OKLAHOMA
Transportation

# FEASIBILITY REPORT

# EC -1576 SUPPLEMENT NO. 2

## JP 27108(04)
## US HWY 69 THRU CITY OF MUSKOGEE
## MUSKOGEE COUNTY

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# INTRODUCTION

## Purpose of Study

This study evaluates the feasibility of providing improvements on the US-69 corridor thru Muskogee and examines three (3) possible alternatives for lane configurations from Border Ave. to Okmulgee Ave.

OPTION 1 – Divided 6-Lane W/Raised Median
OPTION 2 – 7-Lane W/Continuous Center Turn Lane
OPTION 3 – Divided 4-Lane W/Raised Median

## Project Background

The current lane configuration was constructed in the 1950's. It has served local and regional traffic well but is in need of updating due to increased traffic congestion during peak hours.

In 2015 Holloway, Updike and Bellen, Inc. (HUB) was tasked with designing upgrades to the corridor to match the sister project along U.S. 69 from Okmulgee Ave. North to Shawnee Bypass which was completed in 2006.

In 2017 HUB was directed to cease design work as the Oklahoma Department of Transportation (ODOT) had decided to explore the option to realign US-69 to loop around the west side of Muskogee. The realignment was met with opposition from the City of Muskogee as well as numerous residents and property owners along the existing corridor. In response ODOT has focused attention on updating the existing corridor.

## Corridor Issues

Discussion with ODOT and City of Muskogee officials identified corridor issues that centered on safety, congestion and access.

Along this corridor safety, congestion and access to local businesses all work together. US-69 is a major freight corridor connecting Texas, Oklahoma, Kansas and Missouri. High volumes of heavy trucks use this corridor daily resulting in extreme congestion during peak hour traffic.

Access along the corridor from Border Ave. to Okmulgee Ave is limited by a raised median. There are currently four (4) median openings (Denver St., Elgin St., Arline Ave., and Estelle Ave.). Numerous businesses would benefit from increased access points, however this increase would come at a cost to safety.

## Project Purpose and Need

The purpose of the project is to provide a safe roadway and alleviate traffic congestion in the project area.

The need for the project is supported by the following facts:

- Approximately 23,700 vehicles per day (VPD) travel this corridor with approximately 25% being truck traffic.
- Traffic backups occur frequently at the signalized intersections.
- Level of Service (LOS) in the project area is C or worse on all but two of major intersections along the corridor. (Hancock Rd. And Harris Rd.).

## Existing Conditions

### Project Location

The project is located on the west side of Muskogee, Oklahoma in Muskogee County. The project area is along US-69 from approximately 0.48 miles north of the intersection of US-69 and SH-165 (Peak Blvd.) and extending north 2.49 miles to 300 feet south of the intersection of US-69 and US-62 (Okmulgee Ave.). Total mainline project length is 2.49 miles. The project will remain open section divided 4-lane roadway from beginning of project to Border Ave. The current lane arrangement from Border Ave. to end of project consists of a curbed section and raised center median with two lanes each side.

### Roadway Characteristics

US-69 in the project area is a divided 4-lane Principal Arterial.

### Traffic Conditions

Existing traffic volumes taken from ODOT on-line data are below.

| YEAR | LOCATION | | | |
|---|---|---|---|---|
| | SOUTH OF PROJECT | BEGINNING OF PROJECT | END OF PROJECT | NORTH OF PROJECT |
| | S. OF PEAK BLVD (SH-165) | NEAR HADDOCK DRIVE (SOUTHGATE ADDITION) | OKMULGEE AVENUE (US-62/SH-16) | DENISON STREET (NEAR BANK OF OK) |
| | VEHICLES PER DAY | VEHICLES PER DAY | VEHICLES PER DAY | VEHICLES PER DAY |
| 2019 | 20,100 | 23,000 | 20,600 | 23,700 |
| 2018 | 19,600 | 21,000 | 20,900 | 25,800 |
| 2017 | 19,800 | 20,800 | 23,900 | 25,600 |
| 2016 | 19,200 | 20,100 | 23,200 | 24,800 |
| 2015 | 18,600 | 19,600 | 22,500 | 24,000 |

## Collision Data

Crash report data in the project area from the six-year period 2-1-2014 thru 12-31-2019 was compiled. Three fatalities in the study period were found. One of the fatalities occurred in the project area at/near the Arline intersection. Complete crash report data is provided in Appendix B.

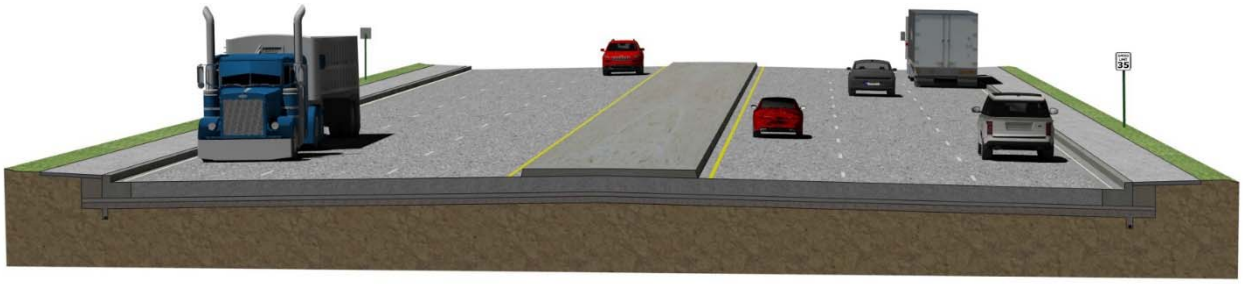
| Collisions from Border Ave. to Okmulgee Ave. (CS 56, MP 14.61 to CS 18, MP 0.00) | | | | | |
|---|---|---|---|---|---|
| Location | Collisions | Possible Injury | Non-Incapacitating Injury | Suspected Serious Injury | Fatality |
| Denver | 18 | 4 | 1 | - | - |
| Elgin | 4 | 1 | 1 | - | - |
| Estelle | 9 | 1 | - | 1 | - |
| Okmulgee | 54 | 4 | 4 | - | - |
| Arline | 36 | 5 | 4 | - | 1 |
| Border | 30 | 6 | 2 | - | - |
| US-69 | 50 | 5 | 4 | 2 | - |

The fatality collision occurred on 5-7-2016. Associated causes include vehicle crossing median and failure to stop.

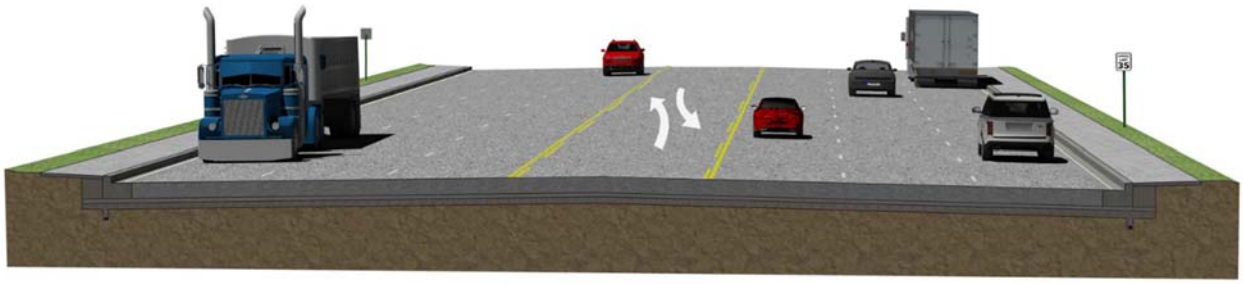
## Study Options Considered

HUB was directed to evaluate three options along the US-69 corridor including cost, right-of-way and utility impacts in addition to safety and access.

OPTION 1 - Complete reconstruction of open section divided 4-lane roadway from BOP to Border Ave. and construction of 6-lane curb and gutter with raised concrete median from Border Ave. to EOP. The construction, right-of-way, and utility cost estimate for this alternative is $35,926,000. See Alternative Cost Comparison for cost breakdown and Exhibit 1 for plans.



OPTION 2 - Complete reconstruction of open section divided 4-lane roadway from BOP to Border Ave. and construction of 7-lane curb and gutter with continuous center turn lane from Border Ave. to EOP. The construction, right-of-way, and utility cost estimate for this alternative is $35,609,000. See Alternative Cost Comparison for cost breakdown and Exhibit 2 for plans.



OPTION 3 - Complete reconstruction of open section divided 4-lane roadway from BOP to Border Ave. and reconstruct from Border Ave. to EOP in existing 4-lane divided with raised median configuration. The construction, right-of-way, and utility cost estimate for this alternative is $27,277,000. See Alternative Cost Comparison for cost breakdown and Exhibit 3 for plans.

Each of the above three options include the following:

* Demolition of Existing Railroad Underpass and Replacement with Pedestrian Overpass
* Improvements to Hancock St. and Border Ave.
* New Traffic Signal System Prioritizing the US-69 Traffic
* New Street Lighting from Border Ave. to EOP

| ALTERNATIVE COST COMPARISON | | | |
|---|---|---|---|
| | OPTION 1 (6-Lane) | OPTION 2 (7-Lane) | OPTION 3 (4-Lane) |
| ROADWAY | $ 22,850,000 | $ 22,350,000 | $ 19,400,000 |
| BRIDGE A | $ 385,000 | $ 385,000 | $ 385,000 |
| BRIDGE B | $ 880,000 | $ 880,000 | $ 880,000 |
| CONST. TRAFFIC CONTROL | $ 750,000 | $ 750,000 | $ 750,000 |
| SIGNING & STRIPING | $ 150,000 | $ 155,000 | $ 150,000 |
| TRAFFIC SIGNALS | $ 1,450,000 | $ 1,450,000 | $ 1,450,000 |
| TRAFFIC LIGHTING | $ 600,000 | $ 600,000 | $ 600,000 |
| STAKING | $ 220,000 | $ 220,000 | $ 220,000 |
| MOBILIZATION | $ 1,000,000 | $ 1,000,000 | $ 1,000,000 |
| COSTRUCTION TOTAL | $ 28,285,000 | $ 27,790,000 | $ 24,835,000 |
| RIGHT-OF-WAY | $ 5,642,000 | $ 5,818,000 | $ 443,000 |
| UTILITIES | $ 1,999,000 | $ 1,999,000 | $ 1,999,000 |
| **TOTAL** | **$ 35,926,000** | **$ 35,607,000** | **$ 27,277,000** |

## Level of Service

Level of Service (LOS) is a term used to qualitatively describe the operating conditions of a roadway based on factors such as speed, travel time, maneuverability, delay and safety. The level of service of a facility is designated with a letter, A to F, with A representing the best operating conditions and F the worst.

Traffic Engineering Consultants, Inc. (TEC) completed an operational analysis of a corridor that included the project area. This analysis was completed in February 2016.

This analysis also included a review of the Love Hatbox Recreational area which is currently being expanded to include additional facilities.

LOS results are in Table 2. For further information reference the Operational Analysis Report in Appendix A.

Since TEC's initial analysis, the 7-lane option was introduced and the entrance to the Hatbox Complex via Estelle Street was abandoned. Because of this, ODOT Traffic Division was tasked with updating analysis comparing the three options. Detailed operational analysis reports can be found in Appendix B and Exhibit 4.

Design traffic for the corridor for years 2018 and 2050 were provided by ODOT's Strategic Asset and Performance Management Division from 2018. These years and volumes are the basis of ODOT's operational analysis.

# TABLE 2.

Intersection Capacity Analysis Results

| Intersection | Type of Traffic Control | AM Peak Hour | | | | PM Peak Hour | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Critical Approach | | Intersection | | Critical Approach | | Intersection | |
| | | Delay (sec/veh) | LOS | Delay (sec/veh) | LOS | Delay (sec/veh) | LOS | Delay (sec/veh) | LOS |
| **2015 Design Traffic with Existing Lane Geometry** | | | | | | | | | |
| US 69 & Hancock Road | Signalized | 18.5 / WB | B | 12.6 | B | 19.7 / WB | B | 12.4 | B |
| US 69 & Border Avenue | Signalized | 33.1 / EB | C | 19.3 | B | 35.9 / EB | D | 14.2 | B |
| US 69 & Estelle Street | Unsignalized | 37.2 / EB | E | 1.3 | A | 54.5 / WB | F | 1.3 | A |
| US 69 & Arline Avenue | Signalized | 45.5 / EB | D | 22.4 | C | 94.4 / SB | F | 55.1 | E |
| US 69 & Okmulgee Avenue | Signalized | 40.5 / EB | D | 27.3 | C | 45.1 / WB | D | 28.4 | C |
| US 69 & Broadway Street | Signalized | 42.2 / SB | D | 36.4 | D | 44.3 / EB | D | 37.9 | D |
| US 69 & Military Boulevard | Signalized | 34.2 / WB | C | 15.1 | B | 33.1 / WB | C | 17.9 | B |
| US 69 & Shawnee Bypass | Signalized | 41.1 / EB | D | 31.8 | C | 50.6 / WB | D | 43.8 | D |
| US 69 & Harris Road | Signalized | 17.9 / WB | B | 13.4 | B | 18.3 / WB | B | 15.7 | B |
| **2015 Design Traffic with Hatbox Development (No Estelle Street Access) and Existing Lane Geometry** | | | | | | | | | |
| US 69 & Hancock Road | Signalized | 18.6 / WB | B | 13.0 | B | 19.8 / WB | B | 13.2 | B |
| US 69 & Border Avenue | Signalized | 32.6 / EB | C | 19.8 | B | 34.7 / EB | C | 17.8 | B |
| US 69 & Estelle Street | Unsignalized | 39.3 / EB | E | 1.3 | A | 91.4 / WB | F | 2.3 | A |
| US 69 & Arline Avenue | Signalized | 44.6 / EB | D | 22.9 | C | 95.1 / SB | F | 55.1 | E |
| US 69 & Okmulgee Avenue | Signalized | 40.7 / EB | D | 27.3 | C | 44.9 / WB | D | 29.1 | C |
| US 69 & Broadway Street | Signalized | 45.0 / SB | D | 37.6 | D | 48.1 / SB | D | 39.7 | D |
| US 69 & Military Boulevard | Signalized | 34.1 / WB | C | 15.1 | B | 33.0 / WB | C | 17.7 | B |
| US 69 & Shawnee Bypass | Signalized | 41.0 / EB | D | 32.0 | C | 54.1 / WB | D | 46.0 | D |
| US 69 & Harris Road | Signalized | 17.9 / WB | B | 15.7 | B | 18.3 / WB | B | 16.0 | B |
| **2015 Design Traffic with Hatbox Development (With Estelle Street Access) and Existing Lane Geometry** | | | | | | | | | |
| US 69 & Hancock Road | Signalized | 18.6 / WB | B | 13.0 | B | 19.8 / WB | B | 13.2 | B |
| US 69 & Border Avenue | Signalized | 32.8 / EB | C | 19.8 | B | 35.4 / EB | D | 14.0 | B |
| US 69 & Estelle Street | Unsignalized | 38.7 / EB | E | 2.0 | A | 116.0 / WB | F | 3.2 | A |
| US 69 & Arline Avenue | Signalized | 44.6 / EB | D | 22.9 | C | 95.1 / SB | F | 50.7 | D |
| US 69 & Okmulgee Avenue | Signalized | 40.7 / EB | D | 27.3 | C | 44.9 / WB | D | 29.1 | C |
| US 69 & Broadway Street | Signalized | 45.0 / SB | D | 37.6 | D | 48.1 / SB | D | 39.7 | D |
| US 69 & Military Boulevard | Signalized | 34.1 / WB | C | 15.1 | B | 33.0 / WB | C | 17.7 | B |
| US 69 & Shawnee Bypass | Signalized | 41.0 / EB | D | 32.0 | C | 54.1 / WB | D | 46.0 | D |
| US 69 & Harris Road | Signalized | 17.9 / WB | B | 15.7 | B | 18.3 / WB | B | 16.0 | B |
| **2040 Design Traffic with Hatbox Development (No Estelle Street Access) and Existing Lane Geometry** | | | | | | | | | |
| US 69 & Hancock Road | Signalized | 25.6 / NB | C | 20.8 | C | 30.5 / WB | C | 21.6 | C |
| US 69 & Border Avenue | Signalized | 47.1 / EB | D | 34.6 | C | 64.9 / EB | E | 35.5 | D |
| US 69 & Estelle Street | Unsignalized | * / WB | F | 10.3 | A | * / WB | F | 18.1 | C |
| US 69 & Arline Avenue | Signalized | 67.7 / WB | E | 17.1 | B | 82.2 / WB | F | 37.2 | D |
| US 69 & Okmulgee Avenue | Signalized | 56.7 / EB | E | 39.6 | D | 96.7 / WB | F | 56.9 | E |
| US 69 & Broadway Street | Signalized | 54.9 / EB | D | 36.0 | D | 69.2 / EB | E | 38.1 | D |
| US 69 & Military Boulevard | Signalized | 45.9 / WB | D | 15.2 | B | 28.1 / WB | C | 15.9 | B |
| US 69 & Shawnee Bypass | Signalized | 78.9 / EB | E | 52.1 | D | * / WB | F | 103.6 | F |
| US 69 & Harris Road | Signalized | 32.7 / WB | C | 22.9 | C | 31.0 / WB | C | 24.2 | C |
| **2040 Design Traffic with Hatbox Development (With Estelle Street Access) and Existing Lane Geometry** | | | | | | | | | |
| US 69 & Hancock Road | Signalized | 25.6 / NB | C | 20.8 | C | 30.5 / WB | C | 21.6 | C |
| US 69 & Border Avenue | Signalized | 46.6 / EB | D | 34.7 | C | 64.7 / EB | E | 32.0 | C |
| US 69 & Estelle Street | Unsignalized | * / WB | F | 11.4 | B | * / WB | F | 23.9 | C |
| US 69 & Arline Avenue | Signalized | 67.7 / WB | E | 17.1 | B | 82.2 / WB | F | 37.2 | D |
| US 69 & Okmulgee Avenue | Signalized | 56.7 / EB | E | 39.6 | D | 96.7 / WB | F | 56.9 | E |
| US 69 & Broadway Street | Signalized | 54.9 / EB | D | 36.0 | D | 69.2 / EB | E | 38.1 | D |
| US 69 & Military Boulevard | Signalized | 45.9 / WB | D | 15.2 | B | 28.1 / WB | C | 15.9 | B |
| US 69 & Shawnee Bypass | Signalized | 78.9 / EB | E | 52.1 | D | * / WB | F | 103.6 | F |
| US 69 & Harris Road | Signalized | 32.7 / WB | C | 22.9 | C | 31.0 / WB | C | 24.2 | C |
| **2040 Design Traffic with Hatbox Development (No Estelle Street Access) and Proposed Lane Geometry** | | | | | | | | | |
| US 69 & Hancock Road | Signalized | 20.0 / NB | B | 17.0 | B | 27.5 / EB | C | 17.6 | B |
| US 69 & Border Avenue | Signalized | 62.2 / WB | E | 28.9 | C | 55.4 / WB | E | 24.1 | C |
| US 69 & Estelle Street | Unsignalized | * / EB | F | 5.7 | A | * / WB | F | 15.8 | C |
| US 69 & Arline Avenue | Signalized | 44.6 / WB | D | 22.9 | C | 49.2 / EB | D | 22.1 | C |
| US 69 & Okmulgee Avenue | Signalized | 53.1 / EB | D | 34.0 | C | 80.9 / WB | F | 50.4 | D |
| US 69 & Broadway Street | Signalized | 51.2 / WB | D | 41.8 | D | 67.0 / EB | E | 42.6 | D |
| US 69 & Military Boulevard | Signalized | 41.7 / WB | D | 13.9 | B | 45.1 / WB | D | 16.9 | B |
| US 69 & Shawnee Bypass | Signalized | 77.5 / EB | E | 52.8 | D | * / EB | F | 114.0 | F |
| US 69 & Harris Road | Signalized | 32.7 / WB | C | 22.9 | C | 31.0 / WB | C | 24.2 | C |
| **2040 Design Traffic with Hatbox Development (With Estelle Street Access) and Proposed Lane Geometry** | | | | | | | | | |
| US 69 & Hancock Road | Signalized | 20.0 / NB | B | 17.0 | B | 27.5 / EB | C | 17.6 | B |
| US 69 & Border Avenue | Signalized | 62.6 / WB | E | 29.0 | C | 54.9 / WB | D | 24.0 | C |
| US 69 & Estelle Street | Unsignalized | * / WB | F | 8.7 | A | * / WB | F | 24.1 | C |
| US 69 & Arline Avenue | Signalized | 44.6 / WB | D | 22.9 | C | 49.2 / EB | D | 22.1 | C |
| US 69 & Okmulgee Avenue | Signalized | 53.1 / EB | D | 34.0 | C | 80.9 / WB | F | 50.4 | D |
| US 69 & Broadway Street | Signalized | 51.2 / WB | D | 41.8 | D | 67.0 / EB | E | 42.6 | D |
| US 69 & Military Boulevard | Signalized | 41.7 / WB | D | 13.9 | B | 45.1 / WB | D | 16.9 | B |
| US 69 & Shawnee Bypass | Signalized | 77.5 / EB | E | 52.8 | D | * / EB | F | 114.0 | F |
| US 69 & Harris Road | Signalized | 32.7 / WB | C | 22.9 | C | 31.0 / WB | C | 24.2 | C |

Key data and results gleaned from the analysis are illustrated in Tables 6, 7, 8 and 9. Tables 6 and 7 show arterial level of service information while Tables 8 and 9 include intersection level of service information. Note that the 6-lane and 7-lane options are reported as the same column in the tables. From an operators/analytical perspective there is little difference between these options. This is discussed further in Appendix B. The v/c ratio in Tables 8 and 9 is derived by the volume of traffic by the capacity of the roadway. V/c ratios below 0.95 are ideal, but v/c ≤1.05 during out year peak is likely acceptable since design traffic numbers usually represent worst-case conditions.

**Table 6. 2018 Arterial Level of Service / Arterial Speed (mph) / Travel Time (min' sec)**

| Direction | Period | Repaired Signals | 4-Lane Divided Option | 6- and 7-Lane Options |
|---|---|---|---|---|
| **NB** | AM Peak | B / 28 / 09' 27 | B / 29 / 09' 06 | B / 29 / 09' 00 |
| **SB** | AM Peak | B / 30 / 08' 33 | B / 30 / 08' 24 | B / 31 / 08' 13 |
| **NB** | PM Peak | C / 27 / 09' 41 | C / 27 / 09' 31 | C / 28 / 09' 25 |
| **SB** | PM Peak | C / 28 / 09' 05 | B / 29 / 08' 48 | B / 29 / 08' 42 |

**Table 7. 2050 Arterial Level of Service / Arterial Speed (mph) / Travel Time (min' sec)**

| Direction | Period | Maintained Signals | 4-Lane Divided Option | 6- and 7-Lane Options |
|---|---|---|---|---|
| **NB** | AM Peak | E / 13 / 20' 02 | E / 14 / 18' 48 | E / 16 / 16' 31 |
| **SB** | AM Peak | E / 15 / 17' 10 | E / 16 / 16' 11 | E / 19 / 13'20 |
| **NB** | PM Peak | F / 11 / 22' 53 | F / 12 / 21' 47 | E / 14 / 19' 17 |
| **SB** | PM Peak | F / 10 / 25' 00 | F / 11 / 22' 51 | E / 15 / 16' 58 |

**Table 8. 2018 Intersection LOS – Maximum v/c Ratio for All Options**

| Intersection | 2018 AM Repaired | 2018 PM Repaired | 2018 AM 4-Lane | 2018 PM 4-Lane | 2018 AM 6-/7-Lane | 2018 PM 6-/7-Lane |
|---|---|---|---|---|---|---|
| **US-69 & Fern Mountain/Harris** | D – 0.88 | D – 0.94 | D – 0.88 | D – 0.94 | D – 0.88 | D – 0.94 |
| **US-69 & Shawnee** | D – 0.98 | E – 1.05 | D – 0.98 | E – 1.05 | D – 0.98 | D – 1.05 |
| **US-69 & Military/ Tahlequah** | B – 0.74 | B – 0.79 | B – 0.74 | B – 0.79 | B – 0.74 | B – 0.79 |
| **US-69 & Broadway** | C – 0.97 | C – 0.94 | C – 0.97 | C – 0.94 | C – 0.98 | C – 0.94 |
| **US-69 & Okmulgee** | D – 0.96 | D – 1.04 | D – 0.96 | D – 1.04 | C – 0.91 | D – 0.95 |
| **US-69 & Arline** | B – 0.77 | C – 0.99 | B – 0.77 | C – 0.98 | B – 0.63 | C – 0.74 |
| **US-69 & Border** | C – 0.89 | C – 0.91 | B – 0.77 | C – 0.78 | B – 0.74 | B – 0.61 |
| **US-69 & Hancock** | C – 0.79 | C – 0.85 | B – 0.74 | C – 0.80 | B – 0.55 | B – 0.73 |

Major operational problems arise with the 2050 analysis. The 6 and 7-lane options perform well from Hancock to Arline; however, the Okmulgee and Broadway intersections will need modifications to handle the anticipated volumes in 2050. Potential improvements suggested from ODOT Traffic Division can be seen in Appendix B.

**Table 9. 2050 Intersection LOS – Maximum v/c Ratio for All Options**

| Intersection | 2050 AM Maintained | 2050 PM Maintained | 2050 AM 4-Lane | 2050 PM 4-Lane | 2050 AM 6-/7-Lane | 2050 PM 6-/7-Lane |
|---|---|---|---|---|---|---|
| **US-69 & Fern Mountain/Harris** | F – **1.37** | F – **1.52** | F – **1.37** | F – **1.52** | F – **1.37** | F – **1.52** |
| **US-69 & Shawnee** | F – **1.37** | F – **1.56** | F – **1.37** | F – **1.56** | F – **1.37** | F – **1.56** |
| **US-69 & Military/ Tahlequah** | B – 0.98 | D – **1.07** | B – 0.98 | D – **1.07** | B – 0.98 | D – **1.07** |
| **US-69 & Broadway** | F – **1.27** | F – **1.31** | F – **1.27** | F – **1.31** | F – **1.27** | F – **1.31** |
| **US-69 & Okmulgee** | F – **1.32** | F – **1.50** | F – **1.32** | F – **1.50** | F – **1.20** | F – **1.33** |
| **US-69 & Arline** | E – **1.31** | F – **1.41** | E – **1.31** | F – **1.41** | C – 0.92 | E – **1.09** |
| **US-69 & Border** | F – **1.37** | F – **1.52** | F – **1.32** | F – **1.34** | D – 0.97 | C – 1.00 |
| **US-69 & Hancock** | D – **1.23** | F – **1.30** | C – 1.04 | D – **1.13** | C – 0.89 | C – 0.91 |

## Right-of-Way and Utility Impacts

### Options 1 and 2

Options 1 and 2 have virtually identical construction footprints resulting in the same impacts to right-of-way and utilities.

### Required Right-of-Way and Utility Easements

US-69 Station 586+70.43 to 592+69.84 RT – Temporary R/W & Perpetual Utility Easement
US-69 Station 622+00 to 628+00 LT & RT – Proposed R/W to Extend Coody Creek RCB
US-69 Station 624+00 to 626+00 LT & RT – Temporary R/W to Open Channel
US-69 Station 626+00 to 636+00 RT – Temporary R/W & Perpetual Utility Easement
US-69 Station 648+35.82 to 652+37.64 RT – Temporary R/W & Perpetual Utility Easement
US-69 Station 649+00 to 652+14.90 LT – Temporary R/W & Perpetual Utility Easement
US-69 Station 653+13.89 to 656+00 LT – Temporary R/W & Perpetual Utility Easement
US-69 Station 653+38.04 to 658+00 RT – Temporary R/W & Perpetual Utility Easement
US-69 Station 665+43.00 to 678+69.34 LT – Temporary R/W & Perpetual Utility Easement
US-69 Station 666+03.48 to 695+57.09 RT – Temporary R/W & Perpetual Utility Easement
Border Ave. Station 15+25.00 to 18+99.94 LT – Proposed R/W

* Border Ave. Station 14+45.00 to 18+99.94 LT – Temporary R/W & Perpetual Utility Easement
  Border Ave. Station 20+90.11 to 24+54.45 LT – Temporary R/W & Perpetual Utility Easement

* This Utility Easement impacts a building structure at Access Storage on border Ave. This requires purchasing the building or an exception to ODOT minimum utility corridor width could be made. Overhead power and water need to fit inside a 14' corridor for approximately 166 feet.

## Utility Conflicts

US-69 Station 586+70.43 to 592+69.84 RT – TUG and Water
US-69 Station 626+00 to 636+00 RT – Water and OHE
US-69 Station 648+35.82 to 652+37.64 RT – Water and OHE
US-69 Station 649+00 to 656+00 LT – Power Underground and Sanitary Sewer
US-69 Station 653+38.04 to 658+00 RT – Water
US-69 Station 665+43 to 678+69.34 LT – Gas and Sanitary Sewer
US-69 Station 666+03.48 to 695+57.09 RT – Water and Sanitary Sewer
Border Ave. Station 14+45.00 to 18+99.94 LT – Water and OHE
Border Ave. Station 20+90.11 to 24+54.45 LT – Water

## Option 3

## Required Right-of-Way and Utility Easements

US-69 Station 586+70.43 to 592+69.84 RT – Temporary R/W & Perpetual Utility Easement
US-69 Station 622+00 to 628+00 LT & RT – Proposed R/W to Extend Coody Creek RCB
US-69 Station 624+00 to 626+00 LT & RT – Temporary R/W to Open Channel
US-69 Station 666+03.48 to 674+31.17 RT – Temporary R/W & Perpetual Utility Easement

Border Ave. Station 15+25.00 to 18+99.94 LT – Proposed R/W
* Border Ave. Station 14+45.00 to 18+99.94 LT – Temporary R/W & Perpetual Utility Easement
  Border Ave. Station 20+90.11 to 24+54.45 LT – Temporary R/W & Perpetual Utility Easement

* This Utility Easement impacts a building structure at Access Storage on border Ave. This requires purchasing the building or an exception to ODOT minimum utility corridor width could be made. Overhead power and water need to fit inside a 14' corridor for approximately 166 feet.

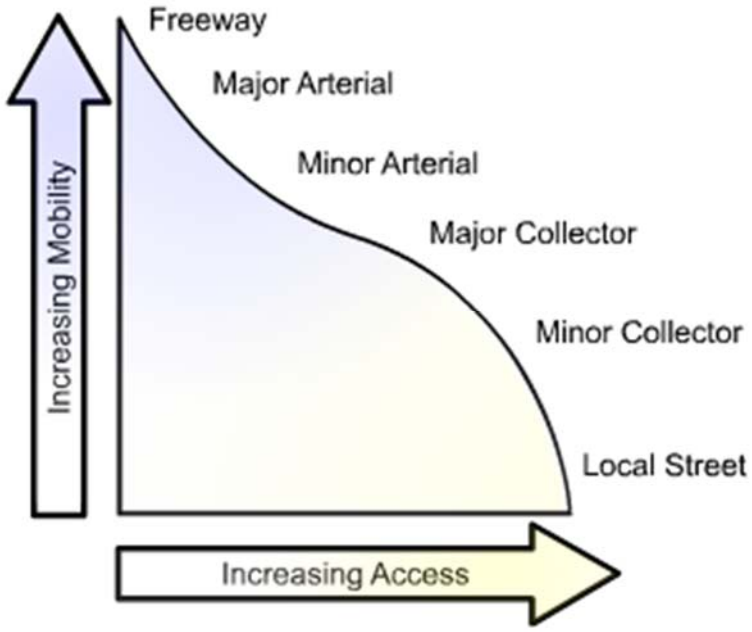
## Utility Conflicts

US-69 Station 586+70.43 to 592+69.84 RT – TUG and Water
US-69 Station 626+00 to 636+00 RT – Water and OHE
US-69 Station 666+03.48 to 671+71.81 RT – Water
Border Ave. Station 14+45.00 to 18+99.94 LT – Water and OHE
Border Ave. Station 20+90.11 to 24+54.45 LT – Water

## Access Review

Per Federal Highway Administration, Access Management (AM) is the proactive management of vehicular access points to land parcels adjacent to all manner of roadways. Good AM promotes safe and efficient use of the transportation network. AM encompasses a set of techniques that state and local governments can use to control access to highways, major arterials, and other adjacent roadways. AM provides an important means of maintaining mobility. It calls for effective ingress and egress to a facility, efficient spacing and design to preserve the functional integrity and overall operational viability of street and road systems. Access Management should address:

* Facility Hierarchy
* Traffic Signal Spacing
* Turning and Auxiliary Lanes
* Intersection/Interchange Spacing
* Median Treatments/Openings
* Street Connections
* Driveway Spacing




Facts to consider when choosing alternatives regarding the corridor from Border Ave. to Okmulgee Ave. are as follows:

- Approximately 4000 feet between extreme North/South driveways. 29 Driveways on west side and 31 on east side. This translates to a driveway every 138 feet.
- As access density increases crash rates increase.
- Roadways with non-traversable medians are safer than undivided roadways or those with continuous two-way left-turn lanes (TWLTL) NCHRP Report 420, 1999 (Transportation Research Board-National Cooperative Highway Research Program).

- Highway facilities with non-traversable medians had an overall accident rate of 5.2 million vehicle miles travelled (VMT) compared with 7.3 per million VMT on facilities with TWLTL's. Average crash rates are 30% less with median.

Access Management is critical in providing safe roadways especially considering the US-69 corridor is a principal arterial. Future traffic will only increase resulting in more crashes. It is important to make wise, educated decisions when choosing alternative median/non-median designs. See additional comments and map provided by Traffic Engineering Consultants in Appendix C.

## Comparative Matrix of Alternatives

| Item | Alternative | | |
|---|---|---|---|
| | Option 1 | Option 2 | Option 3 |
| Total Costs (Millions) | $35.926 | $35.607 | $27.277 |
| Residential/Building Impacts | 1 Impact but can be avoided w/design exception | 1 Impact but can be avoided w/design exception | 1 Impact but can be avoided w/design exception |
| Level of Service | Best, increase capacity w/reduced delays. | Slight improvement with higher crash rates. | Poor, no improvement. |
| Right-of-Way/Utility Conflicts | 13 | 13 | 8 |
| Non-Traversable Median | X | - | X |
| No Median (TWLTL) | | X | |

## Recommendation

After a careful review and consideration of the existing conditions, cost, benefits, right-of-way and utility impacts, HUB determined that none of the alternatives solve all the traffic, safety and access concerns. HUB recommends that Option 1, a divided 6-lane w/raised median from Border Ave. to Okmulgee Ave. be advanced to design phase. The reasons to advance Option 1 rather than Option 2 or 3 are as follows:

- Providing safe roadways is paramount. Option 1 will be inherently safer than Option 2 because of the raised median. The additional lanes in Option 1 vs. Option 3 will provide better traffic flow resulting in fewer crashes.

- Level of Service between Option 1 and Option 3 offers improvements at 4 of the 5 intersections from Border to Okmulgee.

- Following good access management practices, Option 1 with a raised median is preferred over Option 2 with TWLTL.

- Cost: Option 1 is only $319,000 (0.9%) higher than Option 2 and $8,649,000 (31.7%) higher than Option 3. The additional cost is acceptable when considering Option 1 has more capacity, higher LOS and better traffic flow resulting in a safer roadway for years to come.

# Appendix A
# Operational Analysis Report (TEC)

# OPERATIONAL ANALYSIS

**US 69 & US 62 (Shawnee Bypass)**
**Muskogee, Oklahoma**

**Prepared for:**

**Holloway, Updike & Bellen**

**February 2016**

**Prepared by:**

**Traffic Engineering Consultants, Inc.**


**B.J. Hawkins, P.E., PTOE**
**Oklahoma P.E. #25164**
**CA # 1160**

2/10/16
**Date**

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## 1.0 INTRODUCTION

Traffic Engineering Consultants, Inc. (TEC) was retained to conduct an operational analysis on US 69, from Hancock Road on the south to Harris Road on the north located in Muskogee, Oklahoma as indicated in **Figures 1A and 1B**. The operational analysis was conducted to review the signalized intersections from Hancock Road to Okmulgee Avenue to determine the levels of service under future traffic conditions with regards to the proposed roadway widening project EC-1576. The intersections from Okmulgee Avenue north to Harris Road were to be analyzed to review the existing geometry under the future traffic conditions and to make recommendations regarding improvements, if needed. The study was also requested to include a review of the Love Hatbox Recreational area that is proposed to be expanded in the near future to include additional recreational facilities. This work required the need to determine the future traffic for this site during the weekday peak hour periods and to review the access to and from this site. The results of the reviews and analyses are to be used to determine if street geometry and/or traffic control modifications will be necessary to accommodate the future traffic volumes.

