



**CENTRAL TEXAS
Regional Mobility Authority**

AGENDA ITEM #20 SUMMARY

Amend the Policy Code to establish speed limits for the tolled main lanes of the Manor Expressway.

Strategic Plan Relevance: Regional Mobility

Department: Engineering

Associated Costs: None

Funding Source: Not applicable

Board Action Required: Yes

Description of Matter:

The existing maximum speed limits for tolled main lanes of the Manor Expressway were determined through engineering studies during the design process. Now that the roadway is open and traffic has normalized, speed limit studies have been conducted to determine the 85th percentile speeds per TxDOT's *Procedures for Establishing Speed Zones*.

The attached 2014 Speed Zone Study and speed zone strip map reflects the findings and conclusions of that study. Staff recommends adoption of the speed zones identified in the Speed Zone Study and on the speed zone strip map for Manor Expressway.

Reference documentation: Manor Expressway Speed Zone Study
Speed Zone Map (Appendix C to Speed Zone Study)
Redline of Policy Code text amendment
Draft Resolution

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CENTRAL TEXAS
Regional Mobility Authority

Manor Expressway 2014 Speed Zone Study

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1. Introduction

Manor Expressway (290 Toll) was completed and opened to the public on May 17th of 2014. The expressway consists of 6.2 miles of tolled main lanes and non-tolled frontage roads, beginning at the US 290/US 183 interchange and extending east just past Parmer Lane. These tolled lanes will serve to decrease travel times from the suburban towns of Manor and Elgin in to the City of Austin. The Central Texas Regional Mobility Authority has requested a speed study be conducted to establish speed zones on the newly completed main lanes. Speed limits determined through this study may not exceed 75 miles per hour according to section 545.354 of the Texas Transportation Code. This report will summarize the results of the speed study conducted for the Manor Expressway (290 Toll). See Figure 1 below for a layout of the study area.

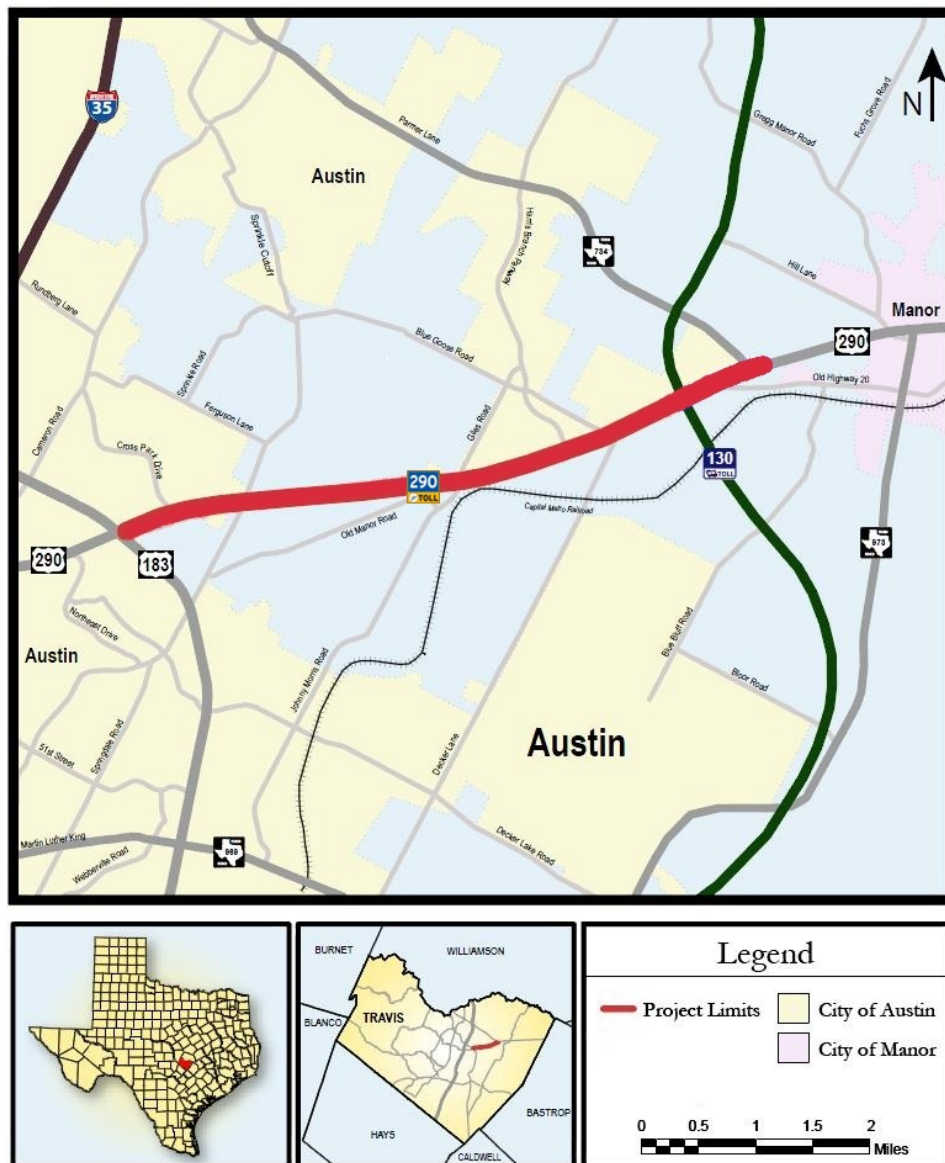


Figure 1: US 290E Manor Expressway Location Map

1.1 Existing Conditions

Currently, the majority of the Manor Expressway (290 Toll) is demarcated as a 70 mile per hour speed limit per construction plans. At the beginning and end of the project limits, outside of the toll zone, the speed limits are set at 60 miles per hour.

