

EXHIBIT "A"

December 21, 2023

Matthew Bushak, P.E. Senior Transportation Engineer City of Round Rock 3400 Sunrise Road Round Rock, Texas 78665

RE: University Boulevard Speed Study

Dear Matt.

HDR has completed a speed study on University Boulevard (between IH 35 and SH 130) located in Round Rock, Texas, as shown in **Figure 1**. The purpose of the study was to document and evaluate the existing posted speed limits on University Boulevard by performing spot speed studies along the corridor and to develop potential recommendations. A curve advisory speed and school zone speed evaluation was not included as part of this study.

HDR previously conducted a similar study for this roadway in February 2021 when the University Boulevard segment between IH 35 and Sunrise Road was a four-lane undivided roadway and the section between A.W. Grimes was a two-lane undivided roadway. These sections have since been widened. The section between IH 35 and Sunrise Road is widened to a six-lane divided roadway and the section between AW Grimes and SH 130 has been widened to a four-lane divided roadway.

The following sections summarize our study methodology, results, and recommendations for the existing conditions (2023).

### **Existing Roadway Network**

The City of Round Rock Transportation Master Plan (Ref. 1) classifies University Boulevard as a major arterial. Currently, University Boulevard is a six-lane divided roadway from IH 35 to Sunrise Road; a five-lane undivided roadway from Sunrise Road to A.W. Grimes Boulevard with a continuous two-way left-turn lane (TWLTL) and two lanes in each direction; and a four-lane divided roadway from A.W. Grimes Boulevard to SH 130. Raised medians and flex-post bollards are deployed in sections with high driveway density between Sunrise Road and College Park Drive.

The 24-hour daily volume on University Boulevard for the year 2023 varies from approximately 28,000 VPD (vehicles per day), east of Sunrise Road to 18,000 VPD, west of SH 130 (**Appendix A**). The posted speed limits on University Boulevard are as follow:

- In the eastbound direction, the posted speed limit is 40 MPH (miles per hour) between IH 35 and Teravista Club Drive, 45 MPH between Teravista Club Drive and A.W. Grimes Boulevard, 55 MPH between A.W. Grimes Boulevard and CR 110, and 60 MPH between CR 110 and SH 130.
- In the westbound direction, the posted speed limit is 40 MPH between IH 35 and Sunrise Road, 45 MPH between Sunrise Road and A.W. Grimes Boulevard, 55 MPH between A.W. Grimes Boulevard and CR 110, and 60 MPH between CR 110 and SH 130.

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#### **Data Collection**

As part of this study, spot speed data were collected by Gram Traffic Counting, Inc., using radar technology along the following segments of University Boulevard in both the eastbound and westbound directions on Wednesday, October 4, 2023:

- 1. University Boulevard, between IH 35 and Sunrise Road
- 2. University Boulevard, between Sunrise Road and Teravista Club Drive
- 3. University Boulevard, between Teravista Club Drive and College Park Drive
- 4. University Boulevard, between College Park Drive and A.W. Grimes Boulevard
- 5. University Boulevard, between A.W. Grimes Boulevard and Vizcaya Parkway
- 6. University Boulevard, between Vizcaya Parkway and CR 110
- 7. University Boulevard, between CR 110 and SH 130

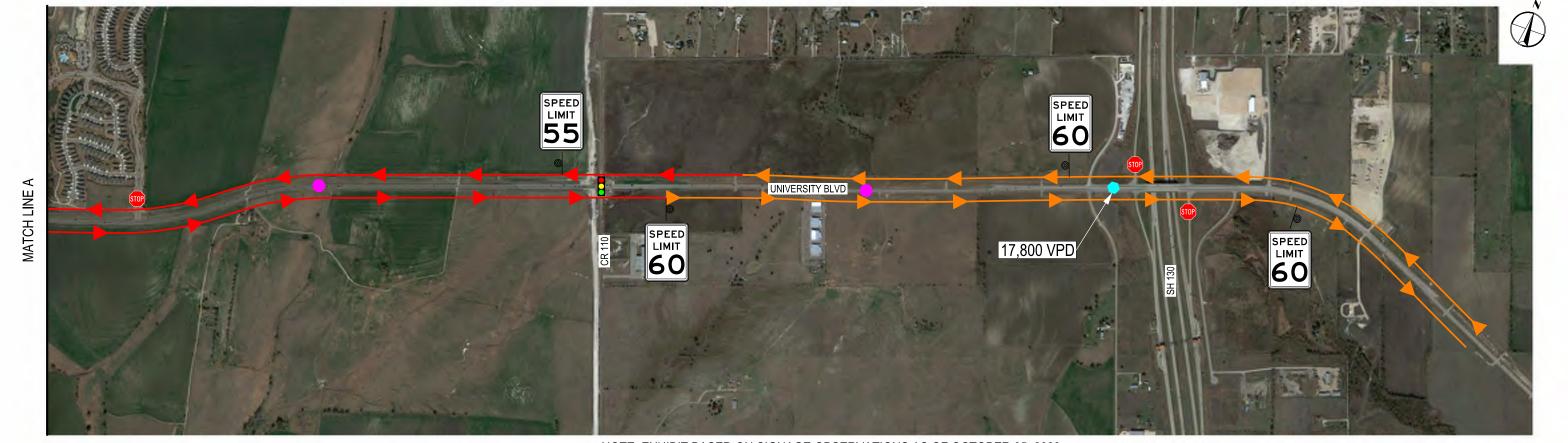
The 85th percentile speed summary reports are included in **Appendix B**.

24-hour daily traffic volumes were collected at the following four locations along University Boulevard on Wednesday, October 4, 2023:

- 1. University Boulevard, East of IH 35
- 2. University Boulevard, East of Sunrise Road
- 3. University Boulevard, East of A.W. Grimes Boulevard
- 4. University Boulevard, West of SH 130

The 24-hour volumes are shown in **Figure 1** and the 24-hour daily volume reports are included in **Appendix A**. A field review of the study corridor was conducted on Thursday, October 5, 2023, and the roadway network with the existing speed limit signs is shown in **Figure 1**.





LEGEND

SIGNALIZED INTERSECTION

40 MPH ZONE

45 MPH ZONE

WE SUB-STANDARD SIGN

SPEED LIMIT SIGN

55 MPH ZONE

RADAR SPEED CHECK STATION

60 MPH ZONE

NOTE: EXHIBIT BASED ON SIGNAGE OBSERVATIONS AS OF OCTOBER 05, 2023.

FIGURE 1 UNIVERSITY BOULEVARD EXISTING CONDITIONS

### **Crash Analysis**

Crash history of the study corridor between 2020 and 2023 was obtained from the TxDOT's Crash Record Information System (CRIS) database (Ref. 2). As the TxDOT statewide crash rates for the year 2023 are not yet available, this year has been excluded from the crash analysis. During the three (3) year period between January 1st, 2020, to December 31st, 2022, a total of 388 crashes were reported along the study corridor. Over this period, the average crash rate ranged from around 77 crashes per 100 million vehicle miles traveled (MVMT) in the A.W. Grimes to CR 110 section, to around 940 crashes per 100 MVMT for the IH 35 to Sunrise Road section. Average crash rates for each of the four sections for the three years (2020, 2021, and 2022) are provided below in **Table 1**. It should be noted that University Boulevard has undergone various roadway improvements in the last two years which include the widening of the segment between IH 35 to Sunrise Road from a four-lane undivided roadway to six-lane divided roadway, along with access-management updates in sections with high-driveway density between Sunrise Road and College Park Drive. The segment between CR 110 and SH 130 has also been upgraded from a two-lane undivided roadway to a four-lane divided roadway. The crash analysis has been conducted for the roadway conditions between 2020-2022.