## 2.0 BACKGROUND

US 69 currently has a mixture of travelway sections throughout the study area. South of Border Avenue, the highway is a four-lane divided highway with open section shoulders. North of Border Avenue, the highway is a curbed section four-lane divided highway. The four lane section transitions to a six-lane undivided curbed section approximately 500 feet south of Okmulgee Avenue. This section then transitions to a seven lane facility that includes a two-way left turn lane north of Broadway Street through the intersection at US 62/Shawnee Bypass. North of this intersection, the highway transitions back into an undivided curbed section four-lane facility. The highway then transitions back into a four-lane divided open section highway approximately one-half mile north of Harris Road. The posted speed limit on US 69 is 55 miles per hour south of Hancock Road, 45 miles per hour between Hancock Road and Border Avenue, 35 miles per hour north of Border Avenue to just north of Inman Street, and 45 miles per hour throughout the north end of the study area. The signalized intersections reviewed within the study area along the US 69 corridor include Hancock Avenue, Border Avenue, Arline Avenue, Okmulgee Avenue, Broadway Street, Military Boulevard, US 62/Shawnee Bypass and Harris Road.

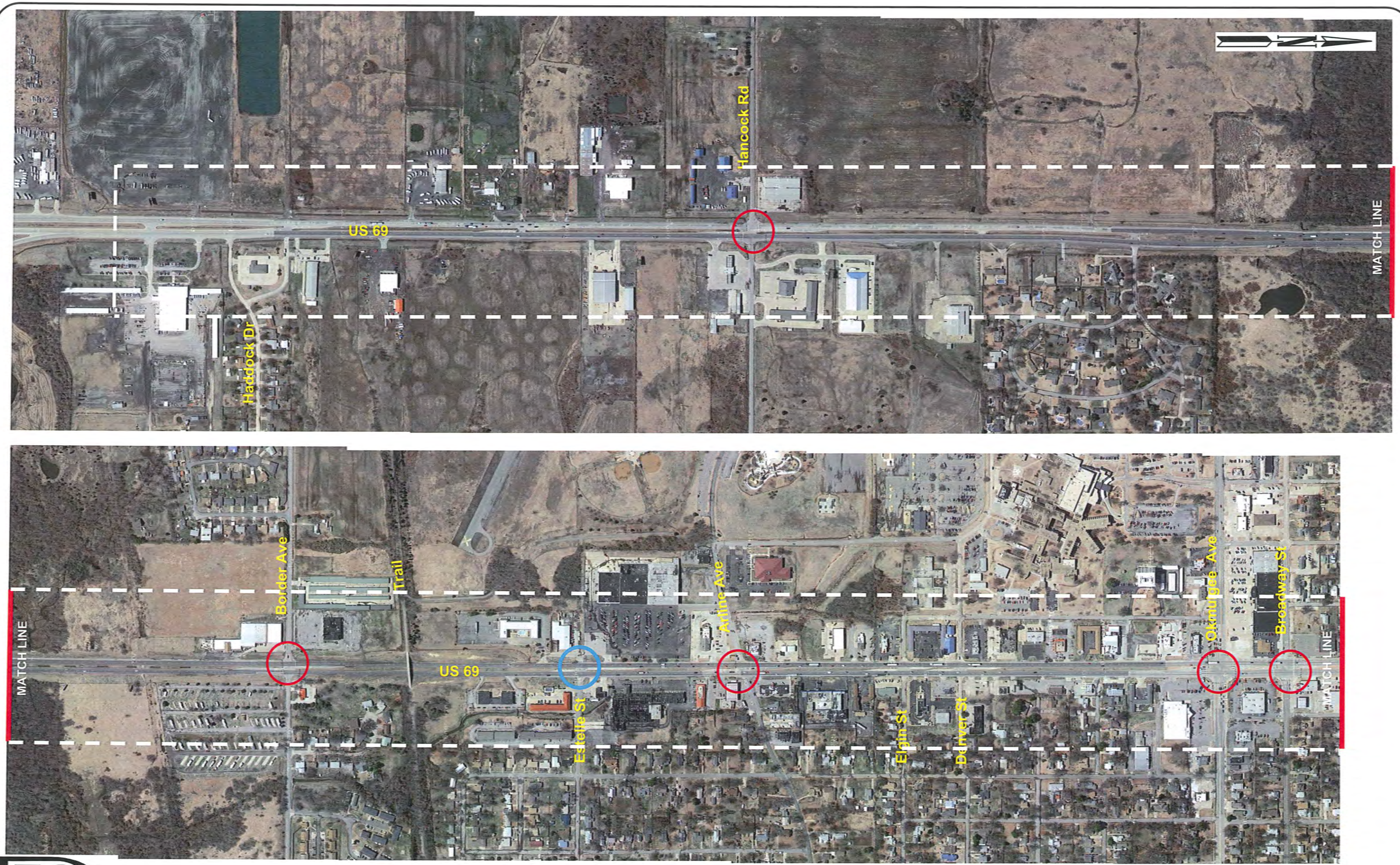


FIGURE 1A. Project Limits (South)
EC-1576 - US 69 Muskogee


FIGURE 1B. Project Limits (North)
EC-1576 - US 69 Muskogee

The current ODOT improvement project EC-1576 was developed to widen US 69 from Okmulgee south to Border Avenue to match the six-lane curbed section facility with separate auxiliary lanes. Then the improvements are to continue south of Border with the widening of the current median to 40 feet wide, but retain the four-lane divided open section roadway.

The expanded Love Hatbox recreational development is located along the west side of US 69, between Denver Avenue and Border Avenue in Muskogee as indicated in **Figure 2**. This existing recreational facility is proposed to be expanded to include a regional park of 290 acres, an arena/event center area of 46 acres, and a community center of 74,000 square feet. The recreational facility will ultimately include three primary points of access along US 69. These points of access include the intersections at Denver Avenue, Arline Avenue, and Border Avenue. Estelle Street, located between Border Avenue and Arline Avenue is also a possible future point of access. Access scenarios for the Love Hatbox recreational facility this study include access with and without access to and from Estelle Street. Currently, the side streets of Hancock Avenue, Border Avenue, Estelle Street, and Arline Avenue are all two-lane facilities in the study area. Hancock Avenue, Border Avenue, and Arline Avenue cross US 69 at signalized intersections and Estelle Street intersects US 69 at a two-way stop controlled intersection.

## 3.0 TRAFFIC

### *3.1 Design Traffic*

The 2015 and 2040 design traffic volume data throughout the study area was developed by the Oklahoma Department of Transportation (ODOT) and provided to TEC for use in the analyses and reviews within this study. The data included average annual daily traffic volumes (AADT), design hour turning movement volumes and truck percentages. This data is included in the appendix. To conduct the review of the Love Hatbox recreational area, TEC collected additional weekday peak hour turning movement volumes and directional twenty-four hour approach traffic volumes at the intersection of US 69 and Estelle Street and detailed printouts of all the traffic count data are included in the appendix. The traffic data provided by ODOT is summarized, as indicated in **Figures 3A, 3B, 4A** and **4B**.

### *3.2 Future Total Traffic*

The traffic expected to be generated by all the new recreational facilities included in the expanded Love Hatbox facility was estimated utilizing the information provided by the City of Muskogee. The additional traffic was determined utilizing the land use types and sizes along with standardized trip rate information that best fit the proposed new recreational facilities as contained in the latest ITE Trip Generation

= Unsignalized Intersection

= Signalized Intersect

= Unsignalized Intersection
(Consider for access to Hatbox)

Denver

Arline

Estelle

Border

Love Hatbox Area

DENVER AVE

MIDLAND VALLEY TRAIL

EXISTING WATER PARK

PROPOSED ARENA/ EVENT CENTER

BARN

BARN

BARN

BARN

TRAILER/ R/V PARKING

MIDLAND VALLEY RR TRAIL

EXISTING ANIMAL SHELTER

BORDER AVE

N

TEC
A CLEAR DIRECTION

FIGURE 2. Love Hatbox Recreational Area Proposed Access

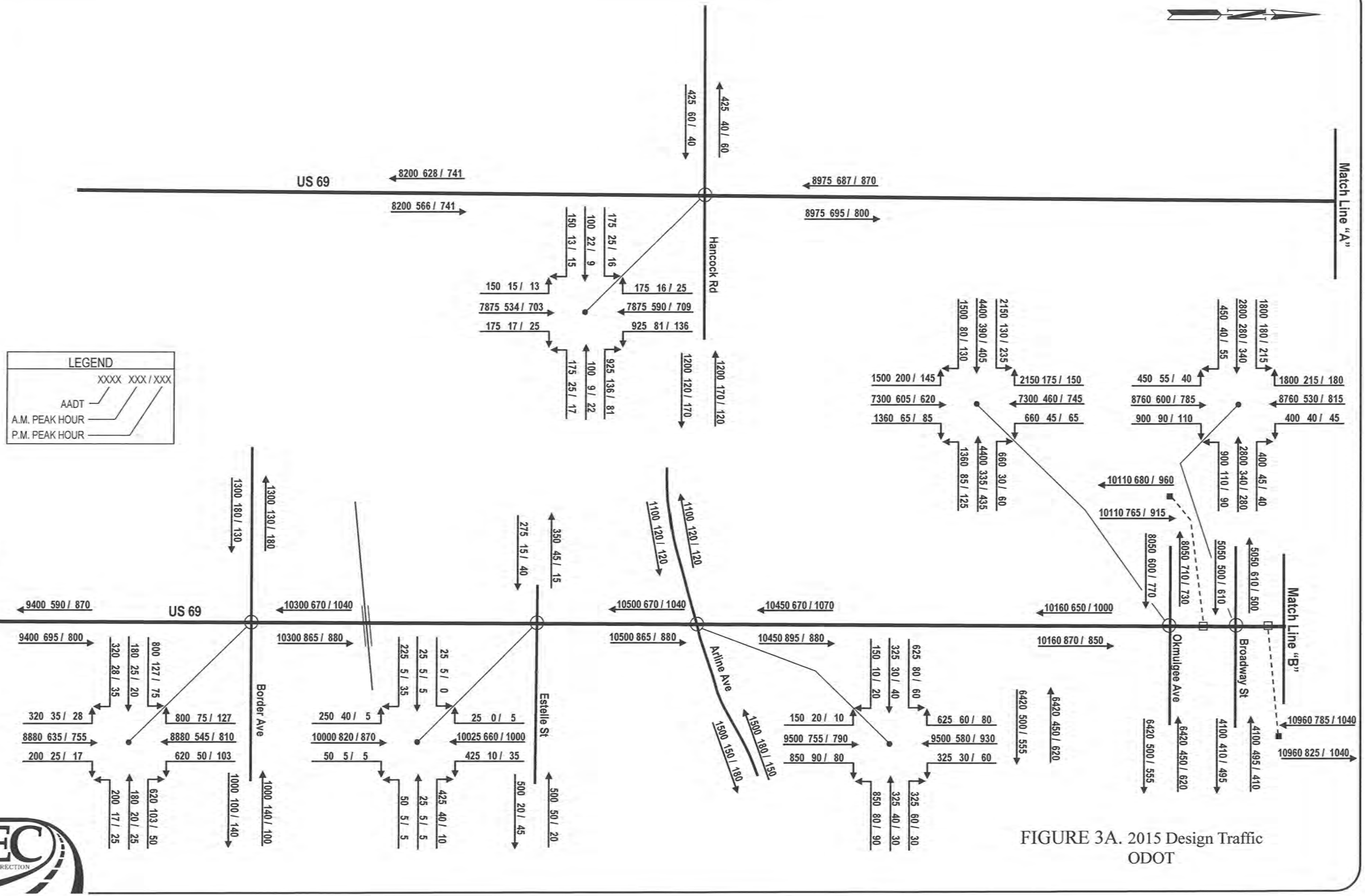


FIGURE 3A. 2015 Design Traffic
ODOT

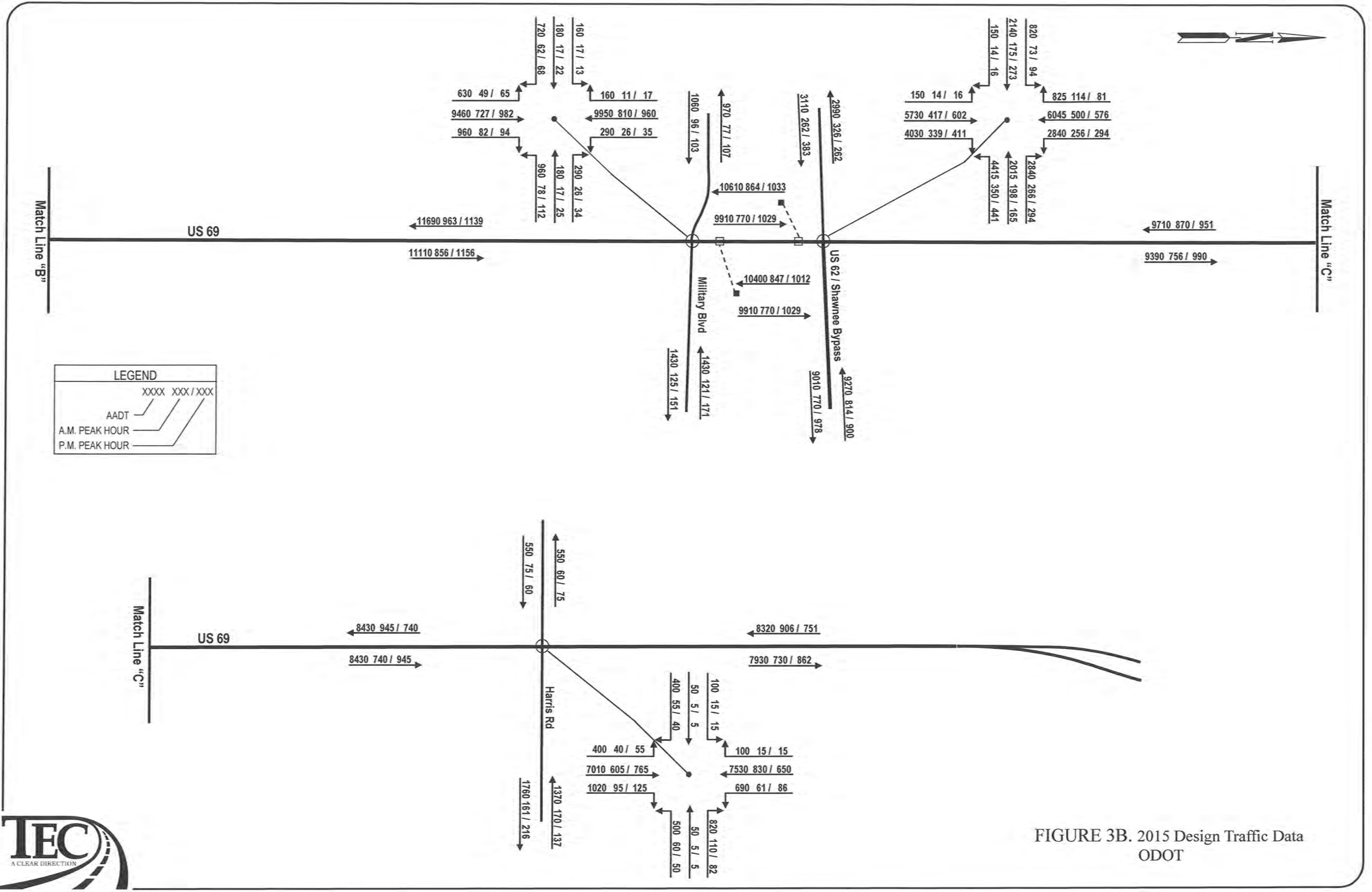


FIGURE 3B. 2015 Design Traffic Data
ODOT

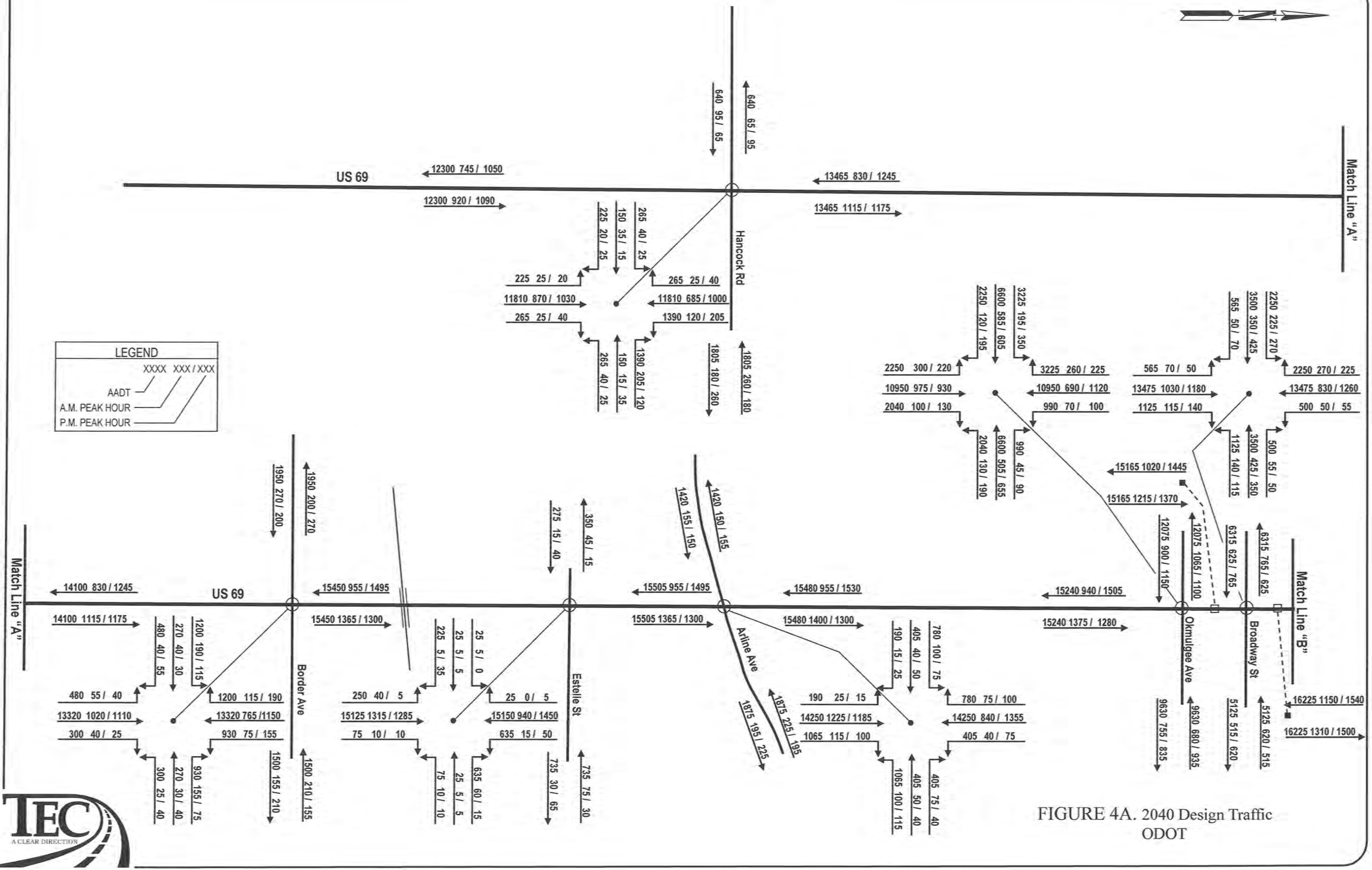


FIGURE 4A. 2040 Design Traffic
ODOT

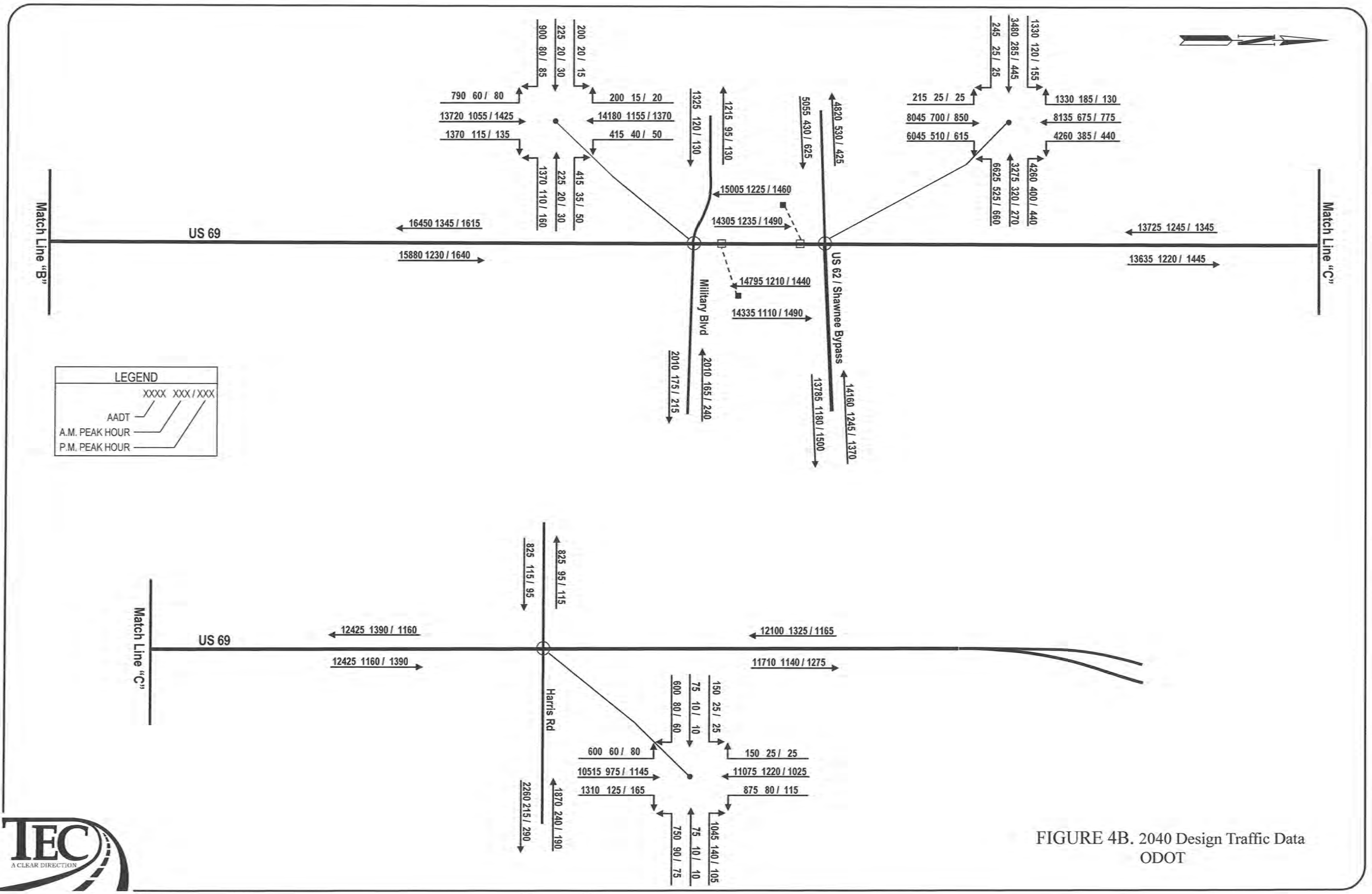


FIGURE 4B. 2040 Design Traffic Data
ODOT

Manual. The traffic volumes projected to be generated by the expanded recreational facility during the average weekday are summarized in **Table 1**. The average weekday period was selected to coincide with the ODOT developed design traffic. The peak hour traffic volumes projected to be generated by each of the expanded facility were then distributed among the adjacent street system and proposed points of access.

## TABLE 1.

PROJECTED SITE GENERATED TRAFFIC VOLUMES
Hatbox Park and Sports Complex

| ( ITE Land Use ) Building Type | Approx. Gross Floor Area or Other | Avg. Weekday Veh. Trip Ends | | | Average AM Peak Hour Directional Distribution | | Average AM Peak Hour Directional Volume (vph) | | Average PM Peak Hour Directional Distribution | | Average PM Peak Hour Directional Volume (vph) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PER DAY | Per Peak Hour of Adjacent Street Traffic | | | | | | | | | |
| | | | One Hour Between 7am & 9am | One Hour Between 4pm & 6pm | | | | | | | | |
| | | (vpd) | (vph) | (vph) | IN | OUT | IN | OUT | IN | OUT | IN | OUT |
| TRIP RATE[1] | (acres) | 4.57 | ----- | 0.20 | ----- | ----- | 0 | 0 | 0.45 | 0.55 | 26 | 32 |
| (417) Regional Park | 290 | 1325 | N.A | 58 | | | | | | | | |
| TRIP RATE[1] | (acres) | 33.33 | ----- | 3.33 | ----- | ----- | 0 | 0 | 0.50 | 0.50 | 77 | 77 |
| (460) Arena (Event Center) | 46 | 1533 | N.A | 153 | | | | | | | | |
| TRIP RATE[1] | (s.f.) | 33.82 | 2.05 | 2.74 | 0.66 | 0.34 | 100 | 52 | 0.49 | 0.51 | 99 | 103 |
| (495) Recreational Community Center | 74000 | 6346 | 152 | 203 | | | | | | | | |
| TOTAL | | 7879 | 152 | 356 | | | 100 | 52 | | | 176 | 180 |

[1] Trip Rates from "TRIP GENERATION", 9th Ed., Vol. 2, Institute of Transportation Engineers.

The distribution of the site generated traffic was based on anticipated usage of the site and is summarized in **Figures 5** and **6**. **Figure 5** assumes the Hatbox recreational development does not have access at Estelle Street and **Figure 6** assumes the recreational development has an additional access point at Estelle Street. All of the traffic that accesses the recreational site via Estelle Street in **Figure 6** was reassigned to Border Avenue, as indicated in **Figure 5**. The directional distribution of the site generated traffic for the proposed development is expected to be:

- 43% to/from US 69 north of the development
- 42% to/from US 69 south of the development
- 3% to/from Denver Avenue, east of the development
- 6% to/from Arline Avenue, east of the development
- 2% to/from Estelle Street, east of the development
- 4% to/from Border Avenue, east of the development

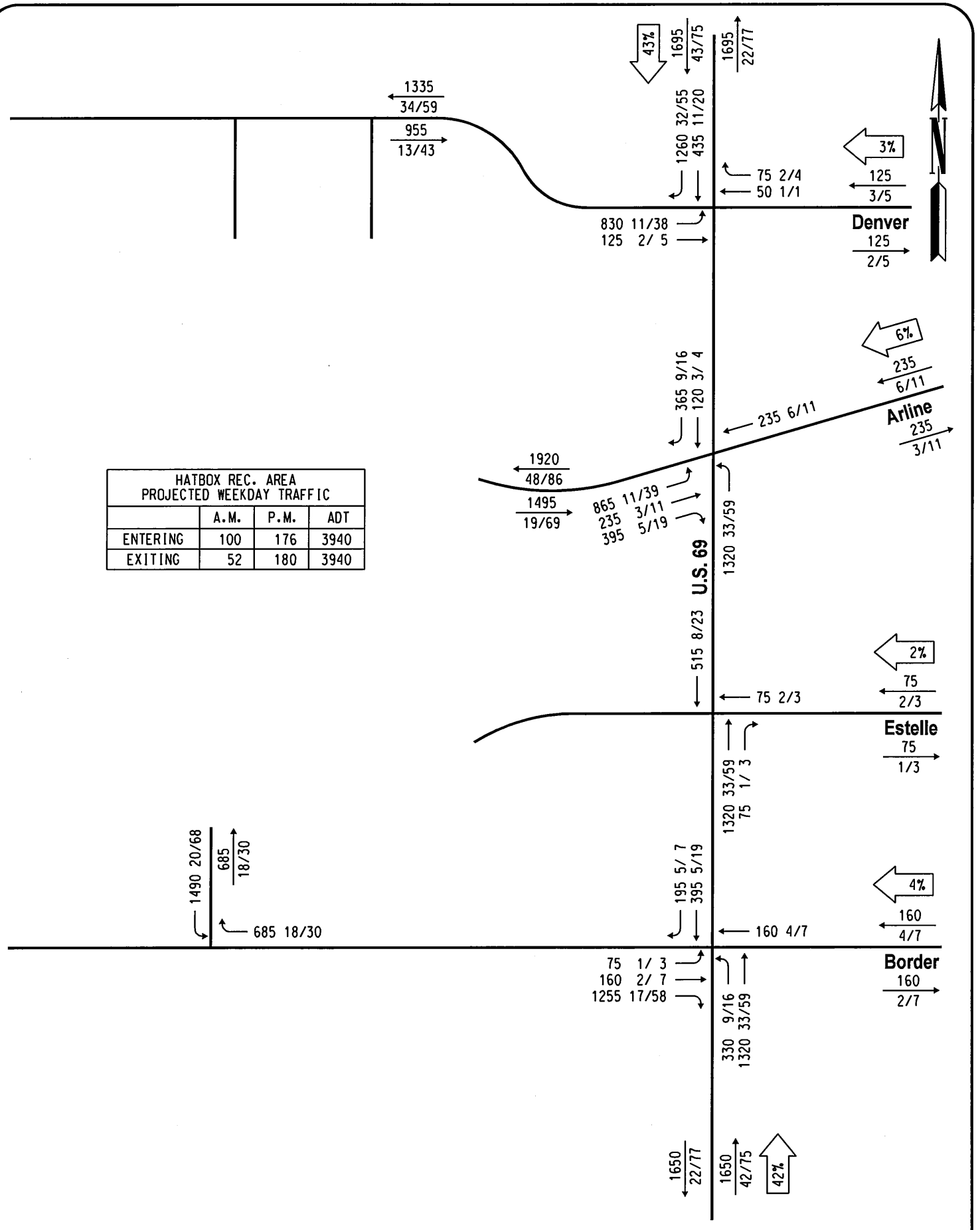


FIGURE 5. Projected Distribution of Weekday Hatbox Area Recreational Traffic without Estelle St. Access

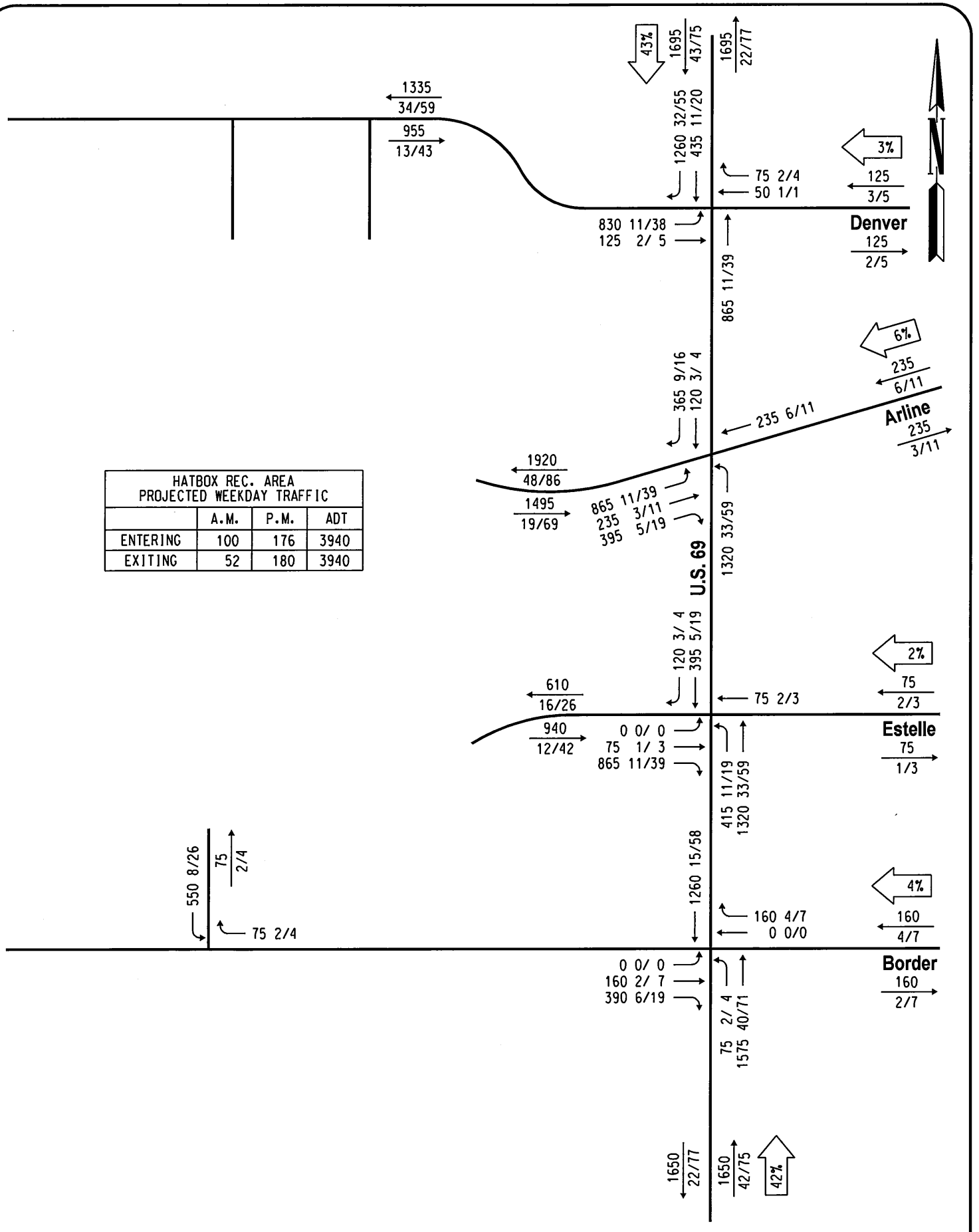


FIGURE 6. Projected Distribution of Weekday Hatbox Area Recreational Traffic with Estelle St. Access

The projected site generated traffic was then added to the 2015 and 2040 design traffic. The total combined 2015 traffic without and with access to Estelle Street is summarized in **Figures 7A, 7B, 8A and 8B**, respectively. The total combined 2040 traffic without and with access to Estelle Street is summarized in **Figures 9A, 9B, 10A and 10B**, respectively.

## 4.0 CAPACITY ANALYSIS

The capacity analyses were conducted using *Synchro, Version 9,* which is a software package for modeling and optimizing traffic signal timings at signalized intersections, and analyzing unsignalized intersections in accordance with the methodology of the latest edition of the *Highway Capacity Manual.* The *Highway Capacity Manual* is provided by the Transportation Research Board of the National Research Council, Washington, D.C. The information has been widely accepted throughout the U.S. as a guide for defining and solving transportation challenges. The information is approved and distributed by the U.S. Department of Transportation, Federal Highway Administration.

The capacity analysis provides a measure of the amount of traffic that a given facility can accommodate. Traffic facilities generally operate poorly at or near capacity. The analysis is intended to estimate the maximum amount of traffic that can be accommodated by a facility while maintaining prescribed operational qualities. The definition of operational criteria is accomplished using level-of-service (LOS). The concept of LOS is defined as a qualitative measure and describes operational conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience and safety. Six levels-of-service are defined for each type of facility for which analysis procedures are available. They are given letter designations, from "A" to "F", with LOS "A" representing the best operating conditions and LOS "F" the worst.

The average control delay, for signalized intersections, is estimated for each lane group and aggregated for each approach for the intersection as a whole. The level-of-service, for this type of traffic control, is directly related to the control delay value. The level-of-service criteria for signalized intersections are indicated below.