1.2 Typical Sections

The typical section of the main lanes on Manor Expressway (290 Toll) consists of three 12-foot wide lanes with a 10-foot wide shoulder on each side. The west and eastbound directions are separated with a median which varies in width. All lanes and shoulders were designed to meet TxDOT design standards.

2. Speed Zone Study Methodology

The *Procedures for Establishing Speed Zones* revised by the Texas Department of Transportation in April 2012 was used as a guide in conducting this speed study.

Radar data was collected on 125 vehicles travelling in each direction, at each of 6 selected locations, on the main lanes to determine the 85th percentile speed. The locations selected were located midway between on and off ramps to avoid collecting data on vehicles speeding up to enter the main lanes or slowing down to exit the main lanes. The results from this data collection can be seen in Appendix A , West Bound Radar Speed Data, and Appendix B, East Bound Radar Speed Data. The data was collected on clear weather days between July 22nd and 24th, 2014. The existing 70 mile per hour speed limit signs remained in place during the speed data collection. On January 19, 2014, prior to the official opening, there was a crash reported on the corridor. The contractor was still impacting traffic with lane closures through August 2014. Typically there is a 3 month lag between crash occurrence and crash data reports; therefore the CTRMA has not received crash data for the Mainlanes collected since opening that would impact the recommendations. Crash data is collected monthly and will be monitored by Mobility Authority Staff.

2.1 85th Percentile Speed

The data collected from the speed study was used to determine the 85th percentile speed. This represents the speed at which 85% of the vehicles surveyed are traveling at or below. According to TxDOT recommendations, the speed limit should be set near to the 85th percentile speed as observed through a speed study. The observed 85th percentile speeds can be seen below in Table 1, westbound, and Table 2, eastbound, along with the maximum speed observed.

Table 1: Manor Expressway US 290E Westbound Speed Data

Manor Expressway US 290E Westbound Speed Data		
Location	85th Percentile Speed (mph)	Observed Maximum Speed (mph)
East of Parmer Lane	70	76
East of SH 130	73	79
East of Harris Branch	73	79
East of Johnny Morris	73	80
East of Springdale	74	80
East of Tuscany Way	73	79
Average	73	79

Table 2: Manor Expressway US 290E Eastbound Speed Data

Manor Expressway US 290E Eastbound Speed Data		
Location	85th Percentile Speed (mph)	Observed Maximum Speed (mph)
East of Tuscany Way	72	80
East of Springdale	74	80
East of Johnny Morris	75	80
East of Harris Branch	74	80
East of SH 130	71	78
East of Parmer Lane	71	79
Average	73	80

2.2 Strip Map

A strip map of the study area was created to reflect the existing geometric features of the roadway, pavement details, right of way widths, existing signs, cross roads, bridge structures, rail ways, and water ways. The strip map was then used to review the speed data and speed zones in coordination with the existing features of the roadway to determine a suitable speed limit. The complete strip maps for the study area can be seen in Appendix C.

3. Recommended Speed Zone

Upon examination of the data collected and shown in the appendices, it was determined that the results support the establishment of a 75 mile per hour speed zone along the entirety of the Manor Expressway (290 Toll) corridor. This meets the TxDOT requirement to not exceed a 75 mile per hour speed limit and to not exceed more than a 15 mile per hour change in speed limit between zones at each end of the study area.

Appendix A

West Bound Radar Speed Data

Hwy: US 290 Toll Location: East of Parmer Ln Weather: Sunny
 Date: 7/24/2014 Time: from 12:45 PM to 2:10 PM