The TxDOT Statewide Average Crash Rates (Ref. 3) for the state of Texas for the years 2020, 2021, and 2022 are also provided below in **Table 1** for comparison. Summary of the Crash Analysis is included in **Appendix C** and the TxDOT Statewide Average Crash Rate Reports for the three years are provided in **Appendix D**.

Table 1. University Boulevard: 2020-2022 Average Crash Rates

		Segment	IH 35 to Sunrise Road	Sunrise Road to A.W. Grimes Boulevard	A.W. Grimes Boulevard to CR 110	CR 110 TO SH 130
		Existing Configuration (2020-2022)	4-lane, undivided	5-lane, undivided w/ TWLTL	2-lane, undivided	2-lane, undivided
	2020	Segment Crash Rate	1063.56	132.82	64.23	65.49
	2020	TxDOT Statewide Average	269.55	269.55	176.67	176.67
Crash Rate	2021	Segment Crash Rate	864.14*	196.58	88.93	109.15
(100 MVMT)	2021	TxDOT Statewide Average	318.84	318.84	210.04	210.04
	2022	Segment Crash Rate	890.73*	233.77	79.04*	76.40*
	2022	TxDOT Statewide Average	319.28	319.28	212.70	212.70

<sup>\*</sup> Segment was under construction

XXX Segment Crash Rate exceeds Statewide Average Crash Rate

### **Speed Study Methodology**

The recommendations for establishing speed zones are set forth in TxDOT's manual titled "Procedure for Establishing Speed Zones" (Ref. 4). The 85th percentile speed is a value that is used by many states and cities for establishing regulatory speed zones. The 85th percentile speed is based on the theory that the majority of drivers are reasonable and prudent, that they do not want to crash, and that they desire to reach their destination in the shortest possible time, and therefore, a speed at or below which 85 percent of people drive at any given location under good weather and visibility conditions may be considered as the maximum safe speed for that location.

A minimum of 125 free floating vehicles or two hours of speed data, whichever occurs first, are collected on an average weekday during the off-peak period to establish the speed limit. The crash rate analysis and engineering judgment were utilized to propose the recommended speed limits. The existing posted speed limits, 85th percentile speeds, and the recommended speed limits are shown in **Table 2**.

Table 2. University Boulevard: 85th Percentile Speed Summary – Wednesday, October 4, 2023

Roadway Segment	Speed	g Posted Limits PH)	Sp	rcentile eed PH)	Recommended Speed Limits (MPH)	
	EB	WB	EB	WB	EB	WB
University Boulevard (IH 35 to Sunrise Road)*	40	40	40	39	40	40
University Boulevard (Sunrise Road to Teravista Club Drive)	40	45	47	43	45	45
University Boulevard (Teravista Club Drive to College Park Drive)	45	45	47	51	45	45
University Boulevard (College Park Drive to A.W. Grimes Boulevard)	45	45	50	51	45	45
University Boulevard (A.W. Grimes Boulevard to Vizcaya Parkway)**	55	55	60	55	55	55
University Boulevard (Vizcaya Parkway to CR 110)**	55	55	63	62	60	60
University Boulevard (CR 110 to SH 130)**	60	60	61	61	60	60

<sup>\*</sup> Segment has been widened since 2022

<sup>\*\*</sup> Segment has been widened since 2023

#### Results

Based on the results of the speed study, the variance of the 85th percentile speed along the University Boulevard corridor is as following:

- The 85<sup>th</sup> percentile speeds along the 40 MPH zone of University Boulevard (shown in pink in **Figure 1**) fall between 39 and 47 MPH, or within 7 MPH of the posted speed limit.
- The 85th percentile speeds along the 45 MPH zone of University Boulevard (shown in blue in **Figure 2**) fall between 43 and 51 MPH, or within 6 MPH of the posted speed limit.
- The 85th percentile speeds along the 55 MPH zone of University Boulevard (shown in red in **Figure 3**) fall between 55 and 63 MPH, or within 8 MPH of the posted speed limit.
- The 85th percentile speed along the 60 MPH zone of University Boulevard (shown in orange in **Figure 4**) is 61 MPH in both the directions, or within 1 MPH of the posted speed limit.

The crash rates for the University Boulevard segment between IH 35 and Sunrise Road were calculated to be higher than the statewide average crash rates for an undivided urban roadway with four or more lanes. This may be attributed to the high driveway density (number of driveways per mile) for this segment, as typically an increase in the driveway density corresponds with an increase in crash rates due to the increase in conflict points. However, this analysis is based on the crash rates between 2020-2022. The segment has since been upgraded to a 6-lane divided roadway which reduces the number of conflict points, and will potentially reduce the number of crashes in the future. As the crash analysis for this segment is not based on the new roadway configuration, only the 85th percentile speed is considered in determining the recommended speed limits. As the 85th percentile speeds for the eastbound and westbound directions are approximately 40 MPH and 39 MPH, respectively, it is recommended that the existing speed limit of 40 MPH should be maintained in both directions.

The 85<sup>th</sup> percentile speed for the University Boulevard segment between Sunrise Road and Teravista Club Drive is 47 MPH in the eastbound direction, which is approximately 7 MPH above the posted speed limit of 40 MPH. Therefore, an adjustment to the existing posted speed limit is recommended. The average crash rate for a three (3) year period (2020 - 2022) for the segment between Sunrise Road and Teravista Club Drive was below the statewide average for other highways of similar classification (four (4) or more lanes, undivided, urban). It should be noted that the posted speed limit in this section of University Boulevard in the westbound direction is already 45 MPH in the existing conditions and should be maintained.

The 85<sup>th</sup> percentile speeds for the University Boulevard segment between College Park Drive and A.W. Grimes Boulevard are 50 MPH and 51 MPH in the eastbound and westbound directions, respectively, which are 5 MPH and 6 MPH higher than the posted speed limit of 45 MPH in this section. However, there is an existing 1,700 ft curve within the 3,000 ft segment. The collected count for this segment is located approximately 750 feet west of the start of the curve. It is reasonable to expect vehicles to slow down upon entering the curve. Due to the smaller segment length and the existing curve, it is recommended that the speed limit between College Park Drive and A.W. Grimes remain at 45 MPH. The average crash rate for a three (3) year period (2020 - 2022) for the segment between College Park Drive and A.W. Grimes Boulevard was below the

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average for other highways of similar classification (four (4) or more lanes, undivided, urban).

Similarly, the 85<sup>th</sup> percentile speeds for the University Boulevard segment between Vizcaya Parkway and CR 110 are 63 MPH and 62 MPH in the eastbound and westbound directions, respectively, which are 8 MPH and 7 MPH higher than the posted speed limit of 55 MPH in this section. Therefore, an adjustment to the existing posted speed limits is recommended. The average crash rate for a three (3) year period (2020 - 2022) for the segment between Vizcaya Parkway and CR 110 was below the average for other highways of similar classification (four (4) or more lanes, divided, urban).