**SIGNALIZED INTERSECTIONS**

| Level-of-Service | Control Delay per Vehicle (s/veh) |
|---|---|
| A | ≤ 10 |
| B | > 10-20 |

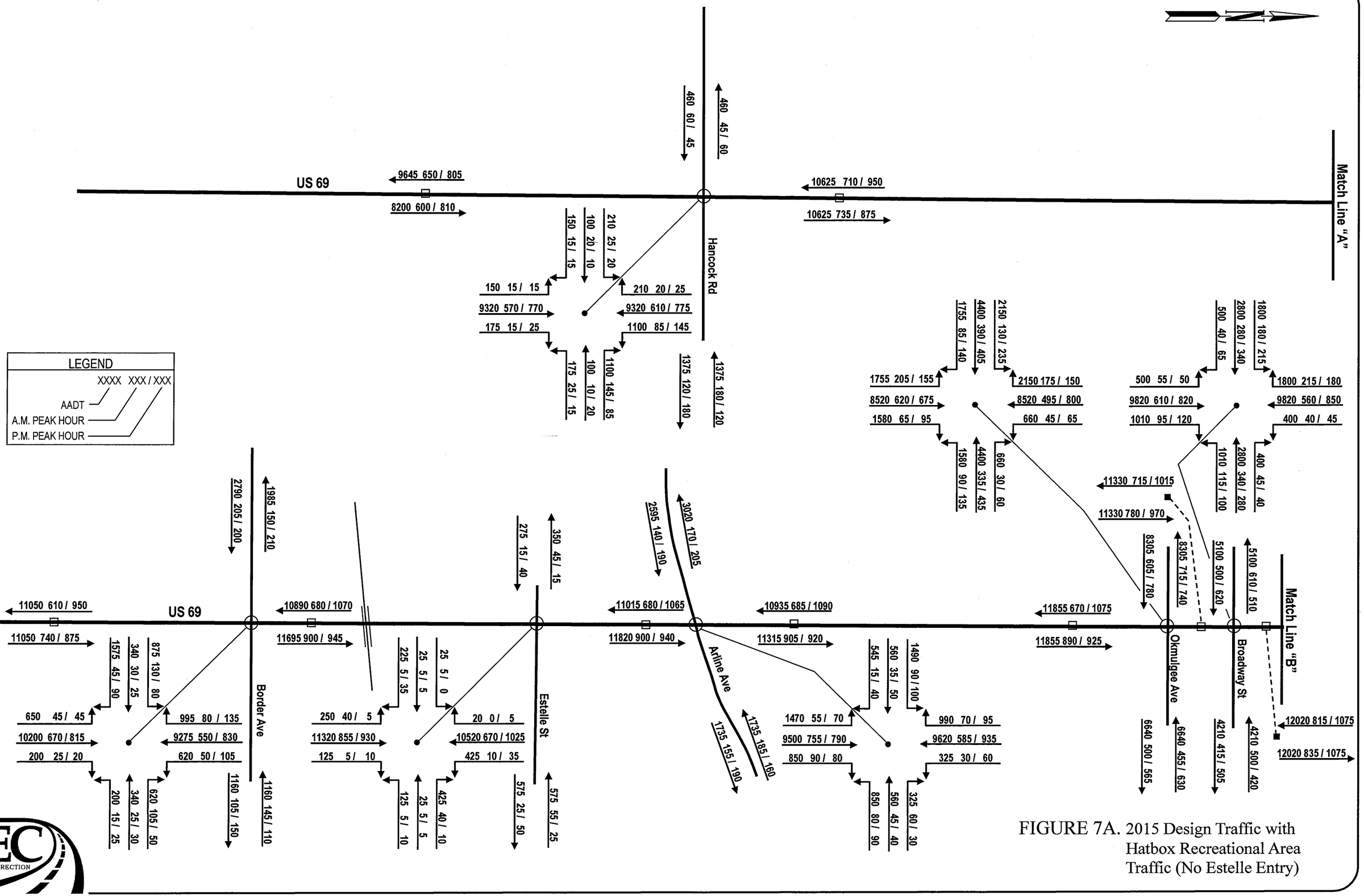


FIGURE 7A. 2015 Design Traffic with Hatbox Recreational Area Traffic (No Estelle Entry)

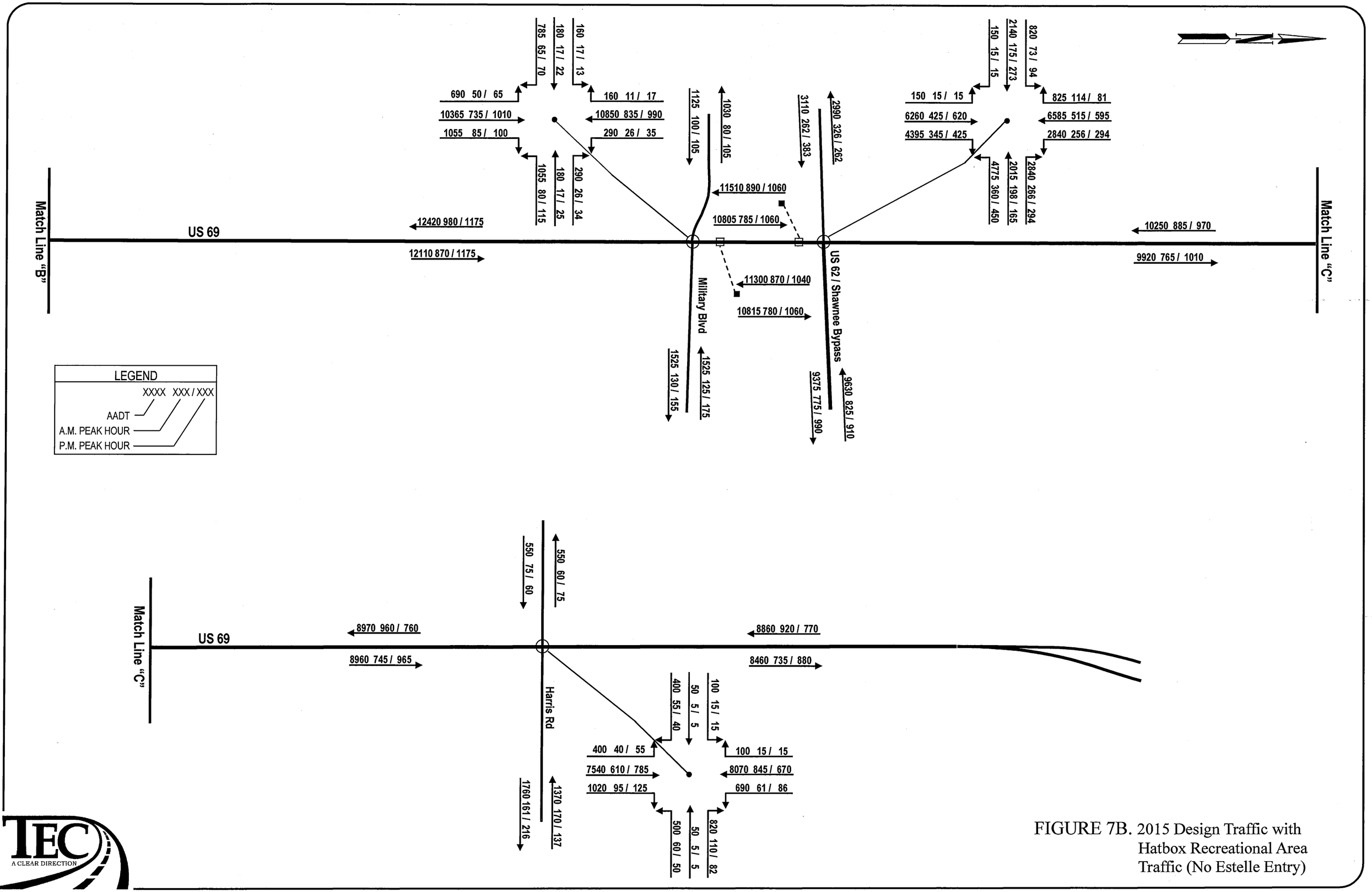





FIGURE 7B. 2015 Design Traffic with Hatbox Recreational Area Traffic (No Estelle Entry)

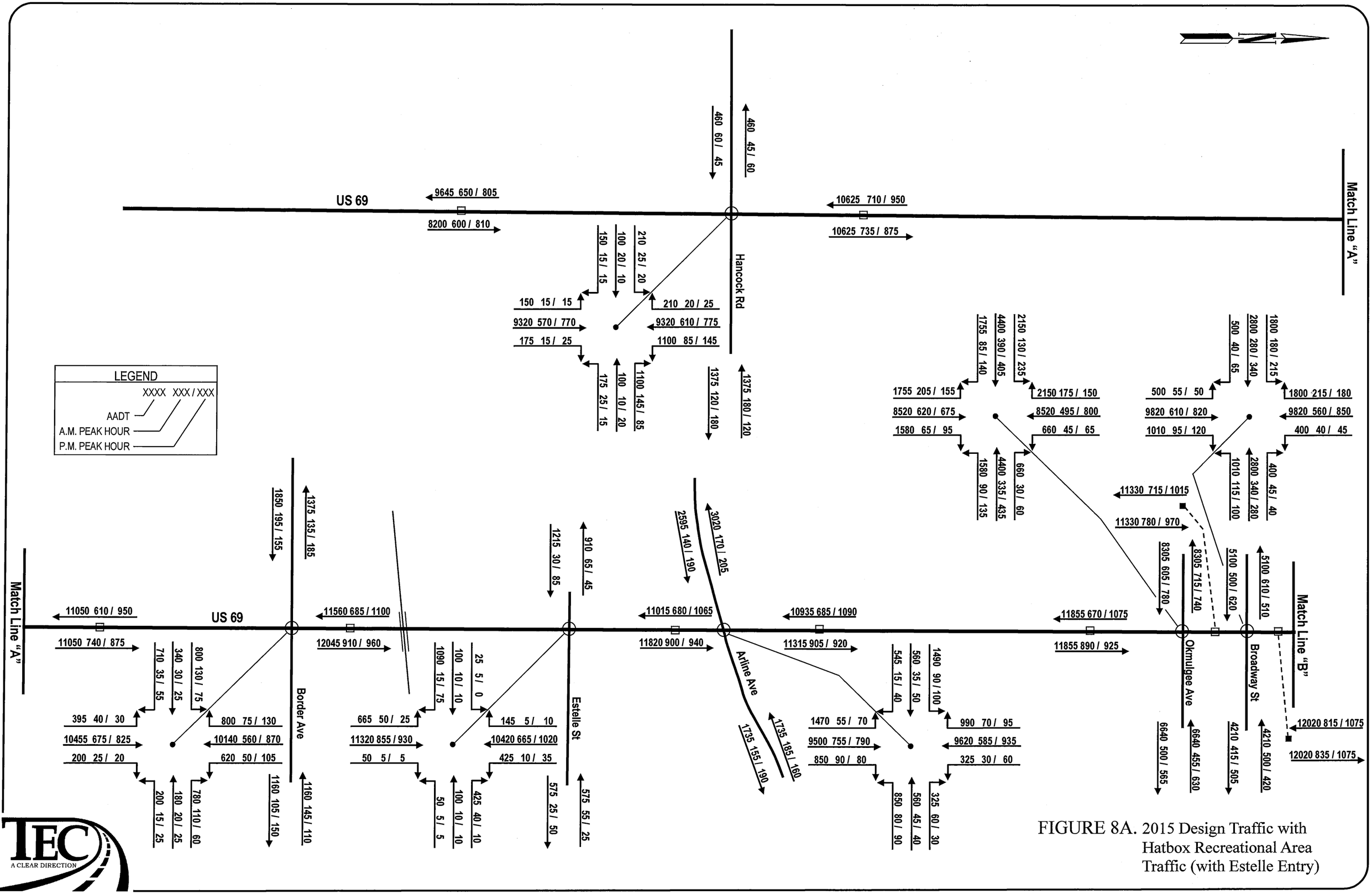


FIGURE 8A. 2015 Design Traffic with Hatbox Recreational Area Traffic (with Estelle Entry)

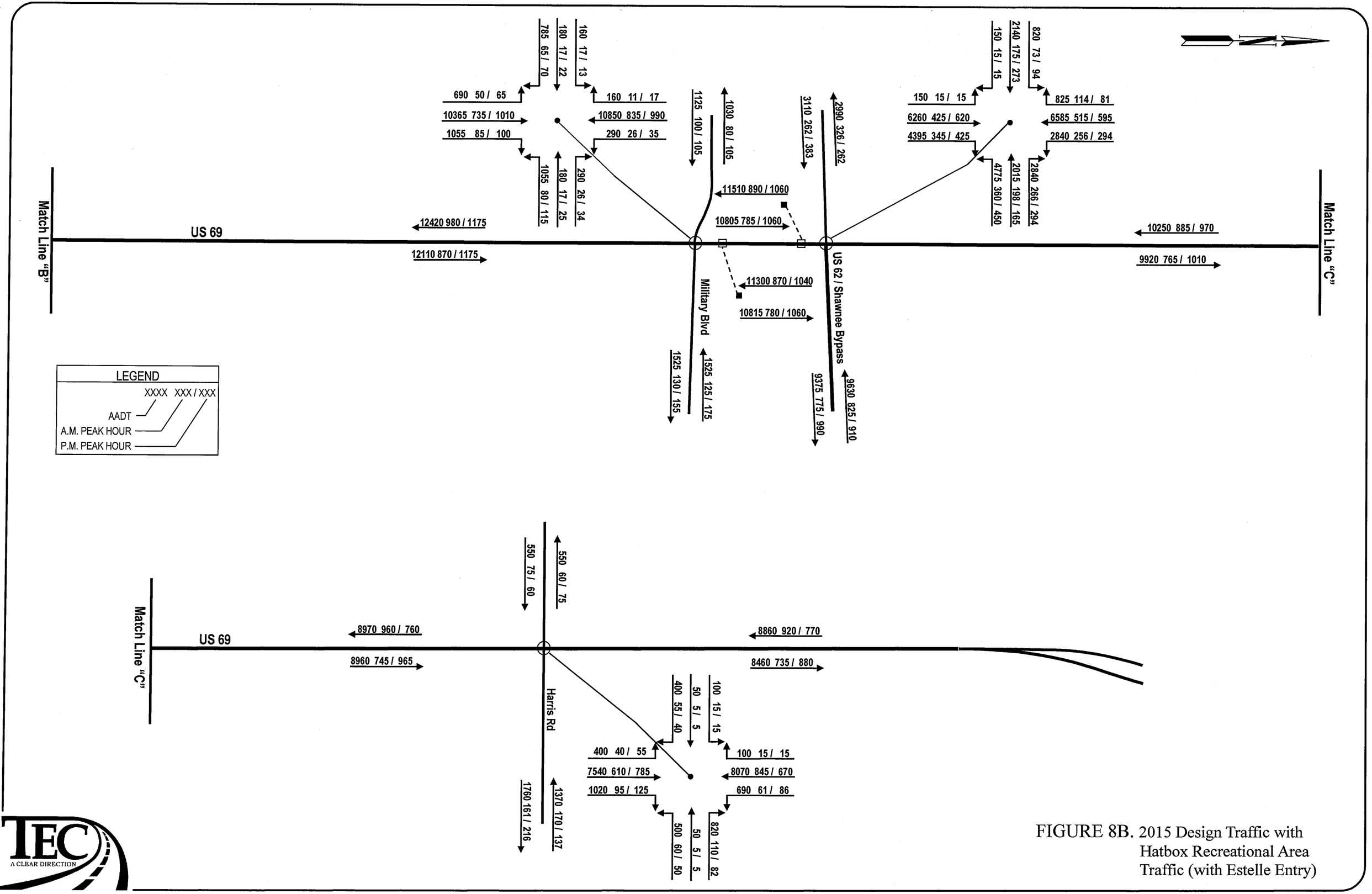


FIGURE 8B. 2015 Design Traffic with Hatbox Recreational Area Traffic (with Estelle Entry)

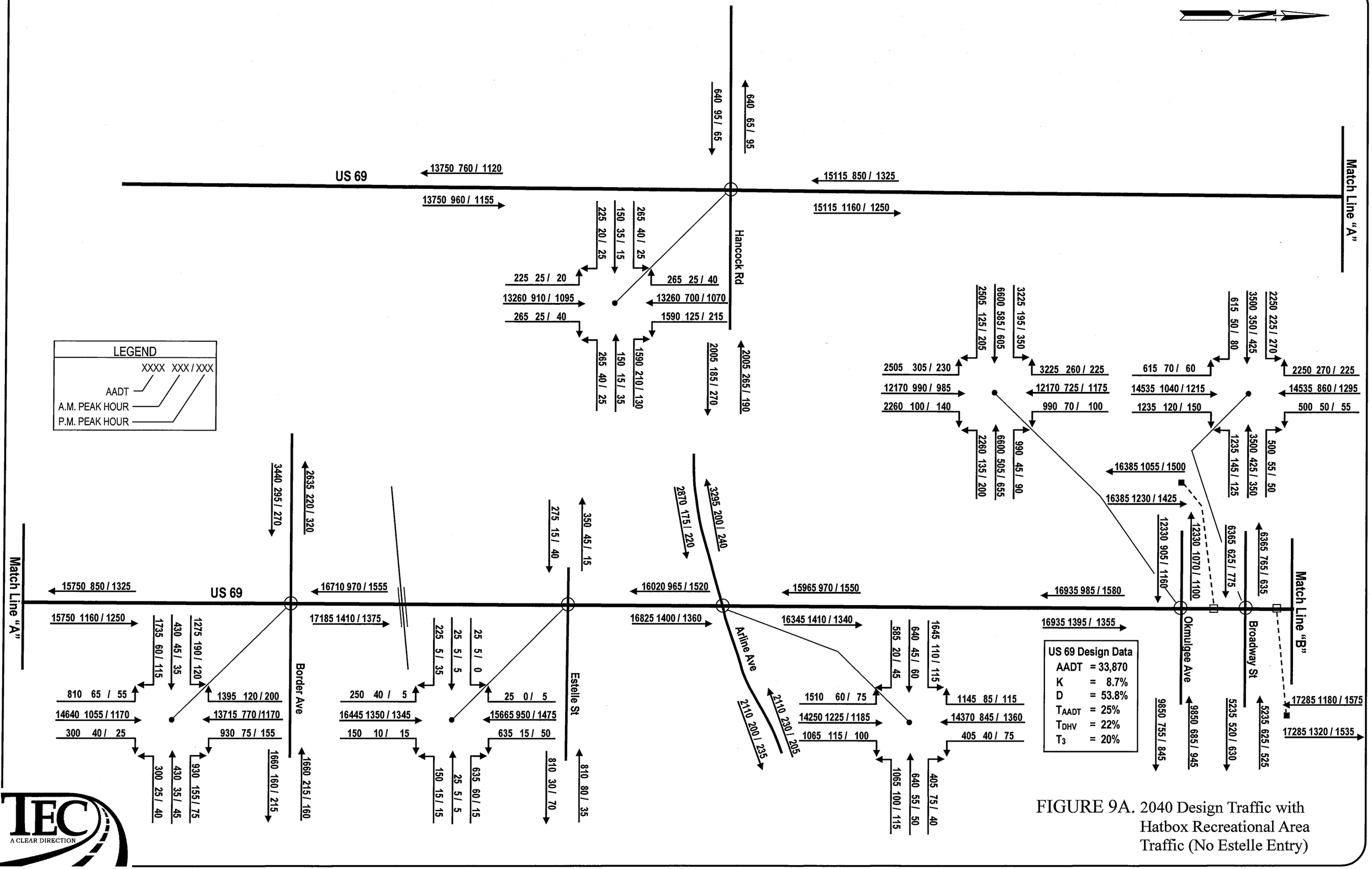


FIGURE 9A. 2040 Design Traffic with Hatbox Recreational Area Traffic (No Estelle Entry)

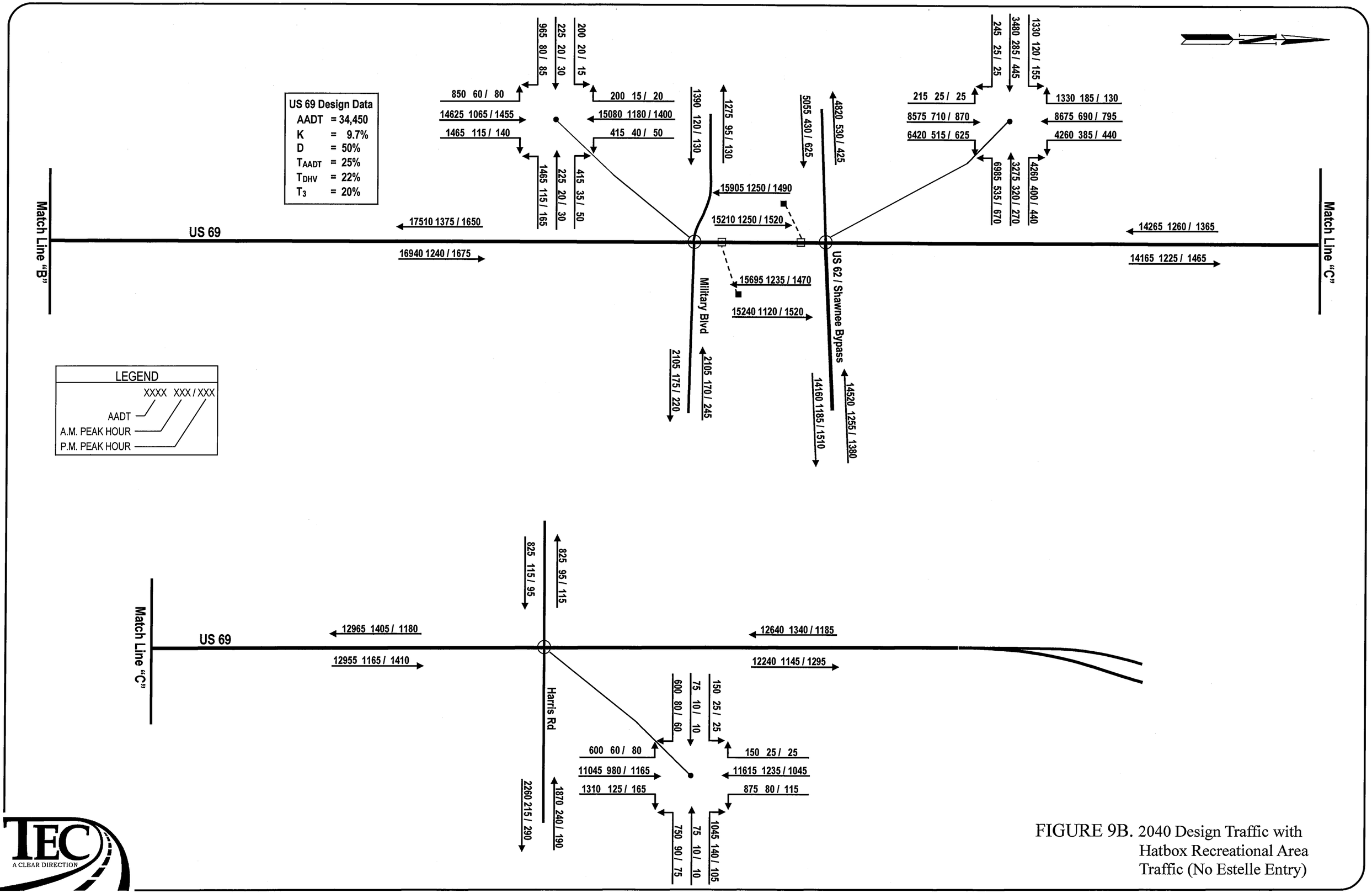


FIGURE 9B. 2040 Design Traffic with Hatbox Recreational Area Traffic (No Estelle Entry)

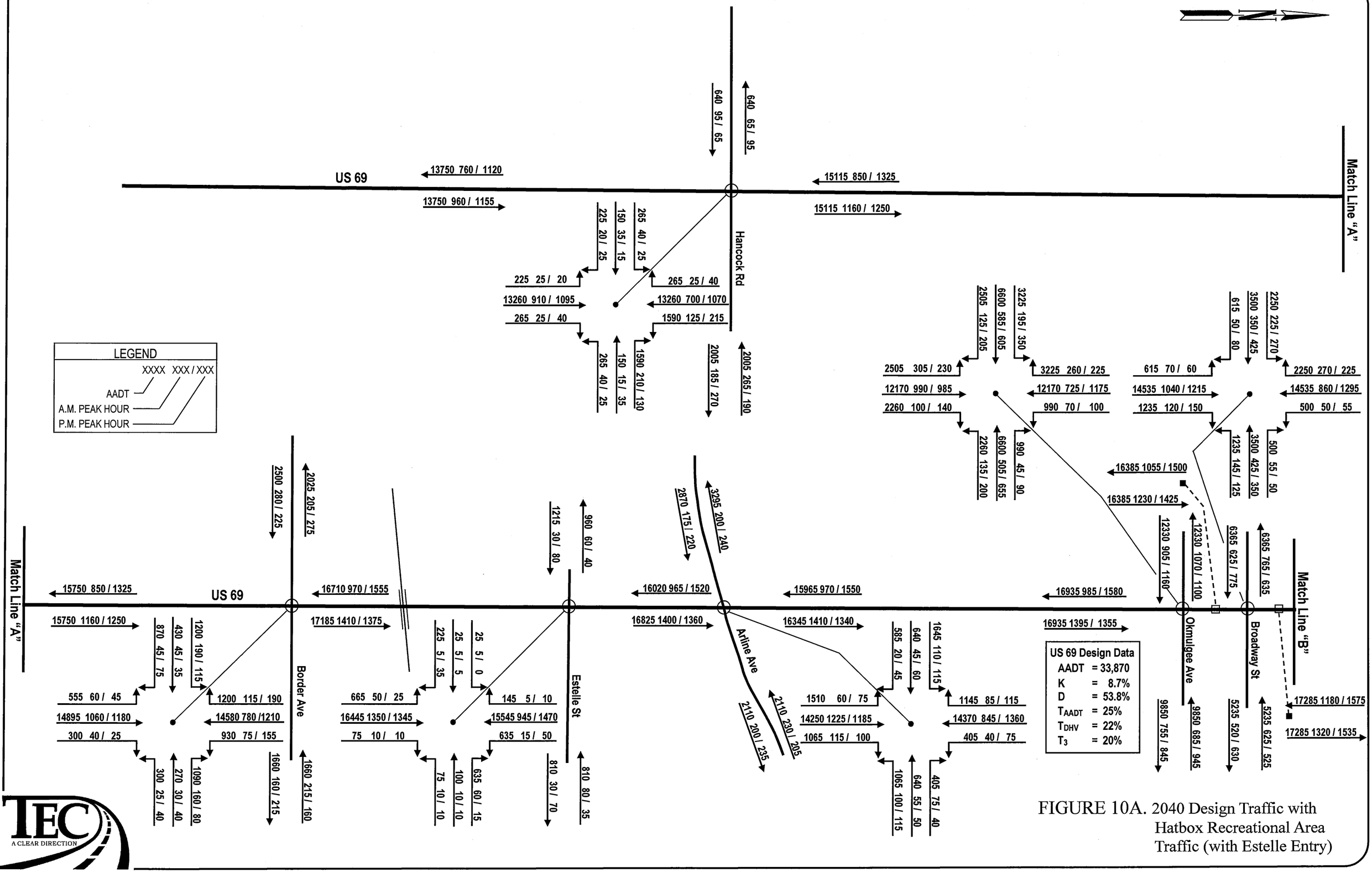


FIGURE 10A. 2040 Design Traffic with Hatbox Recreational Area Traffic (with Estelle Entry)

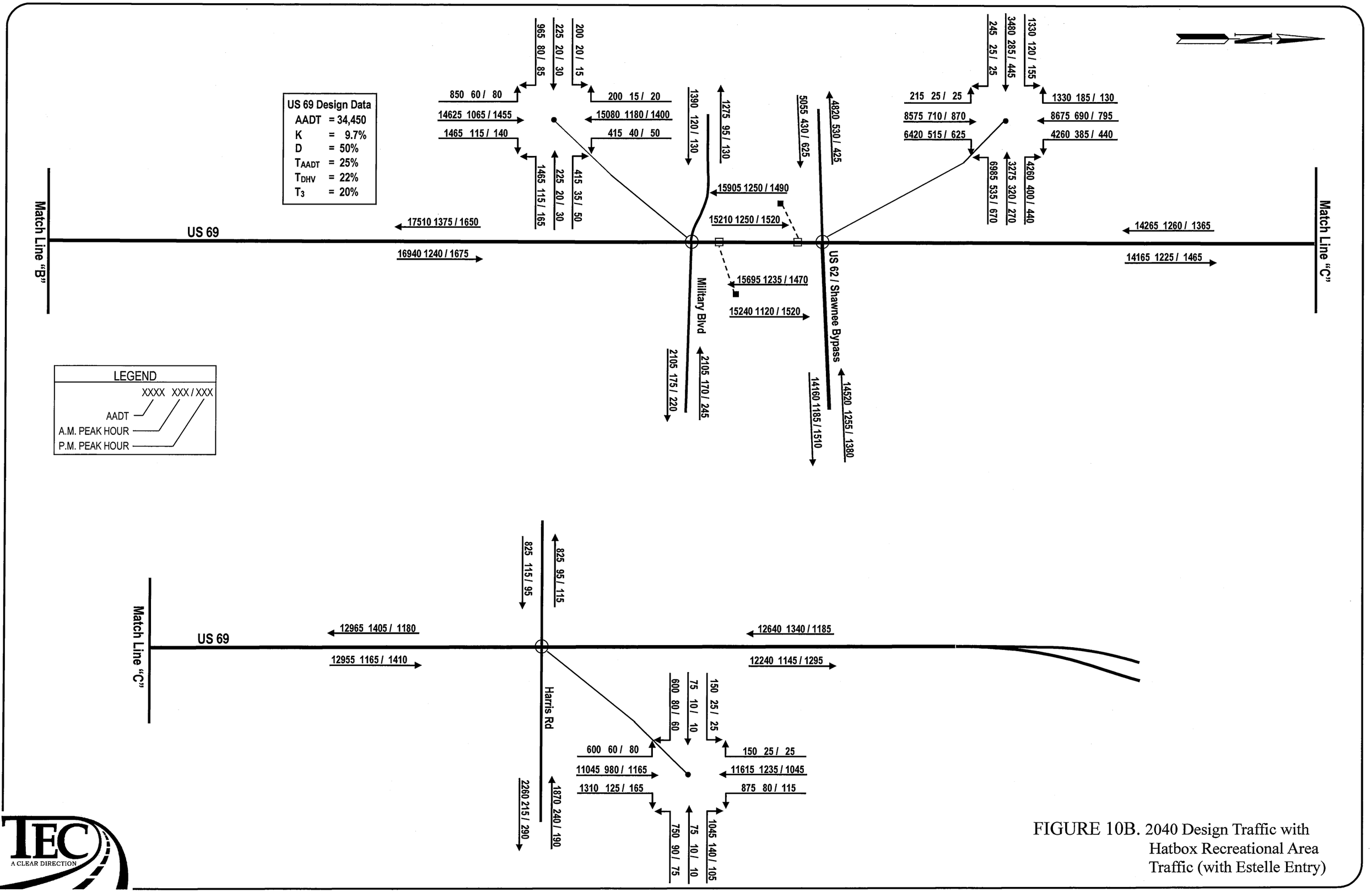


FIGURE 10B. 2040 Design Traffic with Hatbox Recreational Area Traffic (with Estelle Entry)

| | |
|---|---|
| C | > 20-35 |
| D | > 35-55 |
| E | > 55-80 |
| F | > 80 |

The criteria for stop controlled or unsignalized intersections have different threshold values than do those for signalized intersections. A higher level-of-service delay has been determined to be acceptable at a signalized intersection for the same level-of-service. The level-of-service criteria for unsignalized intersections are indicated below.

**UNSIGNALIZED INTERSECTIONS**

| Level-of-Service | Control Delay per Vehicle (s/veh) |
|---|---|
| A | 0-10 |
| B | > 10-15 |
| C | > 15-25 |
| D | > 25-35 |
| E | > 35-50 |
| F | > 50 |

Capacity analyses were conducted for the a.m. and p.m. peak hours for the intersections of US 69 and Hancock Road, Boarder Avenue, Estelle Street, Arline Avenue, Okmulgee Avenue, Broadway Street, Military Boulevard, Shawnee Bypass and Harris Road. The intersections were analyzed and reviewed under the 2015 design traffic, 2015 design traffic with Hatbox development traffic and no Estelle Street access, 2015 design traffic with Hatbox development traffic and Estelle Street access, 2040 design traffic with Hatbox development traffic and no Estelle Street access, 2040 design traffic with Hatbox development traffic and Estelle Street access, 2040 design traffic with Hatbox development traffic and no Estelle Street access with proposed lane geometry and 2040 design traffic with Hatbox development traffic and Estelle Street access with proposed lane geometry. For purposes of this report, an overall intersection level-of-service "D" or better was considered an acceptable level-of-service. The results of the capacity analyses conducted are summarized in **Table 2** and the raw data sheets have been included in the appendix.

# TABLE 2.
## Intersection Capacity Analysis Results

| Intersection | Type of Traffic Control | AM Peak Hour | | | | PM Peak Hour | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Critical Approach | | Intersection | | Critical Approach | | Intersection | |
| | | Delay (sec/veh) | LOS | Delay (sec/veh) | LOS | Delay (sec/veh) | LOS | Delay (sec/veh) | LOS |
| **2015 Design Traffic with Existing Lane Geometry** | | | | | | | | | |
| US 69 & Hancock Road | Signalized | 18.5 / WB | B | 12.6 | B | 19.7 / WB | B | 12.4 | B |
| US 69 & Border Avenue | Signalized | 33.1 / EB | C | 19.3 | B | 35.9 / EB | D | 14.2 | B |
| US 69 & Estelle Street | Unsignalized | 37.2 / EB | E | 1.3 | A | 54.5 / WB | F | 1.3 | A |
| US 69 & Arline Avenue | Signalized | 45.5 / EB | D | 22.4 | C | 94.4 / SB | F | 55.1 | E |
| US 69 & Okmulgee Avenue | Signalized | 40.5 / EB | D | 27.3 | C | 45.1 / WB | D | 28.4 | C |
| US 69 & Broadway Street | Signalized | 42.2 / SB | D | 36.4 | D | 44.3 / EB | D | 37.9 | D |
| US 69 & Military Boulevard | Signalized | 34.2 / WB | C | 15.1 | B | 33.1 / WB | C | 17.9 | B |
| US 69 & Shawnee Bypass | Signalized | 41.1 / EB | D | 31.8 | C | 50.6 / WB | D | 43.8 | D |
| US 69 & Harris Road | Signalized | 17.9 / WB | B | 13.4 | B | 18.3 / WB | B | 15.7 | B |
| **2015 Design Traffic with Hatbox Development (No Estelle Street Access) and Existing Lane Geometry** | | | | | | | | | |
| US 69 & Hancock Road | Signalized | 18.6 / WB | B | 13.0 | B | 19.8 / WB | B | 13.2 | B |
| US 69 & Border Avenue | Signalized | 32.6 / EB | C | 19.8 | B | 34.7 / EB | C | 17.8 | B |
| US 69 & Estelle Street | Unsignalized | 39.3 / EB | E | 1.3 | A | 91.4 / WB | F | 2.3 | A |
| US 69 & Arline Avenue | Signalized | 44.6 / EB | D | 22.9 | C | 95.1 / SB | F | 55.1 | E |
| US 69 & Okmulgee Avenue | Signalized | 40.7 / EB | D | 27.3 | C | 44.9 / WB | D | 29.1 | C |
| US 69 & Broadway Street | Signalized | 45.0 / SB | D | 37.6 | D | 48.1 / SB | D | 39.7 | D |
| US 69 & Military Boulevard | Signalized | 34.1 / WB | C | 15.1 | B | 33.0 / WB | C | 17.7 | B |
| US 69 & Shawnee Bypass | Signalized | 41.0 / EB | D | 32.0 | C | 54.1 / WB | D | 46.0 | D |
| US 69 & Harris Road | Signalized | 17.9 / WB | B | 15.7 | B | 18.3 / WB | B | 16.0 | B |
| **2015 Design Traffic with Hatbox Development (With Estelle Street Access) and Existing Lane Geometry** | | | | | | | | | |
| US 69 & Hancock Road | Signalized | 18.6 / WB | B | 13.0 | B | 19.8 / WB | B | 13.2 | B |
| US 69 & Border Avenue | Signalized | 32.8 / EB | C | 19.8 | B | 35.4 / EB | D | 14.0 | B |
| US 69 & Estelle Street | Unsignalized | 38.7 / EB | E | 2.0 | A | 116.0 / WB | F | 3.2 | A |
| US 69 & Arline Avenue | Signalized | 44.6 / EB | D | 22.9 | C | 95.1 / SB | F | 50.7 | D |
| US 69 & Okmulgee Avenue | Signalized | 40.7 / EB | D | 27.3 | C | 44.9 / WB | D | 29.1 | C |
| US 69 & Broadway Street | Signalized | 45.0 / SB | D | 37.6 | D | 48.1 / SB | D | 39.7 | D |
| US 69 & Military Boulevard | Signalized | 34.1 / WB | C | 15.1 | B | 33.0 / WB | C | 17.7 | B |
| US 69 & Shawnee Bypass | Signalized | 41.0 / EB | D | 32.0 | C | 54.1 / WB | D | 46.0 | D |
| US 69 & Harris Road | Signalized | 17.9 / WB | B | 15.7 | B | 18.3 / WB | B | 16.0 | B |
| **2040 Design Traffic with Hatbox Development (No Estelle Street Access) and Existing Lane Geometry** | | | | | | | | | |
| US 69 & Hancock Road | Signalized | 25.6 / NB | C | 20.8 | C | 30.5 / WB | C | 21.6 | C |
| US 69 & Border Avenue | Signalized | 47.1 / EB | D | 34.6 | C | 64.9 / EB | E | 35.5 | D |
| US 69 & Estelle Street | Unsignalized | * / WB | F | 10.3 | A | * / WB | F | 18.1 | C |
| US 69 & Arline Avenue | Signalized | 67.7 / WB | E | 17.1 | B | 82.2 / WB | F | 37.2 | D |
| US 69 & Okmulgee Avenue | Signalized | 56.7 / EB | E | 39.6 | D | 96.7 / WB | F | 56.9 | E |
| US 69 & Broadway Street | Signalized | 54.9 / EB | D | 36.0 | D | 69.2 / EB | E | 38.1 | D |
| US 69 & Military Boulevard | Signalized | 45.9 / WB | D | 15.2 | B | 28.1 / WB | C | 15.9 | B |
| US 69 & Shawnee Bypass | Signalized | 78.9 / EB | E | 52.1 | D | * / WB | F | 103.6 | F |
| US 69 & Harris Road | Signalized | 32.7 / WB | C | 22.9 | C | 31.0 / WB | C | 24.2 | C |
| **2040 Design Traffic with Hatbox Development (With Estelle Street Access) and Existing Lane Geometry** | | | | | | | | | |
| US 69 & Hancock Road | Signalized | 25.6 / NB | C | 20.8 | C | 30.5 / WB | C | 21.6 | C |
| US 69 & Border Avenue | Signalized | 46.6 / EB | D | 34.7 | C | 64.7 / EB | E | 32.0 | C |
| US 69 & Estelle Street | Unsignalized | * / WB | F | 11.4 | B | * / WB | F | 23.9 | C |
| US 69 & Arline Avenue | Signalized | 67.7 / WB | E | 17.1 | B | 82.2 / WB | F | 37.2 | D |
| US 69 & Okmulgee Avenue | Signalized | 56.7 / EB | E | 39.6 | D | 96.7 / WB | F | 56.9 | E |
| US 69 & Broadway Street | Signalized | 54.9 / EB | D | 36.0 | D | 69.2 / EB | E | 38.1 | D |
| US 69 & Military Boulevard | Signalized | 45.9 / WB | D | 15.2 | B | 28.1 / WB | C | 15.9 | B |
| US 69 & Shawnee Bypass | Signalized | 78.9 / EB | E | 52.1 | D | * / WB | F | 103.6 | F |
| US 69 & Harris Road | Signalized | 32.7 / WB | C | 22.9 | C | 31.0 / WB | C | 24.2 | C |
| **2040 Design Traffic with Hatbox Development (No Estelle Street Access) and Proposed Lane Geometry** | | | | | | | | | |
| US 69 & Hancock Road | Signalized | 20.0 / NB | B | 17.0 | B | 27.5 / EB | C | 17.6 | B |
| US 69 & Border Avenue | Signalized | 62.2 / WB | E | 28.9 | C | 55.4 / WB | E | 24.1 | C |
| US 69 & Estelle Street | Unsignalized | * / EB | F | 5.7 | A | * / WB | F | 15.8 | C |
| US 69 & Arline Avenue | Signalized | 44.6 / WB | D | 22.9 | C | 49.2 / EB | D | 22.1 | C |
| US 69 & Okmulgee Avenue | Signalized | 53.1 / EB | D | 34.0 | C | 80.9 / WB | F | 50.4 | D |
| US 69 & Broadway Street | Signalized | 51.2 / WB | D | 41.8 | D | 67.0 / EB | E | 42.6 | D |
| US 69 & Military Boulevard | Signalized | 41.7 / WB | D | 13.9 | B | 45.1 / WB | D | 16.9 | B |
| US 69 & Shawnee Bypass | Signalized | 77.5 / EB | E | 52.8 | D | * / EB | F | 114.0 | F |
| US 69 & Harris Road | Signalized | 32.7 / WB | C | 22.9 | C | 31.0 / WB | C | 24.2 | C |
| **2040 Design Traffic with Hatbox Development (With Estelle Street Access) and Proposed Lane Geometry** | | | | | | | | | |
| US 69 & Hancock Road | Signalized | 20.0 / NB | B | 17.0 | B | 27.5 / EB | C | 17.6 | B |
| US 69 & Border Avenue | Signalized | 62.6 / WB | E | 29.0 | C | 54.9 / WB | D | 24.0 | C |
| US 69 & Estelle Street | Unsignalized | * / WB | F | 8.7 | A | * / WB | F | 24.1 | C |
| US 69 & Arline Avenue | Signalized | 44.6 / WB | D | 22.9 | C | 49.2 / EB | D | 22.1 | C |
| US 69 & Okmulgee Avenue | Signalized | 53.1 / EB | D | 34.0 | C | 80.9 / WB | F | 50.4 | D |
| US 69 & Broadway Street | Signalized | 51.2 / WB | D | 41.8 | D | 67.0 / EB | E | 42.6 | D |
| US 69 & Military Boulevard | Signalized | 41.7 / WB | D | 13.9 | B | 45.1 / WB | D | 16.9 | B |
| US 69 & Shawnee Bypass | Signalized | 77.5 / EB | E | 52.8 | D | * / EB | F | 114.0 | F |
| US 69 & Harris Road | Signalized | 32.7 / WB | C | 22.9 | C | 31.0 / WB | C | 24.2 | C |

* - Indicates delay exceeds 120 seconds per vehicle

The first scenario analyzed the 2015 design traffic with existing lane geometry. The results indicated that each intersection within the study area currently operates at acceptable overall intersection levels-of-service during the a.m. and p.m. peak hours except US 69 and Arline Avenue.