Vehicle Mean Speed (mph)	Number of Vehicles Surveyed		Cumulative Total of Vehicles Surveyed		Cumulative Percent of Vehicles Surveyed	
	Westbound	Eastbound	Westbound	Eastbound	Westbound	Eastbound
30	0	1	0	1	0.0%	100.0%
31	0	0	0	1	0.0%	100.0%
32	0	0	0	1	0.0%	100.0%
33	0	0	0	1	0.0%	100.0%
34	0	0	0	1	0.0%	100.0%
35	0	0	0	1	0.0%	100.0%
36	0	0	0	1	0.0%	100.0%
37	0	0	0	1	0.0%	100.0%
38	0	0	0	1	0.0%	100.0%
39	0	0	0	1	0.0%	100.0%
40	0	0	0	1	0.0%	100.0%
41	0	0	0	1	0.0%	100.0%
42	0	0	0	1	0.0%	100.0%
43	0	0	0	1	0.0%	100.0%
44	0	0	0	1	0.0%	100.0%
45	0	0	0	1	0.0%	100.0%
46	0	0	0	1	0.0%	100.0%
47	0	0	0	1	0.0%	100.0%
48	0	0	0	1	0.0%	100.0%
49	0	0	0	1	0.0%	100.0%
50	0	0	0	1	0.0%	100.0%
51	1	0	1	1	0.8%	100.0%
52	1	0	2	1	1.6%	100.0%
53	0	0	2	1	1.6%	100.0%
54	2	0	4	1	3.2%	100.0%
55	1	0	5	1	4.0%	100.0%
56	1	0	6	1	4.8%	100.0%
57	3	0	9	1	7.2%	100.0%
58	0	0	9	1	7.2%	100.0%
59	3	0	12	1	9.6%	100.0%
60	3	0	15	1	12.0%	100.0%
61	6	0	21	1	16.8%	100.0%
62	3	0	24	1	19.2%	100.0%
63	10	0	34	1	27.2%	100.0%
64	13	0	47	1	37.6%	100.0%
65	14	0	61	1	48.8%	100.0%
66	10	0	71	1	56.8%	100.0%
67	8	0	79	1	63.2%	100.0%
68	4	0	83	1	66.4%	100.0%
69	11	0	94	1	75.2%	100.0%
70	9	0	103	1	82.4%	100.0%
71	7	0	110	1	88.0%	100.0%
72	4	0	114	1	91.2%	100.0%
73	4	0	118	1	94.4%	100.0%
74	3	0	121	1	96.8%	100.0%
75	3	0	124	1	99.2%	100.0%
76	1	0	125	1	100.0%	100.0%
77	0	0	125	1	100.0%	100.0%
78	0	0	125	1	100.0%	100.0%
79	0	0	125	1	100.0%	100.0%
80	0	0	125	1	100.0%	100.0%

Westbound 85%tile speed is 70 mph Eastbound 85%tile speed is 0 mph

Hwy: US 290 Toll Location: East of SH 130 Weather: Sunny
 Date: 7/24/2014 Time: from 11:00 AM to 12:20 PM

Vehicle Mean Speed (mph)	Number of Vehicles Surveyed		Cumulative Total of Vehicles Surveyed		Cumulative Percent of Vehicles Surveyed	
	Westbound	Eastbound	Westbound	Eastbound	Westbound	Eastbound
30	0	1	0	1	0.0%	100.0%
31	0	0	0	1	0.0%	100.0%
32	0	0	0	1	0.0%	100.0%
33	0	0	0	1	0.0%	100.0%
34	0	0	0	1	0.0%	100.0%
35	0	0	0	1	0.0%	100.0%
36	0	0	0	1	0.0%	100.0%
37	0	0	0	1	0.0%	100.0%
38	0	0	0	1	0.0%	100.0%
39	0	0	0	1	0.0%	100.0%
40	0	0	0	1	0.0%	100.0%
41	0	0	0	1	0.0%	100.0%
42	0	0	0	1	0.0%	100.0%
43	0	0	0	1	0.0%	100.0%
44	0	0	0	1	0.0%	100.0%
45	0	0	0	1	0.0%	100.0%
46	0	0	0	1	0.0%	100.0%
47	0	0	0	1	0.0%	100.0%
48	0	0	0	1	0.0%	100.0%
49	0	0	0	1	0.0%	100.0%
50	0	0	0	1	0.0%	100.0%
51	0	0	0	1	0.0%	100.0%
52	0	0	0	1	0.0%	100.0%
53	0	0	0	1	0.0%	100.0%
54	1	0	1	1	0.8%	100.0%
55	0	0	1	1	0.8%	100.0%
56	1	0	2	1	1.6%	100.0%
57	1	0	3	1	2.4%	100.0%
58	1	0	4	1	3.2%	100.0%
59	0	0	4	1	3.2%	100.0%
60	2	0	6	1	4.8%	100.0%
61	0	0	6	1	4.8%	100.0%
62	1	0	7	1	5.6%	100.0%
63	3	0	10	1	8.0%	100.0%
64	4	0	14	1	11.2%	100.0%
65	7	0	21	1	16.8%	100.0%
66	10	0	31	1	24.8%	100.0%
67	9	0	40	1	32.0%	100.0%
68	6	0	46	1	36.8%	100.0%
69	16	0	62	1	49.6%	100.0%
70	8	0	70	1	56.0%	100.0%
71	11	0	81	1	64.8%	100.0%
72	7	0	88	1	70.4%	100.0%
73	13	0	101	1	80.8%	100.0%
74	10	0	111	1	88.8%	100.0%
75	7	0	118	1	94.4%	100.0%
76	2	0	120	1	96.0%	100.0%
77	2	0	122	1	97.6%	100.0%
78	1	0	123	1	98.4%	100.0%
79	2	0	125	1	100.0%	100.0%
80	0	0	125	1	100.0%	100.0%

Westbound 85%tile speed is 73 mph Eastbound 85%tile speed is 0 mph

Hwy: US 290 Toll Location: East of Harris Branch Weather: Sunny
 Date: 7/22/2014 Time: from 9:00 AM to 9:55 AM

