He... - TMC

Fri Mar 4, 2022

PM Peak (Mar 04 2022 7:15PM - 8:15 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927844, Location: 27.531324, -99.428482



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US

Leg	US 59						Heritage Ct/State Representative Henry Cuellar Roadway						US 59						Heritage Ct/State Representative Henry Cuellar Roadway						
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
2022-03-04 7:15PM	0	56	0	0	56	0	2	1	7	0	10	1	14	149	1	0	164	0	1	1	0	0	2	0	232
7:30PM	0	66	0	0	66	0	1	0	11	0	12	0	16	155	1	0	172	0	1	0	0	0	1	0	251
7:45PM	0	61	0	0	61	0	3	0	9	0	12	0	16	161	2	0	179	0	0	0	1	0	1	0	253
8:00PM	0	63	1	0	64	0	0	0	10	0	10	0	14	153	2	0	169	0	1	0	0	1	2	0	245
<b>Total</b>	0	246	1	0	247	0	6	1	37	0	44	1	60	618	6	0	684	0	3	1	1	1	6	0	981
<b>% Approach</b>	0%	99.6%	0.4%	0%	-	-	13.6%	2.3%	84.1%	0%	-	-	8.8%	90.4%	0.9%	0%	-	-	50.0%	16.7%	16.7%	16.7%	-	-	-
<b>% Total</b>	0%	25.1%	0.1%	0%	25.2%	-	0.6%	0.1%	3.8%	0%	4.5%	-	6.1%	63.0%	0.6%	0%	69.7%	-	0.3%	0.1%	0.1%	0.1%	0.6%	-	-
<b>PHF</b>	-	0.932	0.250	-	0.936	-	0.500	0.250	0.841	-	0.917	-	0.938	0.960	0.750	-	0.955	-	0.750	0.250	0.250	0.250	0.750	-	0.969
<b>Lights</b>	0	227	1	0	228	-	6	1	37	0	44	-	60	597	6	0	663	-	3	1	1	1	6	-	941
<b>% Lights</b>	0%	92.3%	100%	0%	92.3%	-	100%	100%	100%	0%	100%	-	100%	96.6%	100%	0%	96.9%	-	100%	100%	100%	100%	100%	-	95.9%
<b>Articulated Trucks</b>	0	14	0	0	14	-	0	0	0	0	0	-	0	14	0	0	14	-	0	0	0	0	0	-	28
<b>% Articulated Trucks</b>	0%	5.7%	0%	0%	5.7%	-	0%	0%	0%	0%	0%	-	0%	2.3%	0%	0%	2.0%	-	0%	0%	0%	0%	0%	-	2.9%
<b>Buses and Single-Unit Trucks</b>	0	5	0	0	5	-	0	0	0	0	0	-	0	7	0	0	7	-	0	0	0	0	0	-	12
<b>% Buses and Single-Unit Trucks</b>	0%	2.0%	0%	0%	2.0%	-	0%	0%	0%	0%	0%	-	0%	1.1%	0%	0%	1.0%	-	0%	0%	0%	0%	0%	-	1.2%
<b>Pedestrians</b>	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	

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

US 59 at Heritage Ct/State Representative He... - TMC

Fri Mar 4, 2022

PM Peak (Mar 04 2022 7:15PM - 8:15 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927844, Location: 27.531324, -99.428482

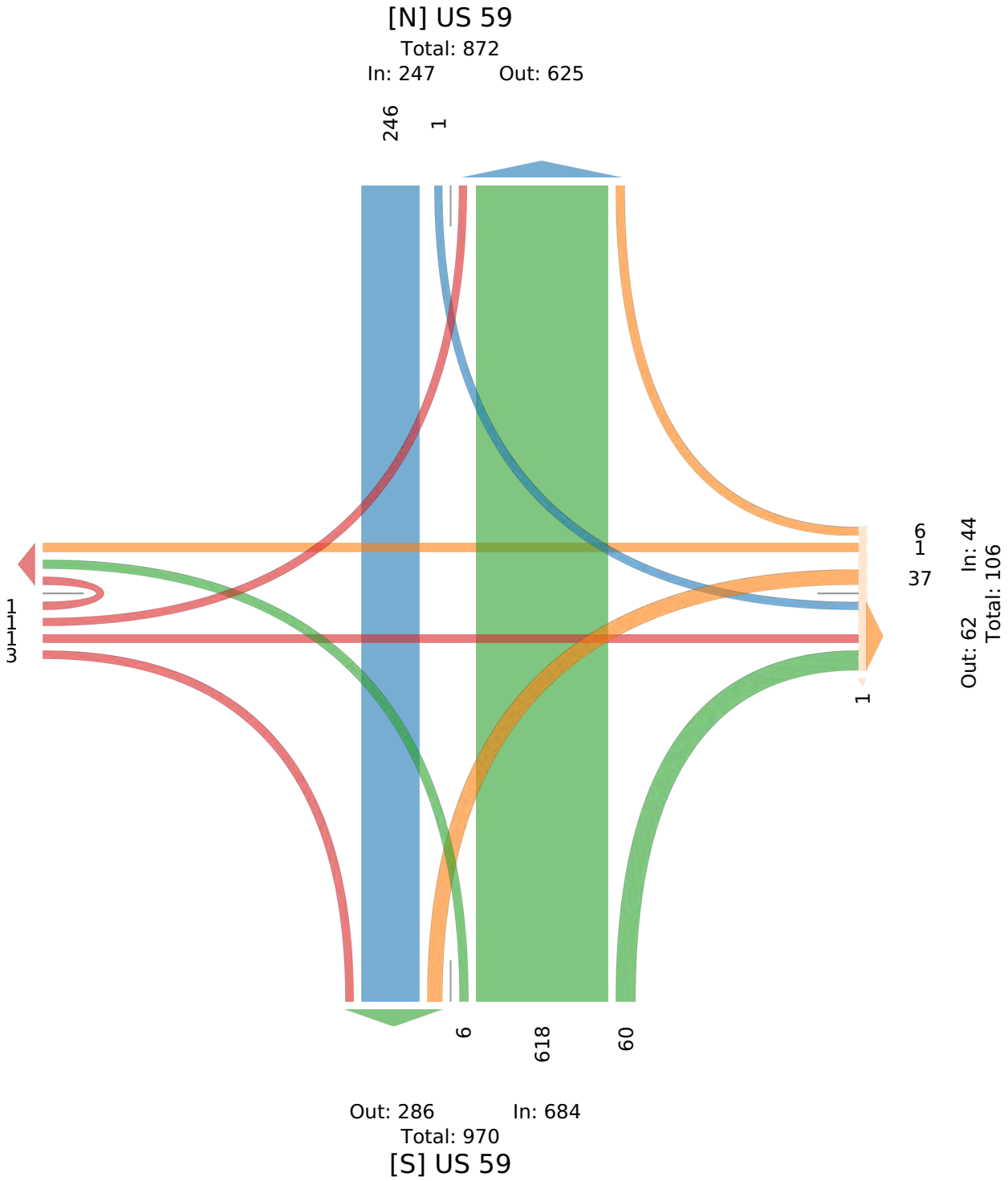


Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US

[W] Heritage Ct/State Representative Henry Cuellar Roadway

Total: 14  
In: 6 Out: 8





US 59 at Heritage Ct/State Representative He... - TMC

Sat Mar 5, 2022

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927845, Location: 27.531324, -99.428482



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

Leg Direction	US 59 Southbound						Heritage Ct/State Representative Henry Cuellar Roadway Westbound						US 59 Northbound						Heritage Ct/State Representative Henry Cuellar Roadway Eastbound						Int
	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	
2022-03-05 12:00AM	1	548	6	0	555	0	1	0	12	0	13	0	20	48	0	0	68	0	8	0	1	0	9	0	645
1:00AM	0	388	2	0	390	0	0	0	8	0	8	0	9	36	0	0	45	0	11	0	0	0	11	0	454
2:00AM	0	55	0	0	55	0	0	0	1	0	1	0	4	9	0	0	13	0	1	0	1	0	2	0	71
3:00AM	0	19	0	0	19	0	0	0	4	0	4	1	3	14	0	0	17	0	0	0	0	0	0	0	40
4:00AM	1	10	0	0	11	0	0	0	5	0	5	0	7	15	0	0	22	0	1	0	0	0	1	0	39
5:00AM	0	24	0	0	24	0	1	0	9	0	10	0	4	52	0	0	56	0	0	0	0	0	0	0	90
6:00AM	1	36	0	0	37	0	0	0	11	0	11	0	6	78	0	0	84	0	1	0	0	0	1	0	133
7:00AM	0	70	0	0	70	0	0	0	25	0	25	2	12	161	1	0	174	0	0	0	0	0	0	1	269
8:00AM	0	129	3	0	132	0	3	0	33	0	36	3	21	269	8	0	298	0	2	0	0	0	2	0	468
9:00AM	2	140	0	0	142	0	0	0	35	0	35	0	20	381	9	0	410	0	4	0	0	0	4	1	591
10:00AM	2	170	1	0	173	0	0	0	34	0	34	0	18	350	9	0	377	0	5	0	1	0	6	0	590
11:00AM	1	239	0	0	240	0	0	0	36	0	36	0	24	345	5	0	374	0	6	0	0	0	6	0	656
12:00PM	4	266	1	0	271	0	0	0	34	0	34	2	33	412	4	1	450	0	7	0	0	0	7	4	762
1:00PM	1	289	0	0	290	0	4	0	43	0	47	0	47	425	4	0	476	0	2	0	0	0	2	0	815
2:00PM	3	286	0	0	289	0	1	1	32	0	34	0	43	346	5	0	394	0	10	1	3	0	14	0	731
3:00PM	2	313	2	0	317	0	1	0	32	0	33	0	35	322	7	0	364	0	7	0	0	0	7	0	721
4:00PM	0	343	1	0	344	0	1	1	43	0	45	0	49	309	5	0	363	0	11	0	1	0	12	0	764
5:00PM	3	333	0	0	336	0	2	0	40	0	42	0	56	322	16	0	394	0	9	0	1	0	10	0	782
6:00PM	3	303	3	1	310	0	4	0	63	0	67	0	59	439	9	1	508	0	5	0	0	0	5	0	890
7:00PM	6	275	2	0	283	0	4	0	46	0	50	1	50	519	9	0	578	0	4	0	2	0	6	0	917
8:00PM	2	284	1	0	287	0	5	0	37	0	42	0	44	609	5	0	658	0	8	0	1	0	9	0	996
9:00PM	1	289	1	0	291	0	3	0	28	0	31	0	41	410	4	0	455	0	2	0	1	0	3	0	780
10:00PM	1	269	2	0	272	0	0	0	22	0	22	2	30	235	1	0	266	0	9	0	0	0	9	0	569
11:00PM	3	335	3	0	341	0	3	0	26	0	29	0	23	96	2	0	121	0	5	0	0	0	5	0	496
<b>Total</b>	37	5413	28	1	5479	0	33	2	659	0	694	11	658	6202	103	2	6965	0	118	1	12	0	131	6	13269
<b>% Approach</b>	0.7%	98.8%	0.5%	0%	-	-	4.8%	0.3%	95.0%	0%	-	-	9.4%	89.0%	1.5%	0%	-	-	90.1%	0.8%	9.2%	0%	-	-	-
<b>% Total</b>	0.3%	40.8%	0.2%	0%	41.3%	-	0.2%	0%	5.0%	0%	5.2%	-	5.0%	46.7%	0.8%	0%	52.5%	-	0.9%	0%	0.1%	0%	1.0%	-	-
<b>Lights</b>	33	5193	28	1	5255	-	33	2	643	0	678	-	643	6000	91	2	6736	-	106	1	12	0	119	-	12788
<b>% Lights</b>	89.2%	95.9%	100%	100%	95.9%	-	100%	100%	97.6%	0%	97.7%	-	97.7%	96.7%	88.3%	100%	96.7%	-	89.8%	100%	100%	0%	90.8%	-	96.4%
<b>Articulated Trucks</b>	2	173	0	0	175	-	0	0	1	0	1	-	0	132	0	0	132	-	1	0	0	0	1	-	309
<b>% Articulated Trucks</b>	5.4%	3.2%	0%	0%	3.2%	-	0%	0%	0.2%	0%	0.1%	-	0%	2.1%	0%	0%	1.9%	-	0.8%	0%	0%	0%	0.8%	-	2.3%
<b>Buses and Single-Unit Trucks</b>	2	47	0	0	49	-	0	0	15	0	15	-	15	70	12	0	97	-	11	0	0	0	11	-	172
<b>% Buses and Single-Unit Trucks</b>	5.4%	0.9%	0%	0%	0.9%	-	0%	0%	2.3%	0%	2.2%	-	2.3%	1.1%	11.7%	0%	1.4%	-	9.3%	0%	0%	0%	8.4%	-	1.3%
<b>Pedestrians</b>	-	-	-	-	-	0	-	-	-	-	-	8	-	-	-	-	-	0	-	-	-	-	-	6	
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	72.7%	-	-	-	-	-	-	-	-	-	-	-	100%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	0	
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	27.3%	-	-	-	-	-	-	-	-	-	-	-	0%	-