#### Recommendations

As stated within the Procedures for Establishing Speed Zones (TxDOT), the final speed limit may be lowered or raised by as much as 5 miles per hour from the 85th percentile speed. The majority of the posted speed limits along University Boulevard conform to this range. A review of the 85th percentile speed study data and the historical crash rate analysis was utilized to provide recommendations along University Boulevard. The proposed speed limits and recommendations are illustrated in **Figure 2**.

The following recommendations are provided based on the speed study:

- Increase the speed limit for the University Boulevard section between Sunrise Road and Teravista Club Drive to <u>45 MPH</u> for the eastbound direction based on a review of the 85th percentile speed data and the crash rate analysis.
- Increase the speed limit for the University Boulevard section between Vizcaya Parkway and CR 110 to 60 MPH for both eastbound and westbound directions, based on a review of the 85th percentile speed data and the crash rate analysis.
- 3. Trim the vegetation blocking the 45 MPH speed limit sign for the eastbound direction, west of Eagles Nest Street to improve visibility. A picture taken during the field visit has been attached in **Appendix E** for reference.
- 4. Replace the sub-standard 45 MPH speed limit sign for the eastbound direction, west of A.W. Grimes Boulevard to meet the TMUTCD Design Guidelines (Ref. 5) for standard font style, size, spacing, etc.
- 5. Place a "REDUCED SPEED AHEAD" sign for the westbound direction on University Boulevard, west of Vizcaya Parkway.

12-21-23

Please feel free to contact Soham Sarda (<u>soham.sarda@hdrinc.com</u>) or me if you have any questions.

Sincerely, HDR Engineering, Inc.

Harman Heyerdahl

Hannah Heyerdahl, P.E. Traffic Engineer hannah.heyerdahl@hdrinc.com

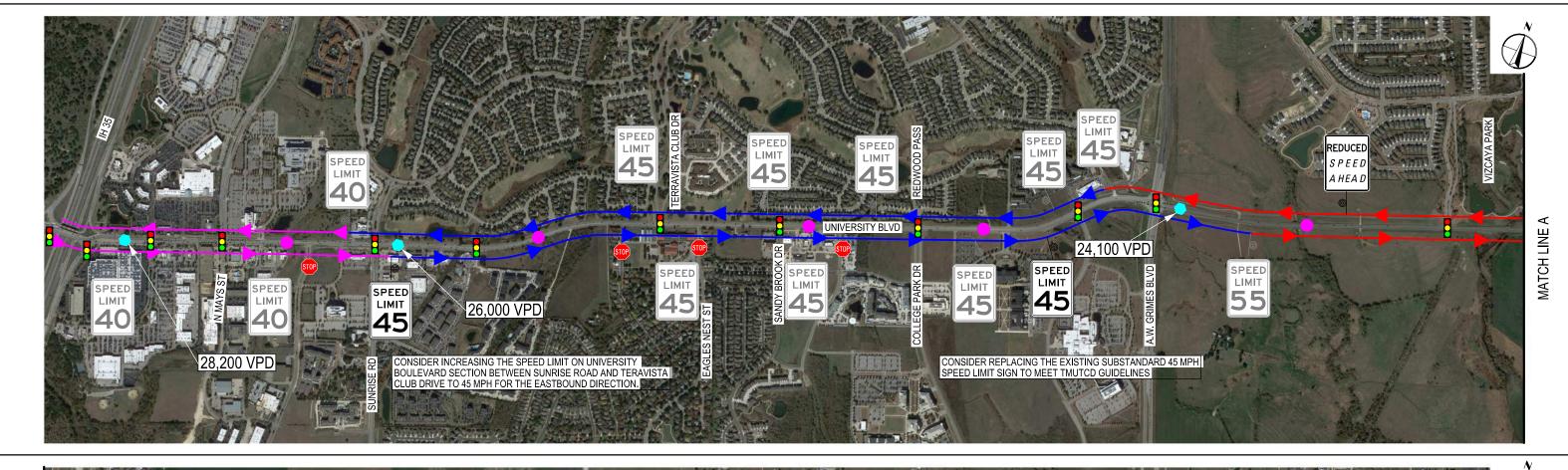






FIGURE 2 UNIVERSITY BOULEVARD PROPOSED FUTURE CONDITIONS

#### References

- City of Round Rock. Transportation Master Plan Update. 2017. Round Rock, Texas. https://www.roundrocktexas.gov/wp-content/uploads/2014/12/RRTMP\_Report\_Final-1.pdf
- Crash Records Information System. Texas Department of Transportation (TxDOT) Austin, Texas.
  - https://cris.dot.state.tx.us/public/Query/app/home
- 3. Annual Texas motor vehicle crash statistics. Texas Department of Transportation (TxDOT) Austin, Texas.
  - https://www.txdot.gov/data-maps/crash-reports-records/motor-vehicle-crash-statistics.html
- 4. Texas Department of Transportation (TxDOT). 2015. Procedures for Establishing Speed Zones. Austin, Texas.
  - $\underline{http://online manuals.txdot.gov/TxDOTOnline Manuals/TxDOTManuals/szn/introduction.htm}$
- 5. Texas Department of Transportation (TxDOT). 2014. Texas Manual on Uniform Traffic Control Devices. Austin, Texas.
  - https://www.txdot.gov/business/resources/traffic-design-standards/tmutcd.html

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Appendix A. 24-Hour Daily Volume Data

ADT

ADT 28,230

AADT 28,230

### Page 1

# GRAM Traffic Counting, Inc. 3751 FM 1105, Bldg. A Georgetown, TX 78626

512-832-8650

Site Code: 1 Station ID: University Blvd East of IH 35

Start	10/4/2023	Eastb	oound	Hour	Totals	West	bound	Hour	Totals	Combine	ed Totals
Time	Wed	Morning	Afternoon								
12:00		7	216			12	228				
12:15		10	201			22	262				
12:30		11	207			23	233				
12:45		10	309	38	933	17	233	74	956	112	1889
01:00		13	211			11	211				
01:15		9	197			8	248				
01:30		6	227			8	283				
01:45		6	193	34	828	15	227	42	969	76	1797
02:00		7	202	O-I	020	7	266	72	000	70	1101
02:00		8	218			10	265				
02:13		9	276			11	283				
				26	1015			20	1057	7.1	2400
02:45		12	349	36	1045	10	243	38	1057	74	2102
03:00		4	226			8	253				
03:15		9	222			6	273				
03:30		6	230			7	261				
03:45		8	197	27	875	9	279	30	1066	57	1941
04:00		10	333			9	302				
04:15		16	351			11	303				
04:30		31	349			21	311				
04:45		27	376	84	1409	28	295	69	1211	153	2620
05:00		31	392			48	340				
05:15		43	347			35	346				
05:30		45	365			76	351				
05:45		59	339	178	1443	81	256	240	1293	418	2736
06:00		96	252			93	250				
06:15		104	183			105	227				
06:30		112	249			131	241				
06:45		118	201	430	885	134	218	463	936	893	1821
07:00		234	168	400	000	200	210	400	000	000	102
07:00		173	181			208	221				
07:13		223	156			244	187				
				700	C4F			000	777	4070	4.404
07:45		166	140	796	645	230	159	882	777	1678	1422
08:00		155	149			202	173				
08:15		273	103			261	126				
08:30		216	117			176	122				
08:45		150	83	794	452	208	110	847	531	1641	983
09:00		164	103			191	127				
09:15		175	76			210	84				
09:30		148	88			177	106				
09:45		141	55	628	322	154	74	732	391	1360	713
10:00		193	68			214	93				
10:15		177	52			179	73				
10:30		219	34			193	50				
10:45		190	30	779	184	162	35	748	251	1527	43
11:00		196	20		-	199	34			-	
11:15		180	19			189	27				
11:30		188	25			182	21				
11:45		235	10	799	74	239	18	809	100	1608	174
Total		4623	9095	700	17	4974	9538	- 000	100	9597	1863
Percent		33.7%	66.3%			34.3%	65.7%			34.0%	66.0%
Grand											
		4623	9095			4974	9538			9597	18633
Total			00.007			0.4.007				0.4.007	
Percent		33.7%	66.3%			34.3%	65.7%			34.0%	66.0%