Vehicle Mean Speed (mph)	Number of Vehicles Surveyed		Cumulative Total of Vehicles Surveyed		Cumulative Percent of Vehicles Surveyed	
	Westbound	Eastbound	Westbound	Eastbound	Westbound	Eastbound
30	0	1	0	1	0.0%	100.0%
31	0	0	0	1	0.0%	100.0%
32	0	0	0	1	0.0%	100.0%
33	0	0	0	1	0.0%	100.0%
34	0	0	0	1	0.0%	100.0%
35	0	0	0	1	0.0%	100.0%
36	0	0	0	1	0.0%	100.0%
37	0	0	0	1	0.0%	100.0%
38	0	0	0	1	0.0%	100.0%
39	0	0	0	1	0.0%	100.0%
40	0	0	0	1	0.0%	100.0%
41	0	0	0	1	0.0%	100.0%
42	0	0	0	1	0.0%	100.0%
43	0	0	0	1	0.0%	100.0%
44	0	0	0	1	0.0%	100.0%
45	0	0	0	1	0.0%	100.0%
46	0	0	0	1	0.0%	100.0%
47	0	0	0	1	0.0%	100.0%
48	0	0	0	1	0.0%	100.0%
49	0	0	0	1	0.0%	100.0%
50	0	0	0	1	0.0%	100.0%
51	0	0	0	1	0.0%	100.0%
52	0	0	0	1	0.0%	100.0%
53	0	0	0	1	0.0%	100.0%
54	1	0	1	1	0.8%	100.0%
55	0	0	1	1	0.8%	100.0%
56	1	0	2	1	1.6%	100.0%
57	0	0	2	1	1.6%	100.0%
58	1	0	3	1	2.4%	100.0%
59	0	0	3	1	2.4%	100.0%
60	3	0	6	1	4.8%	100.0%
61	2	0	8	1	6.4%	100.0%
62	0	0	8	1	6.4%	100.0%
63	4	0	12	1	9.6%	100.0%
64	5	0	17	1	13.6%	100.0%
65	8	0	25	1	20.0%	100.0%
66	1	0	26	1	20.8%	100.0%
67	3	0	29	1	23.2%	100.0%
68	8	0	37	1	29.6%	100.0%
69	11	0	48	1	38.4%	100.0%
70	13	0	61	1	48.8%	100.0%
71	14	0	75	1	60.0%	100.0%
72	11	0	86	1	68.8%	100.0%
73	14	0	100	1	80.0%	100.0%
74	10	0	110	1	88.0%	100.0%
75	7	0	117	1	93.6%	100.0%
76	4	0	121	1	96.8%	100.0%
77	2	0	123	1	98.4%	100.0%
78	1	0	124	1	99.2%	100.0%
79	1	0	125	1	100.0%	100.0%
80	0	0	125	1	100.0%	100.0%

Westbound 85%tile speed is 73 mph Eastbound 85%tile speed is 0 mph

Hwy: US 290 Toll Location: East of Johnny Morris Weather: Sunny
 Date: 7/22/2014 Time: from 10:05 AM to 11:30 AM

Vehicle Mean Speed (mph)	Number of Vehicles Surveyed		Cumulative Total of Vehicles Surveyed		Cumulative Percent of Vehicles Surveyed	
	Westbound	Eastbound	Westbound	Eastbound	Westbound	Eastbound
30	0	1	0	1	0.0%	100.0%
31	0	0	0	1	0.0%	100.0%
32	0	0	0	1	0.0%	100.0%
33	0	0	0	1	0.0%	100.0%
34	0	0	0	1	0.0%	100.0%
35	0	0	0	1	0.0%	100.0%
36	0	0	0	1	0.0%	100.0%
37	0	0	0	1	0.0%	100.0%
38	0	0	0	1	0.0%	100.0%
39	0	0	0	1	0.0%	100.0%
40	0	0	0	1	0.0%	100.0%
41	0	0	0	1	0.0%	100.0%
42	0	0	0	1	0.0%	100.0%
43	0	0	0	1	0.0%	100.0%
44	0	0	0	1	0.0%	100.0%
45	0	0	0	1	0.0%	100.0%
46	0	0	0	1	0.0%	100.0%
47	0	0	0	1	0.0%	100.0%
48	0	0	0	1	0.0%	100.0%
49	0	0	0	1	0.0%	100.0%
50	0	0	0	1	0.0%	100.0%
51	0	0	0	1	0.0%	100.0%
52	0	0	0	1	0.0%	100.0%
53	0	0	0	1	0.0%	100.0%
54	0	0	0	1	0.0%	100.0%
55	1	0	1	1	0.8%	100.0%
56	0	0	1	1	0.8%	100.0%
57	0	0	1	1	0.8%	100.0%
58	0	0	1	1	0.8%	100.0%
59	2	0	3	1	2.4%	100.0%
60	1	0	4	1	3.2%	100.0%
61	0	0	4	1	3.2%	100.0%
62	1	0	5	1	4.0%	100.0%
63	3	0	8	1	6.4%	100.0%
64	8	0	16	1	12.8%	100.0%
65	2	0	18	1	14.4%	100.0%
66	1	0	19	1	15.2%	100.0%
67	4	0	23	1	18.4%	100.0%
68	4	0	27	1	21.6%	100.0%
69	6	0	33	1	26.4%	100.0%
70	14	0	47	1	37.6%	100.0%
71	10	0	57	1	45.6%	100.0%
72	13	0	70	1	56.0%	100.0%
73	18	0	88	1	70.4%	100.0%
74	19	0	107	1	85.6%	100.0%
75	8	0	115	1	92.0%	100.0%
76	7	0	122	1	97.6%	100.0%
77	1	0	123	1	98.4%	100.0%
78	1	0	124	1	99.2%	100.0%
79	0	0	124	1	99.2%	100.0%
80	1	0	125	1	100.0%	100.0%