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

US 59 at Heritage Ct/State Representative He... - TMC

Sat Mar 5, 2022

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927845, Location: 27.531324, -99.428482



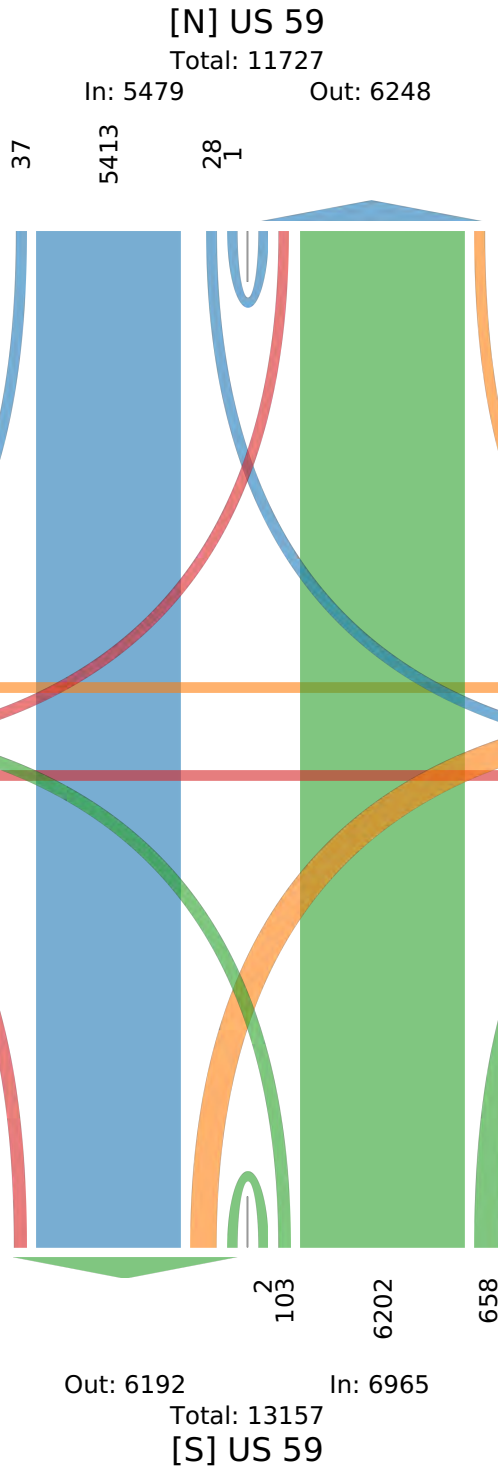
Provided by: C. J. Hensch & Associates, Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US

[W] Heritage Ct/State Representative Henry Cuellar Roadway

Total: 273  
In: 131 Out: 142

12  
118  
2



Out: 6192

In: 6965

Total: 13157  
[S] US 59

Out: 687 In: 694  
Total: 1381

[E] Heritage Ct/State Representative Henry Cuellar Roadway

33  
2  
659

US 59 at Heritage Ct/State Representative He... - TMC

Sat Mar 5, 2022

AM Peak (WKND) (12:15 AM - 1:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927845, Location: 27.531324, -99.428482



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave., Pasadena, TX, 77503, US

Leg	US 59					Heritage Ct/State Representative Henry Cuellar Roadway					US 59					Heritage Ct/State Representative Henry Cuellar Roadway					Int	
	Southbound					Westbound					Northbound					Eastbound						
Direction	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	
2022-03-05 12:15AM	0	116	0	0	116	0	0	2	0	2	0	9	12	0	0	21	0	0	0	0	0	139
12:30AM	0	169	4	0	173	0	1	0	2	3	0	4	18	0	0	22	0	1	0	0	1	199
12:45AM	0	147	2	0	149	0	0	0	2	2	0	4	12	0	0	16	0	3	0	0	3	170
1:00AM	0	116	2	0	118	0	0	0	4	4	0	3	12	0	0	15	0	3	0	0	3	140
<b>Total</b>	0	548	8	0	556	0	1	0	10	11	0	20	54	0	0	74	0	7	0	0	7	648
<b>% Approach</b>	0%	98.6%	1.4%	0%	-	9.1%	0%	90.9%	0%	-	27.0%	73.0%	0%	0%	-	100%	0%	0%	0%	-	-	-
<b>% Total</b>	0%	84.6%	1.2%	0%	85.8%	0.2%	0%	1.5%	0%	1.7%	3.1%	8.3%	0%	0%	11.4%	1.1%	0%	0%	0%	1.1%	-	-
<b>PHF</b>	-	0.811	0.500	-	0.803	-	0.250	-	0.625	-	0.688	-	0.556	0.750	-	0.841	-	0.583	-	-	0.583	0.814
<b>Lights</b>	0	543	8	0	551	-	1	0	10	11	-	20	51	0	0	71	-	6	0	0	6	639
<b>% Lights</b>	0%	99.1%	100%	0%	99.1%	100%	0%	100%	0%	100%	100%	100%	94.4%	0%	0%	95.9%	85.7%	0%	0%	0%	85.7%	98.6%
<b>Articulated Trucks</b>	0	3	0	0	3	-	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	6
<b>% Articulated Trucks</b>	0%	0.5%	0%	0%	0.5%	0%	0%	0%	0%	0%	0%	0%	5.6%	0%	0%	4.1%	0%	0%	0%	0%	0%	0.9%
<b>Buses and Single-Unit Trucks</b>	0	2	0	0	2	-	0	0	0	0	-	0	0	0	0	0	-	1	0	0	1	3
<b>% Buses and Single-Unit Trucks</b>	0%	0.4%	0%	0%	0.4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14.3%	0%	0%	0%	14.3%	0.5%
<b>Pedestrians</b>	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

US 59 at Heritage Ct/State Representative He... - TMC

Sat Mar 5, 2022

AM Peak (WKND) (12:15 AM - 1:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927845, Location: 27.531324, -99.428482



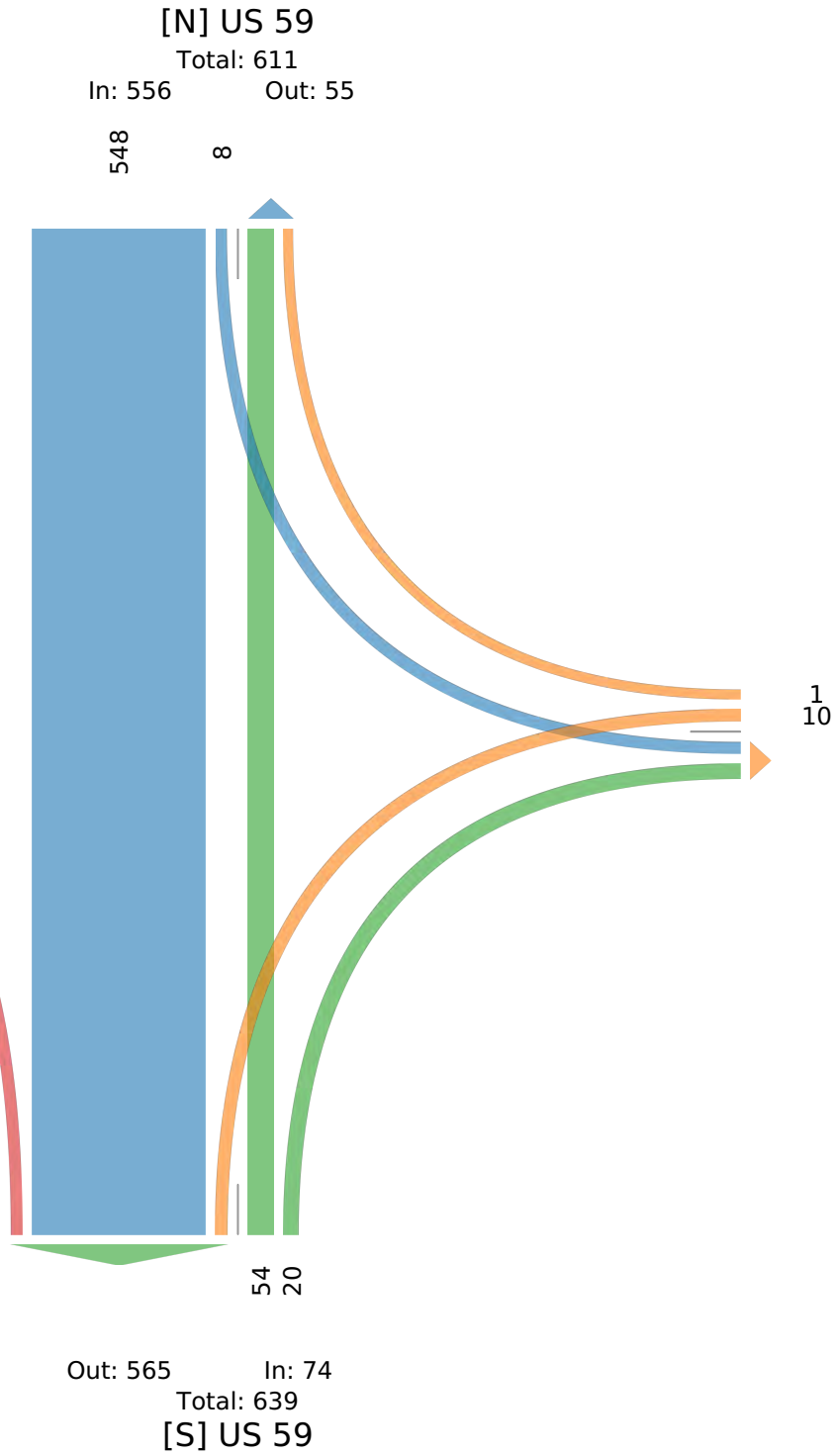
Provided by: C. J. Hensch & Associates, Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US