ADT

ADT 26,044

AADT 26,044

### Page 1

# GRAM Traffic Counting, Inc. 3751 FM 1105, Bldg. A Georgetown, TX 78626

512-832-8650

Site Code: 2 Station ID: University Blvd East of Sunrise Rd

Start	10/4/2023	Easth	oound	Hour	Totals	West	bound	Hour	Totals	Combine	ed Totals
Time	Wed	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	1100	29	250	woming	711101110011	5	176	monning	711101110011	wiching	7 11101110011
12:15		20	229			7	152				
12:30		28	255			6	185				
12:45		19	291	96	1025	13	161	31	674	127	1699
01:00		16	263			7	151				
01:15		13	274			3	184				
01:30		10	220			4	156				
01:45		8	273	47	1030	7	132	21	623	68	1653
02:00		8	233			4	155				
02:15		5	280			7	143				
02:30		10	295			10	158				
02:45		11	299	34	1107	12	146	33	602	67	1709
03:00		7	309			5	170				
03:15		6	268			7	153				
03:30		12	263			8	156				
03:45		9	266	34	1106	7	161	27	640	61	1746
04:00		11	323			12	163				
04:15		10	363			15	175				
04:30		19	333			24	153				
04:45		34	314	74	1333	33	191	84	682	158	2015
05:00		28	389			32	191				
05:15		35	359			44	189				
05:30		56	323			56	170				
05:45		87	325	206	1396	82	156	214	706	420	2102
06:00		89	349			88	147				
06:15		121	317			105	140				
06:30		161	268			106	152				
06:45		201	256	572	1190	141	132	440	571	1012	1761
07:00		191	251			164	120				
07:15		218	250			187	143				
07:30		267	245			232	121				
07:45		260	214	936	960	208	96	791	480	1727	1440
08:00		255	199			183	93				
08:15		168	187			197	81				
08:30		241	185			152	72				
08:45		269	157	933	728	162	70	694	316	1627	1044
09:00		233	158			143	53				
09:15		223	144			123	55				
09:30		175	134			124	54				
09:45		210	99	841	535	137	44	527	206	1368	741
10:00		191	93			133	50				
10:15		238	73			117	32				
10:30		198	62			148	22				
10:45		221	65	848	293	140	25	538	129	1386	422
11:00		199	49			126	19				
11:15		208	41			136	12				
11:30		263	35			149	10				
11:45		270	19	940	144	146	9	557	50	1497	194
Total		5561	10847			3957	5679			9518	16526
Percent		33.9%	66.1%			41.1%	58.9%			36.5%	63.5%
Grand		5561	10847			3957	5679			9518	16526
		JJ0 I	10047			3831	3019			3010	10320
Total Percent		33.9%	66.1%			41.1%	58.9%			36.5%	63.5%

# GRAM Traffic Counting, Inc. 3751 FM 1105, Bldg. A Georgetown, TX 78626

512-832-8650

Site Code: 3 Station ID: University Blvd East of AW Grimes Blvd

Start	10/4/2023	Easth	oound	Hour	Totals	West	bound	Hour	Totals	Combin	ed Totals
Time	Wed	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		18	175			10	156				
12:15		16	160			4	162				
12:30		19	149			9	170				
12:45		15	134	68	618	8	158	31	646	99	1264
01:00		11	155			4	167				
01:15		11	166			4	206				
01:30		13	163			9	157				
01:45		6	145	41	629	2	141	19	671	60	1300
02:00		3	196			5	153				
02:15		8	176			9	181				
02:30		6	202			12	152				
02:45		7	201	24	775	7	167	33	653	57	1428
03:00		10	225			2	172				
03:15		9	220			6	177				
03:30		12	237			11	189				
03:45		16	215	47	897	13	205	32	743	79	1640
04:00		12	257			14	189				
04:15		22	270			22	254				
04:30		24	293			47	249				
04:45		47	294	105	1114	50	233	133	925	238	2039
05:00		53	307			44	251				
05:15		62	327			79	275				
05:30		80	262			104	277				
05:45		100	234	295	1130	173	213	400	1016	695	2146
06:00		114	238			144	232				
06:15		128	209			142	220				
06:30		189	191	=00	700	201	198		000	1010	1000
06:45		162	161	593	799	268	173	755	823	1348	1622
07:00		189	172			252	136				
07:15		159	155			319	126				
07:30		171	141	000	000	352	101	4000	450	1001	4050
07:45		167	132	686	600	385	95	1308	458	1994	1058
08:00		175	123			322	96				
08:15		139	115			294	79				
08:30		135	110	505	455	284	80	4405	040	4740	70
08:45		136	107	585	455	225	55	1125	310	1710	765
09:00		180	102			192	64				
09:15		145	73			160	47				
09:30		134	81	040	200	187	44	740	400	4000	400
09:45		151	44	610	300	174	44	713	199	1323	499
10:00		131	61			160	35				
10:15		123 148	37			183 150	26				
10:30		120	41 31	522	170	150	18 24	643	103	1165	273
10:45		-	-	522	170			043	103	1105	2/3
11:00 11:15		139 149	19 24			135	29 15				
						156					
11:30		135 132	19 17	555	79	159 162	7 12	612	63	1167	142
11:45 Total		4131	7566	555	19	5804	6610	012	03	9935	14170
Percent		35.3%	64.7%			46.8%	53.2%			41.2%	58.8%
Grand											
Total		4131	7566			5804	6610			9935	14176