Westbound 85%tile speed is 73 mph Eastbound 85%tile speed is 0 mph

Hwy: US 290 Toll Location: East of Springdale Weather: Sunny
 Date: 7/22/2014 Time: from 11:40 AM to 12:55 PM

Vehicle Mean Speed (mph)	Number of Vehicles Surveyed		Cumulative Total of Vehicles Surveyed		Cumulative Percent of Vehicles Surveyed	
	Westbound	Eastbound	Westbound	Eastbound	Westbound	Eastbound
30	0	1	0	1	0.0%	100.0%
31	0	0	0	1	0.0%	100.0%
32	0	0	0	1	0.0%	100.0%
33	0	0	0	1	0.0%	100.0%
34	0	0	0	1	0.0%	100.0%
35	0	0	0	1	0.0%	100.0%
36	0	0	0	1	0.0%	100.0%
37	0	0	0	1	0.0%	100.0%
38	0	0	0	1	0.0%	100.0%
39	0	0	0	1	0.0%	100.0%
40	0	0	0	1	0.0%	100.0%
41	0	0	0	1	0.0%	100.0%
42	0	0	0	1	0.0%	100.0%
43	0	0	0	1	0.0%	100.0%
44	0	0	0	1	0.0%	100.0%
45	0	0	0	1	0.0%	100.0%
46	0	0	0	1	0.0%	100.0%
47	0	0	0	1	0.0%	100.0%
48	0	0	0	1	0.0%	100.0%
49	0	0	0	1	0.0%	100.0%
50	0	0	0	1	0.0%	100.0%
51	0	0	0	1	0.0%	100.0%
52	1	0	1	1	0.8%	100.0%
53	0	0	1	1	0.8%	100.0%
54	0	0	1	1	0.8%	100.0%
55	0	0	1	1	0.8%	100.0%
56	0	0	1	1	0.8%	100.0%
57	0	0	1	1	0.8%	100.0%
58	0	0	1	1	0.8%	100.0%
59	1	0	2	1	1.6%	100.0%
60	0	0	2	1	1.6%	100.0%
61	0	0	2	1	1.6%	100.0%
62	0	0	2	1	1.6%	100.0%
63	2	0	4	1	3.2%	100.0%
64	5	0	9	1	7.2%	100.0%
65	1	0	10	1	8.0%	100.0%
66	3	0	13	1	10.4%	100.0%
67	2	0	15	1	12.0%	100.0%
68	3	0	18	1	14.4%	100.0%
69	5	0	23	1	18.4%	100.0%
70	11	0	34	1	27.2%	100.0%
71	8	0	42	1	33.6%	100.0%
72	22	0	64	1	51.2%	100.0%
73	20	0	84	1	67.2%	100.0%
74	17	0	101	1	80.8%	100.0%
75	10	0	111	1	88.8%	100.0%
76	9	0	120	1	96.0%	100.0%
77	1	0	121	1	96.8%	100.0%
78	1	0	122	1	97.6%	100.0%
79	2	0	124	1	99.2%	100.0%
80	1	0	125	1	100.0%	100.0%

Westbound 85%tile speed is 74 mph Eastbound 85%tile speed is 0 mph

Hwy: US 290 Toll Location: East of Tuscany Way Weather: Sunny
 Date: 7/22/2014 Time: from 1:30 PM to 2:45 PM