[W] Heritage Ct/State Representative Henry Cuellar Roadway

Total: 7  
In: 7 Out: 0

7



[E] Heritage Ct/State Representative Henry Cuellar Roadway

Out: 28 In: 11  
Total: 39

1  
10

US 59 at Heritage Ct/State Representative He... - TMC

Sat Mar 5, 2022

Midday Peak (WKND) (12:45 PM - 1:45 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927845, Location: 27.531324, -99.428482



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave., Pasadena, TX, 77503, US

Leg Direction	US 59 Southbound						Heritage Ct/State Representative Henry Cuellar Roadway Westbound						US 59 Northbound						Heritage Ct/State Representative Henry Cuellar Roadway Eastbound						Int
	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	
2022-03-05 12:45PM	3	78	1	0	82	0	0	0	12	0	12	1	7	107	0	1	115	0	4	0	0	0	4	4	213
1:00PM	0	69	0	0	69	0	2	0	12	0	14	0	15	97	0	0	112	0	0	0	0	0	0	0	195
1:15PM	1	55	0	0	56	0	0	0	14	0	14	0	8	116	2	0	126	0	0	0	0	0	0	0	196
1:30PM	0	92	0	0	92	0	1	0	10	0	11	0	11	122	1	0	134	0	1	0	0	0	1	0	238
<b>Total</b>	4	294	1	0	299	0	3	0	48	0	51	1	41	442	3	1	487	0	5	0	0	0	5	4	842
<b>% Approach</b>	1.3%	98.3%	0.3%	0%	-	-	5.9%	0%	94.1%	0%	-	-	8.4%	90.8%	0.6%	0.2%	-	-	100%	0%	0%	0%	-	-	-
<b>% Total</b>	0.5%	34.9%	0.1%	0%	35.5%	-	0.4%	0%	5.7%	0%	6.1%	-	4.9%	52.5%	0.4%	0.1%	57.8%	-	0.6%	0%	0%	0%	0.6%	-	-
<b>PHF</b>	0.333	0.799	0.250	-	0.813	-	0.375	-	0.857	-	0.911	-	0.683	0.906	0.375	0.250	0.909	-	0.313	-	-	-	0.313	-	0.884
<b>Lights</b>	4	282	1	0	287	-	3	0	46	0	49	-	41	429	3	1	474	-	5	0	0	0	5	-	815
<b>% Lights</b>	100%	95.9%	100%	0%	96.0%	-	100%	0%	95.8%	0%	96.1%	-	100%	97.1%	100%	100%	97.3%	-	100%	0%	0%	0%	100%	-	96.8%
<b>Articulated Trucks</b>	0	11	0	0	11	-	0	0	0	0	0	-	0	10	0	0	10	-	0	0	0	0	0	-	21
<b>% Articulated Trucks</b>	0%	3.7%	0%	0%	3.7%	-	0%	0%	0%	0%	0%	-	0%	2.3%	0%	0%	2.1%	-	0%	0%	0%	0%	0%	-	2.5%
<b>Buses and Single-Unit Trucks</b>	0	1	0	0	1	-	0	0	2	0	2	-	0	3	0	0	3	-	0	0	0	0	0	-	6
<b>% Buses and Single-Unit Trucks</b>	0%	0.3%	0%	0%	0.3%	-	0%	0%	4.2%	0%	3.9%	-	0%	0.7%	0%	0%	0.6%	-	0%	0%	0%	0%	0%	-	0.7%
<b>Pedestrians</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	4	
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-100%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	0%	-

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

US 59 at Heritage Ct/State Representative He... - TMC

Sat Mar 5, 2022

Midday Peak (WKND) (12:45 PM - 1:45 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927845, Location: 27.531324, -99.428482



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave., Pasadena, TX, 77503, US

[W] Heritage Ct/State Representative Henry Cuellar Roadway

Total: 12  
In: 5 Out: 7



Out: 348 In: 487  
Total: 835  
[S] US 59

[N] US 59

Total: 744  
In: 299 Out: 445

4  
294

1

Out: 42 In: 51  
Total: 93

[E] Heritage Ct/State Representative Henry Cuellar Roadway

US 59 at Heritage Ct/State Representative He... - TMC

Sat Mar 5, 2022

PM Peak (WKND) (7:45 PM - 8:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927845, Location: 27.531324, -99.428482



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave., Pasadena, TX, 77503, US

Leg Direction	US 59 Southbound					Heritage Ct/State Representative Henry Cuellar Roadway Westbound					US 59 Northbound					Heritage Ct/State Representative Henry Cuellar Roadway Eastbound					Int	
	R	T	L	U	App Ped*	R	T	L	U	App Ped*	R	T	L	U	App Ped*	R	T	L	U	App Ped*		
Time																						
2022-03-05 7:45PM	3	60	1	0	64	0	0	13	0	13	17	150	2	0	169	1	0	0	0	1	0	247
8:00PM	1	77	0	0	78	3	0	10	0	13	11	165	1	0	177	2	0	1	0	3	0	271
8:15PM	0	77	0	0	77	0	0	6	0	6	11	150	3	0	164	0	0	0	0	0	0	247
8:30PM	0	64	0	0	64	1	0	12	0	13	13	176	1	0	190	0	0	0	0	0	0	267
<b>Total</b>	<b>4</b>	<b>278</b>	<b>1</b>	<b>0</b>	<b>283</b>	<b>4</b>	<b>0</b>	<b>41</b>	<b>0</b>	<b>45</b>	<b>52</b>	<b>641</b>	<b>7</b>	<b>0</b>	<b>700</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>1032</b>
<b>% Approach</b>	1.4%	98.2%	0.4%	0%	-	8.9%	0%	91.1%	0%	-	7.4%	91.6%	1.0%	0%	-	75.0%	0%	25.0%	0%	-	-	-
<b>% Total</b>	0.4%	26.9%	0.1%	0%	<b>27.4%</b>	0.4%	0%	4.0%	0%	<b>4.4%</b>	5.0%	62.1%	0.7%	0%	<b>67.8%</b>	0.3%	0%	0.1%	0%	<b>0.4%</b>	-	-
<b>PHF</b>	0.333	0.903	0.250	-	<b>0.907</b>	0.333	-	0.788	-	<b>0.865</b>	0.765	0.911	0.583	-	<b>0.921</b>	0.375	-	0.250	-	<b>0.333</b>	-	0.952
<b>Lights</b>	3	273	1	0	277	4	0	40	0	44	51	633	6	0	690	2	0	1	0	3	-	1014
<b>% Lights</b>	75.0%	98.2%	100%	0%	<b>97.9%</b>	100%	0%	97.6%	0%	<b>97.8%</b>	98.1%	98.8%	85.7%	0%	<b>98.6%</b>	66.7%	0%	100%	0%	<b>75.0%</b>	-	98.3%
<b>Articulated Trucks</b>	1	2	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	-	5
<b>% Articulated Trucks</b>	25.0%	0.7%	0%	0%	<b>1.1%</b>	0%	0%	0%	0%	<b>0%</b>	0%	0.3%	0%	0%	<b>0.3%</b>	0%	0%	0%	0%	<b>0%</b>	-	0.5%
<b>Buses and Single-Unit Trucks</b>	0	3	0	0	3	0	0	1	0	1	1	6	1	0	8	1	0	0	0	1	-	13
<b>% Buses and Single-Unit Trucks</b>	0%	1.1%	0%	0%	<b>1.1%</b>	0%	0%	2.4%	0%	<b>2.2%</b>	1.9%	0.9%	14.3%	0%	<b>1.1%</b>	33.3%	0%	0%	0%	<b>25.0%</b>	-	1.3%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-100%	-	-	-	-	-	-	-	-	-	-	-	-

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

US 59 at Heritage Ct/State Representative He... - TMC

Sat Mar 5, 2022

PM Peak (WKND) (7:45 PM - 8:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 927845, Location: 27.531324, -99.428482