The second scenario analyzed the 2015 combined traffic with the existing lane geometry. This scenario included the proposed recreational area traffic without access to Estelle Street. Under this scenario, each intersection is expected to have slightly longer delays, but will remain the same overall intersection levels-of-service.

The third scenario also analyzed the 2015 combined traffic with the existing lane geometry. This scenario included the proposed recreational area traffic with access to Estelle Street. Under this scenario, each intersection is expected to operate at an acceptable overall intersection levels-of-service.

The forth scenario analyzed the 2040 combined traffic with the existing lane geometry. This scenario included the proposed recreational area traffic without access to Estelle Street. The results of these analyses indicate that the intersections of US 69 and Okmulgee Avenue and US 69 and Shawnee Bypass would be expected to operate outside of the acceptable overall intersection levels-of-service.

The fifth scenario also analyzed the 2040 combined traffic with the existing lane geometry. This scenario included the proposed recreational area traffic with access to Estelle Street. Similar to the forth scenario, the intersections of US 69 and Okmulgee Avenue and US 69 and Shawnee Bypass would be expected to operate outside of the acceptable overall intersection levels-of-service.

The sixth scenario analyzed the 2040 combined traffic with the proposed lane geometry and no access at Estelle Street. The proposed US 69 widening includes extending the 6-lane section from south of the intersection of Okmulgee Avenue south to the intersection of Border Avenue. The scenario also assumes the construction of westbound and eastbound left-turn lanes at Border Avenue and a westbound right turn lane at Harris Road. The results of the analyses indicated that each intersection within the study area would be expected to operate at acceptable overall intersection levels-of-service except US 69 and Shawnee Bypass.

The seventh scenario analyzed the 2040 combined traffic with the proposed lane geometry and access at Estelle Street. Similar to the sixth scenario, each intersection within the study area would be expected to operate at acceptable overall intersection levels-of-service except US 69 and Shawnee Bypass.

Each scenario was analyzed with signal timing coordination implemented along US 69 on the traffic signals starting at Border Avenue north to Shawnee Bypass. The signals at the intersections of US 69 and Hancock Road and US 69 and Harris Road were not included in the signal coordination due to spacing and traffic signal coordinability factors.

Based on the results of the analyses conducted, each intersection would be expected to operate at an acceptable overall intersection level-of-service under the 2040 projected combined traffic with the proposed roadway widening project EC-1576 completed except for US 69 and Shawnee Bypass. To bring the delay to acceptable levels-of-service, the intersection would require the construction of an additional eastbound thru lane, an additional northbound thru lane and a southbound right turn lane. Three of the intersections critical approaches would be expected to operate at level-of-service "F" under the 2040 projected combined traffic scenarios. The above recommended improvements at Shawnee Bypass would improve that intersection and the critical approach at Okmulgee Avenue is only 0.9 seconds above the level-of-service "F" threshold. The unsignalized intersection of US 69 and Estelle Street would be expected to experience significant delay on the side streets. The low level-of-service for the side street movement is a common phenomenon for traffic turning onto a busy arterial during the peak hours of the day and there are no roadway improvements which could be made at this intersection to improve the delay for the side street traffic. However, the side street traffic can be expected to perform two-stage left turns, utilizing the wide median opening which would be expected to reduce the delay on this movement.

## 5.0 QUEUE ANALYSIS

TEC conducted a queue analysis for the three intersections along U.S. 69 that are to be included in the ODOT widening project area for EC-1576. These include US 69 and Hancock Avenue, Border Avenue and Arline Avenue. The 95$^{th}$ percentile queue was used to determine the left turn bay length necessary to accommodate the future traffic volumes. For the purpose of the study, scenarios that did not include Estelle Street as a point of access are included. The results are summarized in **Table 3**.

# TABLE 3.
## HCM 95th Percentile Queue Report

| | US 69 and Hancock Road | | | | US 69 and Border Avenue | | | | US 69 and Arline Avenue | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WBR | NBL | NBR | SBL | EBL | WBL | NBL | SBL | EBL | WBL | NBL | NBR | SBL |
| Existing Turn Lane Storage Lengths (feet) | --- | 200 | 150 | 300 | --- | --- | 200 | 200 | 150 | 125 | 100 | 60 | 150 |
| 2015 AM Combined Traffic, Existing Geometry | --- | 37 | 21 | 53 | --- | --- | 70 | 49 | 64 | 92 | 77 | 2 | 15 |
| 2015 PM Combined Traffic, Existing Geometry | --- | 51 | 25 | 102 | --- | --- | 55 | 144 | 97 | 99 | 69 | 43 | 33 |
| 2040 AM Combined Traffic, Existing Geometry | --- | 54 | 22 | 107 | --- | --- | 139 | 142 | 88 | 117 | 36 | 152 | 34 |
| 2040 PM Combined Traffic, Existing Geometry | --- | 34 | 50 | 261 | --- | --- | 87 | 183 | 122 | 124 | 81 | 42 | 64 |
| 2040 AM Combined Traffic, Proposed Widening | 48 | 33 | 37 | 82 | 108 | 46 | 257 | 106 | 67 | 114 | 27 | --- | 31 |
| 2040 PM Combined Traffic, Proposed Widening | 64 | 28 | 41 | 75 | 88 | 45 | 93 | 202 | 99 | 110 | 80 | --- | 54 |

*Widening assumes the following:
1) Extend the 3-Lane section south to Border;
2) Exclusive WBL and EBL lanes at Border;
3) Exclusive WBR lane at Hancock

Based on the results of the analyses, the existing turn lane storage lengths are sufficient for the future traffic projections. Where the resultant queue requirement was found to be shorter than the current or existing left turn lane lengths, it is recommended to keep the existing storage lengths. The proposed westbound right turn lane at Hancock Road and eastbound and westbound left turn lanes at Border Avenue should be constructed with a minimum storage length of 150 feet.

## 6.0 CONCLUSIONS

Traffic Engineering Consultants, Inc. (TEC) was retained to conduct a traffic impact study for a proposed recreational development to be located along the west side of US 69, between Denver Avenue and Border Avenue in Muskogee. The 2015 and 2040 design traffic volume data was provided by ODOT to be utilized for the study. The traffic expected to be generated by the proposed recreational area was determined and distributed among the points of access to the development, as well as the adjacent street intersection. The proposed development traffic was added to the 2015 and 2040 design background traffic for conducting the reviews and analyses.

A total of seven (7) scenarios were analyzed for this study. The 2015 combined traffic scenario indicate that all signalized intersections along US 69 are expected to operate at acceptable levels-of-service during the a.m. and p.m. peak hours except Arline Avenue. The 2040 combined traffic indicate that each intersection would be expected to operate at an acceptable overall intersection level-of-service except US 69 and Shawnee Bypass. The intersection would require the construction of an additional eastbound thru

lane, an additional northbound thru lane and a southbound right turn lane to bring the delay up to acceptable levels-of-service for the 2040 projected scenarios.

The US 69 widening project will help reduce delay at each intersection in the study area by providing more roadway capacity which, in turn, allows the signal coordination along the corridor to provide more time to the side street movements. The widening project is recommended to include the following lane configurations.

- Extending six-lane section on US 69 from Okmulgee Avenue to Border Avenue
- Exclusive southbound right turn lane at Border Avenue to drop a lane
- Construction of an exclusive eastbound and westbound left turn lanes on Border Avenue
- Construction of an exclusive westbound right turn lane on Hancock Road

# Appendix B
# Operational Analysis Report (ODOT)

# US-69 OPERATIONAL ANALYSIS

MUSKOGEE, OKLAHOMA

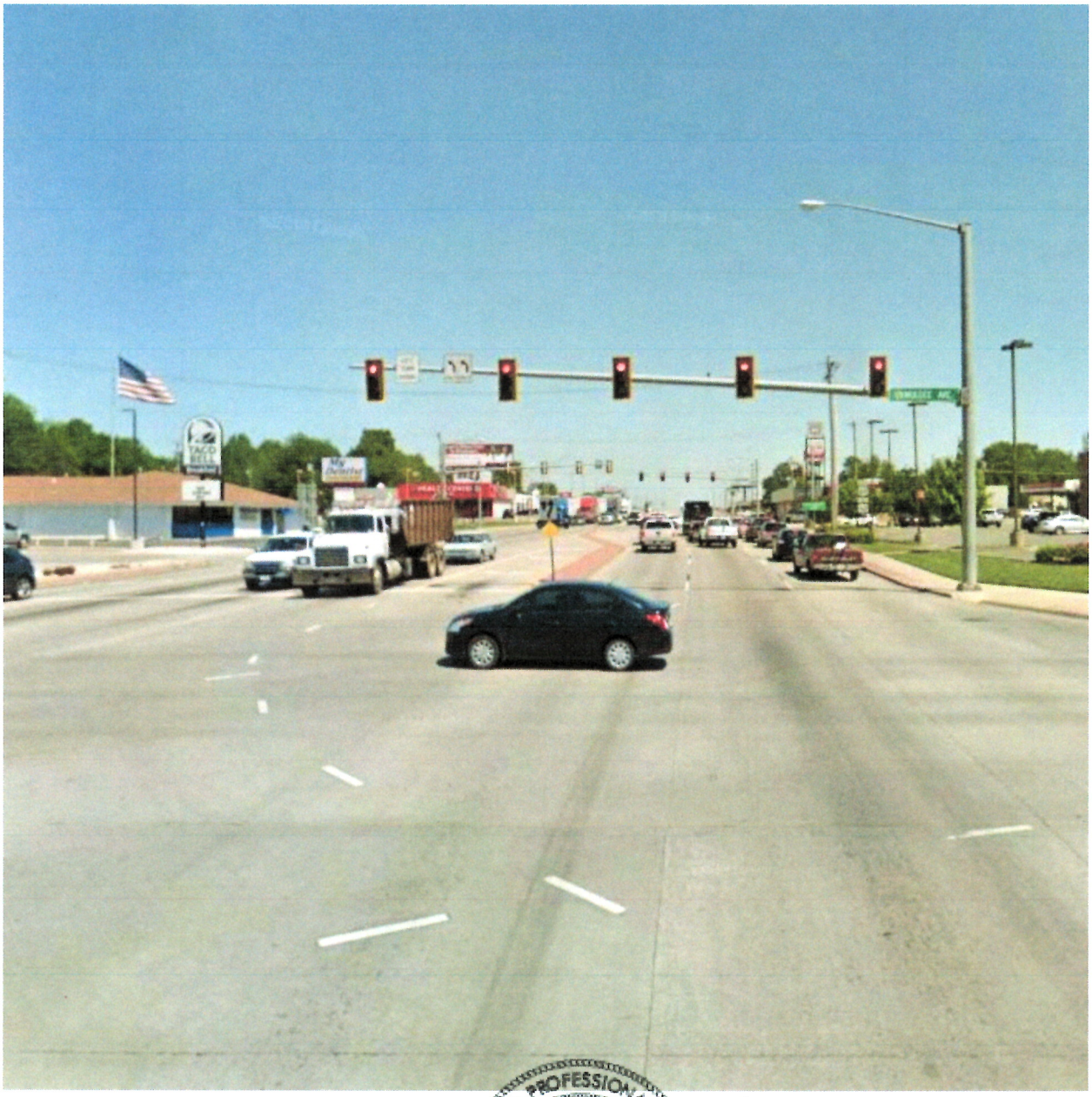

**Photo: Google Street View**

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2020-09-30

September 2020

Oklahoma Department of Transportation

Traffic Engineering Division

## CONTENTS

## INTRODUCTION

Engineering Contract 1576 was awarded to Holloway, Updike, and Bellen (HUB) for consideration of options for US-69 from just north of Peak Boulevard to just south of Okmulgee Avenue. Within the study limits, US-69 is a four-lane divided highway with a depressed median and with limited median openings.

HUB have identified three alternatives for this corridor:

Option 1. Divided six-lane with raised median
Option 2. Six mainlanes with continuous two-way left turn lane
Option 3. Divided four-lane with raised median

The intent of this document is to explore the operational differences among these options, how they fit into the corridor holistically, and what further modifications will likely be necessary to the corridor within the analysis horizon.

## DATA COLLECTION

In 2018 ODOT's Strategic Asset and Performance Management Division provided no-build design traffic for the corridor for years 2018 and 2050. These years and volumes are the basis of this operational analysis. Combining the design traffic with known truck fractions, we performed a truck flow analysis to determine the truck fractions to use in our model. The volumes and truck fractions used for analysis are shown in **Figures 1 and 2**.

Figure 1. 2018 Analysis Data

Volumes - AM Peak

| Intersection | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| US-69 & Fern Mountain/Harris | 45 | 838 | 105 | 60 | 901 | 25 | 30 | 35 | 55 | 110 | 30 | 80 |
| US-69 & Shawnee (US-62 East) | 32 | 704 | 460 | 270 | 686 | 120 | 80 | 185 | 16 | 420 | 210 | 240 |
| US-69 & Military/Tahlequah | 50 | 1137 | 80 | 26 | 1085 | 11 | 32 | 17 | 65 | 120 | 17 | 26 |
| US-69 & Broadway | 55 | 1012 | 95 | 40 | 975 | 215 | 180 | 280 | 40 | 115 | 340 | 45 |
| US-69 & Okmulgee (US-62 West) | 220 | 932 | 100 | 50 | 860 | 220 | 190 | 430 | 90 | 135 | 350 | 40 |
| US-69 & Arline | 50 | 1082 | 90 | 30 | 935 | 70 | 90 | 35 | 35 | 80 | 40 | 40 |
| US-69 & Border | 30 | 997 | 25 | 50 | 912 | 75 | 110 | 30 | 55 | 15 | 30 | 90 |
| US-69 & Hancock | 15 | 892 | 15 | 85 | 867 | 20 | 25 | 20 | 15 | 25 | 10 | 125 |

Truck Fractions - AM Peak

| Intersection | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| US-69 & Fern Mountain/Harris | 1 | 30 | 28 | 17 | 31 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| US-69 & Shawnee (US-62 East) | 50 | 38 | 10 | 6 | 36 | 12 | 0 | 0 | 0 | 11 | 1 | 7 |
| US-69 & Military/Tahlequah | 0 | 27 | 0 | 0 | 29 | 0 | 50 | 0 | 25 | 0 | 0 | 0 |
| US-69 & Broadway | 0 | 31 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| US-69 & Okmulgee (US-62 West) | 5 | 30 | 2 | 2 | 32 | 22 | 25 | 2 | 13 | 2 | 2 | 2 |
| US-69 & Arline | 0 | 26 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| US-69 & Border | 1 | 28 | 1 | 1 | 31 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| US-69 & Hancock | 2 | 32 | 2 | 2 | 33 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

Volumes - PM Peak

| Intersection | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| US-69 & Fern Mountain/Harris | 70 | 995 | 130 | 75 | 943 | 35 | 30 | 45 | 65 | 115 | 45 | 70 |
| US-69 & Shawnee (US-62 East) | 52 | 735 | 450 | 310 | 728 | 95 | 95 | 290 | 18 | 480 | 200 | 340 |
| US-69 & Military/Tahlequah | 70 | 1156 | 100 | 35 | 1172 | 17 | 60 | 22 | 70 | 135 | 25 | 34 |
| US-69 & Broadway | 50 | 1031 | 120 | 45 | 1112 | 180 | 215 | 340 | 65 | 120 | 280 | 40 |
| US-69 & Okmulgee (US-62 West) | 160 | 896 | 140 | 70 | 1027 | 200 | 240 | 450 | 190 | 180 | 450 | 65 |
| US-69 & Arline | 95 | 1016 | 80 | 60 | 1222 | 95 | 100 | 50 | 60 | 110 | 50 | 30 |
| US-69 & Border | 40 | 1056 | 20 | 105 | 1167 | 130 | 75 | 35 | 90 | 25 | 40 | 60 |
| US-69 & Hancock | 15 | 1001 | 25 | 145 | 1102 | 25 | 20 | 10 | 15 | 25 | 20 | 85 |

Truck Fractions - PM Peak

| Intersection | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| US-69 & Fern Mountain/Harris | 1 | 21 | 36 | 21 | 27 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| US-69 & Shawnee (US-62 East) | 50 | 32 | 11 | 7 | 29 | 25 | 0 | 0 | 0 | 9 | 3 | 7 |
| US-69 & Military/Tahlequah | 0 | 24 | 0 | 0 | 24 | 0 | 50 | 0 | 37 | 0 | 0 | 0 |
| US-69 & Broadway | 0 | 27 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| US-69 & Okmulgee (US-62 West) | 9 | 27 | 2 | 2 | 24 | 27 | 23 | 2 | 7 | 2 | 2 | 2 |
| US-69 & Arline | 0 | 25 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| US-69 & Border | 1 | 24 | 1 | 1 | 22 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| US-69 & Hancock | 2 | 25 | 2 | 2 | 23 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

Figure 2. 2050 Analysis Data

Volumes - AM Peak

| Intersection | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| US-69 & Fern Mountain/Harris | 67 | 1559 | 155 | 89 | 1517 | 37 | 44 | 51 | 82 | 162 | 45 | 118 |
| US-69 & Shawnee (US-62 East) | 32 | 1317 | 600 | 360 | 1253 | 158 | 105 | 245 | 22 | 560 | 277 | 317 |
| US-69 & Military/Tahlequah | 68 | 1935 | 105 | 34 | 1786 | 15 | 32 | 22 | 85 | 158 | 22 | 34 |
| US-69 & Broadway | 72 | 1788 | 125 | 53 | 1666 | 280 | 230 | 369 | 53 | 150 | 440 | 60 |
| US-69 & Okmulgee (US-62 West) | 290 | 1680 | 140 | 68 | 1511 | 290 | 250 | 560 | 120 | 180 | 460 | 55 |
| US-69 & Arline | 68 | 1897 | 118 | 40 | 1628 | 93 | 120 | 47 | 47 | 105 | 53 | 53 |
| US-69 & Border | 80 | 1757 | 37 | 70 | 1592 | 110 | 160 | 44 | 80 | 22 | 45 | 130 |
| US-69 & Hancock | 22 | 1634 | 23 | 125 | 1519 | 30 | 35 | 25 | 22 | 35 | 15 | 185 |

Truck Fractions - AM Peak

| Intersection | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| US-69 & Fern Mountain/Harris | 1 | 23 | 19 | 11 | 26 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| US-69 & Shawnee (US-62 East) | 50 | 28 | 10 | 6 | 28 | 9 | 0 | 0 | 0 | 10 | 1 | 7 |
| US-69 & Military/Tahlequah | 0 | 22 | 0 | 0 | 24 | 0 | 50 | 0 | 19 | 0 | 0 | 0 |
| US-69 & Broadway | 0 | 24 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| US-69 & Okmulgee (US-62 West) | 7 | 23 | 2 | 2 | 25 | 20 | 23 | 2 | 17 | 2 | 2 | 2 |
| US-69 & Arline | 0 | 21 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| US-69 & Border | 1 | 23 | 1 | 1 | 25 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| US-69 & Hancock | 2 | 24 | 2 | 2 | 26 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

Volumes - PM Peak

| Intersection | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| US-69 & Fern Mountain/Harris | 104 | 1586 | 192 | 170 | 1607 | 52 | 45 | 67 | 96 | 170 | 67 | 114 |
| US-69 & Shawnee (US-62 East) | 54 | 1317 | 600 | 410 | 1348 | 125 | 125 | 380 | 25 | 635 | 265 | 450 |
| US-69 & Military/Tahlequah | 92 | 1879 | 135 | 46 | 1937 | 23 | 58 | 29 | 92 | 170 | 33 | 45 |
| US-69 & Broadway | 66 | 1733 | 158 | 60 | 1861 | 240 | 280 | 440 | 85 | 158 | 360 | 53 |
| US-69 & Okmulgee (US-62 West) | 212 | 1554 | 185 | 87 | 1752 | 265 | 317 | 590 | 250 | 235 | 590 | 86 |
| US-69 & Arline | 120 | 1729 | 106 | 78 | 2004 | 125 | 140 | 68 | 40 | 132 | 68 | 80 |
| US-69 & Border | 125 | 1752 | 30 | 150 | 1894 | 190 | 110 | 52 | 130 | 35 | 60 | 90 |
| US-69 & Hancock | 23 | 1682 | 35 | 210 | 1814 | 35 | 30 | 15 | 24 | 35 | 25 | 175 |

Truck Fractions - PM Peak

| Intersection | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| US-69 & Fern Mountain/Harris | 1 | 23 | 24 | 9 | 25 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| US-69 & Shawnee (US-62 East) | 50 | 29 | 13 | 5 | 27 | 19 | 0 | 0 | 0 | 11 | 2 | 4 |
| US-69 & Military/Tahlequah | 0 | 25 | 0 | 0 | 24 | 0 | 50 | 0 | 29 | 0 | 0 | 0 |
| US-69 & Broadway | 0 | 27 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| US-69 & Okmulgee (US-62 West) | 10 | 26 | 2 | 2 | 23 | 25 | 21 | 2 | 9 | 2 | 2 | 2 |
| US-69 & Arline | 0 | 25 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| US-69 & Border | 1 | 24 | 1 | 1 | 23 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| US-69 & Hancock | 2 | 25 | 2 | 2 | 24 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

## FIELD DATA COLLECTION

In September 2020, staff from Traffic Engineering Division visited the corridor to collect data on flow characteristics and signal timing to ensure we have a reliable existing conditions model that could then be used as the basis for alternatives analysis.

The flow characteristics sought were ideal saturated flow rate and passenger car equivalent for heavy vehicles. The data for saturated flow rate were collected in a manner generally consistent with Highway Capacity Manual 6.0, Chapter 31[1]. Because the technique measures each cycle separately, and because heavy vehicles are recorded separately from passenger cars, the computed saturation flow rate for each cycle can be paired with the observed heavy vehicle fraction for that cycle in a scatter plot. The resulting trend line can be used to determine ideal saturation flow rate (equivalent to the *y*-intercept) and the passenger car equivalent for heavy vehicles.

The technique documentation states that in order for the observation to be statistically significant, there must have been 15 cycles or more observed with eight or more vehicles in queue at onset of green. While we gathered 25 cycles, only ten cycles had the required eight or more vehicles in queue at onset of green. Furthermore, the observed truck fraction averaged 35% with a range [20%, 75%]. This range is appropriate for the mainlanes of US-69 but is not representative of the truck fractions in most minor movements. To address both of these problems, we examined the possibility of combining the Muskogee data set with a data set recently gathered on Council Road at I-40 in Oklahoma City, with truck fractions averaging 15% and ranging [0%, 30%]. We found that when combining the data sets, the fit of the regression was decent ($R^2$ = 0.512), and far better than the Muskogee data on its own ($R^2$ = 0.265). The resulting flow characteristic measures are shown in **Table 1**.

**Table 1. Flow Characteristics**

| Measure | Value for This Study | Synchro Default |
|---|---|---|
| **Ideal Saturated Flow Rate** | 1631 | 1900 |
| **Passenger Car Equivalent for Heavy Vehicles** | 2.35 | 2.00 |

Field data collection also included recording the timing scheme in use at each traffic signal, as well as examining the controller in operation to verify that everything is working as intended. While poorly-conceived or obsolete timing parameters can certainly affect the quality of service the signal provides, the most common and most disruptive traffic signal problem is malfunctioning detection. Indeed, we observed several intersections at which one or more movements were experiencing detection problems, tabulated in **Table 2**.

[1] Field Measurement of Saturation Flow Rate, pages 31-105 to 31-110.

**Table 2. Observed Traffic Signal Problems**

| Intersection | Problem | Effect of Problem |
|---|---|---|
| **US-69 & Fern Mountain/Harris** | SBT advance and NBT stop bar detectors faulted | NB and SB extend to max green regardless of demand, resulting in no decision zone protection in either direction |
| **US-69 & Shawnee (US-62 East)** | EBR yellow and green arrows do not turn on | Small missed opportunity to allow EBR to move during NBL |
| **US-69 & Military/ Tahlequah** | EB & WB phases run separately but neither has a green arrow for left turns | Sluggish take-off from unfamiliar drivers who are turning left and unaware they need not give way to oncoming vehicles |
| **US-69 & Broadway** | No problems observed | |
| **US-69 & Okmulgee (US-62 West)** | No problems observed | |
| **US-69 & Arline** | SBT stop bar, NBL stop bar, NBT stop bar, WB stop bar detectors all faulted | SBT, NBL, NBT, and WB extend to max green regardless of demand. This signal is essentially running pre-timed. |
| **US-69 & Border** | SBT stop bar, SBL stop bar, WB stop bar detectors all faulted | SBT, SBL, and WB extend to max green regardless of demand. This signal is essentially running pre-timed. |
| **US-69 & Hancock** | NBT stop bar detector fault | NBT extends to max green regardless of demand |
| **US-69 & Hancock** | SBT advance detector turned off | No SB decision zone protection (posted speed is 55 mi/hr) |

The observed signal problems are included in the existing conditions model, discussed later.

### ITERIS CLEARGUIDE

Iteris ClearGuide is a transportation analytics solution that provides real-time and historical travel time and speed data. We used this to data to verify the output of our existing conditions models. Relevant output from Iteris ClearGuide is included in discussion of the existing conditions models.

## MEASURES OF EFFECTIVENESS USED IN THIS STUDY

Most measures of effectiveness used in this study are some version of Level of Service. With A being best and F being worst, the value used to define Level of Service depends on what is being measured. In general, LOS A indicates very few vehicles are on the road, while LOS F indicates that demand exceeds capacity. Recognizing that perpetual widening is not a sustainable solution to congestion, neither ODOT nor Federal Highway Administration prescribe a minimum level of service for any particular project; rather, the target level of service depends on the goals of the project. **Table 3** describes the LOS types used in this study.

**Table 3. Level of Service Definition**

| LOS Type | Measurement Basis |
|---|---|
| **Intersection LOS** | Average control delay per vehicle |
| **Arterial LOS** | Average fraction of free-flow speed experienced along the corridor |

Two other, equally important, measures of effectiveness used in this study are:

- v/c ratio: the fraction of capacity used by a particular movement. In general, we want to keep signals' v/c ratios below 0.95, but v/c ≤ 1.05 during the out year peak is likely acceptable since design traffic numbers usually represent worst-case conditions.
- Arterial travel time: the average time to drive from one end of the corridor to the other

## EVALUATION OF EXISTING CONDITIONS

Synchro 11 was used to model the existing conditions, including the observed problems with the signals. Additionally, we modeled the existing network with the signals operating properly, coordinated as appropriate, and with a minor recommended network change:

➔ Shawnee EB left turn lane should be restriped to allow through movement, and the controller should be reprogrammed so that EB and WB run separately (split phase). All further analysis assumes this change.

Table 4 shows arterial level of service for existing conditions, without and with fixing the signals.

**Table 4. No-Build Arterial Level of Service / Arterial Speed (mph) / Travel Time (min' sec)**

| Direction | Period | Existing Signals (2018 Volumes) | Repaired Signals (2018 Volumes) | Maintained Signals (2050 Volumes) |
|---|---|---|---|---|
| **NB** | AM Peak | D / 21 / 12' 10 | B / 28 / 09' 27 | E / 13 / 20' 02 |
| **SB** | AM Peak | C / 23 / 10' 56 | B / 30 / 08' 33 | E / 15 / 17' 10 |
| **NB** | PM Peak | D / 18 / 14' 26 | C / 27 / 09' 41 | F / 11 / 22' 53 |
| **SB** | PM Peak | D / 18 / 13' 47 | C / 28 / 09' 05 | F / 10 / 25' 00 |

Table 5 shows individual intersection LOS and maximum v/c ratios.

**Table 5. No-Build Intersection LOS - Maximum v/c Ratio**

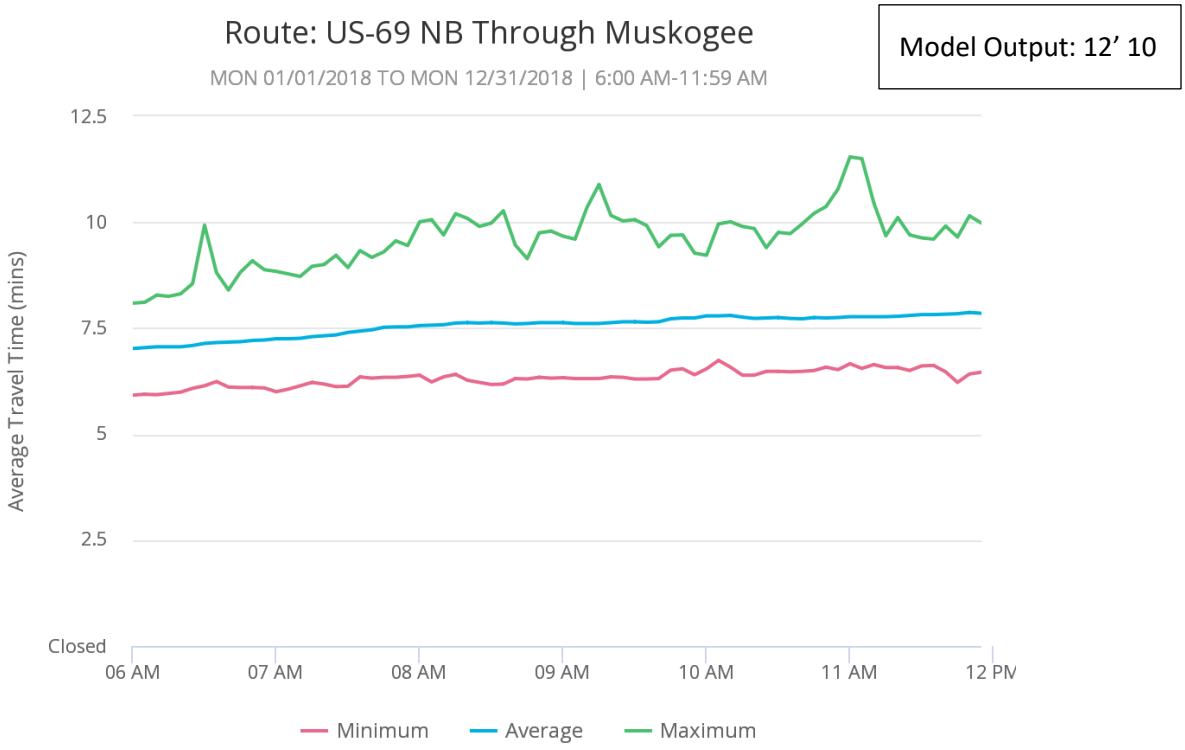
| Intersection | 2018 AM Existing | 2018 PM Existing | 2018 AM Repaired | 2018 PM Repaired | 2050 AM Maintained | 2050 PM Maintained |
|---|---|---|---|---|---|---|
| **US-69 & Fern Mountain/Harris** | D – 1.03 | E – **1.17** | D – 0.88 | D – 0.94 | F – **1.37** | F – **1.52** |
| **US-69 & Shawnee** | E – **1.09** | E – **1.24** | D – 0.98 | E – 1.05 | F – **1.37** | F – **1.56** |
| **US-69 & Military/ Tahlequah** | C – 0.76 | D – 0.84 | B – 0.74 | B – 0.79 | B – 0.98 | D – **1.07** |
| **US-69 & Broadway** | E – 1.01 | E – **1.09** | C – 0.97 | C – 0.94 | F – **1.27** | F – **1.31** |
| **US-69 & Okmulgee** | D – 0.87 | E – **1.06** | D – 0.96 | D – 1.04 | F – **1.32** | F – **1.50** |
| **US-69 & Arline** | D – 0.99 | E – **1.17** | B – 0.77 | C – 0.99 | E – **1.31** | F – **1.41** |
| **US-69 & Border** | D – **1.42** | D – **1.18** | C – 0.89 | C – 0.91 | F – **1.37** | F – **1.52** |
| **US-69 & Hancock** | B – 0.69 | C – 0.80 | C – 0.79 | C – 0.85 | D – **1.23** | F – **1.30** |

As can be seen in Tables 4 and 5, repairing the existing signals and updating the signal timings would reduce much of the current pain associated with rush hour. However, these tables also show that the corridor is projected to have serious capacity problems by 2050 if no other changes are made.

To validate the existing conditions model[2], we extracted corridor travel times for the entirety of 2018 from Iteris ClearGuide. As illustrated in **Figures 3 and 4**, consistent with design volumes representing worst-case conditions, we see that the worst-case corridor travel times generally line up with the model output well.

[2] It is likely that most of the failed detectors have been in that state since at least 2018.