Vehicle Mean Speed (mph)	Number of Vehicles Surveyed		Cumulative Total of Vehicles Surveyed		Cumulative Percent of Vehicles Surveyed	
	Westbound	Eastbound	Westbound	Eastbound	Westbound	Eastbound
30	0	1	0	1	0.0%	100.0%
31	0	0	0	1	0.0%	100.0%
32	0	0	0	1	0.0%	100.0%
33	0	0	0	1	0.0%	100.0%
34	0	0	0	1	0.0%	100.0%
35	0	0	0	1	0.0%	100.0%
36	0	0	0	1	0.0%	100.0%
37	0	0	0	1	0.0%	100.0%
38	0	0	0	1	0.0%	100.0%
39	0	0	0	1	0.0%	100.0%
40	0	0	0	1	0.0%	100.0%
41	0	0	0	1	0.0%	100.0%
42	0	0	0	1	0.0%	100.0%
43	0	0	0	1	0.0%	100.0%
44	0	0	0	1	0.0%	100.0%
45	0	0	0	1	0.0%	100.0%
46	0	0	0	1	0.0%	100.0%
47	0	0	0	1	0.0%	100.0%
48	0	0	0	1	0.0%	100.0%
49	0	0	0	1	0.0%	100.0%
50	0	0	0	1	0.0%	100.0%
51	0	0	0	1	0.0%	100.0%
52	0	0	0	1	0.0%	100.0%
53	1	0	1	1	0.8%	100.0%
54	0	0	1	1	0.8%	100.0%
55	2	0	3	1	2.4%	100.0%
56	0	0	3	1	2.4%	100.0%
57	0	0	3	1	2.4%	100.0%
58	1	0	4	1	3.2%	100.0%
59	0	0	4	1	3.2%	100.0%
60	0	0	4	1	3.2%	100.0%
61	1	0	5	1	4.0%	100.0%
62	2	0	7	1	5.6%	100.0%
63	2	0	9	1	7.2%	100.0%
64	6	0	15	1	12.0%	100.0%
65	8	0	23	1	18.4%	100.0%
66	9	0	32	1	25.6%	100.0%
67	8	0	40	1	32.0%	100.0%
68	7	0	47	1	37.6%	100.0%
69	8	0	55	1	44.0%	100.0%
70	10	0	65	1	52.0%	100.0%
71	9	0	74	1	59.2%	100.0%
72	11	0	85	1	68.0%	100.0%
73	12	0	97	1	77.6%	100.0%
74	11	0	108	1	86.4%	100.0%
75	8	0	116	1	92.8%	100.0%
76	4	0	120	1	96.0%	100.0%
77	3	0	123	1	98.4%	100.0%
78	1	0	124	1	99.2%	100.0%
79	1	0	125	1	100.0%	100.0%
80	0	0	125	1	100.0%	100.0%

Westbound 85%tile speed is 73 mph Eastbound 85%tile speed is 0 mph

Appendix B

East Bound Radar Speed Data

Hwy: US 290 Toll Location: East of Tuscany Way Weather: Sunny
 Date: 7/22/2014 Time: from 9:10 AM to 10:25 AM

Vehicle Mean Speed (mph)	Number of Vehicles Surveyed		Cumulative Total of Vehicles Surveyed		Cumulative Percent of Vehicles Surveyed	
	Westbound	Eastbound	Westbound	Eastbound	Westbound	Eastbound
30	1	0	1	0	100.0%	0.0%
31	0	0	1	0	100.0%	0.0%
32	0	0	1	0	100.0%	0.0%
33	0	0	1	0	100.0%	0.0%
34	0	0	1	0	100.0%	0.0%
35	0	0	1	0	100.0%	0.0%
36	0	0	1	0	100.0%	0.0%
37	0	0	1	0	100.0%	0.0%
38	0	0	1	0	100.0%	0.0%
39	0	0	1	0	100.0%	0.0%
40	0	0	1	0	100.0%	0.0%
41	0	0	1	0	100.0%	0.0%
42	0	0	1	0	100.0%	0.0%
43	0	0	1	0	100.0%	0.0%
44	0	0	1	0	100.0%	0.0%
45	0	0	1	0	100.0%	0.0%
46	0	0	1	0	100.0%	0.0%
47	0	0	1	0	100.0%	0.0%
48	0	0	1	0	100.0%	0.0%
49	0	0	1	0	100.0%	0.0%
50	0	0	1	0	100.0%	0.0%
51	0	0	1	0	100.0%	0.0%
52	0	0	1	0	100.0%	0.0%
53	0	0	1	0	100.0%	0.0%
54	0	1	1	1	100.0%	0.8%
55	0	0	1	1	100.0%	0.8%
56	0	0	1	1	100.0%	0.8%
57	0	0	1	1	100.0%	0.8%
58	0	2	1	3	100.0%	2.4%
59	0	0	1	3	100.0%	2.4%
60	0	2	1	5	100.0%	4.0%
61	0	2	1	7	100.0%	5.6%
62	0	5	1	12	100.0%	9.6%
63	0	1	1	13	100.0%	10.4%
64	0	4	1	17	100.0%	13.6%
65	0	2	1	19	100.0%	15.2%
66	0	4	1	23	100.0%	18.4%
67	0	12	1	35	100.0%	28.0%
68	0	19	1	54	100.0%	43.2%
69	0	12	1	66	100.0%	52.8%
70	0	21	1	87	100.0%	69.6%
71	0	11	1	98	100.0%	78.4%
72	0	6	1	104	100.0%	83.2%
73	0	7	1	111	100.0%	88.8%
74	0	4	1	115	100.0%	92.0%
75	0	2	1	117	100.0%	93.6%
76	0	2	1	119	100.0%	95.2%
77	0	1	1	120	100.0%	96.0%
78	0	2	1	122	100.0%	97.6%
79	0	2	1	124	100.0%	99.2%
80	0	1	1	125	100.0%	100.0%

Westbound 85%tile speed is 0 mph Eastbound 85%tile speed is 72 mph

Hwy: US 290 Toll Location: East of Springdale Weather: Sunny
 Date: 7/22/2014 Time: from 10:30 AM to 11:50 AM