ADT ADT 24,111 AADT 24,111

ADT

ADT 17,801

AADT 17,801

### Page 1

# GRAM Traffic Counting, Inc. 3751 FM 1105, Bldg. A Georgetown, TX 78626

512-832-8650

Site Code: 4 Station ID: University Blvd West of SH 130

Start	10/4/2023	Eastl	oound	Hour	Totals	West	bound	Hour	Totals	Combine	ed Totals
Time	Wed	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoor
12:00		14	105	_		8	96	_			
12:15		12	114			4	104				
12:30		11	106			8	102				
12:45		10	88	47	413	5	123	25	425	72	838
01:00		11	127			3	108				
01:15		11	133			5	133				
01:30		8	132			6	101				
01:45		11	118	41	510	2	99	16	441	57	951
02:00		2 7	111			6 5	81				
02:15			156				127				
02:30		5	135			10	104				
02:45		3	171	17	573	4	115	25	427	42	1000
03:00		7	158			3	124				
03:15		8	189			6	116				
03:30		12	174			9	125				
03:45		17	181	44	702	10	116	28	481	72	1183
04:00		20	221			14	149				
04:15		25	212			24	149				
04:30		32	256			31	174				
04:45		47	229	124	918	31	179	100	651	224	1569
05:00		46	245			38	207				
05:15		43	282			54	215				
05:30		87	217			81	198				
05:45		72	200	248	944	96	150	269	770	517	1714
06:00		102	190			92	188				
06:15		114	159			118	151				
06:30		160	126			148	138				
06:45		181	123	557	598	173	120	531	597	1088	1195
07:00		183	107			167	92				
07:15		167	96			215	87				
07:30		155	89			238	67				
07:45		171	79	676	371	225	65	845	311	1521	682
08:00		154	79			244	42				
08:15		131	73			191	44				
08:30		126	61			164	53				
08:45		118	68	529	281	154	46	753	185	1282	466
09:00		132	69			120	30				
09:15		127	49			110	44				
09:30		120	44			127	32				
09:45		123	28	502	190	102	33	459	139	961	32
10:00		111	31			109	14				-
10:15		128	38			127	16				
10:30		118	29			98	19				
10:45		106	15	463	113	99	19	433	68	896	18
11:00		142	12			82	21				
11:15		119	15			96	10				
11:30		111	12			87	12				
11:45		119	15	491	54	99	9	364	52	855	100
Total		3739	5667		U-1	3848	4547		ŰŽ.	7587	1021
Percent		39.8%	60.2%			45.8%	54.2%			42.6%	57.49
Grand									-		
Total		3739	5667			3848	4547			7587	1021
Percent		39.8%	60.2%			45.8%	54.2%			42.6%	57.4%
i Giodiil		39.0%	00.2 /0			43.0%	J4.Z /0			<b>→∠.</b> ∪ /0	37.47

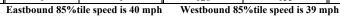
Matthew Bushak, P.E. December 21, 2023

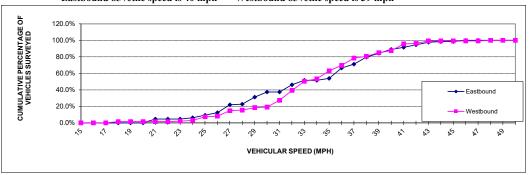
Appendix B. Speed Data Summary

**Hwy:** University Blvd **Location:** Site 1 - Between IH 35 & Sunrise Rd

Date:10/4/2023Time: (from)10:45(to)11:15Weather:ClearSurface Type: AsphaltCondition: Dry / Smooth

weather.	Cicai		Surface Type.	F	W Sillouti		
Vehicle Mean Speed	Number of Ve	hicles Surveyed		ve Total of Surveyed		e Percent of Surveyed	
MPH	Eastbound	Westbound	Eastbound	Westbound	Eastbound	Westbound	
10	0	0	0	0	0.0%	0.0%	
11	0	0	0	0	0.0%	0.0%	
12	0	0	0	0	0.0%	0.0%	
13	0	0	0	0	0.0%	0.0%	
14	0	0	0	0	0.0%	0.0%	
15	0	0	0	0	0.0%	0.0%	
16	0	0	0	0	0.0%	0.0%	
17	0	0	0	0	0.0%	0.0%	
18	0	2	0	2	0.0%	1.5%	
19	0	0	0	2	0.0%	1.5%	
20	0	0	0	2	0.0%	1.5%	
21	6	0	6	2	4.7%	1.5%	
22	0	0	6	2	4.7%	1.5%	
23	0	1	6	3	4.7%	2.2%	
24	2	1	8	4	6.3%	3.0%	
25	4	6	12	10	9.4%	7.4%	
26	4	1	16	11	12.5%	8.1%	
27	12	9	28	20	21.9%	14.8%	
28	1	1	29	21	22.7%	15.6%	
29	11	4	40	25	31.3%	18.5%	
30	8	1	48	26	37.5%	19.3%	
31	0	11	48	37	37.5%	27.4%	
32	11	16	59	53	46.1%	39.3%	
33	7	15	66	68	51.6%	50.4%	
34	0	4	66	72	51.6%	53.3%	
35	3	13	69	85	53.9%	63.0%	
36	16	9	85	94	66.4%	69.6%	
37	6	12	91	106	71.1%	78.5%	
38	11	3	102	109	79.7%	80.7%	
39	6	6	108	115	84.4%	85.2%	
40	6	3	114	118	89.1%	87.4%	
41	3	11	117	129	91.4%	95.6%	
42	4	1	121	130	94.5%	96.3%	
43	4	4	125	134	97.7%	99.3%	
44	1	0	126	134	98.4%	99.3%	
45	0	0	126	134	98.4%	99.3%	
46	2	0	128	134	100.0%	99.3%	
47	0	0	128	134	100.0%	99.3%	
48	0	1	128	135	100.0%	100.0%	
49	0	0	128	135	100.0%	100.0%	
50	0	0	128	135	100.0%	100.0%	
51	0	0	128	135	100.0%	100.0%	
52	0	0	128	135	100.0%	100.0%	
53	0	0	128	135	100.0%	100.0%	
54	0	0	128	135	100.0%	100.0%	
55	0	0	128	135	100.0%	100.0%	
56	0	0	128	135	100.0%	100.0%	
57	0	0	128	135	100.0%	100.0%	
58	0	0	128	135	100.0%	100.0%	
59	0	0	128	135	100.0%	100.0%	



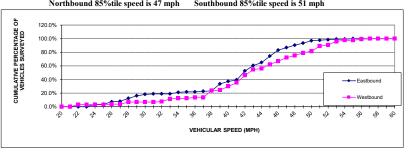


Hwy: University Blvd Location: Site 3 - Between Teravista Club Dr & College Park Dr