**Figure 3. Iteris ClearView 2018 Travel Time Plot, AM**



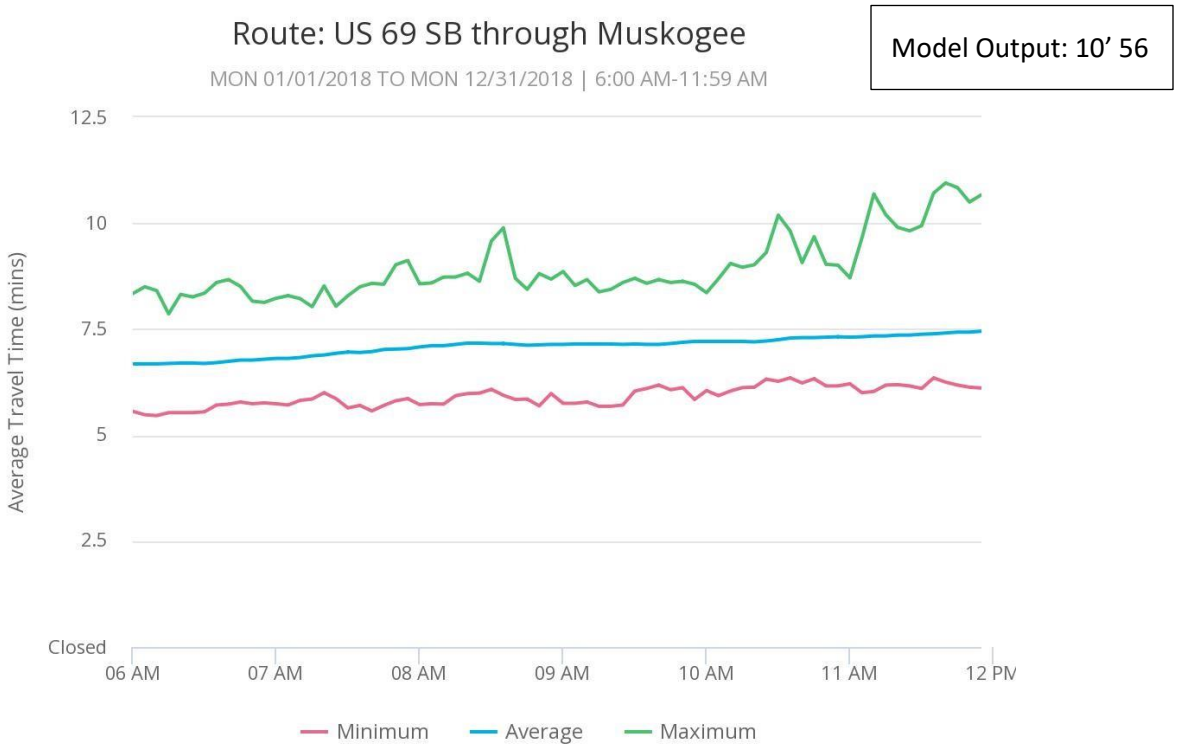
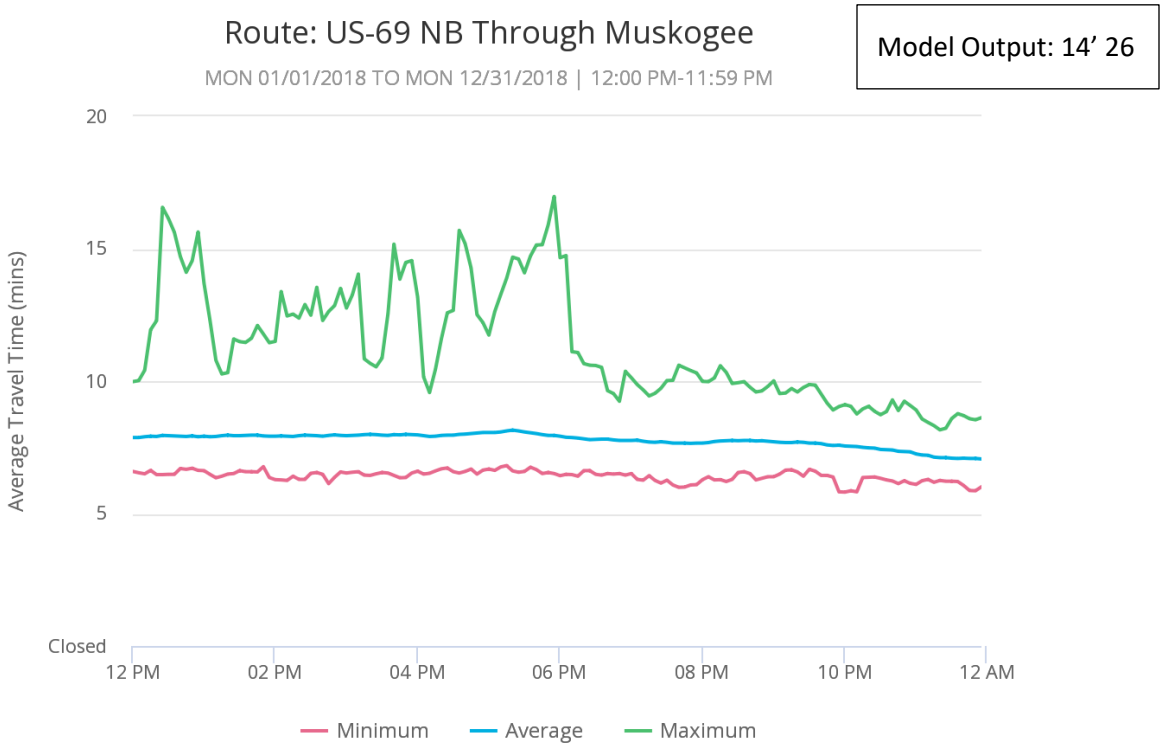
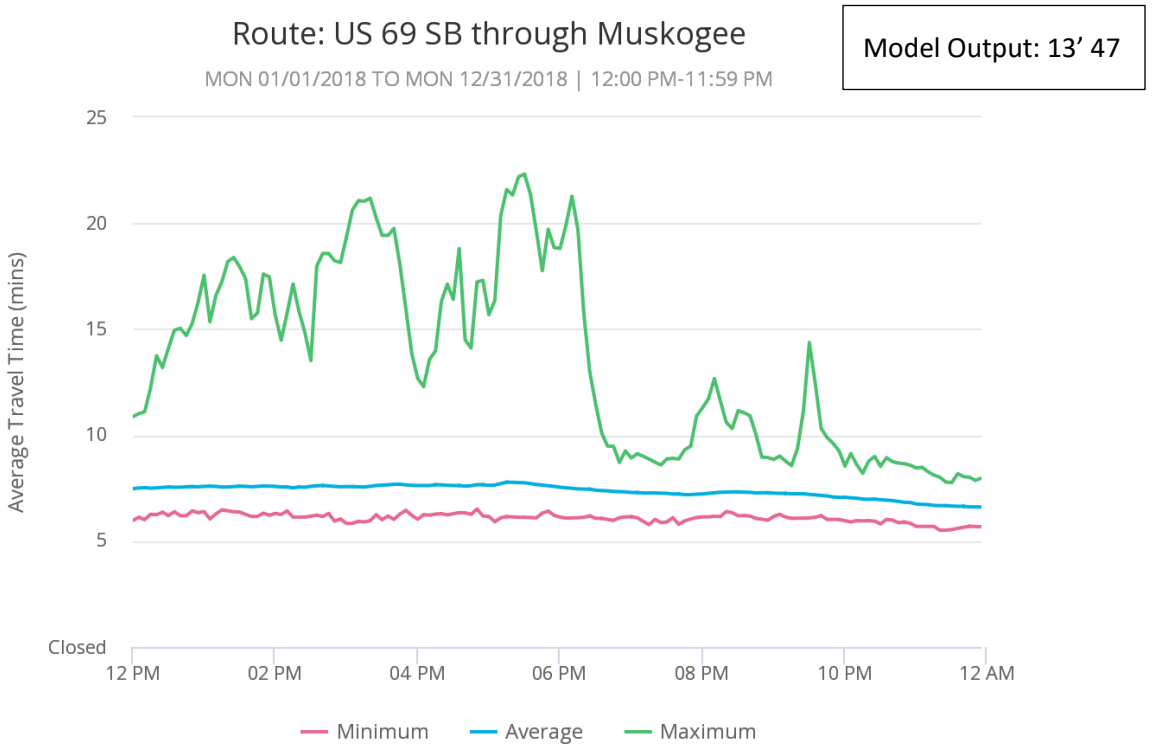



**Figure 4. Iteris ClearView 2018 Travel Time Plot, PM**



## EVALUATION OF CORRIDOR OPTIONS

HUB have presented three options for this corridor. However, from the day-to-day operations perspective, there is little difference between the six-lane with raised median option and the seven-lane option. For a given corridor, average travel speed will be a little lower with a center turn lane, compared to a raised median, due to the increased friction on the inside of the mainlanes. Therefore, average travel time will be a little higher. Because the seven-lane option has no operational benefit, and has a safety disbenefit, compared to the six lane option, Traffic Engineering Division expresses a preference for the six-lane option with raised median compared to the seven-lane option. In this report, the operational result reported for the six-lane option will also apply to the seven-lane option since there is no discernible analytical difference between these two options.

**Tables 6 and 7** show the arterial LOS measures for 2018 and 2050 volumes, respectively. It can be seen from these tables that:

- Under 2018 volumes, there will be little difference in performance regardless of the option chosen.
- The six lane option performs marginally better than either four-lane option in 2050.

**Tables 8 and 9** show intersection-level performance for 2018 and 2050 volumes, respectively.

**Table 6. 2018 Arterial Level of Service / Arterial Speed (mph) / Travel Time (min' sec)**

| Direction | Period | Repaired Signals | 4-Lane Divided Option | 6- and 7-Lane Options |
|---|---|---|---|---|
| **NB** | AM Peak | B / 28 / 09' 27 | B / 29 / 09' 06 | B / 29 / 09' 00 |
| **SB** | AM Peak | B / 30 / 08' 33 | B / 30 / 08' 24 | B / 31 / 08' 13 |
| **NB** | PM Peak | C / 27 / 09' 41 | C / 27 / 09' 31 | C / 28 / 09' 25 |
| **SB** | PM Peak | C / 28 / 09' 05 | B / 29 / 08' 48 | B / 29 / 08' 42 |

**Table 7. 2050 Arterial Level of Service / Arterial Speed (mph) / Travel Time (min' sec)**

| Direction | Period | Maintained Signals | 4-Lane Divided Option | 6- and 7-Lane Options |
|---|---|---|---|---|
| **NB** | AM Peak | E / 13 / 20' 02 | E / 14 / 18' 48 | E / 16 / 16' 31 |
| **SB** | AM Peak | E / 15 / 17' 10 | E / 16 / 16' 11 | E / 19 / 13'20 |
| **NB** | PM Peak | F / 11 / 22' 53 | F / 12 / 21' 47 | E / 14 / 19' 17 |
| **SB** | PM Peak | F / 10 / 25' 00 | F / 11 / 22' 51 | E / 15 / 16' 58 |

**Table 8. 2018 Intersection LOS – Maximum v/c Ratio for All Options**

| Intersection | 2018 AM Repaired | 2018 PM Repaired | 2018 AM 4-Lane | 2018 PM 4-Lane | 2018 AM 6-/7-Lane | 2018 PM 6-/7-Lane |
|---|---|---|---|---|---|---|
| **US-69 & Fern Mountain/Harris** | D – 0.88 | D – 0.94 | D – 0.88 | D – 0.94 | D – 0.88 | D – 0.94 |
| **US-69 & Shawnee** | D – 0.98 | E – 1.05 | D – 0.98 | E – 1.05 | D – 0.98 | D – 1.05 |
| **US-69 & Military/ Tahlequah** | B – 0.74 | B – 0.79 | B – 0.74 | B – 0.79 | B – 0.74 | B – 0.79 |
| **US-69 & Broadway** | C – 0.97 | C – 0.94 | C – 0.97 | C – 0.94 | C – 0.98 | C – 0.94 |
| **US-69 & Okmulgee** | D – 0.96 | D – 1.04 | D – 0.96 | D – 1.04 | C – 0.91 | D – 0.95 |
| **US-69 & Arline** | B – 0.77 | C – 0.99 | B – 0.77 | C – 0.98 | B – 0.63 | C – 0.74 |
| **US-69 & Border** | C – 0.89 | C – 0.91 | B – 0.77 | C – 0.78 | B – 0.74 | B – 0.61 |
| **US-69 & Hancock** | C – 0.79 | C – 0.85 | B – 0.74 | C – 0.80 | B – 0.55 | B – 0.73 |

**Table 9. 2050 Intersection LOS – Maximum v/c Ratio for All Options**

| Intersection | 2050 AM Maintained | 2050 PM Maintained | 2050 AM 4-Lane | 2050 PM 4-Lane | 2050 AM 6-/7-Lane | 2050 PM 6-/7-Lane |
|---|---|---|---|---|---|---|
| **US-69 & Fern Mountain/Harris** | F – **1.37** | F – **1.52** | F – **1.37** | F – **1.52** | F – **1.37** | F – **1.52** |
| **US-69 & Shawnee** | F – **1.37** | F – **1.56** | F – **1.37** | F – **1.56** | F – **1.37** | F – **1.56** |
| **US-69 & Military/ Tahlequah** | B – 0.98 | D – **1.07** | B – 0.98 | D – **1.07** | B – 0.98 | D – **1.07** |
| **US-69 & Broadway** | F – **1.27** | F – **1.31** | F – **1.27** | F – **1.31** | F – **1.27** | F – **1.31** |
| **US-69 & Okmulgee** | F – **1.32** | F – **1.50** | F – **1.32** | F – **1.50** | F – **1.20** | F – **1.33** |
| **US-69 & Arline** | E – **1.31** | F – **1.41** | E – **1.31** | F – **1.41** | C – 0.92 | E – **1.09** |
| **US-69 & Border** | F – **1.37** | F – **1.52** | F – **1.32** | F – **1.34** | D – 0.97 | C – 1.00 |
| **US-69 & Hancock** | D – **1.23** | F – **1.30** | C – 1.04 | D – **1.13** | C – 0.89 | C – 0.91 |

As can be seen in Table 9, even with construction of the six-lane option, major operational problems are projected to remain from Okmulgee Avenue to the north in 2050, although the six-lane option is projected to serve the corridor well through 2050 from Arline to the south.

## POTENTIAL FURTHER MODIFICATIONS TO THE CORRIDOR

For this very important highway to remain effective through Muskogee, further modifications will be necessary in Muskogee by 2050.

As stated previously, neither ODOT nor Federal Highway Administration embrace a minimum Level of Service for its highways. Instead, our goal in this instance is to make sure US-69 keeps moving through town without undue delay on the minor movements.

### FERN MOUNTAIN/HARRIS ROAD INTERSECTION

In 2050, peak hour demand is projected to exceed capacity by up to 50% on all movements except eastbound. The following modifications are recommended:

- ➔ Extend six-lane section north past Fern Mountain/Harris.
- ➔ Add left turn pockets on Fern Mountain/Harris.
- ➔ Add northbound right-turn pocket.

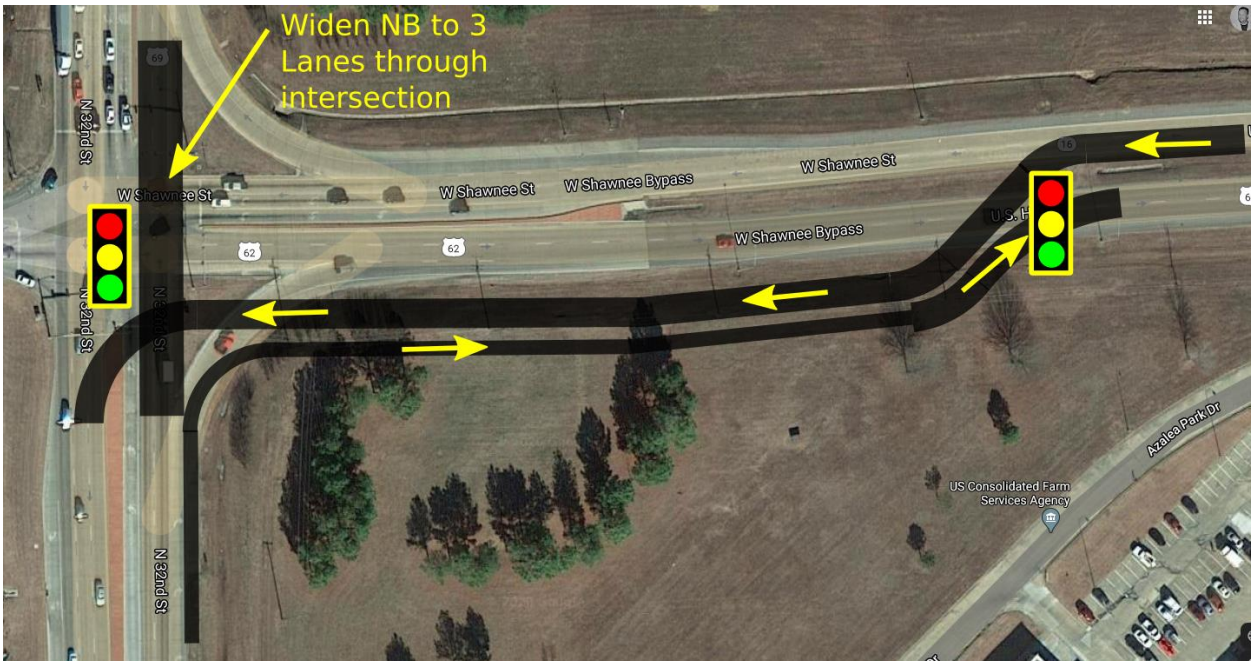
As a result of these modifications, the demand is projected to remain within capacity in 2050.

### SHAWNEE INTERSECTION

In 2050, peak hour demand is expected to exceed capacity by up to 56% on the NBT and WBL movements. These movements conflict with each other, and there is no good way to keep them from

doing so. However, we can reduce the number of phases that the main intersection must serve. We recommend introducing a displaced left turn westbound at this intersection. As seen in **Figure 5**, with this configuration, vehicles from the east turning south onto US-69 would begin their left turn in advance of the main intersection by crossing onto a parallel roadway to the left. Then, at the main intersection, the westbound left turn can run at the same time as the eastbound through movement.

**Figure 5. Displaced Left Turn at Shawnee**

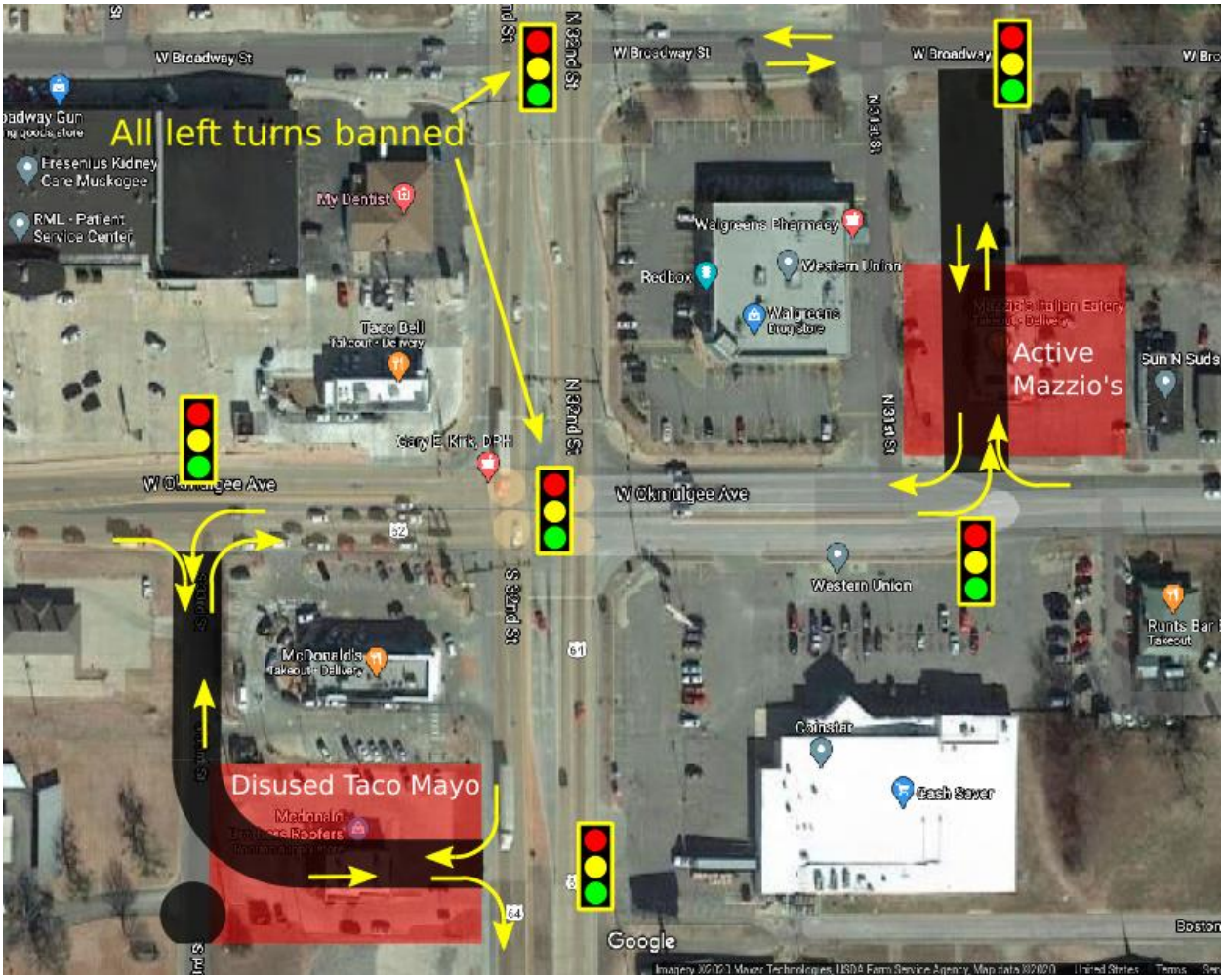



As a result of these modifications, the demand is projected to remain within capacity in 2050.

## OKMULGEE & BROADWAY INTERSECTIONS

In 2050, peak hour demand is projected to exceed demand by up to 33% on most movements at these intersections, including the through movements on US-69. While there is not room to widen the approaches to these intersections, like with Shawnee, we can reduce the number of conflicting phases that must be served along US-69 and the crossroads. For these junctions, we recommend banning left turns at both intersections and constructing two quadrant roadways to allow indirect left turn movements, as shown in **Figure 6**.

**Figure 6. Quadrant Roadways at Okmulgee and Broadway**




As a result of these modifications, the demand is projected to remain within capacity in 2050.

## CORRIDOR CAPACITY ANALYSIS OF ADDITIONAL MODIFICATIONS

Projected performance of the ultimate corridor under 2050 volumes, compared with the six-lane option of HUB's study, are shown in **Tables 10 and 11**.

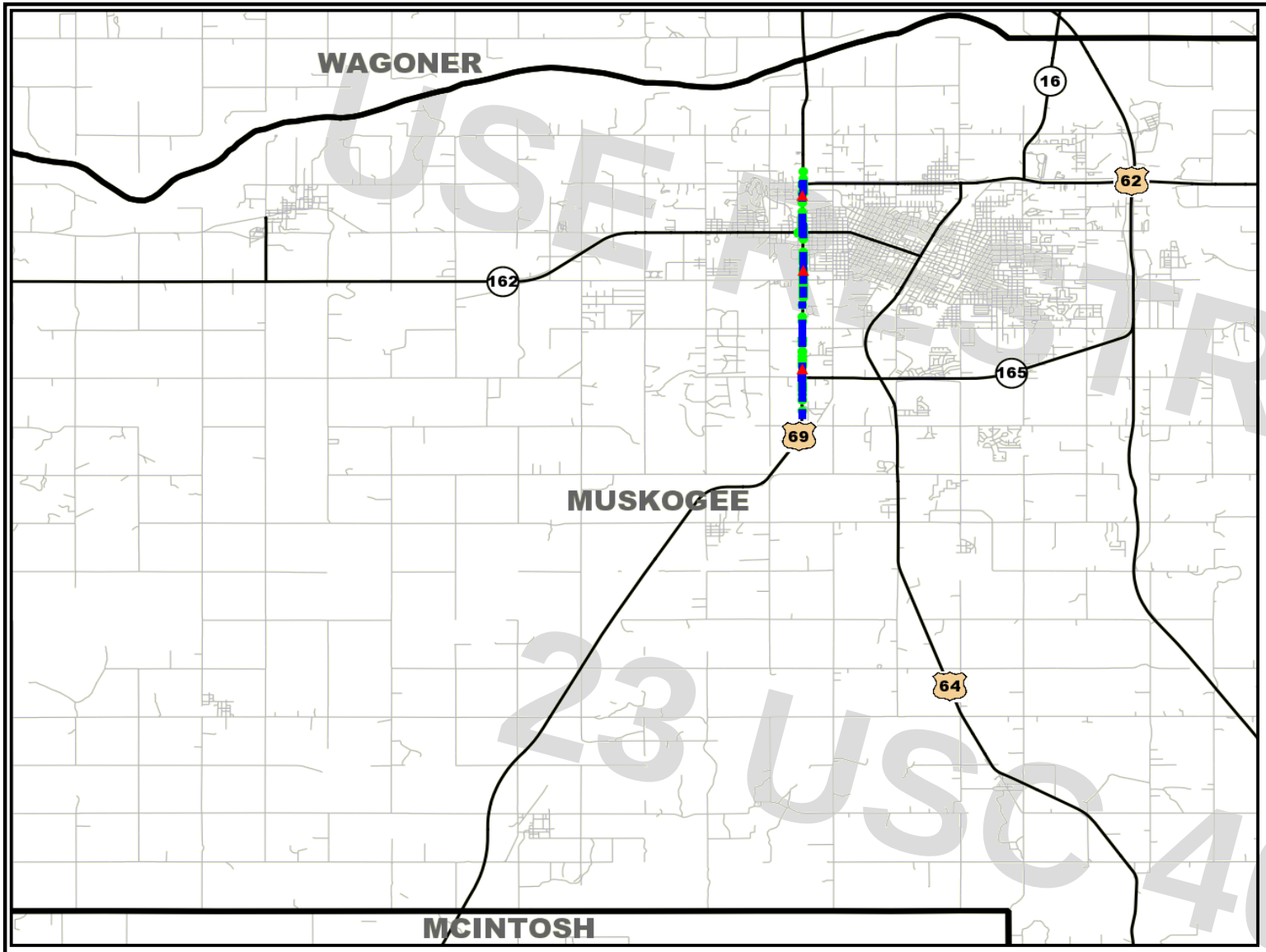
**Table 10. 2050 Arterial Level of Service / Arterial Speed (mph) / Travel Time (min' sec)**

| Direction | Period | 6- and 7-Lane Options | With Additional Modifications |
|---|---|---|---|
| **NB** | AM Peak | E / 16 / 16' 31 | B / 29 / 08' 56 |
| **SB** | AM Peak | E / 19 / 13'20 | B / 30 / 08' 25 |
| **NB** | PM Peak | E / 14 / 19' 17 | C / 24 / 11' 04 |
| **SB** | PM Peak | E / 15 / 16' 58 | C / 24 / 10' 44 |

**Table 11. 2050 Intersection LOS – Maximum v/c Ratio with Additional Modifications**

| Intersection | 2050 AM 6-/7-Lane | 2050 PM 6-/7-Lane | 2050 AM Additional Mods | 2050 PM Additional Mods |
|---|---|---|---|---|
| **US-69 & Fern Mountain/Harris** | F – **1.37** | F – **1.52** | C – 0.91 | E – 0.97 |
| **US-69 & Shawnee** | F – **1.37** | F – **1.56** | C – 0.94 | D – 1.01 |
| **US-69 & Military/ Tahlequah** | B – 0.98 | D – **1.07** | C – 0.90 | D – 0.99 |
| **US-69 & Broadway** | F – **1.27** | F – **1.31** | C – 0.95 | D – 0.96 |
| **US-69 & Okmulgee** | F – **1.20** | F – **1.33** | C – 0.90 | D – 0.93 |
| **US-69 & Arline** | C – 0.92 | E – **1.09** | C – 0.92 | D – 1.02 |
| **US-69 & Border** | D – 0.97 | C – 1.00 | C – 0.97 | D – 1.00 |
| **US-69 & Hancock** | C – 0.89 | C – 0.91 | B – 0.91 | C – 0.91 |

# Appendix C
# Crash Report Data






Program Provided by:
Traffic Engineering Division
Collision Analysis and Safety Branch
(405) 522-0985
Created: 09/16/2020
by Edward Dihrberg

# Study Map & Totals

**Legend**

- Fatality
- Injury
- Property Damage

N
W E
S

**Remarks:**

*NONE*

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 thru 09-16-2020**

| | 2014 | | | | | | 2015 | | | | | | 2016 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fat | SRS Inj | Non-Incap Inj | Poss Inj | PD | Tot | Fat | SRS Inj | Non-Incap Inj | Poss Inj | PD | Tot | Fat | SRS Inj | Non-Incap Inj | Poss Inj | PD | Tot |
| Collisions | 1 | 5 | 12 | 12 | 62 | 92 | | 3 | 15 | 17 | 72 | 107 | 1 | 1 | 6 | 11 | 72 | 91 |
| Persons | 1 | 7 | 14 | 23 | | 45 | | 3 | 20 | 23 | | 46 | 1 | 1 | 8 | 16 | | 26 |

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(405) 522-0985
Created: 09/16/2020 by Edward Dihrberg



| | 2017 | | | | | | 2018* | | | | | | 2019* | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fat | SRS Inj | Non-Incap Inj | Poss Inj | PD | Tot | Fat | SRS Inj | Non-Incap Inj | Poss Inj | PD | Tot | Fat | SRS Inj | Non-Incap Inj | Poss Inj | PD | Tot |
| Collisions | | 1 | 9 | 16 | 66 | 92 | | 1 | 3 | 13 | 58 | 75 | 1 | 3 | 5 | 20 | 68 | 97 |
| Persons | | 1 | 13 | 21 | | 35 | | 1 | 3 | 19 | | 23 | 1 | 3 | 5 | 42 | | 51 |

* DENOTES A YEAR FOR WHICH DATA MAY BE INCOMPLETE.

| | 2020* | | | | | |
|---|---|---|---|---|---|---|
| | Fat | SRS Inj | Non-Incap Inj | Poss Inj | PD | Tot |
| Collisions | | | | | 3 | 3 |
| Persons | | | | | | 0 |

* DENOTES A YEAR FOR WHICH DATA MAY BE INCOMPLETE.

| | Study Total | | | | | |
|---|---|---|---|---|---|---|
| | Fatality | Suspected Serious Injury | Non-Incapacitating Injury | Possible Injury | Property Damage | Total |
| Collisions | 3 | 14 | 50 | 89 | 401 | 557 |
| Persons | 3 | 16 | 63 | 144 | | 226 |

# STUDY TOTALS - BY CITY AND HWY CLASS

## UPDATED US 69 CRASH DATA

## Date Range: 02-01-2014 Thru 09-16-2020

Program Provided by:
Traffic Engineering Division
Collision Analysis and Safety Branch
(405) 522-0985
Created: 09/16/2020 by Edward Dihrberg



**STUDY TOTALS**

| | HIGHWAY COLLISIONS | | | | CITY STREET COLLISIONS | | | | COUNTY ROAD COLLISIONS | | | | TOTAL COLLISIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot |
| 2014 | 1 | 29 | 62 | 92 | | | | | | | | | 1 | 29 | 62 | 92 |
| 2015 | | 35 | 72 | 107 | | | | | | | | | | 35 | 72 | 107 |
| 2016 | 1 | 18 | 72 | 91 | | | | | | | | | 1 | 18 | 72 | 91 |
| 2017 | | 26 | 66 | 92 | | | | | | | | | | 26 | 66 | 92 |
| 2018 * | | 17 | 58 | 75 | | | | | | | | | | 17 | 58 | 75 |
| 2019 * | 1 | 28 | 68 | 97 | | | | | | | | | 1 | 28 | 68 | 97 |
| 2020 * | | | 3 | 3 | | | | | | | | | | | 3 | 3 |
| Total: | 3 | 153 | 401 | 557 | | | | 0 | | | | 0 | 3 | 153 | 401 | 557 |

*** DENOTES A YEAR FOR WHICH DATA MAY BE INCOMPLETE.**

**County: (51) MUSKOGEE**

| | HIGHWAY COLLISIONS | | | | CITY STREET COLLISIONS | | | | COUNTY ROAD COLLISIONS | | | | TOTAL COLLISIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot |
| (30) MUSKOGEE | 3 | 153 | 401 | 557 | | | | | | | | | 3 | 153 | 401 | 557 |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

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Collision Analysis and Safety Branch
(405) 522-0985
Created: 09/16/2020 by Edward Dihrberg



## Number of Collisions By Fiscal Year *

| | 2014 | 2015 | | | | | 2016 | | | | | 2017 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Qtr4 | Qtr1 | Qtr2 | Qtr3 | Qtr4 | Tot | Qtr1 | Qtr2 | Qtr3 | Qtr4 | Tot | Qtr1 | Qtr2 | Qtr3 | Qtr4 | Tot |
| Fatal | 1 | | | | | | | | | 1 | 1 | | | | | |
| Injury ** | 3 | 10 | 10 | 8 | 6 | 34 | 8 | 13 | 2 | 3 | 26 | 6 | 7 | 7 | 6 | 26 |
| Property Damage | 7 | 28 | 23 | 16 | 21 | 88 | 21 | 14 | 5 | 18 | 58 | 22 | 27 | 17 | 16 | 82 |
| Total | 11 | 38 | 33 | 24 | 27 | 122 | 29 | 27 | 7 | 22 | 85 | 28 | 34 | 24 | 22 | 108 |

## Number of Collisions By Fiscal Year *

| | 2018 | | | | | 2019 | | | | | 2020 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Qtr1 | Qtr2 | Qtr3 | Qtr4 | Tot | Qtr1 | Qtr2 | Qtr3 | Qtr4 | Tot | Qtr1 | Qtr2 | Qtr3 | Qtr4 | Tot |
| Fatal | | | | | | | | | | | | 1 | | | 1 |
| Injury ** | 6 | 7 | 2 | 8 | 23 | 4 | 3 | 10 | 9 | 26 | 3 | 6 | | | 9 |
| Property Damage | 11 | 22 | 13 | 15 | 61 | 12 | 18 | 20 | 14 | 64 | 21 | 13 | 3 | | 37 |
| Total | 17 | 29 | 15 | 23 | 84 | 16 | 21 | 30 | 23 | 90 | 24 | 20 | 3 | | 47 |

* Fiscal year dates are defined as 07-01 of the prior year to 06-30.

** Includes Suspected Serious, Non-Incapacitating, and Possible Injuries.

TABULATION OF COLLISIONS

UPDATED US 69 CRASH DATA

Date Range: 02-01-2014 Thru 09-16-2020

Program Provided by:
Traffic Engineering Division
Collision Analysis and Safety Branch
(405) 522-0985
Created: 09/16/2020 by Edward Dihrberg



## Collisions By Type Of Collision

| Type Of Collision | 2014 | | | | 2015 | | | | 2016 | | | | 2017 | | | | 2018* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot |
| Rear-End (front-to-rear) | | 14 | 24 | 38 | | 16 | 36 | 52 | | 6 | 30 | 36 | | 11 | 29 | 40 | | 8 | 30 | 38 |
| Head-On (front-to-front) | | | | | | | | | | | 1 | 1 | | | | | | | | |
| Right Angle (front-to-side) | | 7 | 5 | 12 | | 4 | 8 | 12 | 1 | 6 | 8 | 15 | | 6 | 6 | 12 | | 2 | 1 | 3 |
| Angle Turning | | 2 | 13 | 15 | | 5 | 10 | 15 | | 3 | 10 | 13 | | 4 | 12 | 16 | | 4 | 9 | 13 |
| Other Angle | | | | | | | | | | | 2 | 2 | | | | | | | | |
| Sideswipe Same Direction | | 2 | 13 | 15 | | 1 | 10 | 11 | | 2 | 15 | 17 | | 2 | 10 | 12 | | 1 | 14 | 15 |
| Sideswipe Opposite Direction | | | | | | | | | | | | | | | | | | | | |
| Fixed Object | | 2 | 2 | 4 | | 4 | 3 | 7 | | | 2 | 2 | | 1 | 1 | 2 | | 1 | 2 | 3 |
| Pedestrian | 1 | 1 | | 2 | | 1 | | 1 | | 1 | | 1 | | 1 | 1 | 2 | | | | |
| Pedal Cycle | | 1 | | 1 | | | | | | | 1 | 1 | | | | | | | | |
| Animal | | | | | | | | | | | 1 | 1 | | | 3 | 3 | | | | |
| Overturn/Rollover | | | | | | 1 | | 1 | | | | | | 1 | | 1 | | 1 | | 1 |
| Vehicle-Train | | | | | | | | | | | | | | | | | | | | |
| Other Single Vehicle Crash | | | | | | 3 | 1 | 4 | | | | | | | | | | | | |
| Other | | | 5 | 5 | | | 4 | 4 | | | 2 | 2 | | | 4 | 4 | | | 2 | 2 |
| Total | 1 | 29 | 62 | 92 | | 35 | 72 | 107 | 1 | 18 | 72 | 91 | | 26 | 66 | 92 | | 17 | 58 | 75 |
| Percent | 0.2 | 5.2 | 11.1 | 16.5 | | 6.3 | 12.9 | 19.2 | 0.2 | 3.2 | 12.9 | 16.3 | | 4.7 | 11.8 | 16.5 | | 3.1 | 10.4 | 13.5 |

## Collisions By Type Of Collision

| Type Of Collision | 2019* | | | | 2020* | | | | Total | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Pct |
| Rear-End (front-to-rear) | | 10 | 36 | 46 | | | | | 65 | | 185 | 250 | 44.9 |
| Head-On (front-to-front) | 1 | | | 1 | | | | | 1 | | 1 | 2 | 0.4 |
| Right Angle (front-to-side) | | 7 | 5 | 12 | | | 1 | 1 | 1 | 32 | 34 | 67 | 12.0 |
| Angle Turning | | 6 | 8 | 14 | | | 1 | 1 | | 24 | 63 | 87 | 15.6 |
| Other Angle | | | | | | | | | | | 2 | 2 | 0.4 |
| Sideswipe Same Direction | | | 10 | 10 | | | | | | 8 | 72 | 80 | 14.4 |
| Sideswipe Opposite Direction | | | 1 | 1 | | | | | | | 1 | 1 | 0.2 |
| Fixed Object | | 2 | 4 | 6 | | | 1 | 1 | | 10 | 15 | 25 | 4.5 |
| Pedestrian | | 1 | | 1 | | | | | 1 | 5 | 1 | 7 | 1.3 |
| Pedal Cycle | | | | | | | | | | 1 | 1 | 2 | 0.4 |
| Animal | | | | | | | | | | | 4 | 4 | 0.7 |
| Overturn/Rollover | | 1 | | 1 | | | | | | 4 | | 4 | 0.7 |
| Vehicle-Train | | | | | | | | | | | | | |
| Other Single Vehicle Crash | | | | | | | | | | 3 | 1 | 4 | 0.7 |
| Other | | 1 | 4 | 5 | | | | | | 1 | 21 | 22 | 3.9 |
| Total | 1 | 28 | 68 | 97 | | | 3 | 3 | 3 | 153 | 401 | 557 | 100 |
| Percent | 0.2 | 5.0 | 12.2 | 17.4 | | | 0.5 | 0.5 | 0.5 | 27.5 | 72.0 | 100 | |

* INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.