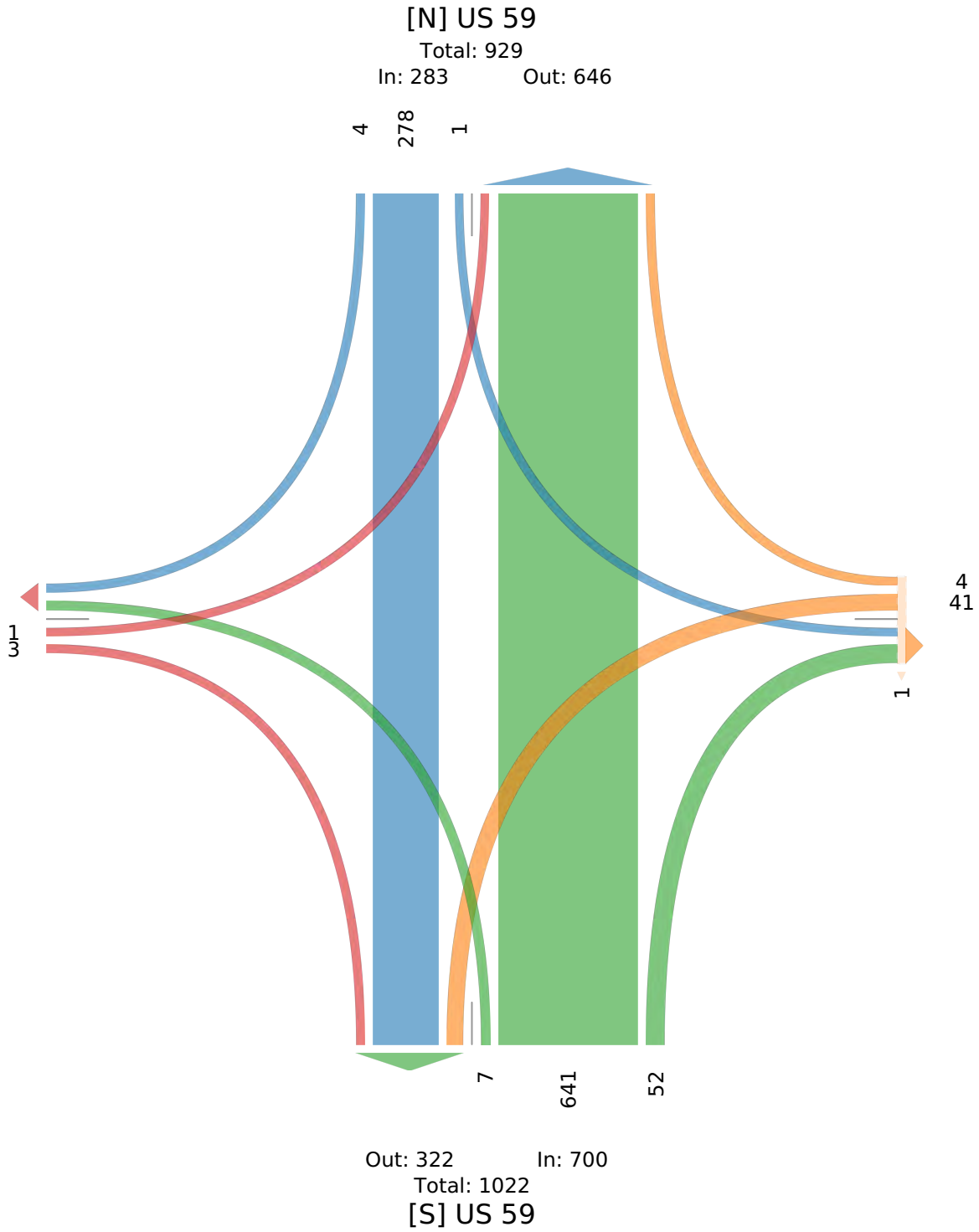


Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,  
Pasadena, TX, 77503, US

[W] Heritage Ct/State Representative Henry Cuellar Roadway

Total: 15  
In: 4 Out: 11



[E] Heritage Ct/State Representative Henry Cuellar Roadway



## ***Appendix B: Study Area Photos***

# US 59 at Heritage Court

Looking north towards the Fairground from Heritage Court



Looking south towards City of Laredo from Heritage Court



Truck passing on US 59 at Heritage Court Intersection



Boy Scouts of America Sign at Heritage Court Intersection



# US 59 at Wilson Road

Looking at US 59 southbound 59 from Wilson Road



Looking at Wilson Road from US 59



Looking at Webcounty Road and Bridges Entrance from Wilson Rd



## Existing Main Entrance (Entrance 2)

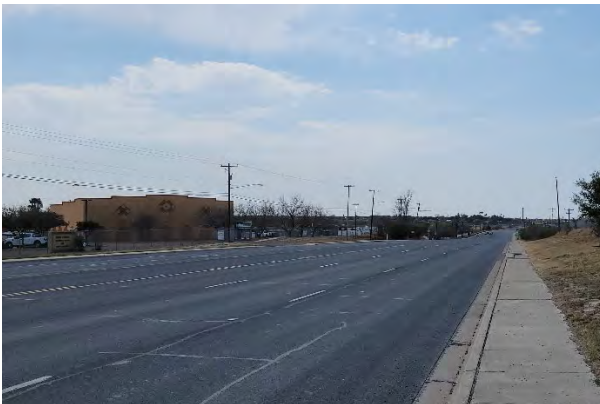
Looking at the Main Entrance



Looking towards NE



Looking at SB from the main entrance



Looking at the main entrance and Left Turn queuing



# Webb County Fairgrounds Site Pictures

Arena and Restrooms



L.I.F.E. Pavilion



Vendors and VIP Parking in front of L.I.F.E. Pavilion



Webb County Fair and Expo Sign



Horse Riding



Friday Night Concert



***Appendix C: Synchro Report –  
Existing Conditions***

HCM 6th TWSC  
4: US 59 & Existing Entrance 1

Existing Conditions  
Entry Peak

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	1	5	13	90	166	1
Future Vol, veh/h	1	5	13	90	166	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	300	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	62	62	75	75	85	85
Heavy Vehicles, %	1	1	1	10	10	1
Mvmt Flow	2	8	17	120	195	1
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	278	98	196	0	-	0
Stage 1	196	-	-	-	-	-
Stage 2	82	-	-	-	-	-
Critical Hdwy	5.72	7.12	5.32	-	-	-
Critical Hdwy Stg 1	6.62	-	-	-	-	-
Critical Hdwy Stg 2	6.02	-	-	-	-	-
Follow-up Hdwy	3.81	3.91	3.11	-	-	-
Pot Cap-1 Maneuver	701	800	942	-	-	-
Stage 1	730	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	688	800	942	-	-	-
Mov Cap-2 Maneuver	651	-	-	-	-	-
Stage 1	717	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	9.7	1.1	0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	942	-	771	-	-	
HCM Lane V/C Ratio	0.018	-	0.013	-	-	
HCM Control Delay (s)	8.9	-	9.7	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0.1	-	0	-	-	

# HCM Signalized Intersection Capacity Analysis

## 6: US 59 & Existing Entrance 2

Existing Conditions  
Entry Peak



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	132	539	103	163	12
Future Volume (vph)	0	132	539	103	163	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	0.91	0.95	1.00
Frt		0.86	1.00	1.00	1.00	0.85
Flt Protected		1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)		1627	1787	4715	3282	1599
Flt Permitted		1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)		1627	1787	4715	3282	1599
Peak-hour factor, PHF	0.93	0.93	0.89	0.89	0.82	0.82
Adj. Flow (vph)	0	142	606	116	199	15
RTOR Reduction (vph)	0	57	0	0	0	11
Lane Group Flow (vph)	0	85	606	116	199	4
Heavy Vehicles (%)	1%	1%	1%	10%	10%	1%
Turn Type		Perm	Prot	NA	NA	Perm
Protected Phases			7	4 6 8	8	
Permitted Phases		4				8
Actuated Green, G (s)		36.0	16.0	60.0	16.0	16.0
Effective Green, g (s)		36.0	16.0	60.0	16.0	16.0
Actuated g/C Ratio		0.60	0.27	1.00	0.27	0.27
Clearance Time (s)		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		976	476	4715	875	426
v/s Ratio Prot			c0.34	c0.02	c0.06	
v/s Ratio Perm		0.05				0.00
v/c Ratio		0.09	1.27	0.02	0.23	0.01
Uniform Delay, d1		5.1	22.0	0.0	17.2	16.2
Progression Factor		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.2	138.5	0.0	0.6	0.0
Delay (s)		5.2	160.5	0.0	17.8	16.2
Level of Service		A	F	A	B	B
Approach Delay (s)	5.2			134.7	17.7	
Approach LOS	A			F	B	
<b>Intersection Summary</b>						
HCM 2000 Control Delay			94.4		HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio			0.51			
Actuated Cycle Length (s)			60.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			41.0%		ICU Level of Service	A
Analysis Period (min)			15			

c Critical Lane Group



Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑↑		↕	↑↑↑	
Traffic Vol, veh/h	1	1	3	3	1	3	2	639	5	1	294	1
Future Vol, veh/h	1	1	3	3	1	3	2	639	5	1	294	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	300	-	-	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	38	38	75	75	75	91	91	91	89	89	89
Heavy Vehicles, %	1	1	1	1	1	1	1	10	1	1	10	1
Mvmt Flow	3	3	8	4	1	4	2	702	5	1	330	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	618	1044	166	845	1042	354	331	0	0	707	0	0
Stage 1	333	333	-	709	709	-	-	-	-	-	-	-
Stage 2	285	711	-	136	333	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	7.12	6.42	6.52	7.12	5.32	-	-	5.32	-	-
Critical Hdwy Stg 1	7.32	5.52	-	7.32	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.72	5.52	-	6.72	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.81	4.01	3.91	3.81	4.01	3.91	3.11	-	-	3.11	-	-
Pot Cap-1 Maneuver	428	229	725	317	230	551	816	-	-	544	-	-
Stage 1	570	645	-	318	438	-	-	-	-	-	-	-
Stage 2	643	437	-	787	645	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	422	228	725	310	229	551	816	-	-	544	-	-
Mov Cap-2 Maneuver	422	228	-	310	229	-	-	-	-	-	-	-
Stage 1	569	644	-	317	437	-	-	-	-	-	-	-
Stage 2	635	436	-	774	644	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.1		15.3		0		0	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	816	-	-	459	359	544	-	-
HCM Lane V/C Ratio	0.003	-	-	0.029	0.026	0.002	-	-
HCM Control Delay (s)	9.4	-	-	13.1	15.3	11.6	-	-
HCM Lane LOS	A	-	-	B	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑↑		↕	↑↑↑	
Traffic Vol, veh/h	1	1	3	41	1	4	7	641	52	1	295	4
Future Vol, veh/h	1	1	3	41	1	4	7	641	52	1	295	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	300	-	-	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	33	33	33	86	86	86	92	92	92	91	91	91
Heavy Vehicles, %	1	1	1	1	1	1	1	10	1	1	10	1
Mvmt Flow	3	3	9	48	1	5	8	697	57	1	324	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	623	1098	164	875	1072	377	328	0	0	754	0	0
Stage 1	328	328	-	742	742	-	-	-	-	-	-	-
Stage 2	295	770	-	133	330	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	7.12	6.42	6.52	7.12	5.32	-	-	5.32	-	-
Critical Hdwy Stg 1	7.32	5.52	-	7.32	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.72	5.52	-	6.72	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.81	4.01	3.91	3.81	4.01	3.91	3.11	-	-	3.11	-	-
Pot Cap-1 Maneuver	425	213	727	304	221	532	819	-	-	517	-	-
Stage 1	574	648	-	302	423	-	-	-	-	-	-	-
Stage 2	634	411	-	790	647	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	416	210	727	294	218	532	819	-	-	517	-	-
Mov Cap-2 Maneuver	416	210	-	294	218	-	-	-	-	-	-	-
Stage 1	568	647	-	299	419	-	-	-	-	-	-	-
Stage 2	621	407	-	775	646	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.4		19.4		0.1		0	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	819	-	-	443	304	517	-	-
HCM Lane V/C Ratio	0.009	-	-	0.034	0.176	0.002	-	-
HCM Control Delay (s)	9.4	-	-	13.4	19.4	12	-	-
HCM Lane LOS	A	-	-	B	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.6	0	-	-

HCM 6th TWSC  
4: US 59 & Existing Entrance 1

Existing Conditions  
Exit Peak

Intersection						
Int Delay, s/veh	3.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔↔		↔↔↔↔		↔↔↔	
Traffic Vol, veh/h	1	15	4	30	18	1
Future Vol, veh/h	1	15	4	30	18	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	300	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	36	36	81	81	56	56
Heavy Vehicles, %	1	1	1	10	10	1
Mvmt Flow	3	42	5	37	32	2
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	58	17	34	0	-	0
Stage 1	33	-	-	-	-	-
Stage 2	25	-	-	-	-	-
Critical Hdwy	5.72	7.12	5.32	-	-	-
Critical Hdwy Stg 1	6.62	-	-	-	-	-
Critical Hdwy Stg 2	6.02	-	-	-	-	-
Follow-up Hdwy	3.81	3.91	3.11	-	-	-
Pot Cap-1 Maneuver	888	899	1117	-	-	-
Stage 1	905	-	-	-	-	-
Stage 2	918	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	884	899	1117	-	-	-
Mov Cap-2 Maneuver	817	-	-	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	918	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	9.2	1	0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1117	-	893	-	-	
HCM Lane V/C Ratio	0.004	-	0.05	-	-	
HCM Control Delay (s)	8.2	-	9.2	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

Intersection						
Int Delay, s/veh	16.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔↔		↔	↑↑↑↑	↑↑↑	
Traffic Vol, veh/h	7	527	21	28	32	1
Future Vol, veh/h	7	527	21	28	32	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	300	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	64	64	46	46
Heavy Vehicles, %	1	1	1	10	10	1
Mvmt Flow	8	635	33	44	70	2
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	155	36	72	0	-	0
Stage 1	71	-	-	-	-	-
Stage 2	84	-	-	-	-	-
Critical Hdwy	5.72	7.12	5.32	-	-	-
Critical Hdwy Stg 1	6.62	-	-	-	-	-
Critical Hdwy Stg 2	6.02	-	-	-	-	-
Follow-up Hdwy	3.81	3.91	3.11	-	-	-
Pot Cap-1 Maneuver	801	874	1073	-	-	-
Stage 1	861	-	-	-	-	-
Stage 2	858	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	776	874	1073	-	-	-
Mov Cap-2 Maneuver	739	-	-	-	-	-
Stage 1	834	-	-	-	-	-
Stage 2	858	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	19.8	3.6	0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1073	-	872	-	-	
HCM Lane V/C Ratio	0.031	-	0.738	-	-	
HCM Control Delay (s)	8.5	-	19.8	-	-	
HCM Lane LOS	A	-	C	-	-	
HCM 95th %tile Q(veh)	0.1	-	6.8	-	-	