Vehicle Mean Speed (mph)	Number of Vehicles Surveyed		Cumulative Total of Vehicles Surveyed		Cumulative Percent of Vehicles Surveyed	
	Westbound	Eastbound	Westbound	Eastbound	Westbound	Eastbound
30	1	0	1	0	100.0%	0.0%
31	0	0	1	0	100.0%	0.0%
32	0	0	1	0	100.0%	0.0%
33	0	0	1	0	100.0%	0.0%
34	0	0	1	0	100.0%	0.0%
35	0	0	1	0	100.0%	0.0%
36	0	0	1	0	100.0%	0.0%
37	0	0	1	0	100.0%	0.0%
38	0	0	1	0	100.0%	0.0%
39	0	0	1	0	100.0%	0.0%
40	0	0	1	0	100.0%	0.0%
41	0	0	1	0	100.0%	0.0%
42	0	0	1	0	100.0%	0.0%
43	0	0	1	0	100.0%	0.0%
44	0	0	1	0	100.0%	0.0%
45	0	0	1	0	100.0%	0.0%
46	0	0	1	0	100.0%	0.0%
47	0	0	1	0	100.0%	0.0%
48	0	0	1	0	100.0%	0.0%
49	0	0	1	0	100.0%	0.0%
50	0	0	1	0	100.0%	0.0%
51	0	0	1	0	100.0%	0.0%
52	0	0	1	0	100.0%	0.0%
53	0	0	1	0	100.0%	0.0%
54	0	0	1	0	100.0%	0.0%
55	0	0	1	0	100.0%	0.0%
56	0	1	1	1	100.0%	0.8%
57	0	0	1	1	100.0%	0.8%
58	0	1	1	2	100.0%	1.6%
59	0	0	1	2	100.0%	1.6%
60	0	2	1	4	100.0%	3.2%
61	0	0	1	4	100.0%	3.2%
62	0	3	1	7	100.0%	5.6%
63	0	2	1	9	100.0%	7.2%
64	0	2	1	11	100.0%	8.8%
65	0	1	1	12	100.0%	9.6%
66	0	5	1	17	100.0%	13.6%
67	0	8	1	25	100.0%	20.0%
68	0	11	1	36	100.0%	28.8%
69	0	15	1	51	100.0%	40.8%
70	0	18	1	69	100.0%	55.2%
71	0	16	1	85	100.0%	68.0%
72	0	8	1	93	100.0%	74.4%
73	0	5	1	98	100.0%	78.4%
74	0	8	1	106	100.0%	84.8%
75	0	7	1	113	100.0%	90.4%
76	0	3	1	116	100.0%	92.8%
77	0	3	1	119	100.0%	95.2%
78	0	4	1	123	100.0%	98.4%
79	0	1	1	124	100.0%	99.2%
80	0	1	1	125	100.0%	100.0%

Westbound 85%tile speed is 0 mph Eastbound 85%tile speed is 74 mph

Hwy: US 290 Toll Location: East of Johnny Morris Weather: Sunny
 Date: 7/22/2014 Time: from 12:30 PM to 1:55 PM

Vehicle Mean Speed (mph)	Number of Vehicles Surveyed		Cumulative Total of Vehicles Surveyed		Cumulative Percent of Vehicles Surveyed	
	Westbound	Eastbound	Westbound	Eastbound	Westbound	Eastbound
30	1	0	1	0	100.0%	0.0%
31	0	0	1	0	100.0%	0.0%
32	0	0	1	0	100.0%	0.0%
33	0	0	1	0	100.0%	0.0%
34	0	0	1	0	100.0%	0.0%
35	0	0	1	0	100.0%	0.0%
36	0	0	1	0	100.0%	0.0%
37	0	0	1	0	100.0%	0.0%
38	0	0	1	0	100.0%	0.0%
39	0	0	1	0	100.0%	0.0%
40	0	0	1	0	100.0%	0.0%
41	0	0	1	0	100.0%	0.0%
42	0	0	1	0	100.0%	0.0%
43	0	0	1	0	100.0%	0.0%
44	0	0	1	0	100.0%	0.0%
45	0	0	1	0	100.0%	0.0%
46	0	0	1	0	100.0%	0.0%
47	0	0	1	0	100.0%	0.0%
48	0	0	1	0	100.0%	0.0%
49	0	0	1	0	100.0%	0.0%
50	0	0	1	0	100.0%	0.0%
51	0	0	1	0	100.0%	0.0%
52	0	0	1	0	100.0%	0.0%
53	0	0	1	0	100.0%	0.0%
54	0	1	1	1	100.0%	0.8%
55	0	0	1	1	100.0%	0.8%
56	0	0	1	1	100.0%	0.8%
57	0	0	1	1	100.0%	0.8%
58	0	0	1	1	100.0%	0.8%
59	0	0	1	1	100.0%	0.8%
60	0	1	1	2	100.0%	1.6%
61	0	0	1	2	100.0%	1.6%
62	0	1	1	3	100.0%	2.4%
63	0	4	1	7	100.0%	5.6%
64	0	2	1	9	100.0%	7.2%
65	0	3	1	12	100.0%	9.6%
66	0	4	1	16	100.0%	12.8%
67	0	4	1	20	100.0%	16.0%
68	0	5	1	25	100.0%	20.0%
69	0	8	1	33	100.0%	26.4%
70	0	14	1	47	100.0%	37.6%
71	0	10	1	57	100.0%	45.6%
72	0	17	1	74	100.0%	59.2%
73	0	10	1	84	100.0%	67.2%
74	0	9	1	93	100.0%	74.4%
75	0	11	1	104	100.0%	83.2%
76	0	7	1	111	100.0%	88.8%
77	0	4	1	115	100.0%	92.0%
78	0	4	1	119	100.0%	95.2%
79	0	3	1	122	100.0%	97.6%
80	0	3	1	125	100.0%	100.0%