Program Provided by:
Traffic Engineering Division
Collision Analysis and Safety Branch
(405) 522-0985
Created: 09/16/2020 by Edward Dihrberg



## Units By Unit Type

| Unit Type | 2014 | | | | 2015 | | | | 2016 | | | | 2017 | | | | 2018* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot |
| Train | | | | | | | | | | | | | | | | | | | | |
| Pedestrian | 1 | 2 | | 3 | | 1 | | 1 | | 1 | | 1 | | 1 | 1 | 2 | | | | |
| Animal | | | | | | | | | | | 1 | 1 | | | 3 | 3 | | | | |
| Pedal Cycle | | | | | | 1 | | 1 | | | 1 | 1 | | | | | | | | |
| Parked Vehicle | | | | | | | | | | | | | | | | | | | 1 | 1 |
| CMV | | 3 | 12 | 15 | | 6 | 17 | 23 | 2 | 1 | 10 | 13 | | 6 | 14 | 20 | | 5 | 16 | 21 |
| Other Single Vehicle | 1 | 4 | 2 | 7 | | 9 | 2 | 11 | | 1 | 4 | 5 | | 3 | 4 | 7 | | 2 | 2 | 4 |
| Other Multi-Vehicle | | 51 | 109 | 160 | | 49 | 125 | 174 | 2 | 35 | 133 | 170 | | 42 | 112 | 154 | | 28 | 97 | 125 |
| Total | 2 | 60 | 123 | 185 | | 66 | 144 | 210 | 4 | 38 | 149 | 191 | | 52 | 134 | 186 | | 35 | 116 | 151 |
| Percent | 0.2 | 5.4 | 11.0 | 16.5 | | 5.9 | 12.9 | 18.8 | 0.4 | 3.4 | 13.3 | 17.1 | | 4.6 | 12.0 | 16.6 | | 3.1 | 10.4 | 13.5 |

## Units By Unit Type

| Unit Type | 2019* | | | | 2020* | | | | Total | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Pct |
| Train | | | | | | | | | | | | | |
| Pedestrian | | 1 | | 1 | | | | | 1 | 6 | 1 | 8 | 0.7 |
| Animal | | | | | | | | | | | 4 | 4 | 0.4 |
| Pedal Cycle | | | | | | | | | | 1 | 1 | 2 | 0.2 |
| Parked Vehicle | | | 1 | 1 | | | | | | | 2 | 2 | 0.2 |
| CMV | 1 | 3 | 23 | 27 | | | 3 | 3 | 3 | 24 | 95 | 122 | 10.9 |
| Other Single Vehicle | | 4 | 5 | 9 | | | | | 1 | 23 | 19 | 43 | 3.8 |
| Other Multi-Vehicle | 1 | 48 | 104 | 153 | | | 3 | 3 | 3 | 253 | 683 | 939 | 83.8 |
| Total | 2 | 56 | 133 | 191 | | | 6 | 6 | 8 | 307 | 805 | 1120 | 100 |
| Percent | 0.2 | 5.0 | 11.9 | 17.1 | | | 0.5 | 0.5 | 0.7 | 27.4 | 71.9 | 100 | |

* INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.

Program Provided by:
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Collision Analysis and Safety Branch
(405) 522-0985
Created: 09/16/2020 by Edward Dihrberg



## Vehicles By Vehicle Type

| Vehice Type | 2014 | | | | 2015 | | | | 2016 | | | | 2017 | | | | 2018* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot |
| Passenger Vehicle-2 Door | | 1 | 8 | 9 | | 2 | 9 | 11 | | 3 | 9 | 12 | | 2 | 5 | 7 | | 4 | 2 | 6 |
| Passenger Vehicle-4 Door | | 14 | 49 | 63 | | 21 | 55 | 76 | 1 | 13 | 73 | 87 | | 15 | 69 | 84 | | 7 | 47 | 54 |
| Passenger Vehicle-Convertible | | | | | | | | | | | | | | | | | | | | |
| Pickup Truck | | 7 | 40 | 47 | | 9 | 35 | 44 | | 3 | 30 | 33 | | 4 | 31 | 35 | | 4 | 31 | 35 |
| Single-Unit Truck (2 axles) | | | | | | | 1 | 1 | | | 2 | 2 | | | | | | | 1 | 1 |
| Single-Unit Truck (3 or more axles) | | | 1 | 1 | | | | | | | | | | | 1 | 1 | | | 1 | 1 |
| School Bus | | | | | | | | | | | | | | | | | | | | |
| Truck/Trailer | | | 3 | 3 | | | 2 | 2 | | | 2 | 2 | | | | | | 1 | 4 | 5 |
| Truck-Tractor (bobtail) | | | | | | | 1 | 1 | | | | | | | 1 | 1 | | | | |
| Truck-Tractor/Semi-Trailer | | 1 | 10 | 11 | | 1 | 20 | 21 | | | 10 | 10 | | 1 | 17 | 18 | | 1 | 14 | 15 |
| Truck-Tractor/Double | | | | | | | 1 | 1 | | | | | | | | | | | | |
| Truck-Tractor/Triple | | | | | | | | | | | | | | | | | | | | |
| Bus/Large Van (9-15 seats) | | | | | | | | | | | | | | | | | | | | |
| Bus (16+ seats) | | | | | | | | | | | | | | | | | | | | |
| Motorcycle | | | | | | | | | | | | | | | | | | | | |
| Motor Scooter/Moped | | | | | | | | | | | | | | | | | | | | |
| Motor Home | | | | | | | | | | | 1 | 1 | | | | | | | | |
| Farm Machinery | | | | | | | | | | | | | | | | | | | | |
| ATV | | | | | | | | | | | | | | | | | | | | |
| Sport Utility Vehicle (SUV) | | 8 | 21 | 29 | | 5 | 28 | 33 | | 2 | 30 | 32 | | 8 | 10 | 18 | | 5 | 13 | 18 |
| Passenger Van | | | 6 | 6 | | 1 | 9 | 10 | | | 2 | 2 | | 1 | 9 | 10 | | | 3 | 3 |
| Truck More Than 10,000 lbs. | | | 2 | 2 | | | 1 | 1 | | | | | | | 1 | 1 | | | | |
| Van (10,000 lbs. or less) | | 1 | 1 | 2 | | | 1 | 1 | | 1 | | 1 | | | 2 | 2 | | 1 | 1 | 2 |
| Other | | 1 | 8 | 9 | | | 6 | 6 | | | 6 | 6 | | | 4 | 4 | | | 11 | 11 |
| Total | | 33 | 149 | 182 | | 39 | 169 | 208 | 1 | 22 | 165 | 188 | | 31 | 150 | 181 | | 23 | 128 | 151 |
| Percent | | 3.0 | 13.5 | 16.5 | | 3.5 | 15.3 | 18.8 | 0.1 | 2.0 | 14.9 | 17.0 | | 2.8 | 13.6 | 16.4 | | 2.1 | 11.6 | 13.7 |

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Program Provided by:
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Collision Analysis and Safety Branch
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Created: 09/16/2020 by Edward Dihrberg



## Vehicles By Vehicle Type

| Vehice Type | 2019* | | | | 2020* | | | | Total | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Fat | Inj * | PD | Tot | Pct |
| Passenger Vehicle-2 Door | | 2 | 9 | 11 | | | | | | 14 | 42 | 56 | 5.1 |
| Passenger Vehicle-4 Door | 1 | 14 | 58 | 73 | | | 3 | 3 | 2 | 84 | 354 | 440 | 39.8 |
| Passenger Vehicle-Convertible | | | 1 | 1 | | | | | | | 1 | 1 | 0.1 |
| Pickup Truck | | 6 | 25 | 31 | | | | | | 33 | 192 | 225 | 20.3 |
| Single-Unit Truck (2 axles) | | | | | | | | | | | 4 | 4 | 0.4 |
| Single-Unit Truck (3 or more axles) | | | | | | | | | | | 3 | 3 | 0.3 |
| School Bus | | | | | | | | | | | | | |
| Truck/Trailer | | | 6 | 6 | | | | | | 1 | 17 | 18 | 1.6 |
| Truck-Tractor (bobtail) | | | 1 | 1 | | | | | | | 3 | 3 | 0.3 |
| Truck-Tractor/Semi-Trailer | | | 16 | 16 | | | 3 | 3 | | 4 | 90 | 94 | 8.5 |
| Truck-Tractor/Double | | | 1 | 1 | | | | | | | 2 | 2 | 0.2 |
| Truck-Tractor/Triple | | | | | | | | | | | | | |
| Bus/Large Van (9-15 seats) | | | | | | | | | | | | | |
| Bus (16+ seats) | | | | | | | | | | | | | |
| Motorcycle | | 2 | | 2 | | | | | | 2 | | 2 | 0.2 |
| Motor Scooter/Moped | | | | | | | | | | | | | |
| Motor Home | | | | | | | | | | | 1 | 1 | 0.1 |
| Farm Machinery | | | | | | | | | | | | | |
| ATV | | | | | | | | | | | | | |
| Sport Utility Vehicle (SUV) | | 7 | 24 | 31 | | | | | | 35 | 126 | 161 | 14.6 |
| Passenger Van | | 2 | 3 | 5 | | | | | | 4 | 32 | 36 | 3.3 |
| Truck More Than 10,000 lbs. | | | 1 | 1 | | | | | | | 5 | 5 | 0.5 |
| Van (10,000 lbs. or less) | | 1 | 2 | 3 | | | | | | 4 | 7 | 11 | 1.0 |
| Other | | 2 | 6 | 8 | | | | | | 3 | 41 | 44 | 4.0 |
| Total | 1 | 36 | 153 | 190 | | | 6 | 6 | 2 | 184 | 920 | 1106 | 100 |
| Percent | 0.1 | 3.3 | 13.8 | 17.2 | | | 0.5 | 0.5 | 0.2 | 16.6 | 83.2 | 100 | |

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## Day And Time Of Occurrence Of Collisions

| Day | Hour Of The Day | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AM | | | | | | | | | | | | PM | | | | | | | | | | | | Tot | Pcnt |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | |
| Sunday | 1 | 1 | 2 | 1 | | | 1 | 3 | 2 | 2 | 3 | 3 | 5 | 2 | 1 | 6 | 2 | 2 | 5 | 2 | 2 | 3 | 1 | 2 | 52 | 9.3 |
| Monday | | | | | 2 | 2 | 1 | 7 | 2 | 2 | 7 | 6 | 9 | 9 | 5 | 3 | 3 | 3 | 2 | 5 | | | 2 | | 70 | 12.6 |
| Tuesday | 1 | | | 1 | | 2 | 2 | 2 | 3 | 2 | 6 | 8 | 8 | 6 | 6 | 8 | 7 | 6 | 5 | 2 | 5 | 1 | 1 | | 82 | 14.7 |
| Wednesday | | 1 | | | 2 | | 6 | 6 | 8 | 4 | 8 | 12 | 6 | 7 | 9 | 6 | 4 | 3 | 1 | 5 | 3 | 3 | | | 94 | 16.9 |
| Thursday | | | 1 | 1 | 2 | 5 | 3 | 3 | 3 | 8 | 5 | 7 | 8 | 10 | 8 | 7 | 5 | 4 | 3 | 3 | 2 | 2 | | | 90 | 16.2 |
| Friday | 1 | | 2 | 1 | 1 | 2 | 4 | 10 | 5 | 4 | 6 | 8 | 4 | 10 | 7 | 8 | 12 | 8 | 4 | 3 | 1 | 5 | 2 | 1 | 109 | 19.6 |
| Saturday | 1 | 2 | | | | 2 | 3 | | 2 | 5 | 6 | 6 | 3 | 3 | 3 | 3 | 3 | 6 | 1 | 1 | 3 | 3 | 2 | 2 | 60 | 10.8 |
| | Early Morning - Sunrise | | | | | | Morning Peak | | | Mid Morning/Afternoon | | | | | | PM Peak | | | Evening - Late Night | | | | | | Tot | 100 |
| Total | 37 | | | | | | 76 | | | 247 | | | | | | 109 | | | 88 | | | | | | 557 | |
| Percent | 6.6 | | | | | | 13.6 | | | 44.3 | | | | | | 19.6 | | | 15.8 | | | | | | 100 | |

## Roadway/Lighting

| Roadway Conditions | Lighting Conditions | | | | | Total | Percent |
|---|---|---|---|---|---|---|---|
| | Daylight | Darkness | Twilight | Lighted | Unknown | | |
| Dry | 345 | 20 | 8 | 78 | 1 | 452 | 81.1 |
| Wet (Water) | 61 | 1 | 2 | 23 | | 87 | 15.6 |
| Ice, Snow, or Slush | 8 | 3 | 1 | 2 | | 14 | 2.5 |
| Mud, Dirt, Gravel, or Sand | | | | | | | |
| Other | 1 | | 1 | | 2 | 4 | 0.7 |
| Total | 415 | 24 | 12 | 103 | 3 | 557 | 100 |
| Percent | 74.5 | 4.3 | 2.2 | 18.5 | 0.5 | 100 | |

## Weather Conditions

| Weather Conditions | Total | Percent |
|---|---|---|
| Clear | 374 | 67.1 |
| Clouds Present | 96 | 17.2 |
| Raining/Fog | 69 | 12.4 |
| Snowing/Sleet/Hail | 14 | 2.5 |
| Other | 4 | 0.7 |
| Total | 557 | 100 |

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## Drivers By Driver Conditions

| Unsafe/Unlawful | Apparently Normal | | | Alcohol Involved | | | | | | Sleep Suspected | | | Drug Use Indicated | | | Unknown Condition | | | Total | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Ability Impaired | | | Odor Detected | | | | | | | | | | | | | | | | |
| | Fat | Inj * | PD | Fat | Inj * | PD | Fat | Inj * | PD | Fat | Inj * | PD | Fat | Inj * | PD | Fat | Inj * | PD | Fat | Inj * | PD | Total | Pcnt |
| Failed to Yield | | 31 | 53 | | 1 | | | | | | | | | | | | 4 | 5 | | 36 | 58 | 94 | 8.5 |
| Failed to Stop | | 18 | 21 | | | | | | | | | | | | | 1 | 2 | 6 | 1 | 20 | 27 | 48 | 4.3 |
| Failed to Signal | | | | | | | | | | | | | | | | | | | | | | | |
| Improper Turn | | 3 | 24 | | | | | | | | | 1 | | | | | 1 | 5 | | 4 | 30 | 34 | 3.1 |
| Improper Start | | | 3 | | | | | | | | | | | | | | | | | | 3 | 3 | 0.3 |
| Improper Stop | | | | | | | | | | | | | | | | | | 1 | | | 1 | 1 | 0.1 |
| Improper Backing | | | 8 | | | | | | | | | | | | | | | 1 | | | 9 | 9 | 0.8 |
| Improper Parking | | | | | | | | | | | | | | | | | | | | | | | |
| Improper Passing | | | 4 | | | | | | | | | | | | | | | 1 | | | 5 | 5 | 0.5 |
| Improper Lane Change | | 6 | 44 | | | | | | | | | | | | 1 | | | 8 | | 6 | 53 | 59 | 5.3 |
| Left of Center | | | 2 | | | | | | | | | | | | | | | 1 | | | 3 | 3 | 0.3 |
| Following Too Close | | 40 | 114 | | | | | | | | | 1 | | | 2 | | 3 | 5 | | 43 | 122 | 165 | 14.9 |
| Unsafe Speed | | 6 | 8 | | | | | | | | | | | | | | 2 | | | 8 | 8 | 16 | 1.4 |
| DWI | | | | | 4 | 8 | | | 3 | | | | | 4 | | | | | | 8 | 11 | 19 | 1.7 |
| Inattention | | 10 | 30 | | 1 | | | | | | 1 | 3 | | | | | 2 | | | 14 | 33 | 47 | 4.3 |
| Negligent Driving | | | 4 | | | | | | | | | | | | | | | 3 | | | 7 | 7 | 0.6 |
| Defective Vehicle | | 1 | 3 | | | | | | | | | | | | | | | | | 1 | 3 | 4 | 0.4 |
| Wrong Way | | | | 1 | | | | | | | | | | | | | | | 1 | | | 1 | 0.1 |
| No Improper Action | 5 | 138 | 376 | | | | | | | | | | | | | | 8 | 7 | 5 | 146 | 383 | 534 | 48.4 |
| Other | | 10 | 30 | | | | | | | | | | | | | | 4 | 11 | | 14 | 41 | 55 | 5.0 |
| Total | 5 | 263 | 724 | 1 | 6 | 8 | | | 3 | | 1 | 5 | | 4 | 3 | 1 | 26 | 54 | 7 | 300 | 797 | 1104 | 100 |
| Percent | 0.5 | 23.8 | 65.6 | 0.1 | 0.5 | 0.7 | | | 0.3 | | 0.1 | 0.5 | | 0.4 | 0.3 | 0.1 | 2.4 | 4.9 | 0.6 | 27.2 | 72.2 | 100 | |

Severities Indicate Highest Severity in Collision

## Collisions By Special Feature

| Special Feature | Total | | | |
|---|---|---|---|---|
| | Fat | Inj * | PD | Tot |
| Bridge | | 1 | 3 | 4 |
| Work Zone | | 2 | 9 | 11 |
| Cross Median | 1 | 3 | | 4 |
| Train Collision | | | | |

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# Collision Rate Analysis



**UPDATED US 69 CRASH DATA**
**Time Period: 02-01-2014 to 09-16-2020 (2419 days)**

**RATE = No. of Collisions per 100 Million Vehicle Miles**

| Rate Type | Location Rates | Statewide Rates ** (2015 - 2017) | Critical Rates |
|---|---|---|---|
| Queried Collisions: | 223.16 | 180.60 | 194.79 |
| Fatal Collisions: | 1.20 | 1.07 | |
| Vis. Injury Collisions *: | 25.64 | 21.41 | |
| Vis. Injury + Fatal: | 26.84 | 22.48 | 27.62 |

**Collision History Summary**
**(Number of Years = 7)**

| # Collisions | | # People | |
|---|---|---|---|
| Involving Fatality: | 3 | Killed: | 3 |
| Vis. Injury *: | 64 | Vis. Injured *: | 79 |
| Poss. Injury: | 89 | Poss. Injured: | 144 |
| Property Damage Only: | 401 | | |
| TOTAL: | 557 | | |

* Includes Suspected Serious and Non-Incapacitating Injuries.

**Road Characteristics**

| | |
|---|---|
| Roadway Length (miles): | 04.78 |
| Roadway Width (feet): | 24 - 76 |
| Avg. Daily Traffic (Veh/Day): | 21586 |
| Number of Lanes *: | FOUR LANES |
| Access Control *: | NONE |
| Urban Area Type *: | URBAN |
| Rural or Municipal *: | MUNICIPAL |
| Median Type *: | OPEN WITH SHOULDERS |
| Median Width (feet): | 10 - 40 |

* Predominate value.

$$\text{RATE} = \frac{\text{NO. OF COLLISIONS}}{\text{EXPOSURE}}$$

$$\text{CRIT RATE} = \text{STATE RATE} + 1.645 \times \text{SQRT}\left(\frac{\text{STATE RATE}}{\text{EXPOSURE}}\right) + \left(\frac{0.5}{\text{EXPOSURE}}\right)$$

$$\text{EXPOSURE} = \frac{\text{ADT} \times \text{LENGTH} \times \text{NO. OF DAYS IN REPORT}}{100{,}000{,}000}$$

** Statewide rates are computed based on similiar roadways pertaining to number of lanes, divided or undivided, rural or urban, and access control. Statewide rates cannot be compared to Queried Collisions unless the queried collisions include every collision type.

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| Cnty | City | CS # | Int. # | Mile Post | Location | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | AT: US-62, | | | | SHAWNEE BYPASS | | | | | | | | |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | W | - | 1 | | | F-O TRAFF-SIGN | D-W-I | DARK | DRY | PDO | 03-30-2014 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | E | E | 2 | 1 | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | P INJ | 08-08-2014 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | S | S | 2 | | | REAR-END | NO-IMP-ACT | DYLGT | DRY | PDO | 09-05-2014 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | | | 2 | | | OTHER | OTHER | Other | OTHER | PDO | 09-24-2014 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | S | S | 2 | | | SIDESWIPE-SAME | OTHER | DYLGT | WET | PDO | 10-10-2014 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | N | S | 2 | | | ANGLE-TURNING | F-YIELD | DARK | WET | PDO | 12-20-2014 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | TURN LN MRGE | YES | Y | N | N | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 02-12-2015 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | SNOW | PDO | 02-23-2015 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | SNOW | PDO | 02-23-2015 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | WKZONE | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 04-06-2015 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | N | N | 2 | 1 | | REAR-END | INATT | DYLGT | DRY | P INJ | 04-10-2015 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | N | N | 2 | | | SIDESWIPE-SAME | NEG-DRVING | DYLGT | DRY | PDO | 04-16-2015 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | E | E | 2 | | | ANGLE-TURNING | NEG-DRVING | DYLGT | DRY | PDO | 05-20-2015 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | S | S | 3 | 2 | | REAR-END | FOL-CLOSE | DYLGT | DRY | P INJ | 07-01-2015 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | N | N | 2 | 2 | | REAR-END | F-STOP | DARK | DRY | SS INJ | 09-17-2015 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | N | N | 2 | | | REAR-END | D-W-I | DARK | DRY | PDO | 09-22-2015 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | W | N | 2 | | | RIGHT-ANGLE | F-STOP | DARK | DRY | PDO | 09-30-2015 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | | | 2 | | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | PDO | 10-25-2015 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DARK | WET | PDO | 10-30-2015 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | N | N | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | DRY | N-I INJ | 11-07-2015 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | S | S | 2 | | | ANGLE-TURNING | IMP-LN-CHG | DYLGT | DRY | PDO | 11-12-2015 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | S | S | 3 | | | REAR-END | INATT | DYLGT | DRY | PDO | 01-04-2016 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-TURN | DYLGT | WET | PDO | 03-29-2016 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | S | S | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 07-21-2016 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 12-17-2016 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | W | W | 2 | 1 | | REAR-END | INATT | DARK | WET | N-I INJ | 12-24-2016 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 12-30-2016 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | E | E | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 01-17-2017 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | S | S | 2 | | | ANGLE-TURNING | OTHER | DYLGT | DRY | PDO | 05-23-2017 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 08-04-2017 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | W | W | 3 | | | REAR-END | FOL-CLOSE | DARK | DRY | PDO | 09-20-2017 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | S | S | 2 | | | REAR-END | OTHER | DYLGT | WET | PDO | 10-04-2017 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | S | S | 2 | | | REAR-END | F-YIELD | DARK | WET | PDO | 10-04-2017 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | S | S | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 04-08-2018 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 04-29-2018 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | E | E | 2 | | | ANGLE-TURNING | IMP-LN-CHG | DYLGT | DRY | PDO | 05-29-2018 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | TURN LN MRGE | YES | Y | N | N | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | DRY | P INJ | 07-06-2018 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | E | E | 2 | | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | PDO | 07-09-2018 |

* INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | TOTAL COLLISIONS | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 07-12-2018 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | N | N | 2 | | | REAR-END | IMP-PASS | DYLGT | DRY | PDO | 09-12-2018 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | W | - | 1 | | | F-O UTIL-POLE | NO-IMP-ACT | DYLGT | WET | PDO | 10-19-2018 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 11-29-2018 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | E | S | 2 | 1 | | RIGHT-ANGLE | F-STOP | DARK | WET | N-I INJ | 01-16-2019 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DARK | WET | PDO | 02-17-2019 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DARK | DRY | PDO | 02-25-2019 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 03-01-2019 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | N | S | 2 | | | SIDESWIPE-OPP | DEF-VEH | DYLGT | DRY | PDO | 03-27-2019 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | N | N | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 04-26-2019 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | E | E | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 06-20-2019 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | E | E | 2 | 2 | | REAR-END | F-STOP | DARK | DRY | P INJ | 06-20-2019 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | W | - | 1 | 1 | | F-O CURB | NO-IMP-ACT | DYLGT | DRY | P INJ | 06-27-2019 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | W | W | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 08-13-2019 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 09-03-2019 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | E | E | 2 | | | OTH-BACKING | IMP-BACK | DYLGT | WET | PDO | 10-24-2019 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | TURN LN MRGE | YES | Y | E | E | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 11-06-2019 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | WKZONE | YES | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 11-20-2019 |
| 51 | 30 | 18 | 04 | 01.00 | SHAWNEE BYPASS | | YES | Y | W | W | 2 | | | ANGLE-TURNING | F-YIELD | DUSK | DRY | PDO | 11-29-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | | | | | |
| 51 | 30 | 18 | 04 | 01.10 | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 09-25-2017 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | | | | | |
| 51 | 30 | 18 | 04 | 01.25 | | WKZONE | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | F-YIELD | DYLGT | DRY | PDO | 07-27-2018 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: , | SHAWNEE BYPASS | | | AT: US-69, | | | | | 32 ST. | | | | | |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DYLGT | WET | PDO | 08-18-2014 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | 2 | | REAR-END | FOL-CLOSE | DARK | DRY | N-I INJ | 10-24-2014 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | S | S | 2 | | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | PDO | 11-10-2014 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | N | E | 2 | | | ANGLE-TURNING | F-STOP | DYLGT | WET | PDO | 01-11-2015 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | W | W | 3 | | | REAR-END | INATT | DYLGT | DRY | PDO | 04-10-2015 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | E | E | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 08-05-2015 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | N | - | 1 | 1 | | OTH-SINGLE-VEH | OTHER | DARK | DRY | P INJ | 08-15-2015 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | S | N | 2 | 2 | | ANGLE-TURNING | F-STOP | DYLGT | DRY | N-I INJ | 09-12-2015 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | S | S | 2 | | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | PDO | 09-17-2015 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | | | 3 | 1 | | REAR-END | INATT | DYLGT | DRY | P INJ | 12-15-2015 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | 1 | | REAR-END | F-STOP | DYLGT | DRY | N-I INJ | 12-17-2015 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DARK | WET | PDO | 05-24-2016 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | N | N | 2 | | | SIDESWIPE-SAME | OTHER | DYLGT | DRY | PDO | 09-05-2016 |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | | | TOTAL COLLISIONS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | E | E | 2 | | | REAR-END | FOL-CLOSE | DARK | WET | PDO | 01-22-2017 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | N | N | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | DRY | P INJ | 05-17-2017 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 05-25-2017 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | S | S | 2 | 1 | | REAR-END | F-STOP | DYLGT | DRY | N-I INJ | 06-20-2017 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | E | W | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 07-25-2017 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | N | N | 2 | | | REAR-END | IMP-START | DYLGT | DRY | PDO | 07-25-2017 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 11-27-2017 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | | | REAR-END | IMP-PASS | DYLGT | DRY | PDO | 10-10-2018 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | DRY | P INJ | 10-26-2018 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | S | E | 3 | 5 | | ANGLE-TURNING | F-STOP | DYLGT | WET | SS INJ | 01-02-2019 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | S | W | 2 | 2 | | RIGHT-ANGLE | F-YIELD | DYLGT | WET | P INJ | 01-11-2019 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 01-16-2019 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 06-04-2019 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DYLGT | WET | PDO | 08-30-2019 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | E | N | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | DRY | P INJ | 08-30-2019 |
| 51 | 30 | 47 | 04 | 00.00 | 32 ST. | | YES | Y | W | W | 3 | | | REAR-END | OTHER | DARK | DRY | PDO | 11-12-2019 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: , | OKMULGEE AVE. | | | AT: US-69, | | | | | | 32 ST./FINDLAY | | | | | |
| 51 | 30 | 07 | 05 | 13.72 | 32 ST./FINDLAY | | YES | Y | E | E | 2 | | | ANGLE-TURNING | F-YIELD | DARK | DRY | PDO | 12-09-2014 |
| 51 | 30 | 07 | 05 | 13.72 | 32 ST./FINDLAY | | YES | Y | W | W | 2 | | | OTH-BACKING | IMP-BACK | DYLGT | WET | PDO | 03-09-2015 |
| 51 | 30 | 07 | 05 | 13.72 | 32 ST./FINDLAY | TURN LN MRGE | YES | Y | E | E | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 04-15-2016 |
| 51 | 30 | 07 | 05 | 13.72 | 32 ST./FINDLAY | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 05-07-2016 |
| 51 | 30 | 07 | 05 | 13.72 | 32 ST./FINDLAY | | YES | Y | E | W | 2 | | | ANGLE-OTHER | IMP-TURN | DYLGT | DRY | PDO | 09-15-2016 |
| 51 | 30 | 07 | 05 | 13.72 | 32 ST./FINDLAY | | YES | Y | W | S | 2 | | | ANGLE-TURNING | F-STOP | DARK | DRY | PDO | 10-24-2016 |
| 51 | 30 | 07 | 05 | 13.72 | 32 ST./FINDLAY | | YES | Y | W | W | 2 | | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | PDO | 11-10-2016 |
| 51 | 30 | 07 | 05 | 13.72 | 32 ST./FINDLAY | | YES | Y | S | W | 2 | 1 | | ANGLE-TURNING | F-YIELD | DARK | DRY | SS INJ | 03-21-2017 |
| 51 | 30 | 07 | 05 | 13.72 | 32 ST./FINDLAY | | YES | Y | E | E | 2 | | | REAR-END | FOL-CLOSE | DYLGT | WET | PDO | 04-21-2017 |
| 51 | 30 | 07 | 05 | 13.72 | 32 ST./FINDLAY | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 10-26-2017 |
| 51 | 30 | 07 | 05 | 13.72 | 32 ST./FINDLAY | | YES | Y | E | E | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 02-14-2018 |
| 51 | 30 | 07 | 05 | 13.72 | 32 ST./FINDLAY | | YES | Y | S | - | 1 | | | F-O UTIL-POLE | OTHER | DARK | WET | PDO | 03-27-2018 |
| 51 | 30 | 07 | 05 | 13.72 | 32 ST./FINDLAY | | YES | Y | W | W | 2 | | | REAR-END | F-STOP | DYLGT | WET | PDO | 03-27-2018 |
| 51 | 30 | 07 | 05 | 13.72 | 32 ST./FINDLAY | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 03-06-2019 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | AT: US-62, | | | | | | OKMULGEE AVE. | | | | | |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 04-03-2014 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 2 | 1 | | REAR-END | INATT | DYLGT | DRY | P INJ | 05-13-2014 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DUSK | OTHER | PDO | 07-13-2014 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | E | E | 2 | | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | PDO | 07-23-2014 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 09-10-2014 |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | | | TOTAL COLLISIONS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 10-17-2014 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 11-14-2014 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DARK | WET | PDO | 11-23-2014 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 3 | 1 | | REAR-END | FOL-CLOSE | DARK | WET | N-I INJ | 12-05-2014 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | W | S | 2 | | | RIGHT-ANGLE | OTHER | DARK | WET | PDO | 12-27-2014 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | E | S | 2 | | | RIGHT-ANGLE | F-STOP | DYLGT | DRY | PDO | 01-18-2015 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | DRY | N-I INJ | 04-25-2015 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 04-27-2015 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | S | 2 | | | REAR-END | D-W-I | DARK | DRY | PDO | 06-01-2015 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 07-24-2015 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 09-24-2015 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 09-27-2015 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 11-03-2015 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | DRIVEWAY | YES | Y | | N | 2 | | | ANGLE-OTHER | F-YIELD | DYLGT | DRY | PDO | 06-09-2016 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | W | - | 1 | | | F-O TRAFF-SIGN | IMP-TURN | DARK | DRY | PDO | 06-18-2016 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 3 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 07-02-2016 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 07-10-2016 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | W | N | 2 | 2 | | RIGHT-ANGLE | F-STOP | DYLGT | DRY | N-I INJ | 08-11-2016 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | E | E | 2 | | | ANGLE-TURNING | NO-IMP-ACT | DARK | DRY | PDO | 09-01-2016 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | - | 1 | | | PEDAL-CYCLE | NO-IMP-ACT | DYLGT | DRY | PDO | 09-09-2016 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 09-12-2016 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | W | S | 2 | | | ANGLE-TURNING | F-YIELD | DARK | WET | PDO | 09-25-2016 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | - | 1 | | | F-O TRAFF-SIGNAL | IMP-TURN | DARK | DRY | PDO | 12-20-2016 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 02-09-2017 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 02-12-2017 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | W | 2 | 1 | | ANGLE-TURNING | F-STOP | DARK | DRY | P INJ | 03-08-2017 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | S | 2 | | | REAR-END | IMP-LN-CHG | DYLGT | DRY | PDO | 08-16-2017 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | S | 2 | | | REAR-END | D-W-I | DARK | DRY | PDO | 09-30-2017 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | E | N | 2 | 1 | | RIGHT-ANGLE | NO-IMP-ACT | DARK | DRY | N-I INJ | 01-13-2018 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | E | E | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 06-09-2018 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | WET | PDO | 07-28-2018 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 2 | | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | PDO | 09-12-2018 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 09-28-2018 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 2 | | | REAR-END | INATT | DARK | DRY | PDO | 12-01-2018 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | E | S | 2 | | | ANGLE-TURNING | F-YIELD | DARK | DRY | PDO | 12-25-2018 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | E | 2 | 3 | | RIGHT-ANGLE | F-STOP | DARK | DRY | P INJ | 01-27-2019 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | N | 2 | | | ANGLE-TURNING | IMP-TURN | DARK | DRY | PDO | 03-01-2019 |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | S | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 07-01-2019 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 07-31-2019 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | | 2 | | | REAR-END | OTHER | DYLGT | DRY | PDO | 08-29-2019 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | S | 2 | | | SIDESWIPE-SAME | NEG-DRVING | DYLGT | DRY | PDO | 11-05-2019 |
| 51 | 30 | 18 | 05 | 00.00 | OKMULGEE AVE. | | YES | Y | S | S | 2 | | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | PDO | 11-26-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | AT: US-62, | | | | | | OKMULGEE AVE. | | | | | |
| 51 | 30 | 56 | 05 | 15.87 | OKMULGEE AVE. | | YES | Y | N | N | 2 | | | ANGLE-TURNING | IMP-LN-CHG | DYLGT | DRY | PDO | 03-10-2014 |
| 51 | 30 | 56 | 05 | 15.87 | OKMULGEE AVE. | | YES | Y | W | S | 2 | | | RIGHT-ANGLE | F-STOP | DYLGT | DRY | PDO | 05-30-2017 |
| 51 | 30 | 56 | 05 | 15.87 | OKMULGEE AVE. | | YES | Y | N | N | 2 | | | REAR-END | IMP-LN-CHG | DYLGT | DRY | PDO | 08-07-2017 |
| 51 | 30 | 56 | 05 | 15.87 | OKMULGEE AVE. | | YES | Y | N | N | 2 | 1 | | REAR-END | F-STOP | DARK | DRY | P INJ | 09-03-2017 |
| 51 | 30 | 56 | 05 | 15.87 | OKMULGEE AVE. | | YES | Y | S | S | 2 | | | ANGLE-TURNING | IMP-TURN | DYLGT | WET | PDO | 10-03-2017 |
| 51 | 30 | 56 | 05 | 15.87 | OKMULGEE AVE. | | YES | Y | W | S | 3 | | | SIDESWIPE-SAME | OTHER | DYLGT | DRY | PDO | 06-20-2018 |
| 51 | 30 | 56 | 05 | 15.87 | OKMULGEE AVE. | | YES | Y | S | E | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 07-11-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: | | | | | | | | AT: 32 ST. | | | | | | |
| 51 | 30 | 66 | 05 | 00.00 | 32 ST. | | YES | Y | E | E | 3 | | | SIDESWIPE-SAME | INATT | DYLGT | DRY | PDO | 07-05-2014 |
| 51 | 30 | 66 | 05 | 00.00 | 32 ST. | | YES | Y | E | | 2 | | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | PDO | 07-17-2014 |
| 51 | 30 | 66 | 05 | 00.00 | 32 ST. | | YES | Y | E | E | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 08-15-2014 |
| 51 | 30 | 66 | 05 | 00.00 | 32 ST. | | YES | Y | E | E | 2 | | | REAR-END | OTHER | DYLGT | DRY | PDO | 10-14-2014 |
| 51 | 30 | 66 | 05 | 00.00 | 32 ST. | | YES | Y | E | E | 2 | | | OTH-BACKING | IMP-BACK | DARK | DRY | PDO | 11-11-2014 |
| 51 | 30 | 66 | 05 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | WET | PDO | 12-17-2014 |
| 51 | 30 | 66 | 05 | 00.00 | 32 ST. | | YES | Y | E | E | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 06-25-2015 |
| 51 | 30 | 66 | 05 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 09-23-2015 |
| 51 | 30 | 66 | 05 | 00.00 | 32 ST. | | YES | Y | | | 3 | 2 | | ANGLE-TURNING | SLEEPY | DYLGT | DRY | P INJ | 10-08-2015 |
| 51 | 30 | 66 | 05 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 11-03-2015 |
| 51 | 30 | 66 | 05 | 00.00 | 32 ST. | | YES | Y | | | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 04-26-2016 |
| 51 | 30 | 66 | 05 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 11-03-2016 |
| 51 | 30 | 66 | 05 | 00.00 | 32 ST. | | YES | Y | E | E | 2 | | | ANGLE-TURNING | IMP-LN-CHG | DYLGT | DRY | PDO | 01-04-2017 |
| 51 | 30 | 66 | 05 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 02-13-2017 |
| 51 | 30 | 66 | 05 | 00.00 | 32 ST. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 11-16-2018 |
| 51 | 30 | 66 | 05 | 00.00 | 32 ST. | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 05-28-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: , | PEAK BLVD | | AT: US-69 | | | | | | | | | | | |
| 51 | 30 | 44 | 12 | 00.00 | US-69 | | YES | Y | E | W | 2 | 1 | | ANGLE-TURNING | F-YIELD | DAWN | DRY | P INJ | 04-29-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | AT: US-64, | | | | | | PEAK BLV.SB EN | | | | | |
| 51 | 30 | 56 | 12 | 12.09 | PEAK BLV.SB EN | M/L RAMP MRG | YES | Y | S | S | 2 | 1 | | ANGLE-TURNING | INATT | DARK | DRY | P INJ | 09-21-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | | | | | |
| 51 | 30 | 56 | 12 | 12.14 | | WKZONE | NO | Y | N | - | 1 | 1 | | OTH-SINGLE-VEH | DEF-VEH | DYLGT | DRY | P INJ | 01-02-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | AT: US-64, | | | | | | PEAK BLVD.NB EXIT | | | | | |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | | | TOTAL COLLISIONS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 56 | 12 | 12.19 | PEAK BLVD.NB EXIT | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 06-22-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | | | | | | |
| 51 | 30 | 56 | 12 | 12.39 | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | F-YIELD | DARK | DRY | PDO | 01-10-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | | | | | | |
| 51 | 30 | 56 | 12 | 12.40 | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DUSK | DRY | PDO | 03-01-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | | | | | | |
| 51 | 30 | 56 | 12 | 12.44 | | DRIVEWAY | NO | Y | N | N | 2 | 2 | | REAR-END | FOL-CLOSE | DARK | DRY | N-I INJ | 09-24-2018 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | AT: US-64, | | | | | | PEAK BLVD.SB EXIT | | | | | |
| 51 | 30 | 56 | 12 | 12.52 | PEAK BLVD.SB EXIT | M/L LOOP GOR | NO | Y | S | - | 1 | 3 | | F-O TRAFF-SIGN | UNSAF-SPD | DUSK | SNOW | P INJ | 11-16-2014 |
| 51 | 30 | 56 | 12 | 12.52 | PEAK BLVD.SB EXIT | M/L LOOP GOR | NO | Y | S | - | 1 | 1 | | F-O TRAFF-SIGN | OTHER | DYLGT | DRY | N-I INJ | 09-12-2017 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | | | | | | |
| 51 | 30 | 56 | 12 | 12.53 | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 06-02-2016 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | | | | | | |
| 51 | 30 | 56 | 12 | 12.54 | | X-MEDIAN | NO | Y | E | - | 1 | 1 | | OTH-SINGLE-VEH | OTH-ANIMAL | DARK | DRY | N-I INJ | 10-08-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | AT: US-64, | | | | | | PEAK BLVD. O.P. | | | | | |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC LFT | YES | Y | S | E | 2 | 2 | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | SS INJ | 02-28-2014 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC RIT | YES | Y | N | N | 2 | 1 | | SIDESWIPE-SAME | IMP-TURN | DARK | DRY | N-I INJ | 03-06-2014 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | BRIDGE | NO | Y | S | - | 1 | | | F-O BARR-CONCRETE | UNSAF-SPD | DARK | ICE | PDO | 01-01-2015 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | BRIDGE | NO | Y | N | - | 1 | | | F-O GUARDRL-FACE | UNSAF-SPD | DARK | ICE | PDO | 01-01-2015 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TURN LN MRGE | YES | Y | N | N | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 01-13-2015 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC LFT | YES | Y | W | - | 1 | 1 | | F-O DITCH | INATT | DARK | DRY | P INJ | 01-16-2015 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC RIT | YES | Y | N | E | 2 | 1 | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | SS INJ | 02-06-2015 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | BRIDGE | NO | Y | S | - | 1 | | | F-O BR-ABUTMENT | UNSAF-SPD | DYLGT | ICE | PDO | 03-04-2015 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | BR ON X-ROAD | NO | Y | N | - | 1 | 1 | | F-O BARR-OTHER | D-W-I | DARK | DRY | P INJ | 03-15-2015 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC RIT TURN LN MRGE | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 05-27-2015 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC RIT TURN LN MRGE | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 06-08-2015 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TURN LN MRGE | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 09-16-2015 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC LFT | YES | Y | S | E | 2 | 1 | | RIGHT-ANGLE | F-YIELD | DARK | DRY | P INJ | 10-16-2015 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | DRIVEWAY | YES | Y | S | E | 2 | 1 | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | P INJ | 10-23-2015 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | BRIDGE | NO | Y | S | S | 2 | 1 | | SIDESWIPE-SAME | D-W-I | DYLGT | WET | N-I INJ | 03-11-2016 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC UND | YES | Y | S | N | 2 | | | OTH-BACKING | IMP-BACK | DYLGT | DRY | PDO | 08-22-2016 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC RIT | YES | Y | W | W | 2 | 2 | | REAR-END | FOL-CLOSE | DYLGT | DRY | P INJ | 11-18-2016 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC RIT | YES | Y | E | W | 2 | | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | PDO | 11-26-2016 |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | | | TOTAL COLLISIONS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC RIT TURN LN MRGE | YES | Y | E | E | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 12-12-2016 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC LFT TURN LN MRGE | YES | Y | E | E | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | WET | P INJ | 05-19-2017 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC LFT TURN LN MRGE | YES | Y | N | N | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | DRY | P INJ | 05-29-2017 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC LFT | YES | Y | S | E | 2 | 1 | | ANGLE-TURNING | F-YIELD | DARK | WET | P INJ | 06-30-2017 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC LFT | YES | Y | S | E | 2 | 1 | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | P INJ | 11-11-2017 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC UND | YES | Y | E | E | 2 | | | OTHER | NEG-DRVING | DYLGT | DRY | PDO | 11-20-2017 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC LFT TURN LN MRGE | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DARK | DRY | PDO | 03-20-2018 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC LFT | YES | Y | S | E | 2 | 1 | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | P INJ | 04-03-2019 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC RIT | YES | Y | E | E | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 06-21-2019 |
| 51 | 30 | 56 | 12 | 12.64 | PEAK BLVD. O.P. | TERM LOC RIT | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 08-26-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | | | | | | |
| 51 | 30 | 56 | 12 | 12.68 | | | NO | Y | S | - | 1 | 1 | | F-O GUARDRL-END | D-W-I | DYLGT | DRY | P INJ | 07-30-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | | | | | | |
| 51 | 30 | 56 | 12 | 12.70 | | IMPACT ATNU8 | NO | Y | N | - | 1 | | | OTHER | UNSAF-SPD | DYLGT | ICE | PDO | 01-02-2019 |
| 51 | 30 | 56 | 12 | 12.70 | | | NO | Y | N | - | 1 | 2 | | F-O BARR-CONCRETE | UNSAF-SPD | DARK | ICE | P INJ | 01-02-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | | | | | | |
| 51 | 30 | 56 | 12 | 12.73 | | WKZONE | NO | Y | S | - | 1 | 1 | | PEDESTRIAN | OTHER | DARK | DRY | SS INJ | 12-28-2016 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | | | | | | |
| 51 | 30 | 56 | 12 | 12.74 | | DRIVEWAY | NO | Y | S | - | 1 | | | F-O UTIL-POLE | IMP-TURN | DYLGT | DRY | PDO | 04-30-2017 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | | | | | | |
| 51 | 30 | 56 | 12 | 12.75 | | X-MEDIAN | NO | Y | N | S | 2 | 2 | | OTHER | UNSAF-SPD | DARK | ICE | N-I INJ | 02-28-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | | | | | | |
| 51 | 30 | 56 | 12 | 12.84 | | DRIVEWAY | NO | Y | W | S | 2 | | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | PDO | 07-31-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | | | | | | |
| 51 | 30 | 56 | 12 | 12.89 | | | NO | Y | S | S | 2 | 2 | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | P INJ | 11-22-2017 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | AT: 00.03 after OKMULGEE AVE. | | | | | |
| 51 | 30 | 18 | | 00.03 | | | NO | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DYLGT | WET | PDO | 10-30-2015 |
| 51 | 30 | 18 | | 00.03 | | | NO | Y | S | - | 1 | | | OTHER | IMP-TURN | DYLGT | DRY | PDO | 12-03-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | AT: 00.04 after OKMULGEE AVE. | | | | | |
| 51 | 30 | 18 | | 00.04 | | | NO | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 09-02-2016 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | AT: BROADWAY | | | | | |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | YES | Y | S | S | 2 | 1 | | REAR-END | FOL-CLOSE | DARK | DRY | P INJ | 02-11-2014 |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | | | TOTAL COLLISIONS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | E | E | 2 | | | REAR-END | OTHER | DYLGT | DRY | PDO | 07-24-2014 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | W | S | 2 | 1 | | RIGHT-ANGLE | INATT | DARK | DRY | N-I INJ | 08-04-2014 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | | | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 08-08-2014 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | | | 2 | | | ANGLE-TURNING | F-STOP | DYLGT | WET | PDO | 10-11-2014 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DARK | DRY | PDO | 12-19-2014 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | ICE | PDO | 02-16-2015 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | | | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 05-01-2015 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | N | E | 2 | | | RIGHT-ANGLE | F-STOP | DYLGT | WET | PDO | 05-29-2015 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | S | S | 2 | 4 | | REAR-END | FOL-CLOSE | DYLGT | DRY | N-I INJ | 06-26-2015 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | | | 2 | | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | PDO | 10-18-2015 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | S | W | 2 | | | RIGHT-ANGLE | F-STOP | DARK | WET | PDO | 10-22-2015 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | E | N | 2 | | | RIGHT-ANGLE | F-STOP | DARK | WET | PDO | 11-05-2015 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | N | E | 2 | | | RIGHT-ANGLE | F-STOP | DYLGT | DRY | PDO | 05-01-2016 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | S | S | 3 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 08-26-2016 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | N | W | 2 | 2 | | RIGHT-ANGLE | F-STOP | DYLGT | DRY | N-I INJ | 09-06-2016 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | W | W | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 09-13-2016 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 10-19-2016 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | E | N | 2 | 2 | | ANGLE-TURNING | OTHER | DYLGT | DRY | N-I INJ | 10-24-2016 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 11-11-2016 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | S | W | 2 | 1 | | RIGHT-ANGLE | F-STOP | DYLGT | DRY | P INJ | 02-01-2017 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | S | W | 2 | | | RIGHT-ANGLE | UNSAF-SPD | DYLGT | WET | PDO | 04-29-2017 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | W | E | 2 | | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | PDO | 06-08-2017 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 08-24-2017 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | S | W | 2 | 2 | | RIGHT-ANGLE | F-STOP | DARK | DRY | N-I INJ | 08-28-2017 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | N | E | 2 | | | RIGHT-ANGLE | F-STOP | DARK | WET | PDO | 12-22-2017 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 04-29-2018 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 06-28-2018 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | W | W | 2 | | | ANGLE-TURNING | IMP-TURN | DARK | DRY | PDO | 10-28-2018 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | S | S | 2 | | | REAR-END | OTHER | DYLGT | DRY | PDO | 06-01-2019 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 07-03-2019 |
| 51 | 30 | 18 | | 00.08 | BROADWAY | | | YES | Y | W | W | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 07-03-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | AT: 00.01 after BROADWAY | | | | | |
| 51 | 30 | 18 | | 00.09 | | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 02-20-2015 |
| 51 | 30 | 18 | | 00.09 | | | | NO | Y | N | N | 2 | | | REAR-END | NEG-DRVING | DYLGT | WET | PDO | 10-19-2018 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | AT: 00.03 after BROADWAY | | | | | |
| 51 | 30 | 18 | | 00.11 | | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | L-CENTER | DARK | DRY | PDO | 07-30-2014 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | AT: 00.03 before OKLAHOMA AVE. | | | | | |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | TOTAL COLLISIONS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 18 | | 00.12 | | | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | OTHER | DYLGT | DRY | PDO | 09-17-2014 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.02 before OKLAHOMA AVE. | | | | | |
| 51 | 30 | 18 | | 00.13 | | | NO | Y | S | - | 1 | 1 | | PEDESTRIAN | NO-IMP-ACT | DARK | DRY | SS INJ | 12-06-2014 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.01 before OKLAHOMA AVE. | | | | | |
| 51 | 30 | 18 | | 00.14 | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | F-YIELD | DYLGT | DRY | PDO | 03-29-2016 |
| 51 | 30 | 18 | | 00.14 | | | NO | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 08-27-2019 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: OKLAHOMA AVE. | | | | | |
| 51 | 30 | 18 | | 00.15 | OKLAHOMA AVE. | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 08-01-2014 |
| 51 | 30 | 18 | | 00.15 | OKLAHOMA AVE. | DRIVEWAY | YES | Y | N | S | 2 | | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | PDO | 10-22-2014 |
| 51 | 30 | 18 | | 00.15 | OKLAHOMA AVE. | DRIVEWAY | YES | Y | E | S | 2 | 1 | | RIGHT-ANGLE | F-YIELD | DYLGT | WET | N-I INJ | 10-23-2014 |
| 51 | 30 | 18 | | 00.15 | OKLAHOMA AVE. | | YES | Y | E | W | 2 | | | RIGHT-ANGLE | F-STOP | DYLGT | DRY | PDO | 08-27-2016 |
| 51 | 30 | 18 | | 00.15 | OKLAHOMA AVE. | DRIVEWAY | YES | Y | N | S | 2 | | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | PDO | 10-04-2016 |
| 51 | 30 | 18 | | 00.15 | OKLAHOMA AVE. | | YES | Y | S | S | 2 | | | SIDESWIPE-SAME | OTHER | DARK | DRY | PDO | 12-30-2016 |
| 51 | 30 | 18 | | 00.15 | OKLAHOMA AVE. | | YES | Y | S | S | 2 | | | ANGLE-TURNING | F-YIELD | DARK | DRY | PDO | 12-13-2017 |
| 51 | 30 | 18 | | 00.15 | OKLAHOMA AVE. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 01-03-2018 |
| 51 | 30 | 18 | | 00.15 | OKLAHOMA AVE. | DRIVEWAY | YES | Y | W | S | 2 | 2 | | RIGHT-ANGLE | F-YIELD | DYLGT | WET | P INJ | 03-13-2019 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.02 after OKLAHOMA AVE. | | | | | |
| 51 | 30 | 18 | | 00.17 | | DRIVEWAY | NO | Y | N | N | 3 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 09-02-2016 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.01 before EATON AVE. | | | | | |
| 51 | 30 | 18 | | 00.19 | | DRIVEWAY | NO | Y | N | S | 2 | 2 | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | N-I INJ | 02-19-2015 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: COURT ST. | | | | | |
| 51 | 30 | 18 | | 00.23 | COURT ST. | | YES | Y | S | N | 2 | 2 | | ANGLE-TURNING | F-YIELD | DARK | DRY | P INJ | 12-18-2015 |
| 51 | 30 | 18 | | 00.23 | COURT ST. | | YES | Y | | | 2 | | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | PDO | 03-28-2016 |
| 51 | 30 | 18 | | 00.23 | COURT ST. | | YES | Y | E | - | 1 | | | PEDESTRIAN | IMP-TURN | DYLGT | DRY | PDO | 02-09-2017 |
| 51 | 30 | 18 | | 00.23 | COURT ST. | | YES | Y | N | S | 3 | | | ANGLE-TURNING | IMP-TURN | Other | DRY | PDO | 06-20-2017 |
| 51 | 30 | 18 | | 00.23 | COURT ST. | | YES | Y | S | S | 2 | 2 | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | P INJ | 06-01-2018 |
| 51 | 30 | 18 | | 00.23 | COURT ST. | | YES | Y | N | S | 2 | 1 | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | P INJ | 06-13-2019 |
| 51 | 30 | 18 | | 00.23 | COURT ST. | | YES | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DARK | DRY | PDO | 12-05-2019 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.01 after COURT ST. | | | | | |
| 51 | 30 | 18 | | 00.24 | | DRIVEWAY | NO | Y | W | S | 2 | | | ANGLE-TURNING | F-YIELD | DYLGT | WET | PDO | 07-16-2014 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.02 after COURT ST. | | | | | |
| 51 | 30 | 18 | | 00.25 | | DRIVEWAY | NO | Y | N | N | 2 | 1 | | REAR-END | INATT | DYLGT | DRY | P INJ | 11-29-2014 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.01 before DENISON | | | | | |
| 51 | 30 | 18 | | 00.29 | | | NO | Y | S | - | 1 | 1 | | ROLLOVER | UNSAF-SPD | DYLGT | DRY | SS INJ | 11-21-2015 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: DENISON | | | | | |
| 51 | 30 | 18 | | 00.30 | DENISON | DRIVEWAY | YES | Y | S | S | 2 | | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | PDO | 10-24-2016 |
| 51 | 30 | 18 | | 00.30 | DENISON | | YES | Y | N | S | 2 | 2 | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | P INJ | 01-03-2018 |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | TOTAL COLLISIONS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 18 | | 00.30 | DENISON | | YES | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DAWN | WET | PDO | 02-16-2018 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: RANSOM | | | | | |
| 51 | 30 | 18 | | 00.32 | RANSOM | | YES | Y | S | S | 3 | 3 | | REAR-END | FOL-CLOSE | DAWN | DRY | N-I INJ | 03-22-2014 |
| 51 | 30 | 18 | | 00.32 | RANSOM | | YES | Y | E | S | 2 | | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | PDO | 10-14-2014 |
| 51 | 30 | 18 | | 00.32 | RANSOM | | YES | Y | E | S | 2 | | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | PDO | 05-12-2015 |
| 51 | 30 | 18 | | 00.32 | RANSOM | | YES | Y | N | S | 2 | 1 | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | P INJ | 04-17-2018 |
| 51 | 30 | 18 | | 00.32 | RANSOM | | YES | Y | N | N | 3 | 2 | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | P INJ | 04-17-2018 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.01 after RANSOM | | | | | |
| 51 | 30 | 18 | | 00.33 | | | NO | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DARK | DRY | PDO | 11-21-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.01 before MOPAC RR BR. | | | | | |
| 51 | 30 | 18 | | 00.42 | | | NO | Y | S | - | 1 | | | ANIMAL | DEER | DARK | DRY | PDO | 10-31-2017 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.16 before INMAN ST. | | | | | |
| 51 | 30 | 18 | | 00.62 | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | NEG-DRVING | DYLGT | DRY | PDO | 04-14-2016 |
| 51 | 30 | 18 | | 00.62 | | WKZONE | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 03-12-2018 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.11 before INMAN ST. | | | | | |
| 51 | 30 | 18 | | 00.67 | | | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | INATT | DYLGT | WET | PDO | 07-29-2016 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.07 before INMAN ST. | | | | | |
| 51 | 30 | 18 | | 00.71 | | | NO | Y | N | N | 2 | 2 | | REAR-END | F-YIELD | DARK | DRY | N-I INJ | 09-24-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.04 before INMAN ST. | | | | | |
| 51 | 30 | 18 | | 00.74 | | DRIVEWAY | NO | Y | S | N | 2 | 3 | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | P INJ | 05-24-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.03 before INMAN ST. | | | | | |
| 51 | 30 | 18 | | 00.75 | | | NO | Y | S | S | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | DRY | P INJ | 08-11-2016 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.01 before INMAN ST. | | | | | |
| 51 | 30 | 18 | | 00.77 | | | NO | Y | N | - | 1 | | 1 | PEDESTRIAN | NO-IMP-ACT | DARK | DRY | FAT | 04-13-2014 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.01 after INMAN ST. | | | | | |
| 51 | 30 | 18 | | 00.79 | | | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | F-YIELD | DYLGT | WET | PDO | 05-09-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.02 after INMAN ST. | | | | | |
| 51 | 30 | 18 | | 00.80 | | DRIVEWAY | NO | Y | W | N | 2 | | | RIGHT-ANGLE | OTHER | DYLGT | DRY | PDO | 05-28-2017 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.03 before FOND DU LAC ST. | | | | | |
| 51 | 30 | 18 | | 00.81 | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DARK | WET | PDO | 12-03-2016 |
| 51 | 30 | 18 | | 00.81 | | DRIVEWAY | NO | Y | S | - | 2 | | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | PDO | 04-08-2019 |
| 51 | 30 | 18 | | 00.81 | | DRIVEWAY | NO | Y | W | N | 3 | | | ANGLE-TURNING | F-YIELD | DUSK | WET | PDO | 01-17-2020 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.02 before FOND DU LAC ST. | | | | | |
| 51 | 30 | 18 | | 00.82 | | | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | OTHER | DARK | DRY | PDO | 12-07-2016 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.01 before TALEQUAH(MILITARY) | | | | | |
| 51 | 30 | 18 | | 00.86 | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 04-17-2014 |
| 51 | 30 | 18 | | 00.86 | | | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | WET | PDO | 06-18-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: TALEQUAH(MILITARY) | | | | | |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
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**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | TOTAL COLLISIONS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | E | N | 2 | | | ANGLE-TURNING | D-W-I | DARK | DRY | PDO | 05-08-2014 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | N | E | 2 | | | ANGLE-TURNING | F-STOP | DYLGT | DRY | PDO | 08-26-2014 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | S | S | 2 | | | REAR-END | OTHER | DYLGT | DRY | PDO | 11-12-2014 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | W | N | 2 | 1 | | RIGHT-ANGLE | OTHER | DYLGT | DRY | P INJ | 01-18-2015 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 02-18-2015 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | S | S | 2 | | | OTH-BACKING | IMP-BACK | DYLGT | DRY | PDO | 03-06-2015 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 06-20-2015 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | N | N | 3 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 08-12-2015 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | S | S | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | DRY | N-I INJ | 09-06-2015 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | N | - | 1 | | | OTH-SINGLE-VEH | OTHER | DARK | DRY | PDO | 12-04-2015 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | N | W | 2 | 1 | | RIGHT-ANGLE | F-STOP | DYLGT | DRY | N-I INJ | 03-29-2016 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 06-04-2016 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | N | E | 2 | 1 | | RIGHT-ANGLE | F-STOP | DYLGT | DRY | P INJ | 06-29-2016 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | E | N | 2 | | | RIGHT-ANGLE | F-STOP | DYLGT | DRY | PDO | 07-02-2016 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | | | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | WET | P INJ | 08-15-2016 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | S | E | 3 | 1 | | ANGLE-TURNING | F-STOP | DYLGT | DRY | P INJ | 08-19-2016 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | S | S | 2 | | | RIGHT-ANGLE | OTHER | DYLGT | DRY | PDO | 10-10-2016 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | S | S | 2 | | | REAR-END | SLEEPY | DARK | DRY | PDO | 10-13-2016 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | S | S | 2 | 1 | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | P INJ | 11-21-2016 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | N | N | 2 | | | REAR-END | F-STOP | DARK | DRY | PDO | 12-06-2016 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | S | S | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 01-05-2017 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | S | N | 2 | | | ANGLE-TURNING | NO-IMP-ACT | DYLGT | SNOW | PDO | 01-06-2017 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | S | S | 2 | 1 | | REAR-END | F-STOP | DARK | DRY | P INJ | 01-19-2017 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | N | N | 2 | | | REAR-END | D-W-I | DARK | WET | PDO | 01-21-2017 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | S | - | 1 | | | OTHER | IMP-TURN | DYLGT | DRY | PDO | 03-06-2017 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | S | W | 2 | 1 | | RIGHT-ANGLE | F-STOP | DARK | DRY | P INJ | 03-17-2017 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 06-25-2017 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | N | E | 3 | 1 | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | N-I INJ | 07-07-2017 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | S | S | 2 | | | REAR-END | IMP-START | DYLGT | DRY | PDO | 10-25-2017 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | E | E | 2 | | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | PDO | 10-29-2017 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | W | N | 2 | | | RIGHT-ANGLE | F-STOP | DYLGT | DRY | PDO | 11-01-2017 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | E | E | 2 | | | REAR-END | INATT | DARK | DRY | PDO | 01-05-2018 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 01-31-2018 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | S | S | 3 | 2 | | SIDESWIPE-SAME | UNSAF-SPD | DYLGT | DRY | P INJ | 04-27-2018 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | W | W | 2 | | | OTH-BACKING | IMP-LN-CHG | DYLGT | DRY | PDO | 05-12-2018 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 06-30-2018 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | YES | Y | N | N | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | DRY | P INJ | 07-12-2018 |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | | | TOTAL COLLISIONS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | | YES | Y | S | S | 2 | | | REAR-END | F-STOP | DYLGT | DRY | PDO | 09-24-2018 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | | YES | Y | N | W | 2 | | | RIGHT-ANGLE | F-STOP | DARK | DRY | PDO | 10-15-2018 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | WET | PDO | 10-19-2018 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | | YES | Y | S | W | 2 | | | ANGLE-TURNING | F-STOP | DYLGT | WET | PDO | 02-19-2019 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | | YES | Y | S | N | 2 | | | ANGLE-TURNING | F-STOP | DARK | WET | PDO | 02-22-2019 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | | YES | Y | W | - | 1 | | | F-O TRAFF-SIGNAL | IMP-TURN | DYLGT | DRY | PDO | 04-15-2019 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | | YES | Y | W | S | 2 | | | RIGHT-ANGLE | F-YIELD | DYLGT | WET | PDO | 06-05-2019 |
| 51 | 30 | 18 | | 00.87 | TALEQUAH(MILITARY) | | | YES | Y | W | N | 2 | | | RIGHT-ANGLE | OTHER | DYLGT | DRY | PDO | 08-14-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.01 after TALEQUAH(MILITARY) | | | | | |
| 51 | 30 | 18 | | 00.88 | | | DRIVEWAY | NO | Y | S | N | 2 | | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | PDO | 07-12-2014 |
| 51 | 30 | 18 | | 00.88 | | | | NO | Y | N | N | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | DRY | N-I INJ | 04-28-2015 |
| 51 | 30 | 18 | | 00.88 | | | | NO | Y | N | N | 3 | | | SIDESWIPE-SAME | IMP-LN-CHG | DARK | DRY | PDO | 01-31-2018 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.02 after TALEQUAH(MILITARY) | | | | | |
| 51 | 30 | 18 | | 00.89 | | | | NO | Y | W | S | 2 | | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | PDO | 12-11-2014 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.06 after TALEQUAH(MILITARY) | | | | | |
| 51 | 30 | 18 | | 00.93 | | | | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DUSK | DRY | PDO | 11-12-2016 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.06 before SHAWNEE BYPASS | | | | | |
| 51 | 30 | 18 | | 00.94 | | | | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 07-19-2014 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.01 before SHAWNEE BYPASS | | | | | |
| 51 | 30 | 18 | | 00.99 | | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 11-20-2018 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.01 before ENT. DIV. 1 HDQTRS | | | | | |
| 51 | 30 | 56 | | 12.96 | | | | NO | Y | N | - | 1 | 1 | | PEDESTRIAN | NO-IMP-ACT | DARK | DRY | N-I INJ | 05-06-2017 |
| 51 | 30 | 56 | | 12.96 | | | | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 01-22-2018 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.06 before HADDOCK DR. | | | | | |
| 51 | 30 | 56 | | 13.04 | | | | NO | Y | N | S | 2 | | 1 | HEAD-ON | WRNG-WAY | DARK | DRY | FAT | 11-17-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.02 before HADDOCK DR. | | | | | |
| 51 | 30 | 56 | | 13.08 | | | | NO | Y | N | - | 1 | 1 | | F-O TRAFF-SIGN | INATT | DYLGT | DRY | P INJ | 11-15-2014 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: HADDOCK DR. | | | | | |
| 51 | 30 | 56 | | 13.10 | HADDOCK DR. | | | YES | Y | N | N | 3 | 1 | | REAR-END | INATT | DARK | DRY | P INJ | 05-24-2018 |
| 51 | 30 | 56 | | 13.10 | HADDOCK DR. | | | YES | Y | N | - | 1 | | | F-O POLE-OTHER | IMP-TURN | DYLGT | WET | PDO | 02-11-2020 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.05 after HADDOCK DR. | | | | | |
| 51 | 30 | 56 | | 13.15 | | | | NO | Y | W | | 2 | | | SIDESWIPE-SAME | F-YIELD | DYLGT | DRY | PDO | 09-25-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.13 after HADDOCK DR. | | | | | |
| 51 | 30 | 56 | | 13.23 | | | | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 06-16-2017 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.20 after HADDOCK DR. | | | | | |
| 51 | 30 | 56 | | 13.30 | | | | NO | Y | N | - | 1 | | | ANIMAL | DEER | DARK | DRY | PDO | 11-04-2017 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.25 before HANCOCK RD. | | | | | |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | | | TOTAL COLLISIONS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 56 | | 13.40 | | SECONDARY | NO | Y | N | N | 2 | | | REAR-END | F-YIELD | DYLGT | DRY | PDO | 05-24-2018 |
| 51 | 30 | 56 | | 13.40 | | DRIVEWAY | NO | Y | N | | 2 | | | REAR-END | FOL-CLOSE | DYLGT | WET | PDO | 06-07-2018 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | AT: 00.10 before HANCOCK RD. | | | | | |
| 51 | 30 | 56 | | 13.55 | | TRAFFIC BACKUP | NO | Y | N | N | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 09-21-2017 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | AT: 00.08 before HANCOCK RD. | | | | | |
| 51 | 30 | 56 | | 13.57 | | | NO | Y | N | N | 2 | 2 | | REAR-END | FOL-CLOSE | DYLGT | DRY | SS INJ | 07-28-2014 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | AT: 00.05 before HANCOCK RD. | | | | | |
| 51 | 30 | 56 | | 13.60 | | | NO | Y | S | S | 2 | 1 | | REAR-END | FOL-CLOSE | DARK | DRY | P INJ | 09-30-2014 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | AT: 00.01 before HANCOCK RD. | | | | | |
| 51 | 30 | 56 | | 13.64 | | X-MEDIAN | NO | Y | | - | 1 | 1 | | F-O MAILBOX | UNSAF-SPD | DYLGT | SNOW | P INJ | 12-28-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | AT: HANCOCK RD. | | | | | |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | N | N | 2 | 2 | | REAR-END | FOL-CLOSE | DYLGT | DRY | N-I INJ | 06-04-2014 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | S | S | 2 | | | REAR-END | D-W-I | DYLGT | DRY | PDO | 06-22-2014 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | N | N | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | WET | P INJ | 07-10-2014 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | N | S | 2 | 1 | | ANGLE-TURNING | F-YIELD | DYLGT | WET | P INJ | 07-17-2014 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 08-07-2014 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | N | N | 3 | 2 | | REAR-END | INATT | DYLGT | DRY | N-I INJ | 08-09-2014 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | S | S | 2 | 2 | | REAR-END | FOL-CLOSE | DYLGT | WET | P INJ | 09-12-2014 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | S | N | 2 | 3 | | ANGLE-TURNING | F-YIELD | DYLGT | WET | N-I INJ | 09-15-2014 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 09-30-2014 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | | | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 12-26-2014 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | N | N | 2 | | | REAR-END | UNSAF-SPD | DYLGT | WET | PDO | 05-25-2016 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | N | N | 3 | | | SIDESWIPE-SAME | INATT | DYLGT | DRY | PDO | 12-14-2016 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | N | W | 2 | | | RIGHT-ANGLE | F-STOP | DARK | DRY | PDO | 12-19-2016 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 03-12-2017 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | S | S | 2 | | | OTH-BACKING | IMP-BACK | DARK | DRY | PDO | 03-23-2017 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | WET | PDO | 12-17-2017 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | S | S | 2 | 1 | | REAR-END | OTHER | Other | OTHER | P INJ | 04-06-2018 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | E | - | 1 | 1 | | ROLLOVER | UNSAF-SPD | DYLGT | DRY | SS INJ | 05-04-2018 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DARK | WET | PDO | 12-14-2018 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 05-29-2019 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | N | N | 3 | 1 | | REAR-END | FOL-CLOSE | DYLGT | DRY | N-I INJ | 07-16-2019 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | N | N | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 09-06-2019 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | N | N | 3 | 2 | | REAR-END | UNSAF-SPD | DYLGT | ICE | P INJ | 11-11-2019 |
| 51 | 30 | 56 | | 13.65 | HANCOCK RD. | | YES | Y | N | N | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | WET | SS INJ | 11-29-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | AT: 00.01 after HANCOCK RD. | | | | | |
| 51 | 30 | 56 | | 13.66 | | | NO | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | WET | PDO | 12-05-2014 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, 32 ST. | | | | | | | | | AT: 00.09 after HANCOCK RD. | | | | | |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | TOTAL COLLISIONS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 56 | | 13.74 | | | NO | Y | N | - | 1 | 1 | | ROLLOVER | D-W-I | DARK | DRY | P INJ | 03-13-2017 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.10 after HANCOCK RD. | | | | | |
| 51 | 30 | 56 | | 13.75 | | | NO | Y | N | N | 2 | 1 | | REAR-END | FOL-CLOSE | DARK | DRY | P INJ | 12-19-2015 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.18 before RAMONA DR./CIR. | | | | | |
| 51 | 30 | 56 | | 13.85 | | | NO | Y | N | N | 2 | 1 | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | N-I INJ | 12-06-2017 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.04 before RAMONA DR./CIR. | | | | | |
| 51 | 30 | 56 | | 13.99 | | | NO | Y | N | N | 2 | 2 | | REAR-END | FOL-CLOSE | DYLGT | DRY | N-I INJ | 10-18-2017 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: RAMONA DR./CIR. | | | | | |
| 51 | 30 | 56 | | 14.03 | RAMONA DR./CIR. | | YES | Y | S | S | 2 | | | ANGLE-TURNING | F-YIELD | DARK | DRY | PDO | 11-24-2019 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.09 after RAMONA DR./CIR. | | | | | |
| 51 | 30 | 56 | | 14.12 | | | NO | Y | N | - | 1 | | | ANIMAL | DEER | DARK | DRY | PDO | 09-17-2016 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.04 after COODY CR. | | | | | |
| 51 | 30 | 56 | | 14.37 | | | NO | Y | N | - | 1 | 1 | | PEDESTRIAN | OTHER | DUSK | DRY | N-I INJ | 03-18-2015 |
| 51 | 30 | 56 | | 14.37 | | | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | DEF-VEH | DYLGT | DRY | PDO | 10-05-2018 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.10 after BEG 35 MPH | | | | | |
| 51 | 30 | 56 | | 14.52 | | | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-PASS | DARK | DRY | PDO | 11-17-2017 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.04 before BORDER AVE. | | | | | |
| 51 | 30 | 56 | | 14.58 | | | NO | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | WET | PDO | 07-08-2015 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.02 before BORDER AVE. | | | | | |
| 51 | 30 | 56 | | 14.60 | | | NO | Y | N | N | 2 | 2 | | SIDESWIPE-SAME | IMP-LN-CHG | DARK | DRY | P INJ | 11-27-2016 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.01 before BORDER AVE. | | | | | |
| 51 | 30 | 56 | | 14.61 | | | NO | Y | E | W | 2 | | | HEAD-ON | D-W-I | DARK | DRY | PDO | 05-13-2016 |
| 51 | 30 | 56 | | 14.61 | | | NO | Y | N | - | 1 | | | ANIMAL | DEER | DARK | DRY | PDO | 11-01-2017 |
| 51 | 30 | 56 | | 14.61 | | | NO | Y | S | - | 1 | | | F-O OTHER | DEER | DARK | DRY | PDO | 08-11-2019 |
| 51 | 30 | 56 | | 14.61 | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | WET | PDO | 10-24-2019 |
| (51) MUSKOGEE | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | | AT: BORDER AVE. | | | | | |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | YES | Y | S | W | 2 | | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | PDO | 02-11-2014 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 07-13-2014 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | YES | Y | S | S | 2 | | | OTH-BACKING | IMP-BACK | DYLGT | DRY | PDO | 09-24-2014 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | YES | Y | S | S | 2 | | | REAR-END | INATT | DARK | DRY | PDO | 10-21-2014 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 11-06-2014 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | WET | PDO | 07-21-2015 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | YES | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 08-18-2015 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | YES | Y | N | N | 3 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 09-15-2015 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | YES | Y | | | 2 | | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | PDO | 06-20-2016 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | YES | Y | N | N | 2 | | | REAR-END | DEF-VEH | DYLGT | DRY | PDO | 07-15-2016 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | YES | Y | W | E | 2 | | | OTHER | L-CENTER | DYLGT | DRY | PDO | 10-25-2016 |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | | | TOTAL COLLISIONS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | Features | | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DARK | DRY | PDO | 12-09-2016 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DARK | DRY | PDO | 01-27-2017 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 05-13-2017 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | N | N | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 05-15-2017 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | N | N | 2 | 2 | | REAR-END | FOL-CLOSE | DYLGT | DRY | P INJ | 08-03-2017 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | S | S | 3 | | | OTH-BACKING | IMP-BACK | DYLGT | DRY | PDO | 12-05-2017 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 12-12-2017 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | W | W | 2 | 3 | | REAR-END | D-W-I | DARK | DRY | N-I INJ | 12-15-2017 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 03-14-2018 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 03-15-2018 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | E | - | 1 | 1 | | F-O OTHER | D-W-I | DARK | DRY | P INJ | 04-06-2018 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 07-04-2018 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 07-05-2018 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | S | S | 2 | 1 | | REAR-END | INATT | DYLGT | DRY | P INJ | 09-15-2018 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | N | W | 2 | 2 | | RIGHT-ANGLE | F-YIELD | DYLGT | WET | P INJ | 10-31-2018 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | N | N | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | DRY | P INJ | 02-08-2019 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | E | S | 2 | 1 | | RIGHT-ANGLE | OTHER | DYLGT | DRY | P INJ | 03-05-2019 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | W | W | 3 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 03-20-2019 |
| 51 | 30 | 56 | | 14.62 | BORDER AVE. | | | YES | Y | N | - | 1 | 1 | | PEDESTRIAN | F-YIELD | DYLGT | DRY | N-I INJ | 11-18-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.02 after BORDER AVE. | | | | | |
| 51 | 30 | 56 | | 14.64 | | | | NO | Y | S | S | 2 | | | OTHER | IMP-LN-CHG | DYLGT | DRY | PDO | 06-14-2018 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.03 before TP RR UP | | | | | |
| 51 | 30 | 56 | | 14.67 | | | | NO | Y | N | N | 2 | 3 | | REAR-END | D-W-I | DYLGT | DRY | N-I INJ | 12-30-2017 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.01 after TP RR UP | | | | | |
| 51 | 30 | 56 | | 14.71 | | DRIVEWAY | | NO | Y | N | N | 2 | | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | PDO | 05-19-2016 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.03 after TP RR UP | | | | | |
| 51 | 30 | 56 | | 14.73 | | WKZONE | | NO | Y | S | S | 3 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 10-23-2017 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.10 after TP RR UP | | | | | |
| 51 | 30 | 56 | | 14.80 | | | | NO | Y | S | - | 1 | | | F-O UTIL-POLE | UNSAF-SPD | DYLGT | DRY | PDO | 03-12-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.04 before ESTELLE AVE. | | | | | |
| 51 | 30 | 56 | | 14.87 | | | | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DARK | DRY | PDO | 11-16-2017 |
| 51 | 30 | 56 | | 14.87 | | | | NO | Y | S | - | 1 | 1 | | ROLLOVER | OTHER | DYLGT | DRY | SS INJ | 04-21-2019 |
| 51 | 30 | 56 | | 14.87 | | | | NO | Y | S | - | 1 | | | F-O CULVERT | D-W-I | DARK | DRY | PDO | 08-16-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.03 before ESTELLE AVE. | | | | | |
| 51 | 30 | 56 | | 14.88 | | DRIVEWAY | | NO | Y | S | S | 2 | 1 | | REAR-END | FOL-CLOSE | DUSK | DRY | P INJ | 10-07-2014 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: 00.01 before ESTELLE AVE. | | | | | |
| 51 | 30 | 56 | | 14.90 | | WKZONE | | NO | Y | W | | 2 | | | OTHER | OTHER | DYLGT | DRY | PDO | 08-10-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | | AT: ESTELLE AVE. | | | | | |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | | | TOTAL COLLISIONS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 56 | | 14.91 | ESTELLE AVE. | | YES | Y | S | E | 2 | 1 | | RIGHT-ANGLE | F-YIELD | DARK | ICE | P INJ | 03-02-2014 |
| 51 | 30 | 56 | | 14.91 | ESTELLE AVE. | | YES | Y | | | 2 | | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | PDO | 08-06-2014 |
| 51 | 30 | 56 | | 14.91 | ESTELLE AVE. | | YES | Y | W | S | 2 | | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | PDO | 08-08-2014 |
| 51 | 30 | 56 | | 14.91 | ESTELLE AVE. | | YES | Y | N | - | 1 | | | F-O TRAFF-SIGN | SLEEPY | DARK | DRY | PDO | 09-26-2014 |
| 51 | 30 | 56 | | 14.91 | ESTELLE AVE. | | YES | Y | E | N | 2 | 1 | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | SS INJ | 11-07-2014 |
| 51 | 30 | 56 | | 14.91 | ESTELLE AVE. | | YES | Y | S | S | 2 | | | SIDESWIPE-SAME | OTHER | DYLGT | DRY | PDO | 07-01-2015 |
| 51 | 30 | 56 | | 14.91 | ESTELLE AVE. | | YES | Y | N | N | 2 | | | ANGLE-TURNING | F-YIELD | DYLGT | WET | PDO | 05-12-2017 |
| 51 | 30 | 56 | | 14.91 | ESTELLE AVE. | | YES | Y | S | S | 2 | | | REAR-END | OTHER | DYLGT | DRY | PDO | 07-11-2017 |
| 51 | 30 | 56 | | 14.91 | ESTELLE AVE. | | YES | Y | E | N | 2 | | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | PDO | 02-02-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.01 after ESTELLE AVE. | | | | | |
| 51 | 30 | 56 | | 14.92 | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | L-CENTER | DYLGT | WET | PDO | 04-29-2017 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.04 after ESTELLE AVE. | | | | | |
| 51 | 30 | 56 | | 14.95 | | | NO | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 01-18-2016 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.03 before ARLINE AVE. | | | | | |
| 51 | 30 | 56 | | 15.05 | | DRIVEWAY | NO | Y | N | N | 2 | 4 | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | P INJ | 06-10-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.01 before ARLINE AVE. | | | | | |
| 51 | 30 | 56 | | 15.07 | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | OTHER | DYLGT | DRY | PDO | 06-08-2016 |
| 51 | 30 | 56 | | 15.07 | | DRIVEWAY | NO | Y | N | N | 2 | 1 | | REAR-END | D-W-I | DARK | DRY | N-I INJ | 11-23-2018 |
| 51 | 30 | 56 | | 15.07 | | WKZONE | NO | Y | S | S | 2 | | | REAR-END | F-STOP | DYLGT | WET | PDO | 06-06-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: ARLINE AVE. | | | | | |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | W | N | 2 | 3 | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | N-I INJ | 03-27-2014 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-TURN | DARK | DRY | PDO | 04-22-2014 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | W | W | 2 | | | REAR-END | FOL-CLOSE | DYLGT | WET | PDO | 07-30-2014 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 09-20-2014 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | N | N | 2 | | | OTH-BACKING | IMP-BACK | DYLGT | DRY | PDO | 11-20-2014 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | WET | PDO | 12-05-2014 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | S | S | 2 | | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | PDO | 02-06-2015 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | S | N | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | DRY | N-I INJ | 02-19-2015 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | S | E | 3 | | | RIGHT-ANGLE | F-STOP | DYLGT | DRY | PDO | 04-02-2015 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DARK | DRY | PDO | 04-14-2015 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 05-02-2015 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | S | S | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | WET | P INJ | 05-05-2015 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | S | S | 2 | 1 | | REAR-END | IMP-LN-CHG | DYLGT | DRY | N-I INJ | 06-11-2015 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | | | 2 | | | ANGLE-TURNING | IMP-TURN | DARK | DRY | PDO | 07-26-2015 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 12-02-2015 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | N | N | 2 | 2 | | REAR-END | FOL-CLOSE | DYLGT | DRY | N-I INJ | 12-11-2015 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | N | N | 2 | | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | PDO | 05-06-2016 |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | | | TOTAL COLLISIONS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | X-MEDIAN | YES | Y | E | S | 4 | | 1 | RIGHT-ANGLE | F-STOP | DYLGT | DRY | FAT | 05-07-2016 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | N | N | 3 | 1 | | REAR-END | F-STOP | DYLGT | DRY | P INJ | 05-29-2016 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | DRIVEWAY | YES | Y | N | E | 2 | | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | PDO | 09-14-2016 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | S | S | 2 | | | ANGLE-TURNING | F-YIELD | DARK | DRY | PDO | 01-18-2017 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | N | W | 3 | 1 | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | P INJ | 02-20-2017 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 06-06-2018 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | DRIVEWAY | YES | Y | N | W | 2 | | | REAR-END | F-YIELD | DARK | DRY | PDO | 10-27-2018 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | N | N | 2 | | | REAR-END | IMP-START | DYLGT | DRY | PDO | 11-21-2018 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | S | S | 2 | | | REAR-END | UNSAF-SPD | DYLGT | DRY | PDO | 01-21-2019 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | WKZONE | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 01-30-2019 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | S | S | 2 | 3 | | REAR-END | FOL-CLOSE | DYLGT | DRY | P INJ | 03-17-2019 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | E | E | 2 | | | OTH-BACKING | OTHER | DYLGT | DRY | PDO | 06-19-2019 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 06-27-2019 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | S | S | 3 | | | REAR-END | D-W-I | DARK | DRY | PDO | 07-31-2019 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | N | N | 2 | | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | PDO | 08-11-2019 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | N | N | 2 | | | REAR-END | F-STOP | DARK | DRY | PDO | 09-28-2019 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | S | S | 2 | | | SIDESWIPE-SAME | D-W-I | DYLGT | DRY | PDO | 12-22-2019 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | N | N | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 12-26-2019 |
| 51 | 30 | 56 | | 15.08 | ARLINE AVE. | | YES | Y | W | W | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | DRY | P INJ | 12-29-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.01 after ARLINE AVE. | | | | | |
| 51 | 30 | 56 | | 15.09 | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | F-YIELD | DYLGT | DRY | PDO | 06-22-2014 |
| 51 | 30 | 56 | | 15.09 | | | NO | Y | S | S | 3 | | | REAR-END | F-STOP | DYLGT | DRY | PDO | 12-26-2016 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.02 after ARLINE AVE. | | | | | |
| 51 | 30 | 56 | | 15.10 | | | NO | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | WET | PDO | 03-26-2014 |
| 51 | 30 | 56 | | 15.10 | | | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 03-10-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.07 before ELGIN AVE. | | | | | |
| 51 | 30 | 56 | | 15.18 | | | NO | Y | S | S | 3 | 1 | | REAR-END | INATT | DYLGT | DRY | N-I INJ | 12-23-2014 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.01 before ELGIN AVE. | | | | | |
| 51 | 30 | 56 | | 15.24 | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 04-01-2014 |
| 51 | 30 | 56 | | 15.24 | | | NO | Y | | | 2 | 2 | | REAR-END | FOL-CLOSE | DYLGT | DRY | P INJ | 04-13-2016 |
| 51 | 30 | 56 | | 15.24 | | | NO | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | WET | PDO | 10-04-2017 |
| 51 | 30 | 56 | | 15.24 | | | NO | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | WET | PDO | 07-09-2018 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: ELGIN AVE. | | | | | |
| 51 | 30 | 56 | | 15.25 | ELGIN AVE. | | YES | Y | N | E | 2 | 2 | | RIGHT-ANGLE | F-YIELD | DYLGT | WET | N-I INJ | 05-27-2014 |
| 51 | 30 | 56 | | 15.25 | ELGIN AVE. | | YES | Y | W | S | 2 | | | RIGHT-ANGLE | F-YIELD | DYLGT | WET | PDO | 10-03-2017 |
| 51 | 30 | 56 | | 15.25 | ELGIN AVE. | | YES | Y | N | S | 2 | | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | PDO | 10-04-2018 |
| 51 | 30 | 56 | | 15.25 | ELGIN AVE. | | YES | Y | E | N | 2 | 2 | | ANGLE-TURNING | F-YIELD | DARK | WET | P INJ | 11-22-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.01 after ELGIN AVE. | | | | | |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | HIGHWAY COLLISIONS | | CITY STREET COLLISIONS | | COUNTY ROAD COLLISIONS | | | | | | TOTAL COLLISIONS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 56 | | 15.26 | | | NO | Y | S | S | 2 | | | REAR-END | INATT | DYLGT | DRY | PDO | 09-14-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: DENVER AVE. | | | | | |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | N | N | 2 | | | REAR-END | F-YIELD | DYLGT | DRY | PDO | 07-30-2015 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | E | N | 2 | | | OTHER | F-YIELD | DYLGT | DRY | PDO | 09-20-2015 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | N | N | 2 | | | ANGLE-TURNING | F-YIELD | DARK | WET | PDO | 12-26-2015 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | S | S | 3 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 06-23-2016 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | | | 2 | 1 | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | P INJ | 07-16-2016 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | E | N | 2 | 2 | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | P INJ | 10-24-2016 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | N | N | 2 | | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | PDO | 05-12-2017 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | N | E | 2 | 1 | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | P INJ | 08-24-2017 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | S | S | 2 | 2 | | REAR-END | FOL-CLOSE | DARK | WET | P INJ | 12-19-2017 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | S | N | 2 | | | ANGLE-TURNING | IMP-TURN | DYLGT | DRY | PDO | 04-17-2018 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | E | N | 2 | | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | PDO | 05-21-2018 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | N | N | 2 | | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | PDO | 11-24-2018 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | W | W | 2 | | | REAR-END | F-YIELD | DARK | DRY | PDO | 12-23-2018 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | E | N | 2 | | | RIGHT-ANGLE | F-YIELD | DYLGT | DRY | PDO | 03-19-2019 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | WKZONE | YES | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 06-27-2019 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | E | N | 2 | | | ANGLE-TURNING | F-YIELD | DYLGT | DRY | PDO | 07-25-2019 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | W | S | 2 | 1 | | RIGHT-ANGLE | F-YIELD | DYLGT | WET | N-I INJ | 12-16-2019 |
| 51 | 30 | 56 | | 15.34 | DENVER AVE. | | YES | Y | S | S | 2 | | | RIGHT-ANGLE | F-YIELD | DARK | DRY | PDO | 01-05-2020 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.01 after DENVER AVE. | | | | | |
| 51 | 30 | 56 | | 15.35 | | DRIVEWAY | NO | Y | | S | 2 | | | OTHER | IMP-LN-CHG | DYLGT | OTHER | PDO | 07-15-2014 |
| 51 | 30 | 56 | | 15.35 | | DRIVEWAY | NO | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 04-20-2016 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.03 before GARLAND AVE. | | | | | |
| 51 | 30 | 56 | | 15.38 | | | NO | Y | N | N | 2 | 3 | | REAR-END | FOL-CLOSE | DYLGT | DRY | P INJ | 05-31-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.03 after GARLAND AVE. | | | | | |
| 51 | 30 | 56 | | 15.44 | | DRIVEWAY | NO | Y | N | N | 2 | | | ANGLE-TURNING | IMP-PASS | DYLGT | WET | PDO | 11-17-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.01 before COLUMBUS AVE. | | | | | |
| 51 | 30 | 56 | | 15.46 | | DRIVEWAY | NO | Y | N | E | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 03-01-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.14 before OKMULGEE AVE. | | | | | |
| 51 | 30 | 56 | | 15.73 | | | NO | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DAWN | DRY | PDO | 10-26-2016 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.10 before OKMULGEE AVE. | | | | | |
| 51 | 30 | 56 | | 15.77 | | | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 04-10-2015 |
| 51 | 30 | 56 | | 15.77 | | | NO | Y | N | N | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 04-21-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.09 before OKMULGEE AVE. | | | | | |
| 51 | 30 | 56 | | 15.78 | | | NO | Y | N | N | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DARK | DRY | PDO | 09-12-2018 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.04 before OKMULGEE AVE. | | | | | |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