 Date:
 10/4/2023
 Time: (from)
 9:38
 (to)
 10:10

 Weather:
 Clear
 Surface Type: Asphalt
 Condition: Dry / Smooth

Weather:	Clear		Surface Type:	Aspnait	Condition: I	ry/Smooth
Vehicle Mean Speed	Number of Ve	hicles Surveyed		ive Total of Surveyed		ve Percent of s Surveyed
MPH	Eastbound	Westbound	Eastbound	Westbound	Eastbound	Westbound
10	0	0	0	0	0.0%	0.0%
11	0	0	0	0	0.0%	0.0%
12	0	0	0	0	0.0%	0.0%
13	0	0	0	0	0.0%	0.0%
14	0	0	0	0	0.0%	0.0%
15 16	0	0	0	0	0.0%	0.0%
17	0	0	0	0	0.0%	0.0%
18	0	0	0	0	0.0%	0.0%
19	0	0	0	0	0.0%	0.0%
20	0	0	0	0	0.0%	0.0%
21	0	0	0	0	0.0%	0.0%
22	0	4	0	4	0.0%	3.1%
23	0	0	0	4	0.0%	3.1%
24	5	0	5	4	3.6%	3.1%
25	0	0	5	4	3.6%	3.1%
26	5	1	10	5	7.3%	3.8%
27	1	0	11	5	8.0%	3.8%
28	6	4	17	9	12.4%	6.9%
29	5	0	22	9	16.1%	6.9%
30	3	0	25	9	18.2%	6.9%
31	1	0	26	9	19.0%	6.9%
32	0	1	26	10	19.0%	7.7%
33	0	5	26	15	19.0%	11.5%
34	3	1	29	16	21.2%	12.3%
35	1	0	30	16	21.9%	12.3%
36	0	2	30	18	21.9%	13.8%
37	1	0	31	18	22.6%	13.8%
38	1	13	32	31	23.4%	23.8%
39	14	11	46	32	33.6%	24.6%
40	5	7	51	39	37.2%	30.0%
41 42	3	7 14	54 72	46 60	39.4%	35.4%
43	18 11	11	83	71	52.6% 60.6%	46.2% 54.6%
44	6	2	89	73	65.0%	56.2%
45	13	8	102	81	74.5%	62.3%
46	12	6	114	87	83.2%	66.9%
47	5	7	119	94	86.9%	72.3%
48	5	4	124	98	90.5%	75.4%
49	4	5	128	103	93.4%	79.2%
50	5	3	133	106	97.1%	81.5%
51	1	10	134	116	97.8%	89.2%
52	1	2	135	118	98.5%	90.8%
53	1	7	136	125	99.3%	96.2%
54	0	2	136	127	99.3%	97.7%
55	1	0	137	127	100.0%	97.7%
56	0	2	137	129	100.0%	99.2%
57	0	1	137	130	100.0%	100.0%
58	0	0	137	130	100.0%	100.0%
59	0	0	137	130	100.0%	100.0%
60	0	0	137	130	100.0%	100.0%
61	0	0	137	130	100.0%	100.0%
62	0	0	137	130	100.0%	100.0%
63	0	0	137	130	100.0%	100.0%
64	0	0	137	130	100.0%	100.0%
65	0	0	137	130	100.0%	100.0%
66	0	0	137	130	100.0%	100.0%
67	0	0	137	130	100.0%	100.0%
68	0	0	137	130	100.0%	100.0%
69	0	0	137	130	100.0%	100.0%
70 71	0	0	137 137	130 130	100.0% 100.0%	100.0%
72	0	0	137	130	100.0%	100.0%
73	0	0	137	130	100.0%	100.0%
74	0	0	137	130	100.0%	100.0%
75	0	0	137	130	100.0%	100.0%
, ,		otile speed is 47 m		85%tile speed is 5		100.070

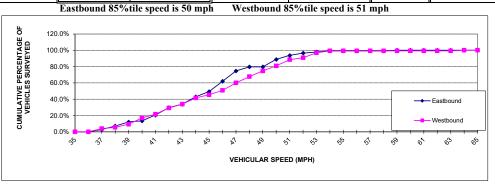


Hwy: University Blvd **Location:** Site 4 - Between College Park Dr & AW Grimes Blvd 9:33

Date: 10/4/2023 Time: (from) 9:00 (to)

Weather: Clear Surface Type: Asphalt Condition: Dry / Smooth

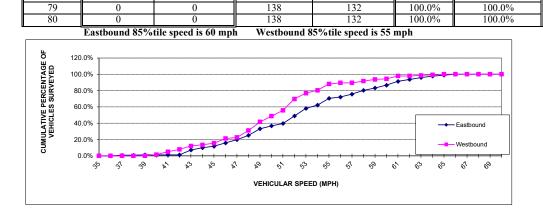
Vehicle Mean Speed MPH 30 31 32	Number of Ve	hicles Surveyed		ve Total of	Cumulati	ve Percent of		
MPH 30 31	Eastbound	Number of Vehicles Surveyed  Eastbound Westbound		Cumulative Total of Vehicles Surveyed		Cumulative Percent of Vehicles Surveyed		
31		Westbound	Eastbound	Westbound	Eastbound	Westbound		
	0	0	0	0	0.0%	0.0%		
32	0	0	0	0	0.0%	0.0%		
	0	0	0	0	0.0%	0.0%		
33	0	0	0	0	0.0%	0.0%		
34	0	0	0	0	0.0%	0.0%		
35	0	0	0	0	0.0%	0.0%		
36	0	0	0	0	0.0%	0.0%		
37	4	5	4	5	2.8%	3.8%		
38	6	2	10	7	7.0%	5.4%		
39	7	5	17	12	12.0%	9.2%		
40	2	10	19	22	13.4%	16.9%		
41	10	6	29	28	20.4%	21.5%		
42	13	10	42	38	29.6%	29.2%		
43	6	6	48	44	33.8%	33.8%		
44	13	10	61	54	43.0%	41.5%		
45	9	5	70	59	49.3%	45.4%		
46	18	7	88	66	62.0%	50.8%		
47	18	12	106	78	74.6%	60.0%		
48	7	10	113	88	79.6%	67.7%		
49	0	9	113	97	79.6%	74.6%		
50	13	8	126	105	88.7%	80.8%		
51	7	10	133	115	93.7%	88.5%		
52	4	3	137	118	96.5%	90.8%		
53	2	8	139	126	97.9%	96.9%		
54	2	3	141	129	99.3%	99.2%		
55	0	0	141	129	99.3%	99.2%		
56	0	0	141	129	99.3%	99.2%		
57	0	0	141	129	99.3%	99.2%		
58	0	0	141	129	99.3%	99.2%		
59	1	0	142	129	100.0%	99.2%		
60	0	0	142	129	100.0%	99.2%		
61	0	0	142	129	100.0%	99.2%		
62	0	0	142	129	100.0%	99.2%		
63	0	0	142	129	100.0%	99.2%		
64	0	1	142	130	100.0%	100.0%		
65	0	0	142	130	100.0%	100.0%		
66	0	0	142	130	100.0%	100.0%		
67	0	0	142	130	100.0%	100.0%		
68	0	0	142	130	100.0%	100.0%		
69	0	0	142	130	100.0%	100.0%		
70	0	0	142	130	100.0%	100.0%		
71	0	0	142	130	100.0%	100.0%		
72	0	0	142	130	100.0%	100.0%		
73	0	0	142	130	100.0%	100.0%		
74	0	0	142	130	100.0%	100.0%		
75	0	0	142	130	100.0%	100.0%		
76	0	0	142	130	100.0%	100.0%		
77	0	0	142	130	100.0%	100.0%		
78	0	0	142	130	100.0%	100.0%		
79	0	0	142	130	100.0%	100.0%		
80	0	0	142	130	100.0%	100.0%		



Hwy: University Blvd **Location:** Site 5 - Between AW Grimes Blvd & Vizcaya Pkwy Date: 10/4/2023 12:24 1:07