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑↑		↕	↑↑↑	
Traffic Vol, veh/h	1	1	1	1	1	1	1	48	1	1	559	1
Future Vol, veh/h	1	1	1	1	1	1	1	48	1	1	559	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	300	-	-	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	50	50	50	67	67	67	79	79	79
Heavy Vehicles, %	1	1	1	1	1	1	1	10	1	1	10	1
Mvmt Flow	4	4	4	2	2	2	1	72	1	1	708	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	743	786	355	362	786	37	709	0	0	73	0	0
Stage 1	711	711	-	75	75	-	-	-	-	-	-	-
Stage 2	32	75	-	287	711	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	7.12	6.42	6.52	7.12	5.32	-	-	5.32	-	-
Critical Hdwy Stg 1	7.32	5.52	-	7.32	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.72	5.52	-	6.72	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.81	4.01	3.91	3.81	4.01	3.91	3.11	-	-	3.11	-	-
Pot Cap-1 Maneuver	363	325	550	596	325	873	543	-	-	1072	-	-
Stage 1	317	437	-	844	834	-	-	-	-	-	-	-
Stage 2	905	834	-	641	437	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	360	324	550	585	324	873	543	-	-	1072	-	-
Mov Cap-2 Maneuver	360	324	-	585	324	-	-	-	-	-	-	-
Stage 1	316	437	-	842	832	-	-	-	-	-	-	-
Stage 2	899	832	-	630	437	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB			
HCM Control Delay, s	14.5		12.2		0.2		0			
HCM LOS	B		B							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	543	-	-	391	505	1072	-	-
HCM Lane V/C Ratio	0.003	-	-	0.031	0.012	0.001	-	-
HCM Control Delay (s)	11.6	-	-	14.5	12.2	8.4	-	-
HCM Lane LOS	B	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑↑		↕	↑↑↑	
Traffic Vol, veh/h	1	1	7	12	1	1	1	47	20	6	554	1
Future Vol, veh/h	1	1	7	12	1	1	1	47	20	6	554	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	300	-	-	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	40	40	40	54	54	54	80	80	80	84	84	84
Heavy Vehicles, %	1	1	1	1	1	1	1	10	1	1	10	1
Mvmt Flow	3	3	18	22	2	2	1	59	25	7	660	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	702	761	331	354	749	42	661	0	0	84	0	0
Stage 1	675	675	-	74	74	-	-	-	-	-	-	-
Stage 2	27	86	-	280	675	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	7.12	6.42	6.52	7.12	5.32	-	-	5.32	-	-
Critical Hdwy Stg 1	7.32	5.52	-	7.32	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.72	5.52	-	6.72	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.81	4.01	3.91	3.81	4.01	3.91	3.11	-	-	3.11	-	-
Pot Cap-1 Maneuver	383	336	570	603	341	867	572	-	-	1060	-	-
Stage 1	335	454	-	845	835	-	-	-	-	-	-	-
Stage 2	911	825	-	647	454	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	378	333	570	578	338	867	572	-	-	1060	-	-
Mov Cap-2 Maneuver	378	333	-	578	338	-	-	-	-	-	-	-
Stage 1	334	451	-	843	833	-	-	-	-	-	-	-
Stage 2	905	823	-	620	451	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.5		11.7		0.2		0.1	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	572	-	-	502	563	1060	-	-
HCM Lane V/C Ratio	0.002	-	-	0.045	0.046	0.007	-	-
HCM Control Delay (s)	11.3	-	-	12.5	11.7	8.4	-	-
HCM Lane LOS	B	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

***Appendix D: SimTraffic Report –  
Existing Conditions***

**Intersection: 4: US 59 & Entrance 1**

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	31	2
Average Queue (ft)	6	0
95th Queue (ft)	26	2
Link Distance (ft)	1113	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	300	
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Intersection: 6: US 59 & Entrance 2**

Movement	EB	NB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	T	R
Maximum Queue (ft)	28	325	839	718	90	86	31
Average Queue (ft)	1	316	646	283	42	30	6
95th Queue (ft)	15	363	1055	813	73	73	24
Link Distance (ft)	1029		718	718	1366	1366	1366
Upstream Blk Time (%)			51	0			
Queuing Penalty (veh)			114	1			
Storage Bay Dist (ft)		300					
Storage Blk Time (%)		75	0				
Queuing Penalty (veh)		27	3				

**Intersection: 8: US 59 & Entrance to Webb County Road and Bridges/Wilson Rd**

Movement	EB	WB	B1	NB	NB	NB	SB
Directions Served	LTR	LTR	T	L	T	T	L
Maximum Queue (ft)	46	57	6	8	456	382	9
Average Queue (ft)	10	13	1	0	147	85	1
95th Queue (ft)	37	48	9	4	486	360	6
Link Distance (ft)	1056	40	1289		653	653	
Upstream Blk Time (%)		17			2	0	
Queuing Penalty (veh)		0			4	0	
Storage Bay Dist (ft)				300			300
Storage Blk Time (%)					17		
Queuing Penalty (veh)					0		



Intersection: 12: US 59 & State Rep. Henry Cuellar Rdwy/Heritage Ct

Movement	EB	WB	NB	NB	NB	SB
Directions Served	LTR	LTR	L	T	T	L
Maximum Queue (ft)	36	85	22	21	15	4
Average Queue (ft)	7	33	2	2	1	0
95th Queue (ft)	29	65	13	31	22	3
Link Distance (ft)	980	198		1856	1856	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			300			300
Storage Blk Time (%)						
Queuing Penalty (veh)						

Zone Summary

Zone wide Queuing Penalty: 149

**Intersection: 4: US 59 & Entrance 1**

Movement	EB
Directions Served	LR
Maximum Queue (ft)	38
Average Queue (ft)	15
95th Queue (ft)	39
Link Distance (ft)	1113
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

**Intersection: 6: US 59 & Entrance 2**

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	196	16
Average Queue (ft)	87	1
95th Queue (ft)	147	10
Link Distance (ft)	1029	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		300
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Intersection: 8: US 59 & Entrance to Webb County Road and Bridges/Wilson Rd**

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	29	25	3	2
Average Queue (ft)	4	4	0	0
95th Queue (ft)	19	19	2	2
Link Distance (ft)	1056	40		
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)			300	300
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: US 59 & State Rep. Henry Cuellar Rdwy/Heritage Ct

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	39	30	7	5
Average Queue (ft)	10	13	0	0
95th Queue (ft)	34	37	4	3
Link Distance (ft)	980	198		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			300	300
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 0

***Appendix E: Sight Distance at Wilson Road and  
Heritage Court***



Webb County  
Road and Bridge

570'-0"

15'-0"

**FAIRGROUNDS TRAFFIC STUDY**

Sight Distance Of Heritage Court



**FAIRGROUNDS TRAFFIC STUDY**

Sight Distance Of Wilson Road

***Appendix F: Synchro Report –  
2025 Build Conditions***

HCM Signalized Intersection Capacity Analysis 15:  
US 59 & Proposed Entrance 1 (Main Entrance)

2025 Conditions  
Entry Peak



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	563	120	189	113
Future Volume (vph)	0	0	563	120	189	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0	4.0
Lane Util. Factor			0.97	1.00	1.00	1.00
Frt			1.00	1.00	1.00	0.85
Flt Protected			0.95	1.00	1.00	1.00
Satd. Flow (prot)			3467	1727	1727	1599
Flt Permitted			0.95	1.00	1.00	1.00
Satd. Flow (perm)			3467	1727	1727	1599
Peak-hour factor, PHF	0.93	0.93	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	687	146	230	138
RTOR Reduction (vph)	0	0	0	0	0	101
Lane Group Flow (vph)	0	0	687	146	230	37
Heavy Vehicles (%)	1%	1%	1%	10%	10%	1%
Turn Type			Prot	NA	NA	Perm
Protected Phases			7	4 6 8	8	
Permitted Phases						8
Actuated Green, G (s)			16.0	60.0	16.0	16.0
Effective Green, g (s)			16.0	60.0	16.0	16.0
Actuated g/C Ratio			0.27	1.00	0.27	0.27
Clearance Time (s)			4.0		4.0	4.0
Lane Grp Cap (vph)			924	1727	460	426
v/s Ratio Prot			c0.20	c0.08	c0.13	
v/s Ratio Perm						0.02
v/c Ratio			0.74	0.08	0.50	0.09
Uniform Delay, d1			20.1	0.0	18.6	16.5
Progression Factor			1.00	1.00	1.00	1.00
Incremental Delay, d2			5.4	0.1	3.8	0.4
Delay (s)			25.5	0.1	22.5	16.9
Level of Service			C	A	C	B
Approach Delay (s)	0.0			21.1	20.4	
Approach LOS	A			C	C	
<b>Intersection Summary</b>						
HCM 2000 Control Delay			20.9		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.45			
Actuated Cycle Length (s)			60.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			32.7%		ICU Level of Service	A
Analysis Period (min)			15			

c Critical Lane Group



Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↑↑↑		↑↑↑	↑	
Traffic Vol, veh/h	0	455	0	682	189	0
Future Vol, veh/h	0	455	0	682	189	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	62	62	82	82	82	82
Heavy Vehicles, %	1	1	1	10	10	1
Mvmt Flow	0	734	0	832	230	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	-	0	-	0
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	-	0
Stage 1	0	0	0	-	0
Stage 2	0	0	0	-	0
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	0	-
HCM Lane LOS	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	-

HCM Unsignalized Intersection Capacity Analysis  
 19: US 59 & Proposed Entrance 3

2025 Conditions  
 Entry Peak



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	450	682	644	1
Future Volume (Veh/h)	0	0	450	682	644	1
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.62	0.62	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	0	0	549	832	785	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL	TWLTL		
Median storage veh			2	2		
Upstream signal (ft)			1177			
pX, platoon unblocked						
vC, conflicting volume	2716	262	786			
vC1, stage 1 conf vol	786					
vC2, stage 2 conf vol	1930					
vCu, unblocked vol	2716	262	786			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	34			
cM capacity (veh/h)	34	739	835			
Direction, Lane #	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	274	274	832	314	314	158
Volume Left	274	274	0	0	0	0
Volume Right	0	0	0	0	0	1
cSH	835	835	1700	1700	1700	1700
Volume to Capacity	0.66	0.66	0.49	0.18	0.18	0.09
Queue Length 95th (ft)	126	126	0	0	0	0
Control Delay (s)	17.2	17.2	0.0	0.0	0.0	0.0
Lane LOS	C	C				
Approach Delay (s)	6.8		0.0			
Approach LOS						
Intersection Summary						
Average Delay			4.4			
Intersection Capacity Utilization			39.2%	ICU Level of Service		A
Analysis Period (min)			15			

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↕↕↕	↕↕↕	
Traffic Vol, veh/h	0	1	0	1132	644	1
Future Vol, veh/h	0	1	0	1132	644	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	89	89	82	82
Heavy Vehicles, %	1	1	1	10	10	1
Mvmt Flow	0	1	0	1272	785	1

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	393	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.12	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.91	-	-	-
Pot Cap-1 Maneuver	0	520	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	520	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	520	-	-
HCM Lane V/C Ratio	-	0.002	-	-
HCM Control Delay (s)	-	11.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