# HIGHWAY SYSTEM COLLISION LISTING

## UPDATED US 69 CRASH DATA

**Date Range: 02-01-2014 Thru 09-16-2020**

**Program Provided by:**
**Traffic Engineering Division**
**Collision Analysis and Safety Branch**
**(405) 522-0985**
**Created: 09/16/2020 by Edward Dihrberg**



| | | | | HIGHWAY COLLISIONS | | | CITY STREET COLLISIONS | COUNTY ROAD COLLISIONS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty | City | CS # | Int. # | Mile Post | Location | | Features | Int. Related | On Map | Dir. 1 | Dir. 2 | # Veh. | # Inj.* | # Fat. | Type of Collision | Unsafe Unlawful | Lighting Cond. | Roadway Cond. | Severity | Date |
| 51 | 30 | 56 | | 15.83 | | | | NO | Y | S | S | 2 | 1 | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | N-I INJ | 10-23-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.03 before OKMULGEE AVE. | | | | | |
| 51 | 30 | 56 | | 15.84 | | | | NO | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 02-09-2015 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.02 before OKMULGEE AVE. | | | | | |
| 51 | 30 | 56 | | 15.85 | | | | NO | Y | S | - | 1 | 1 | | PEDAL-CYCLE | F-YIELD | DARK | DRY | SS INJ | 07-05-2014 |
| 51 | 30 | 56 | | 15.85 | | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 09-30-2016 |
| 51 | 30 | 56 | | 15.85 | | | | NO | Y | N | N | 2 | 1 | | REAR-END | FOL-CLOSE | DYLGT | WET | P INJ | 08-18-2019 |
| (51) MUSKOGEE | | | | (30) MUSKOGEE | | HWY: US-69, | 32 ST. | | | | | | | | AT: 00.01 before OKMULGEE AVE. | | | | | |
| 51 | 30 | 56 | | 15.86 | | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 07-09-2016 |
| 51 | 30 | 56 | | 15.86 | | | DRIVEWAY | NO | Y | S | S | 2 | | | ANGLE-TURNING | F-YIELD | DARK | DRY | PDO | 11-06-2016 |
| 51 | 30 | 56 | | 15.86 | | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | IMP-LN-CHG | DYLGT | DRY | PDO | 11-07-2016 |
| 51 | 30 | 56 | | 15.86 | | | DRIVEWAY | NO | Y | E | S | 2 | | | ANGLE-TURNING | FOL-CLOSE | DYLGT | DRY | PDO | 01-05-2017 |
| 51 | 30 | 56 | | 15.86 | | | | NO | Y | S | S | 2 | | | SIDESWIPE-SAME | FOL-CLOSE | DYLGT | DRY | PDO | 03-29-2017 |
| 51 | 30 | 56 | | 15.86 | | | | NO | Y | S | S | 2 | | | REAR-END | FOL-CLOSE | DYLGT | DRY | PDO | 09-16-2019 |

*** INCLUDES SUSPECTED SERIOUS, NON-INCAPACITATING, AND POSSIBLE INJURIES.**

Program Provided by:
Traffic Engineering Division
Collision Analysis and Safety Branch
(405) 522-0985
Created: 09/16/2020 by Edward Dihrberg



**ROADWAY / REGION**

| | QUERY OVER | SELECTIONS |
|---|---|---|
| 1 | Control Section | County: 51, Control Section: 56, CS Type: hwy, CS Query On: range, Mile Start: 12.09, Mile End: 15.87 |
| 2 | Control Section | County: 51, Control Section: 18, CS Type: hwy, CS Query On: range, Mile Start: 00.00, Mile End: 1.00 |

**DATE**

| | |
|---|---|
| Date Range | 02-01-2014 to 09-16-2020 |

**REPORT SECTIONS**

| | |
|---|---|
| Collision Map & Study Totals | (Included) |
| Collision Analysis Tables | (Included) |
| - Totals By City, Hwy Class | Checked |
| - Totals By Fiscal Year | Checked |
| - Other Analysis Tables | Checked |
| Rate Analysis | (Included) |
| Collision Listing | (Included) |
| - Highway Collision Listing | Checked, By Control Section |
| - City Street Collision Listing | Checked |
| - County Road Collision Listing | Checked |
| Query Criteria | (Included) |

**FILTER COLLISIONS**

| | |
|---|---|
| Roadway Type | All Collision Data |
| Incl. Crashes Assoc. w/ Every Int. | Checked |
| Environment Fields | |

**REPORT FORMAT OPTIONS**

| | |
|---|---|
| Print Watermark | Checked |
| Print DPS Case Numbers | Unchecked |

# Appendix D
# Traffic Engineering Consultants, Inc.
# Access Review Comments and Map

**Access Review Information – US 69 from Border to Okmulgee**

Approximate length of area is 1 mile
29 driveways on west side and 32 driveways on east side within review area

- As access density increases crash rates increase

- Roadways with non-traversable medians are safer than undivided roadways or those with continuous two-way left-turn lanes (TWLTL) NCHRP Report 420, 1999 (Transportation Research Board – National Cooperative Highway Research Program)

- Highway facilities with non-traversable medians had an overall accident rate of 5.2 per million vehicle miles travelled (VMT) compared with 7.3 per million VMT on facilities with TWLTLs. Average crash rates are 30% less with median

Selection of a median alternative depends upon factors related to policy, land use and traffic.

These factors include:

1. The access management policy for and access class of the roadway under consideration.
2. The types and intensities of the adjacent land use.
3. The supporting street system and the opportunities for re-routing left turns.
4. Existing driveway spacing.
5. Existing geometric design and traffic control features (e.g., proximity to traffic signals and provisions for left turns.
6. Traffic volumes speeds and accidents
7. Costs associated with roadway widening and reconstruction.

- Median Opening - 40 or more access points per mile results in reduction in free-flow speed of 10 mph

- Raised Medians – 25% to 35% reduction in total crashes
  30% decrease in delay
  30% increase in capacity

- As traffic volumes rise beyond 20,000 vpd, two-way left-turn lanes (TWLTL) begin to decrease in functionality, resulting in safety problems.

- Traffic Data – S. of Okmulgee
  2015 – 20,320 vpd P.M. 1000 SB/850 NB K=9.1%, D= 54%

  2040 – 30,480 vpd P.M. 1505 SB/1280 NB K= 9.1%, D= 54%

- Truck Data – $T_{AADT}$ = 25%
  $T_{DHV}$ = 22%
  $T_3$ = 20%

**Traffic Engineering Consultants, Inc.**
6000 S. Western Avenue, Ste. 300 | Oklahoma City, Oklahoma 73139 | Ph. 405-720-7721
6931 S. 66th E. Avenue, Ste. 100, | Tulsa, Oklahoma 74133 | Ph. 918-481-8484
Website: www.tecok.com

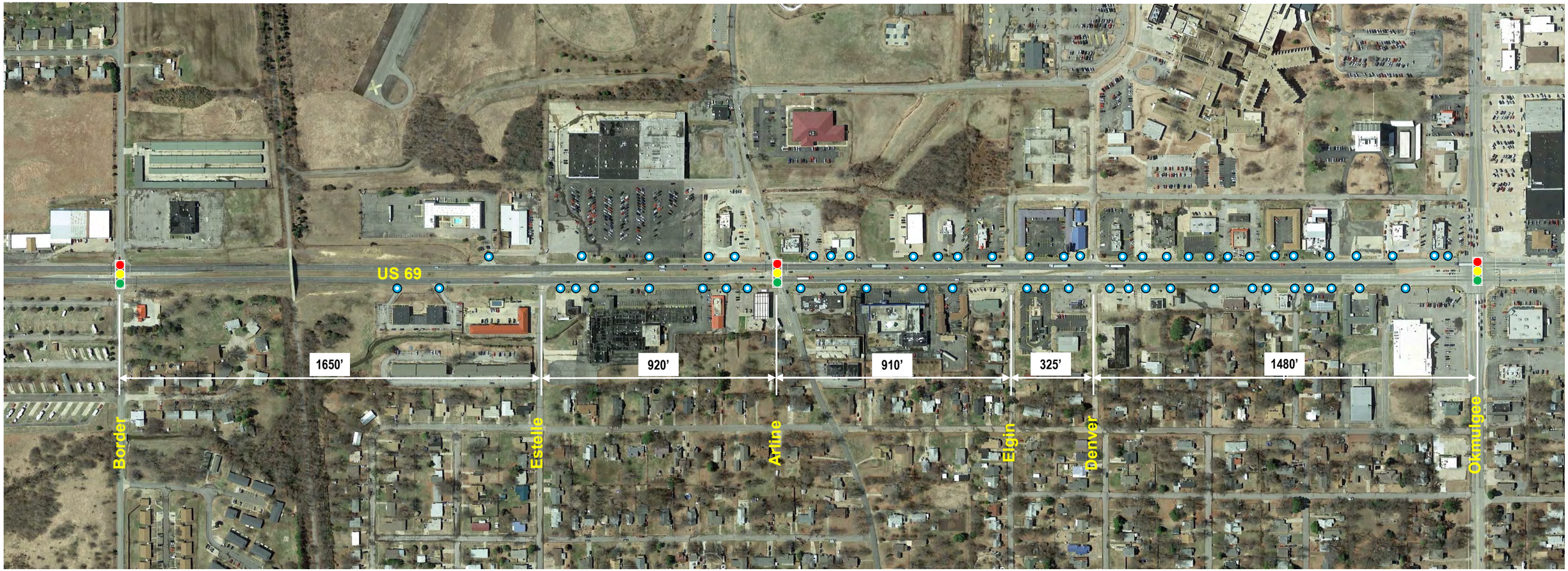


FIGURE 1. US 69 Access Review

# Appendix E
# Environmental Constraints, Considerations and Alternatives Matrix

# ENVIRONMENTAL CONSTRAINTS/CONSIDERATIONS

Known environmental constraints and considerations, based on a Reconnaissance Data Report completed in December of 2011 and updated with subsequent field studies and consultation with Federal and State Agencies, current information from the Oklahoma Corporation Commission (OCC), Oklahoma Department of Environmental Quality (DEQ), are provided for this summary. An environmental constraints matrix has also bee developed.

## Cultural Resources

A cultural resources report and consultation was completed in February of 2015. Consultation with the State Historic Preservation Office (4/27/2015) and the State Archaeologist (4/7/2015) resulted in concurrence with the assessment and determination listed below.

***Historic Properties***:
There are no eligible National Register of Historic Places (NRHP) structures or properties within the project area.

The 1952 bridge (Centennial Trail pedestrian bridge) and the two remnant railroad localities identified during the archaeological inspection are considered not eligible for the NRHP. The two railroad localities lack physical integrity and are too limited of representations of the railroads to be recorded as archaeological sites. The bridge is considered not eligible for the NRHP. None of these resources exhibit characteristics that qualify them for listing in the NRHP (pursuant to 36 CFR 60.4).

No previously listed NRHP or DOE properties are located within the study area.

The bridge over Coody Creek has been modified such that it is not eligible for NRHP consideration.

***Archeological Sites***
No archeological sites are located within the project action area.

***Cemeteries***
No cemeteries are located within the project action area.

## UST and LUST Sites within Proposed ROW

Sites that the Department may purchase or encounter during construction that pose a risk to worker health and safety or contamination issues are identified. No soil or groundwater testing were conducted. Hazardous waste data was derived from the Recon Report, OCC, and ODEQ records, and identification from aerial imagery.

There is one (1) underground storage tank (UST) and two (2) leaking underground storage tanks (LUSTs) within the proposed right-of-way (R/W) for Options 1 and 2. There are two (2) LUSTs within the proposed R/W for Option 3.

No EPA regulated facilities of concern were identified within the study area.

No current or abandoned coal mines are located within the study area.

The ISA completed in 2016 recommended that in the event the project scope changes or additional ROW is acquired further investigation may be needed at the location of the Kum & Go (702 S. 32nd Street) and Al's Texaco (located at the corner of 32nd and Denver).

**Oil and Gas Wells**

No oil and gas wells or infrastructure were identified in the project area.

**Impaired Streams**

Coody Creek is designated as an impaired waterbody under Section 303(d) of the Clean Water Act (CWA) due to elevated levels of Enterococcus Bacteria and E. Coli. The impact is similar in nature with 277.5 linear feet for all options.

**Potential Wetlands**

Potential jurisdictional wetlands and blue line streams were identified through the reconnaissance report, Waters & Wetlands Report, and USGS data. Wetland locations and boundaries were updated according to field survey and aerial imagery and have been identified in the constraint's matrix.

There is one likely jurisdictional wetland (classified as PEM1A) and one unlikely jurisdictional wetland (PFO1A) located approximately 1,500 feet south of Border Avenue on either side of US-69. All proposed options would have the same wetland impacts (0.559 acres permanent R/W and 0.78 permanent and temporary R/W).

Streams and Drainages:

| Total Field Sites | Water Body Name | USGS Designation | Potential Jurisdictional Status | Acres within study footprint | Linear Feet within study footprint |
|---|---|---|---|---|---|
| 1 | Coody Creek | Mapped perennial | Likely | 0.12 | 304 |
| 1 | Tributary to Coody Creek | Mapped intermittent | Likely | 0.01 | 55 |
| 1 | Tributary to Coody Creek | Unmapped intermittent | Likely | 0.07 | 339 |
| **Total Likely Jurisdictional** | | | | **0.2** | **698** |
| 10 | Ephemeral drainages | Unmapped | Unlikely | N/A | 2,851 |

**Blue Line Streams**

The blue line streams that are crossed by the project are also similar in nature with 381.7 linear feet of impact for all options.

**Threatened and Endangered Species**

The following listed species are listed for Muskogee County according to the US Fish and Wildlife Service and the Oklahoma Natural Heritage Inventory.

- American Burying Beetle (ABB) (Endangered)
- Interior Least Turn (Endangered)

- Piping Plover (Threatened)
- Red Knot (Threatened)
- Gray Bat (Endangered)
- Northern Long-Eared Bat (Threatened)
- Whooping Crane (Endangered)

The completed Biological Assessment Report dated May 15, 2015 states the following:

- The proposed project will have no effect on the Whooping Crane, Interior Least Tern, Piping Plover, and Red Knot.

- The proposed project may affect, not likely to adversely affect the Gray Bat and Northern Long-Eared Bat.

- The appropriate effect determination for the ABB will be determined following the preconstruction survey.

- No Bald Eagle or Golden Eagle habitat was observed in the study area.

Based on the design, similar plane notes would be required for the species impacted including the ABB, Gray Bat and Northern Long-Eared Bat.

**Critical Habitat**
There is no critical habitat in the project action area for threatened and endangered species.

**Migratory Birds**.
Plan notes will be added for migratory birds for any option selected.

**Floodplains**
The drainage area of Coody Creek is within Zone A floodplains according to Flood Insurance Rate Maps and those areas have been identified in the constraints matrix. Floodplain impacts include 2.0 acres of permanent right-of-way and 1.05 acres of temporary right-of-way. This is the same for all options.

**Tribal Property**
There was no tribal property identified within the project area. There is land owned by the Muskogee Creek Nation near the interchange of US-69 and US-64 on both sides of the roadway, but this area is not within the project.

**Section 4(f) Centennial Trail**
Section 4(f) will need to be completed for the Centennial Trail for any option selected with similar impacts.

A Section 4(f) recreational trail (Centennial Trail) transects the study area and has been identified in the constraint's matrix. No Land and Water Conservation Fund Act (LWCFA) funds were used for the purchase or improvement of the Centennial Trail Path. The Centennial Trail Path pedestrian bridge over US-69 was originally a railroad bridge built in 1952 by the Missouri Pacific railroad. After the railroad track was abandoned, the City of Muskogee claimed ownership of the abandoned railroad right of way in

1996 for public use. The City converted the railroad track bridge to accommodate pedestrian traffic with the addition of asphalt paving and safety fencing in 1998. This unconventional pedestrian overpass is planned to be replaced with a new structure designed specifically for bicycle and pedestrian traffic. The entire Centennial Trail path consists of asphalt, 10 foot wide on right-of-way that is 100 feet wide. The new pedestrian overpass structure will be 12 feet wide in width and connect with the existing 10 foot wide asphalt path. The replacement of this structure allows for more room to accommodate the roadway improvements on US-69 and will improve drainage on the roadway.
Coody Creek to the east was confirmed by the city not to have used Land and Water Conservation Fund Act (LWCFA).

**Section 4(f) Public Parks/ Refuges**

There are no parks, wildlife refuges, waterfowl refuges, or wildlife management areas identified within the project area.

**Noise**

A noise study was completed for the proposed US-69 project utilized the preliminary design plans dated January 2010 and the FHWA Traffic Noise Model version 2.5 in accordance with FHWA 23 CFR 772 and complies with the ODOT Noise Policy dated July 13, 2011. Noise measurements were performed at three (3) locations along existing US-69 within the project limits for the purpose of validating the noise model which proved satisfactory. Land use is described as developed land consisting of small business, motels, an RV Park with some residential lots, two (2) places-of-worship, a non-motorized foot/bicycle trail and single-family residential dwellings. The traffic noise analysis for the proposed action predicts the greatest noise levels to occur at noise sensitive sites near the proposed action composed of twenty-seven (27) model receivers. Those considered as noise sensitive receivers include the hospital, residential dwellings, the places-of-worship, the RV Park, and the trail. For the existing condition (2015), one residential and the trail crossing experience noise levels that approach or meet 67. 0 dB(A) Leq (h) for Noise Abatement Criteria (NAC) for Activity Categories B and C. Based on the future condition, (design year 2040), two (2) residential receivers, one place of worship (Jehovah's Witnesses) and the trail crossing will experience noise impacts with future noise levels approaching, meeting or exceeding the 67. 0 dB(A) Leq (h) for NAC Activity Categories B and C. However, no receivers will experience a substantial increase (15 dB) over the existing noise levels, with the highest increase at 3. 3 dB.

Noise mitigation in the form of a free-standing noise wall placed within the project right-of-way was considered for the impacted receivers. The two (2) residential receivers and the place-of-worship receiver have direct driveway access onto US-69. Without access control, the gap that would be required for the driveway connections would make noise abatement measures ineffective, and therefore, noise mitigation would not prove feasible. With regards to the trail crossing, only that portion within the project right-of-way that spans across US-69 is impacted, and thus, noise mitigation is not feasible.

**Airports**

The Hatbox Downtown Airport (a closed airfield) is located within 4 miles of the radius of the study area.

# EC-1576 | Muskogee County | JP27108(04) | US-69 Alternatives Matrix

| | No Build | Option 1 | Option 2 | Option 3 |
|---|---|---|---|---|
| New Right of Way Required (Acres) | 0 | 0.927 (Permanent)<br>4.73 (Temp, Perm, & PUE*) | 0.927 (Permanent)<br>4.73 (Temp, Perm, & PUE) | 0.926 (Permanent)<br>3.06 (Temp, Perm, & PUE) |
| Historic Properties | None | None | None | None |
| Archeological Sites | None | None | None | None |
| Cemeteries | None | None | None | None |
| UST Sites within Proposed ROW<br>LUST Sites 100ft of Proposed ROW | None | 1 UST Site, POOU<br>2 LUST Sites, Closed | 1 UST Site, POOU<br>2 LUST Sites, Closed | 2 LUST Sites, Closed |
| Oil and Gas Wells | None | None | None | None |
| 303d Impaired Streams (Linear Ft)** | 0 | 277.5 (Perm R/W)<br>498.2 (Temp & Perm R/W) | 277.5 (Perm R/W)<br>498.2 (Temp & Perm R/W) | 277.5 (Perm R/W)<br>498.2 (Temp & Perm R/W) |
| Potential Wetlands (Acres) | 0 | 0.559 (Perm R/W)<br>0.78 (Temp & Perm R/W) | 0.559 (Perm R/W)<br>0.78 (Temp & Perm R/W) | 0.559 (Perm R/W)<br>0.78 (Temp & Perm R/W) |
| Blue Line Streams (Linear Ft) | 0 | 381.7 (Perm R/W)<br>602.4 (Temp & Perm R/W) | 381.7 (Perm R/W)<br>602.4 (Temp & Perm R/W) | 381.7 (Perm R/W)<br>602.4 (Temp & Perm R/W) |
| Threatened & Endangered Species | Same | Same | Same | Same |
| Critical Habitat | None | None | None | None |
| Migratory Birds | Same | Same | Same | Same |
| Floodplains (Acres) | 0 | 2.0 (Perm R/W)<br>3.05 (Temp & Perm R/W) | 2.0 (Perm R/W)<br>3.05 (Temp & Perm R/W) | 2.0 (Perm R/W)<br>3.05 (Temp & Perm R/W) |
| Tribal Property | None | None | None | None |
| Section 4(f) Centennial Trail (Linear ft) | 0 | 795.2 | 795.2 | 795.2 |
| Section 4(F) Public Parks / Refuges | None | None | None | None |
| Noise | No Change | Same | Same | Same |

*Sources:* Oklahoma Corporation Commission, EPA, ODEQ, USGS, USFWS, FEMA, Reconnaissance Report, and HUB survey.

*Permanent Utility Easement (PUE)

**Waterbody: Coody Creek. Cause of impairment: Enterococcus Bacteria; Escherichia Coli (E. Coli).

# Exhibit 1
# Option 1 Preliminary Plans

# Exhibit 2
# Option 2 Preliminary Plans

# Exhibit 3
# Option 3 Preliminary Plans

# Exhibit 4
# Operational Analysis Report Annex (ODOT)