Time: (from) (to) Weather: Clear Surface Type: Asphalt Condition: Dry / Smooth

			JI.	1		J
Vehicle Mean Speed	Number of Ve	ehicles Surveyed		ve Total of Surveyed		ive Percent of es Surveyed
MPH	Eastbound	Westbound	Eastbound	Westbound	Eastbound	Westbound
30	0	0	0	0	0.0%	0.0%
31	0	0	0	0	0.0%	0.0%
32	0	0	0	0	0.0%	0.0%
33	0	0	0	0	0.0%	0.0%
34	0	0	0	0	0.0%	0.0%
35	0	0	0	0	0.0%	0.0%
36	0	0	0	0	0.0%	0.0%
37	1	0	1	0	0.6%	0.0%
38	0	0	1	0	0.6%	0.0%
39	1	0	2	0	1.2%	0.0%
40	0	2	2	2	1.2%	1.4%
41	0	5	2	7	1.2%	4.9%
42	0	4	2	10	1.2%	7.7%
43	8	6	10	16	7.0%	12.0%
44	4	2	14	18	9.9%	13.4%
45	2	3	16	20	11.6%	15.5%
46	6	7	22	28	15.7%	21.1%
47	6	2	27	30	19.8%	22.5%
48	7	11	35	41	25.0%	31.0%
49	11	14	46	55	33.1%	41.5%
50	5	9	51	64	36.6%	48.6%
51	4	9	55	73	39.5%	55.6%
52	13	19	67	92	48.8%	69.7%
53	13	9	80	101	58.1%	76.8%
54	6	5	86	106	62.2%	80.3%
55	11	10	97	116	70.3%	88.0%
56	2	2	99	118	72.1%	89.4%
57	5	0	104	118	75.6%	89.4%
58	6	3	111	121	80.2%	91.5%
59	4	3	115	124	83.1%	93.7%
60	5	1	120	125	86.6%	94.4%
61	6	5	126	129	91.3%	97.9%
62	3	0	129	129	93.6%	97.9%
63	3	1	132	130	95.9%	98.6%
64	2	1	135	131	97.7%	99.3%
65	2	1	136	132	98.8%	100.0%
66	2	0	138	132	100.0%	100.0%
67	0	0	138	132	100.0%	100.0%
68	0	0	138	132	100.0%	100.0%
69	0	0	138	132	100.0%	100.0%
70	0	0	138	132	100.0%	100.0%
70	0	0	138	132	100.0%	100.0%
72	0	0	138	132	100.0%	100.0%
73	0	0	138	132	100.0%	100.0%
74	0	0	138	132	100.0%	100.0%
74	0	U	138	132	100.0%	100.0%



138

138

138

138

0

0

0

0

0

75

76

77

78

79

0

0

0

0

0

132

132

132

132

100.0%

100.0%

100.0%

100.0%

100.0%

100.0%

100.0%

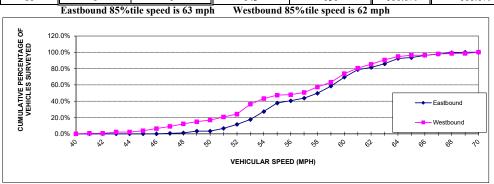
100.0%

 Hwy:
 University Blvd
 Location:
 Site 6 - Between Vizcaya Pkwy & CR 110

 Date:
 10/4/2023
 Time: (from)
 11:18
 (to)
 12:13

Weather: Clear Surface Type: Asphalt Condition: Dry / Smooth

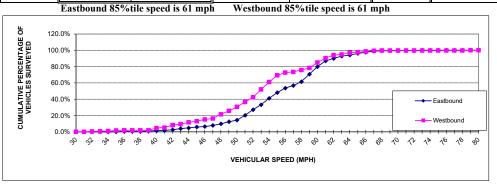
			- JP-1	1		
Vehicle	Number of Ve	ehicles Surveyed		ve Total of Surveyed	ll l	tive Percent of les Surveyed
Mean Speed				·		Ţ.
MPH	Eastbound	Westbound	Eastbound	Westbound	Eastbound	Westbound
30	0	0	0	0	0.0%	0.0%
31	0	0	0	0	0.0%	0.0%
32	0	0	0	0	0.0%	0.0%
33	0	0	0	0	0.0%	0.0%
34	0	0	0	0	0.0%	0.0%
35	0	0	0	0	0.0%	0.0%
36	0	0	0	0	0.0%	0.0%
37	0	0	0	0	0.0%	0.0%
38	0	0	0	0	0.0%	0.0%
39	0	0	0	0	0.0%	0.0%
40	0	0	0	0	0.0%	0.0%
41	0	1	0	1	0.0%	0.5%
42	0	0	0	1	0.0%	0.5%
43	0	2	0	3	0.0%	2.1%
44	0	0	0	3	0.0%	2.1%
45	0	2	0	6	0.0%	3.7%
46	0	4	0	9	0.0%	6.3%
47	1	4	1	13	0.5%	8.9%
48	1	5	2	18	1.1%	12.1%
49	3	4	5	22	3.3%	14.7%
50	0	3	5	25	3.3%	16.8%
51	5	6	9	31	6.6%	20.5%
52	7	6	16	36	11.5%	24.2%
_						
53	9	18	25	54	17.5%	36.3%
54	14	10	39	65	27.3%	43.2%
55	15	6	54	71	37.7%	47.4%
56	4	1	58	72	40.4%	47.9%
57	5	4	63	76	43.7%	50.5%
58	9	10	71	86	49.7%	57.4%
59	13	9	84	95	58.5%	63.2%
60	16	16	99	111	69.4%	73.7%
61	13	10	113	121	78.7%	80.5%
62	4	7	116	128	81.4%	85.3%
63	6	8	123	136	85.8%	90.5%
64	9	6	132	142	92.3%	94.7%
65	2	2	134	144	93.4%	96.3%
66	4	0	138	144	96.2%	96.3%
67	2	2	140	147	97.8%	97.9%
68	2	1	142	148	99.5%	98.4%
69	1	0	143	148	100.0%	98.4%
70	0	2	143	150	100.0%	100.0%
71	0	0	143	150	100.0%	100.0%
72	0	0	143	150	100.0%	100.0%
73	0	0	143	150	100.0%	100.0%
74	0	0	143	150	100.0%	100.0%
75	0	0	143	150	100.0%	100.0%
76	0	0	143	150	100.0%	100.0%
77	0	0	143	150	100.0%	100.0%
78	0	0	143	150	100.0%	100.0%
79	0	0	143	150	100.0%	100.0%
80	0	0	143	150	100.0%	100.0%
			<u> </u>			-



**Hwy:** University Blvd **Location:** Site 7 - Between CR 110 & SH 130

Date:10/4/2023Time: (from)10:00(to)11:05Weather:ClearSurface Type: AsphaltCondition: Dry / Smooth