HCM 6th TWSC  
8: US 59 & Wilson Rd

2025 Conditions  
Entry Peak

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↔	↔↔↔		↔	↔↔↔	
Traffic Vol, veh/h	1	1	1	3	1	3	1	1129	6	1	644	1
Future Vol, veh/h	1	1	1	3	1	3	1	1129	6	1	644	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	300	-	-	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	38	38	75	75	75	91	91	91	89	89	89
Heavy Vehicles, %	1	1	1	1	1	1	1	10	1	1	10	1
Mvmt Flow	3	3	3	4	1	4	1	1241	7	1	724	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1226	1977	363	1540	1974	624	725	0	0	1248	0	0
Stage 1	727	727	-	1247	1247	-	-	-	-	-	-	-
Stage 2	499	1250	-	293	727	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	7.12	6.42	6.52	7.12	5.32	-	-	5.32	-	-
Critical Hdwy Stg 1	7.32	5.52	-	7.32	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.72	5.52	-	6.72	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.81	4.01	3.91	3.81	4.01	3.91	3.11	-	-	3.11	-	-
Pot Cap-1 Maneuver	189	62	543	123	62	369	534	-	-	299	-	-
Stage 1	309	430	-	135	245	-	-	-	-	-	-	-
Stage 2	479	245	-	636	430	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	183	62	543	118	62	369	534	-	-	299	-	-
Mov Cap-2 Maneuver	183	62	-	118	62	-	-	-	-	-	-	-
Stage 1	308	429	-	135	245	-	-	-	-	-	-	-
Stage 2	470	245	-	627	429	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	35	32.3	0	0
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	534	-	-	128	141	299	-	-
HCM Lane V/C Ratio	0.002	-	-	0.062	0.066	0.004	-	-
HCM Control Delay (s)	11.8	-	-	35	32.3	17.1	-	-
HCM Lane LOS	B	-	-	E	D	C	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑↑		↕	↑↑↑	
Traffic Vol, veh/h	1	1	3	47	1	5	8	1129	59	1	642	5
Future Vol, veh/h	1	1	3	47	1	5	8	1129	59	1	642	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	300	-	-	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	33	33	33	86	86	86	92	92	92	91	91	91
Heavy Vehicles, %	1	1	1	1	1	1	1	10	1	1	10	1
Mvmt Flow	3	3	9	55	1	6	9	1227	64	1	705	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1219	2019	355	1563	1989	646	710	0	0	1291	0	0
Stage 1	710	710	-	1277	1277	-	-	-	-	-	-	-
Stage 2	509	1309	-	286	712	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	7.12	6.42	6.52	7.12	5.32	-	-	5.32	-	-
Critical Hdwy Stg 1	7.32	5.52	-	7.32	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.72	5.52	-	6.72	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.81	4.01	3.91	3.81	4.01	3.91	3.11	-	-	3.11	-	-
Pot Cap-1 Maneuver	191	58	550	119	61	357	542	-	-	285	-	-
Stage 1	317	437	-	128	237	-	-	-	-	-	-	-
Stage 2	473	229	-	642	436	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	182	57	550	111	60	357	542	-	-	285	-	-
Mov Cap-2 Maneuver	182	57	-	111	60	-	-	-	-	-	-	-
Stage 1	312	435	-	126	233	-	-	-	-	-	-	-
Stage 2	455	225	-	625	434	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	27.5		65.8		0.1		0	
HCM LOS	D		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	542	-	-	175	117	285	-	-
HCM Lane V/C Ratio	0.016	-	-	0.087	0.527	0.004	-	-
HCM Control Delay (s)	11.8	-	-	27.5	65.8	17.7	-	-
HCM Lane LOS	B	-	-	D	F	C	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	2.5	0	-	-

# HCM Signalized Intersection Capacity Analysis 15: US 59 & Proposed Entrance 1 (Main Entrance)

2025 Conditions  
Exit Peak



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	455	2500	24	38	25	1
Future Volume (vph)	455	2500	24	38	25	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.88	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1787	2814	1787	1727	1727	1599
Flt Permitted	0.95	1.00	0.59	1.00	1.00	1.00
Satd. Flow (perm)	1787	2814	1101	1727	1727	1599
Peak-hour factor, PHF	0.83	0.83	0.64	0.64	0.64	0.64
Adj. Flow (vph)	548	3012	38	59	39	2
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	548	3012	38	59	39	2
Heavy Vehicles (%)	1%	1%	1%	10%	10%	1%
Turn Type	Prot	Free	custom	NA	NA	Free
Protected Phases	5		7	4 6 8	8	
Permitted Phases		Free	4			Free
Actuated Green, G (s)	47.0	100.0	24.0	45.0	16.0	100.0
Effective Green, g (s)	47.0	100.0	24.0	45.0	16.0	100.0
Actuated g/C Ratio	0.47	1.00	0.24	0.45	0.16	1.00
Clearance Time (s)	4.0		4.0		4.0	
Lane Grp Cap (vph)	839	2814	291	777	276	1599
v/s Ratio Prot	0.31		0.01	0.03	0.02	
v/s Ratio Perm		c1.07	0.03			0.00
v/c Ratio	0.65	1.07	0.13	0.08	0.14	0.00
Uniform Delay, d1	20.3	50.0	29.6	15.7	36.1	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.9	39.5	0.9	0.2	1.1	0.0
Delay (s)	24.2	89.5	30.5	15.9	37.2	0.0
Level of Service	C	F	C	B	D	A
Approach Delay (s)	79.4			21.6	35.4	
Approach LOS	E			C	D	
<b>Intersection Summary</b>						
HCM 2000 Control Delay			77.4		HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio			1.27			
Actuated Cycle Length (s)			100.0		Sum of lost time (s)	16.0
Intersection Capacity Utilization			39.9%		ICU Level of Service	A
Analysis Period (min)			15			

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↔		↑↑	↑↑↑	
Traffic Vol, veh/h	0	1	0	66	2525	1
Future Vol, veh/h	0	1	0	66	2525	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	36	36	64	64	64	64
Heavy Vehicles, %	1	1	1	10	10	1
Mvmt Flow	0	3	0	103	3945	2

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	1974	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.12	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.91	-	-	-
Pot Cap-1 Maneuver	0	45	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	45	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	90.2	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	45	-	-
HCM Lane V/C Ratio	-	0.062	-	-
HCM Control Delay (s)	-	90.2	-	-
HCM Lane LOS	-	F	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↑↑↑		↑↑	↑↑↑↑	
Traffic Vol, veh/h	0	1591	0	66	2525	0
Future Vol, veh/h	0	1591	0	66	2525	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	36	36	64	64	64	64
Heavy Vehicles, %	1	1	1	10	10	1
Mvmt Flow	0	4419	0	103	3945	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	-	0	-	0
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	-	0
Stage 1	0	0	0	-	0
Stage 2	0	0	0	-	0
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	0	-
HCM Lane LOS	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	-



HCM Unsignalized Intersection Capacity Analysis  
6: US 59 & Existing Entrance 2

2025 Conditions  
Exit Peak



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations				↑↑↑	↓↓↓		
Traffic Volume (veh/h)	0	0	0	66	4116	1	
Future Volume (Veh/h)	0	0	0	66	4116	1	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Peak Hour Factor	0.83	0.83	0.64	0.64	0.46	0.46	
Hourly flow rate (vph)	0	0	0	103	8948	2	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type							
Median storage veh							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	8983	2238	8950				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	8983	2238	8950				
tC, single (s)	6.8	6.9	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	100	100	100				
cM capacity (veh/h)	0	35	0				
Direction, Lane #	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	34	34	34	2557	2557	2557	1280
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	2
cSH	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.02	0.02	0.02	1.50	1.50	1.50	0.75
Queue Length 95th (ft)	0	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS							
Approach Delay (s)	0.0			0.0			
Approach LOS							
Intersection Summary							
Average Delay	0.0						
Intersection Capacity Utilization	63.0%			ICU Level of Service		B	
Analysis Period (min)	15						

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑↑		↕	↑↑↑	
Traffic Vol, veh/h	1	1	1	1	1	1	1	65	1	1	4116	1
Future Vol, veh/h	1	1	1	1	1	1	1	65	1	1	4116	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	300	-	-	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	50	50	50	67	67	67	79	79	79
Heavy Vehicles, %	1	1	1	1	1	1	1	10	1	1	10	1
Mvmt Flow	4	4	4	2	2	2	1	97	1	1	5210	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	5255	5313	2606	2188	5313	49	5211	0	0	98	0	0
Stage 1	5213	5213	-	100	100	-	-	-	-	-	-	-
Stage 2	42	100	-	2088	5213	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	7.12	6.42	6.52	7.12	5.32	-	-	5.32	-	-
Critical Hdwy Stg 1	7.32	5.52	-	7.32	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.72	5.52	-	6.72	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.81	4.01	3.91	3.81	4.01	3.91	3.11	-	-	3.11	-	-
Pot Cap-1 Maneuver	0	0	16	49	0	858	2	-	-	1044	-	-
Stage 1	0	~2	-	813	814	-	-	-	-	-	-	-
Stage 2	893	814	-	48	2	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	0	0	16	22	0	858	2	-	-	1044	-	-
Mov Cap-2 Maneuver	0	0	-	22	0	-	-	-	-	-	-	-
Stage 1	0	~2	-	407	407	-	-	-	-	-	-	-
Stage 2	443	407	-	-	2	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	\$ 455	101.9	37.7	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	2	-	-	16	43	1044	-	-
HCM Lane V/C Ratio	0.746	-	-	0.75	0.14	0.001	-	-
HCM Control Delay (s)	\$ 2527.5	-	-	\$ 455	101.9	8.5	-	-
HCM Lane LOS	F	-	-	F	F	A	-	-
HCM 95th %tile Q(veh)	0.7	-	-	1.9	0.4	0	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	12.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑↑		↕	↑↑↑	
Traffic Vol, veh/h	1	1	8	14	1	1	1	64	23	7	4111	1
Future Vol, veh/h	1	1	8	14	1	1	1	64	23	7	4111	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	300	-	-	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	40	40	40	54	54	54	80	80	80	81	81	81
Heavy Vehicles, %	1	1	1	1	1	1	1	10	1	1	10	1
Mvmt Flow	3	3	20	26	2	2	1	80	29	9	5075	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	5129	5205	2538	2147	5191	55	5076	0	0	109	0	0
Stage 1	5094	5094	-	97	97	-	-	-	-	-	-	-
Stage 2	35	111	-	2050	5094	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	7.12	6.42	6.52	7.12	5.32	-	-	5.32	-	-
Critical Hdwy Stg 1	7.32	5.52	-	7.32	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.72	5.52	-	6.72	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.81	4.01	3.91	3.81	4.01	3.91	3.11	-	-	3.11	-	-
Pot Cap-1 Maneuver	~ 1	0	~ 18	52	0	851	3	-	-	1032	-	-
Stage 1	0	~ 2	-	816	816	-	-	-	-	-	-	-
Stage 2	902	805	-	50	2	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	~ 1	0	~ 18	-	0	851	3	-	-	1032	-	-
Mov Cap-2 Maneuver	~ 1	0	-	-	0	-	-	-	-	-	-	-
Stage 1	0	~ 2	-	544	544	-	-	-	-	-	-	-
Stage 2	598	537	-	~ 1	2	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, \$	2595.3		17.8	0
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	3	-	-	6	-	1032	-	-
HCM Lane V/C Ratio	0.417	-	-	4.167	-	0.008	-	-
HCM Control Delay (s)	\$ 1565.9	-	-	\$ 2595.3	-	8.5	-	-
HCM Lane LOS	F	-	-	F	-	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	4.5	-	0	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

***Appendix G: SimTraffic Report –  
2025 Build Conditions***

**Intersection: 6: US 59 & Existing Entrance 2**

Movement	EB
Directions Served	R
Maximum Queue (ft)	12
Average Queue (ft)	1
95th Queue (ft)	7
Link Distance (ft)	1028
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

**Intersection: 8: US 59 & Entrance to Webb County Road and Bridges/Wilson Rd**

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	33	35	2	5
Average Queue (ft)	4	6	0	0
95th Queue (ft)	20	25	2	5
Link Distance (ft)	1056	40		
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)			300	300
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Intersection: 12: US 59 & State Rep. Henry Cuellar Rdwy/Heritage Ct**

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	L	L	T
Maximum Queue (ft)	38	124	26	7	2
Average Queue (ft)	7	46	4	0	0
95th Queue (ft)	29	106	19	4	2
Link Distance (ft)	980	198			653
Upstream Blk Time (%)		0			
Queuing Penalty (veh)		0			
Storage Bay Dist (ft)			300	300	
Storage Blk Time (%)					
Queuing Penalty (veh)					

**Intersection: 15: US 59 & Proposed Main Entrance**

Movement	NB	NB	SB	SB
Directions Served	L	L	T	R
Maximum Queue (ft)	172	181	195	75
Average Queue (ft)	99	111	84	36
95th Queue (ft)	148	167	159	63
Link Distance (ft)	652	652	323	323
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Intersection: 17: US 59 & Proposed Entrance 2**

Movement	EB	EB
Directions Served	R	R
Maximum Queue (ft)	97	39
Average Queue (ft)	4	2
95th Queue (ft)	42	29
Link Distance (ft)	1112	1112
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Intersection: 19: US 59 & Proposed Entrance 3**

Movement	NB	NB	SB	SB	SB
Directions Served	L	L	T	T	TR
Maximum Queue (ft)	152	164	4	4	4
Average Queue (ft)	62	68	0	0	0
95th Queue (ft)	120	129	4	3	3
Link Distance (ft)	449	449	417	417	417
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

**Zone Summary**

Zone wide Queuing Penalty: 0

**Intersection: 6: US 59 & Existing Entrance 2**

Movement	SB	SB	SB	SB
Directions Served	T	T	T	TR
Maximum Queue (ft)	62	247	288	260
Average Queue (ft)	15	137	177	172
95th Queue (ft)	88	283	314	295
Link Distance (ft)	451	451	451	451
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Intersection: 8: US 59 & Entrance to Webb County Road and Bridges/Wilson Rd**

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	TR
Maximum Queue (ft)	15	13	3	2
Average Queue (ft)	4	5	1	0
95th Queue (ft)	20	24	6	4
Link Distance (ft)	1056	40		717
Upstream Blk Time (%)		10		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)			300	
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Intersection: 12: US 59 & State Rep. Henry Cuellar Rdwy/Heritage Ct**

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	L	L	T
Maximum Queue (ft)	53	98	2	3	4
Average Queue (ft)	27	48	2	0	1
95th Queue (ft)	62	106	10	5	8
Link Distance (ft)	980	198			653
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			300	300	
Storage Blk Time (%)					
Queuing Penalty (veh)					

**Intersection: 15: US 59 & Proposed Main Entrance**

Movement	EB	EB	NB	NB	SB
Directions Served	L	R	L	T	T
Maximum Queue (ft)	451	244	32	51	59
Average Queue (ft)	196	38	14	14	27
95th Queue (ft)	489	351	38	46	67
Link Distance (ft)	1128	1128	647	647	355
Upstream Blk Time (%)	0	0			
Queuing Penalty (veh)	0	0			
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

**Intersection: 17: US 59 & Proposed Entrance 2**

Movement	EB
Directions Served	R
Maximum Queue (ft)	9
Average Queue (ft)	2
95th Queue (ft)	13
Link Distance (ft)	1101
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

**Intersection: 19: US 59 & Proposed Entrance 3**

Movement	EB	EB
Directions Served	R	R
Maximum Queue (ft)	498	478
Average Queue (ft)	386	364
95th Queue (ft)	495	477
Link Distance (ft)	1064	1064
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Zone Summary**

Zone wide Queuing Penalty: 0
------------------------------



***Appendix H: Synchro Report –  
2035 Build Conditions***

HCM Signalized Intersection Capacity Analysis  
1: US 59 & Proposed Main Entrance

2035 Conditions  
Entry Peak



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations			↖ ↗	↑	↓	↘
Traffic Volume (vph)	0	0	563	186	294	113
Future Volume (vph)	0	0	563	186	294	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0	4.0
Lane Util. Factor			0.97	1.00	1.00	1.00
Frt			1.00	1.00	1.00	0.85
Flt Protected			0.95	1.00	1.00	1.00
Satd. Flow (prot)			3467	1727	1727	1599
Flt Permitted			0.95	1.00	1.00	1.00
Satd. Flow (perm)			3467	1727	1727	1599
Peak-hour factor, PHF	0.93	0.93	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	687	227	359	138
RTOR Reduction (vph)	0	0	0	0	0	101
Lane Group Flow (vph)	0	0	687	227	359	37
Heavy Vehicles (%)	1%	1%	1%	10%	10%	1%
Turn Type			Prot	NA	NA	Perm
Protected Phases			7	4 6 8	8	
Permitted Phases						8
Actuated Green, G (s)			16.0	60.0	16.0	16.0
Effective Green, g (s)			16.0	60.0	16.0	16.0
Actuated g/C Ratio			0.27	1.00	0.27	0.27
Clearance Time (s)			4.0		4.0	4.0
Lane Grp Cap (vph)			924	1727	460	426
v/s Ratio Prot			c0.20	c0.13	c0.21	
v/s Ratio Perm						0.02
v/c Ratio			0.74	0.13	0.78	0.09
Uniform Delay, d1			20.1	0.0	20.4	16.5
Progression Factor			1.00	1.00	1.00	1.00
Incremental Delay, d2			4.7	0.1	12.4	0.4
Delay (s)			24.8	0.1	32.7	16.9
Level of Service			C	A	C	B
Approach Delay (s)	0.0			18.7	28.3	
Approach LOS	A			B	C	

Intersection Summary			
HCM 2000 Control Delay	22.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	38.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑	
Traffic Vol, veh/h	0	1	0	749	294	1
Future Vol, veh/h	0	1	0	749	294	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	62	62	82	82	82	82
Heavy Vehicles, %	1	1	1	10	10	1
Mvmt Flow	0	2	0	913	359	1

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	360	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.215	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3095	-	-	-
Pot Cap-1 Maneuver	0	686	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	686	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	686	-	-
HCM Lane V/C Ratio	-	0.002	-	-
HCM Control Delay (s)	-	10.3	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑	
Traffic Vol, veh/h	0	455	0	749	294	0
Future Vol, veh/h	0	455	0	749	294	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	62	62	82	82	82	82
Heavy Vehicles, %	1	1	1	10	10	1
Mvmt Flow	0	734	0	913	359	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	-	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	-	-	0
Stage 1	0	0	0	-	-	0
Stage 2	0	0	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	0	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	-	-

HCM Signalized Intersection Capacity Analysis  
4: US 59 & Existing Entrance 2

2035 Conditions  
Entry Peak



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations			↖ ↗	↑	↑↑	
Traffic Volume (vph)	0	0	450	749	749	0
Future Volume (vph)	0	0	450	749	749	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0	
Lane Util. Factor			0.97	1.00	0.95	
Frt			1.00	1.00	1.00	
Flt Protected			0.95	1.00	1.00	
Satd. Flow (prot)			3467	1727	3282	
Flt Permitted			0.95	1.00	1.00	
Satd. Flow (perm)			3467	1727	3282	
Peak-hour factor, PHF	0.93	0.93	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	549	913	913	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	549	913	913	0
Heavy Vehicles (%)	1%	1%	1%	10%	10%	1%
Turn Type			Prot	NA	NA	
Protected Phases			7	4 6 8	8	
Permitted Phases						
Actuated Green, G (s)			11.0	60.0	20.0	
Effective Green, g (s)			11.0	60.0	20.0	
Actuated g/C Ratio			0.18	1.00	0.33	
Clearance Time (s)			4.0		4.0	
Lane Grp Cap (vph)			635	1727	1094	
v/s Ratio Prot			c0.16	c0.53	c0.28	
v/s Ratio Perm						
v/c Ratio			0.86	0.53	0.83	
Uniform Delay, d1			23.8	0.0	18.5	
Progression Factor			1.00	1.00	1.33	
Incremental Delay, d2			14.6	1.2	7.4	
Delay (s)			38.4	1.2	31.9	
Level of Service			D	A	C	
Approach Delay (s)	0.0			15.1	31.9	
Approach LOS	A			B	C	
<b>Intersection Summary</b>						
HCM 2000 Control Delay			21.6	HCM 2000 Level of Service		C
HCM 2000 Volume to Capacity ratio			0.78			
Actuated Cycle Length (s)			60.0	Sum of lost time (s)		12.0
Intersection Capacity Utilization			42.8%	ICU Level of Service		A
Analysis Period (min)			15			

c Critical Lane Group

HCM 6th TWSC  
 5: US 59 & Entrance to Webb County Road and Bridges/Wilson Rd

2035 Conditions  
 Entry Peak

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑↑		↕	↑↑↑	
Traffic Vol, veh/h	1	1	1	5	1	5	1	1193	9	1	749	1
Future Vol, veh/h	1	1	1	5	1	5	1	1193	9	1	749	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	38	38	75	75	75	91	91	91	89	89	89
Heavy Vehicles, %	1	1	1	1	1	1	1	10	1	1	10	1
Mvmt Flow	3	3	3	7	1	7	1	1311	10	1	842	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1372	2168	422	1658	2163	661	843	0	0	1321	0	0
Stage 1	845	845	-	1318	1318	-	-	-	-	-	-	-
Stage 2	527	1323	-	340	845	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	7.12	6.42	6.52	7.12	5.32	-	-	5.32	-	-
Critical Hdwy Stg 1	7.32	5.52	-	7.32	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.72	5.52	-	6.72	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.81	4.01	3.91	3.81	4.01	3.91	3.11	-	-	3.11	-	-
Pot Cap-1 Maneuver	155	47	498	104	47	349	469	-	-	276	-	-
Stage 1	256	379	-	120	227	-	-	-	-	-	-	-
Stage 2	461	226	-	596	379	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	148	47	498	99	47	349	469	-	-	276	-	-
Mov Cap-2 Maneuver	148	47	-	99	47	-	-	-	-	-	-	-
Stage 1	255	377	-	120	227	-	-	-	-	-	-	-
Stage 2	449	226	-	587	377	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	44.1		36.7		0		0	
HCM LOS	E		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	469	-	-	100	128	276	-
HCM Lane V/C Ratio	0.002	-	-	0.079	0.115	0.004	-
HCM Control Delay (s)	12.7	-	-	44.1	36.7	18.1	-
HCM Lane LOS	B	-	-	E	E	C	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.4	0	-

Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑↑		↕	↑↑↑	
Traffic Vol, veh/h	1	1	1	73	1	7	12	1193	92	2	745	7
Future Vol, veh/h	1	1	1	73	1	7	12	1193	92	2	745	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	33	33	33	86	86	86	92	92	92	91	91	91
Heavy Vehicles, %	1	1	1	1	1	1	1	10	1	1	10	1
Mvmt Flow	3	3	3	85	1	8	13	1297	100	2	819	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1372	2250	414	1706	2204	699	827	0	0	1397	0	0
Stage 1	827	827	-	1373	1373	-	-	-	-	-	-	-
Stage 2	545	1423	-	333	831	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	7.12	6.42	6.52	7.12	5.32	-	-	5.32	-	-
Critical Hdwy Stg 1	7.32	5.52	-	7.32	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.72	5.52	-	6.72	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.81	4.01	3.91	3.81	4.01	3.91	3.11	-	-	3.11	-	-
Pot Cap-1 Maneuver	155	42	504	97	45	330	477	-	-	253	-	-
Stage 1	264	387	-	110	214	-	-	-	-	-	-	-
Stage 2	450	202	-	602	385	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	144	41	504	89	43	330	477	-	-	253	-	-
Mov Cap-2 Maneuver	144	41	-	89	43	-	-	-	-	-	-	-
Stage 1	257	384	-	107	208	-	-	-	-	-	-	-
Stage 2	425	197	-	589	382	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	49.4		175.2		0.1		0.1	
HCM LOS	E		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	477	-	-	90	94	253	-
HCM Lane V/C Ratio	0.027	-	-	0.101	1.002	0.009	-
HCM Control Delay (s)	12.8	-	-	49.4	175.2	19.4	-
HCM Lane LOS	B	-	-	E	F	C	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	6	0	-