Weather:	Clear		Surface Type:	Aspnait	Condition: Dry / Smooth		
Vehicle Mean Speed	Number of Ve	chicles Surveyed	Cumulative Total of Vehicles Surveyed		Cumulative Percent of Vehicles Surveyed		
MPH	Eastbound	Westbound	Eastbound	Westbound	Eastbound	Westbound	
30	0	0	0	0	0.0%	0.0%	
31	0	0	0	0	0.0%	0.0%	
32	0	0	0	0	0.0%	0.3%	
33	0	0	0	1	0.0%	0.6%	
34	0	0	0	1	0.0%	0.9%	
35	0	1	0	2	0.0%	1.5%	
36	0	0	0	2	0.3%	1.8%	
37	0	0	0	2	0.3%	1.8%	
38	0	0	0	2	0.3%	1.8%	
39	1	0	1	2	0.8%	1.8%	
40	1	3	2	6	1.4%	4.5%	
41	0	1	2	7	1.7%	5.1%	
42	1	4	3	10	2.5%	8.2%	
43	2	2	5	12	3.9%	9.4%	
44	1	3	6	15	4.7%	11.5%	
45	1	2	8	17	5.9%	13.0%	
46	1	3	8	19	6.4%	15.1%	
47	2	2	10	21	7.8%	16.3%	
48	3	7	13	27	9.8%	21.5%	
49	3	5	16	33	12.3%	25.7%	
50	3	6	19	39	14.2%	30.5%	
51	8	8	26	47	20.1%	36.6%	
52	9	7	35	54	27.1%	42.3%	
53	8	12	44	67	33.2%	52.0%	
54	10	12	54	78	41.1%	61.0%	
55	9	10	63	89	48.0%	69.2%	
56	7	4	70	93	53.6%	72.5%	
57	4	1	74	94	56.7%	73.4%	
58	6	3	81	97	61.5%	75.8%	
59	12	3	93	100	70.7%	78.2%	
60	12	9	105	109	79.9%	84.9%	
61	9	7	114	116	86.9%	90.3%	
62	4	5	118	120	89.9%	94.0%	
63	4	1	121	121	92.7%	94.9%	
64	2	3	123	124	94.1%	97.0%	
65	3	1	126	125	96.1%	97.6%	
66	2	1	128	126	97.5%	98.5%	
67	2	1	130	127	98.9%	99.4%	
68	1	0	130	128	99.4%	99.7%	
69	0	0	130	128	99.4%	99.7%	
70	0	0	130	128	99.4%	99.7%	
71	0	0	131	128	99.7%	99.7%	
72	0	0	131	128	99.7%	99.7%	
73	0	0	131	128	100.0%	99.7%	
74	0	0	131	128	100.0%	99.7%	
75	0	0	131	128	100.0%	99.7%	
76	0	0	131	128	100.0%	99.7%	
77	0	0	131	128	100.0%	99.7%	
78	0	0	131	128	100.0%	99.7%	
79	0	0	131	128	100.0%	100.0%	
80	0	0	131	128	100.0%	100.0%	
00		tile speed is 61 mp		120 25% tile speed is 61		100.070	



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**Appendix C. Crash Data Summary** 

Corridor	University Blvd								
Selected Signalized Crossroads	IH 35	to	Sunrise Road	to	A.W. Grimes Blvd	to	CR 110	to	SH 130
Distance (miles)		0.73		1.98		2.30		1.41	
AADT		28,230		26,044		24,111		17,801	
Total Crashes		212		106		47		23	
Crashes per Mile		290		54		20		16	
Crashes (per 100 Million-Vehicle- Miles)		939.48		187.72		77.40		83.69	

## 2020-2022 Crash Summary for University Boulevard

Location	Year	Total		
	2020	80		
IH 35 to Sunrise Road (4-lane, undivided)	2021	65		
	2022	67		
Sub-Total		212		
	2020	25		
Sunrise Road to A.W. Grimes Boulevard (5-lane, undivided w/ TWLTL)	2021	37		
	2022	44		
Sub-Total	Sub-Total			
	2020	13		
A.W. Grimes Boulevard to CR 110 (2-lane, undivided)	2021	18		
	2022	16		
Sub-Total		47		
	2020	6		
CR 110 TO SH 130 (2-lane, undivided)	2021	10		
	2022	7		
Sub-Total		23		
Total Crashes		388		

### **Crash Rates for University Boulevard**

Segment	Crash Rates per 100 MVMT					
Segment	2020	2021	2022	3 Yr Average	Corridor Average	
IH 35 to Sunrise Road (4-lane, undivided)*	1063.56	864.15	890.73	939.48		
Sunrise Road to A.W. Grimes Boulevard (5-lane, undivided w/ TWLTL)	132.82	196.58	233.77	187.72	322.07	
A.W. Grimes Boulevard to CR 110 (2-lane, undivided)**	64.23	88.93	79.05	77.40	322.07	
CR 110 TO SH 130 (2-lane, undivided)**	65.49	109.15	76.41	83.69		
State wide Average 2 lanes, 2 way (Urban)	87.94	96.85	94.62	93.14	93.14	
State wide Average 2 lanes, 2 way (Rural)	176.67	210.04	212.70	199.80	199.80	
State wide Average 4+ lanes, divided (Urban)	145.52	169.98	163.82	159.77	159.77	
State wide Average 4+ lanes, divided (Rural)	52.31	60.82	56.96	56.70	56.70	
State wide Average 4+ lanes, undivided (Urban)	269.55	318.84	319.28	302.56	302.56	
State wide Average 4+ lanes, undivided (Rural)	86.59	100.36	100.05	95.67	95.67	

<sup>\*</sup> Segment was a four-lane undivided roadway during the crash analysis period (2020-2022)

<sup>\*\*</sup> Segment was a two-lane undivided roadway during the crash analysis period (2020-2022)

Matthew Bushak, P.E. December 21, 2023 **Appendix D. TxDOT Statewide Average Crash Rate Reports** 



# STATEWIDE TRAFFIC CRASH RATES



### By Highway System

Highway System	Traffic Crashes per 100 million vehicle miles		
riigiiway System	Rural	Urban	
Interstate	48.65	137.63	
US Highway	61.08	169.10	
State Highway	78.60	194.12	
Farm-to-Market	109.24	208.32	

### By Road Type

Road Type	Traffic Crashes per 100 million vehicle miles			
Road Type	Rural	Urban		
2 lane, 2 way	87.94	176.67		
4 or more lanes, divided	52.31	145.52		
4 or more lanes, undivided	86.59	269.55		



# STATEWIDE TRAFFIC CRASH RATES



### By Highway System

Highway System	Traffic Crashes per 100 million vehicle miles		
Trigriway System	Rural	Urban	
Interstate	57.79	160.67	
US Highway	70.26	197.62	
State Highway	89.09	228.89	
Farm-to-Market	116.86	245.94	

## By Road Type

Road Type	Traffic Crashes per 100 million vehicle miles		
Road Type	Rural	Urban	
2 lane, 2 way	96.85	210.04	
4 or more lanes, divided	60.82	169.98	
4 or more lanes, undivided	100.36	318.84	



# STATEWIDE TRAFFIC CRASH RATES



### **By Highway System**

Highway System	Traffic Crashes per 100 million vehicle miles		
riigiiway System	Rural	Urban	
Interstate	52.88	150.86	
US Highway	68.42	192.67	
State Highway	86.44	230.67	
Farm-to-Market	115.69	249.93	

## By Road Type

Road Type	Traffic Crashes per 100 million vehicle miles		
Road Type	Rural	Urban	
2 lane, 2 way	94.62	212.70	
4 or more lanes, divided	56.96	163.82	
4 or more lanes, undivided	100.05	319.28	

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**Appendix E. Field Observations** 