HCM Signalized Intersection Capacity Analysis  
 1: US 59 & Proposed Main Entrance

2035 Conditions  
 Exit Peak



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	455	1591	24	95	39	1
Future Volume (vph)	455	1591	24	95	39	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.88	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1805	2842	1787	3574	1881	1615
Flt Permitted	0.95	1.00	0.57	1.00	1.00	1.00
Satd. Flow (perm)	1805	2842	1079	3574	1881	1615
Peak-hour factor, PHF	0.83	0.83	0.64	0.64	0.64	0.64
Adj. Flow (vph)	548	1917	38	148	61	2
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	548	1917	38	148	61	2
Heavy Vehicles (%)	0%	0%	1%	1%	1%	0%
Turn Type	Prot	Free	custom	NA	NA	Free
Protected Phases	5		7	4 6 8	8	
Permitted Phases		Free	4			Free
Actuated Green, G (s)	47.0	100.0	24.0	45.0	16.0	100.0
Effective Green, g (s)	47.0	100.0	24.0	45.0	16.0	100.0
Actuated g/C Ratio	0.47	1.00	0.24	0.45	0.16	1.00
Clearance Time (s)	4.0		4.0		4.0	
Lane Grp Cap (vph)	848	2842	287	1608	300	1615
v/s Ratio Prot	0.30		0.01	0.04	0.03	
v/s Ratio Perm		c0.67	0.03			0.00
v/c Ratio	0.65	0.67	0.13	0.09	0.20	0.00
Uniform Delay, d1	20.2	0.0	29.6	15.8	36.5	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.8	1.3	1.0	0.1	1.5	0.0
Delay (s)	24.0	1.3	30.5	15.9	38.0	0.0
Level of Service	C	A	C	B	D	A
Approach Delay (s)	6.3			18.9	36.8	
Approach LOS	A			B	D	

Intersection Summary

HCM 2000 Control Delay	7.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	1	0	120	1630	1
Future Vol, veh/h	0	1	0	120	1630	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	36	36	64	64	64	64
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	3	0	188	2547	2

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	1275	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.9	-	-	-
Pot Cap-1 Maneuver	0	138	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	138	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	31.6	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	138	-	-
HCM Lane V/C Ratio	-	0.02	-	-
HCM Control Delay (s)	-	31.6	-	-
HCM Lane LOS	-	D	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	
Traffic Vol, veh/h	0	909	0	120	1630	0
Future Vol, veh/h	0	909	0	120	1630	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	36	36	64	64	64	64
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	2525	0	188	2547	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	-	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	-	-
Stage 1	0	0	0	-	-
Stage 2	0	0	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	0	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	↗
Traffic Vol, veh/h	0	1591	0	120	2539	1
Future Vol, veh/h	0	1591	0	120	2539	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	64	64	46	46
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	1917	0	188	5520	2

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	-	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	-	-
Stage 1	0	0	0	-	-
Stage 2	0	0	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

HCM 6th TWSC  
 5: US 59 & Entrance to Webb County Road and Bridges/Wilson Rd

2035 Conditions  
 Exit Peak

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑↑		↕	↑↑↑	
Traffic Vol, veh/h	1	1	2	2	1	2	1	118	2	1	4129	1
Future Vol, veh/h	1	1	2	2	1	2	1	118	2	1	4129	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	50	50	50	67	67	67	79	79	79
Heavy Vehicles, %	1	1	1	1	1	1	0	1	0	0	1	0
Mvmt Flow	4	4	8	4	2	4	1	176	3	1	5227	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	5303	5411	2614	2275	5410	90	5228	0	0	179	0	0
Stage 1	5230	5230	-	180	180	-	-	-	-	-	-	-
Stage 2	73	181	-	2095	5230	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	7.12	6.42	6.52	7.12	5.3	-	-	5.3	-	-
Critical Hdwy Stg 1	7.32	5.52	-	7.32	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.72	5.52	-	6.72	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.81	4.01	3.91	3.81	4.01	3.91	3.1	-	-	3.1	-	-
Pot Cap-1 Maneuver	0	0	16	43	0	809	2	-	-	963	-	-
Stage 1	0	~2	-	720	752	-	-	-	-	-	-	-
Stage 2	857	751	-	47	2	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	0	0	16	13	0	809	2	-	-	963	-	-
Mov Cap-2 Maneuver	0	0	-	13	0	-	-	-	-	-	-	-
Stage 1	0	~2	-	360	376	-	-	-	-	-	-	-
Stage 2	424	376	-	-	2	-	-	-	-	-	-	-

Approach	EB		WB		NB			SB		
HCM Control Delay, s	548.2		212.7		20.9			0		
HCM LOS	F		F							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	2	-	-	16	26	963	-	-
HCM Lane V/C Ratio	0.746	-	-	1	0.385	0.001	-	-
HCM Control Delay (s)	\$ 2527.5	-	-	\$ 548.2	212.7	8.7	-	-
HCM Lane LOS	F	-	-	F	F	A	-	-
HCM 95th %tile Q(veh)	0.7	-	-	2.4	1.2	0	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	30.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑↑		↕	↑↑↑	
Traffic Vol, veh/h	2	1	12	21	1	2	1	116	35	11	4122	1
Future Vol, veh/h	2	1	12	21	1	2	1	116	35	11	4122	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	40	40	40	54	54	54	80	80	80	81	81	81
Heavy Vehicles, %	1	1	1	1	1	1	0	1	0	0	1	0
Mvmt Flow	5	3	30	39	2	4	1	145	44	14	5089	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	5179	5309	2545	2234	5287	95	5090	0	0	189	0	0
Stage 1	5118	5118	-	169	169	-	-	-	-	-	-	-
Stage 2	61	191	-	2065	5118	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	7.12	6.42	6.52	7.12	5.3	-	-	5.3	-	-
Critical Hdwy Stg 1	7.32	5.52	-	7.32	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.72	5.52	-	6.72	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.81	4.01	3.91	3.81	4.01	3.91	3.1	-	-	3.1	-	-
Pot Cap-1 Maneuver	~ 1	0	~ 18	46	0	803	3	-	-	953	-	-
Stage 1	0	~ 2	-	732	760	-	-	-	-	-	-	-
Stage 2	871	744	-	49	2	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 1	0	~ 18	-	0	803	3	-	-	953	-	-
Mov Cap-2 Maneuver	~ 1	0	-	-	0	-	-	-	-	-	-	-
Stage 1	0	~ 2	-	488	507	-	-	-	-	-	-	-
Stage 2	576	496	-	~ 8	2	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s \$ 4325			10.3	0
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	3	-	-	5	-	953	-
HCM Lane V/C Ratio	0.417	-	-	7.5	-	0.014	-
HCM Control Delay (s)	\$ 1565.9	-	-	-\$ 4325	-	8.8	-
HCM Lane LOS	F	-	-	F	-	A	-
HCM 95th %tile Q(veh)	0.6	-	-	6.3	-	0	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

***Appendix I: SimTraffic Report –  
2035 Build Conditions***

**Intersection: 1: US 59 & Proposed Main Entrance**

Movement	NB	NB	SB	SB
Directions Served	L	L	T	R
Maximum Queue (ft)	128	152	201	50
Average Queue (ft)	94	108	124	32
95th Queue (ft)	133	156	203	54
Link Distance (ft)	655	655	332	332
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Intersection: 2: US 59 & Proposed Entrance 2**

Movement	EB
Directions Served	R
Maximum Queue (ft)	3
Average Queue (ft)	0
95th Queue (ft)	6
Link Distance (ft)	1117
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

**Intersection: 3: US 59 & Proposed Entrance 3**

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

**Intersection: 4: US 59 & Existing Entrance 2**

Movement	NB	NB	SB	SB
Directions Served	L	L	T	T
Maximum Queue (ft)	129	138	205	211
Average Queue (ft)	90	92	149	152
95th Queue (ft)	133	141	219	216
Link Distance (ft)	727	727	426	426
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Intersection: 5: US 59 & Entrance to Webb County Road and Bridges/Wilson Rd**

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	8	25	2	4
Average Queue (ft)	1	6	0	1
95th Queue (ft)	10	24	3	7
Link Distance (ft)	1055	41		
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)			100	100
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Intersection: 6: US 59 & State Rep. Henry Cuellar Rdwy/Heritage Ct**

Movement	EB	WB	B14	NB	NB	SB
Directions Served	LTR	LTR	T	L	TR	L
Maximum Queue (ft)	18	135	6	17	7	10
Average Queue (ft)	4	73	2	3	1	1
95th Queue (ft)	21	173	18	14	9	10
Link Distance (ft)	976	217	797		1855	
Upstream Blk Time (%)		4				
Queuing Penalty (veh)		0				
Storage Bay Dist (ft)				100		100
Storage Blk Time (%)						
Queuing Penalty (veh)						

**Zone Summary**

Zone wide Queuing Penalty: 0



**Intersection: 1: US 59 & Proposed Main Entrance**

Movement	EB	EB	EB	NB	NB	NB	SB
Directions Served	L	R	R	L	T	T	T
Maximum Queue (ft)	532	691	5	37	38	50	55
Average Queue (ft)	199	135	1	16	15	25	30
95th Queue (ft)	540	721	10	41	43	57	66
Link Distance (ft)	1124	1124	1124	656	656	656	356
Upstream Blk Time (%)	0	1					
Queuing Penalty (veh)	0	0					
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

**Intersection: 2: US 59 & Proposed Entrance 2**

Movement	EB
Directions Served	R
Maximum Queue (ft)	3
Average Queue (ft)	0
95th Queue (ft)	6
Link Distance (ft)	1092
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

**Intersection: 3: US 59 & Proposed Entrance 3**

Movement	EB
Directions Served	R
Maximum Queue (ft)	11
Average Queue (ft)	2
95th Queue (ft)	23
Link Distance (ft)	1068
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

**Intersection: 4: US 59 & Existing Entrance 2**

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	78	87	48
Average Queue (ft)	6	7	7
95th Queue (ft)	85	96	100
Link Distance (ft)	431	431	431
Upstream Blk Time (%)		0	0
Queuing Penalty (veh)		2	1
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 5: US 59 & Entrance to Webb County Road and Bridges/Wilson Rd**

Movement	EB	WB	NB	SB	B21
Directions Served	LTR	LTR	L	L	T
Maximum Queue (ft)	15	33	3	4	4
Average Queue (ft)	6	11	1	1	1
95th Queue (ft)	24	35	7	6	9
Link Distance (ft)	1055	41			270
Upstream Blk Time (%)		11			
Queuing Penalty (veh)		0			
Storage Bay Dist (ft)			100	100	
Storage Blk Time (%)					
Queuing Penalty (veh)					

**Intersection: 6: US 59 & State Rep. Henry Cuellar Rdwy/Heritage Ct**

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	97	139	5	10
Average Queue (ft)	49	84	2	2
95th Queue (ft)	118	170	10	12
Link Distance (ft)	979	566		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	100
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Zone Summary**

Zone wide Queuing Penalty: 3
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