Westbound 85%tile speed is 0 mph Eastbound 85%tile speed is 75 mph

Hwy: US 290 Toll Location: East of Harris Branch Weather: Sunny
 Date: 7/22/2014 Time: from 2:05 PM to 3:40 PM

Vehicle Mean Speed (mph)	Number of Vehicles Surveyed		Cumulative Total of Vehicles Surveyed		Cumulative Percent of Vehicles Surveyed	
	Westbound	Eastbound	Westbound	Eastbound	Westbound	Eastbound
30	1	0	1	0	100.0%	0.0%
31	0	0	1	0	100.0%	0.0%
32	0	0	1	0	100.0%	0.0%
33	0	0	1	0	100.0%	0.0%
34	0	0	1	0	100.0%	0.0%
35	0	0	1	0	100.0%	0.0%
36	0	0	1	0	100.0%	0.0%
37	0	0	1	0	100.0%	0.0%
38	0	0	1	0	100.0%	0.0%
39	0	0	1	0	100.0%	0.0%
40	0	0	1	0	100.0%	0.0%
41	0	0	1	0	100.0%	0.0%
42	0	0	1	0	100.0%	0.0%
43	0	0	1	0	100.0%	0.0%
44	0	0	1	0	100.0%	0.0%
45	0	0	1	0	100.0%	0.0%
46	0	0	1	0	100.0%	0.0%
47	0	0	1	0	100.0%	0.0%
48	0	0	1	0	100.0%	0.0%
49	0	0	1	0	100.0%	0.0%
50	0	0	1	0	100.0%	0.0%
51	0	0	1	0	100.0%	0.0%
52	0	0	1	0	100.0%	0.0%
53	0	0	1	0	100.0%	0.0%
54	0	0	1	0	100.0%	0.0%
55	0	1	1	1	100.0%	0.8%
56	0	0	1	1	100.0%	0.8%
57	0	1	1	2	100.0%	1.6%
58	0	0	1	2	100.0%	1.6%
59	0	0	1	2	100.0%	1.6%
60	0	0	1	2	100.0%	1.6%
61	0	0	1	2	100.0%	1.6%
62	0	0	1	2	100.0%	1.6%
63	0	2	1	4	100.0%	3.1%
64	0	4	1	8	100.0%	6.2%
65	0	5	1	13	100.0%	10.1%
66	0	3	1	16	100.0%	12.4%
67	0	8	1	24	100.0%	18.6%
68	0	7	1	31	100.0%	24.0%
69	0	6	1	37	100.0%	28.7%
70	0	16	1	53	100.0%	41.1%
71	0	11	1	64	100.0%	49.6%
72	0	14	1	78	100.0%	60.5%
73	0	13	1	91	100.0%	70.5%
74	0	10	1	101	100.0%	78.3%
75	0	14	1	115	100.0%	89.1%
76	0	3	1	118	100.0%	91.5%
77	0	3	1	121	100.0%	93.8%
78	0	5	1	126	100.0%	97.7%
79	0	2	1	128	100.0%	99.2%
80	0	1	1	129	100.0%	100.0%

Westbound 85%tile speed is 0 mph Eastbound 85%tile speed is 74 mph

Hwy: US 290 Toll Location: East of SH 130 Weather: Sunny
 Date: 7/24/2014 Time: from 1:20 PM to 2:35 PM

Vehicle Mean Speed (mph)	Number of Vehicles Surveyed		Cumulative Total of Vehicles Surveyed		Cumulative Percent of Vehicles Surveyed	
	Westbound	Eastbound	Westbound	Eastbound	Westbound	Eastbound
30	1	0	1	0	100.0%	0.0%
31	0	0	1	0	100.0%	0.0%
32	0	0	1	0	100.0%	0.0%
33	0	0	1	0	100.0%	0.0%
34	0	0	1	0	100.0%	0.0%
35	0	0	1	0	100.0%	0.0%
36	0	0	1	0	100.0%	0.0%
37	0	0	1	0	100.0%	0.0%
38	0	0	1	0	100.0%	0.0%
39	0	0	1	0	100.0%	0.0%
40	0	0	1	0	100.0%	0.0%
41	0	0	1	0	100.0%	0.0%
42	0	0	1	0	100.0%	0.0%
43	0	0	1	0	100.0%	0.0%
44	0	0	1	0	100.0%	0.0%
45	0	0	1	0	100.0%	0.0%
46	0	0	1	0	100.0%	0.0%
47	0	0	1	0	100.0%	0.0%
48	0	0	1	0	100.0%	0.0%
49	0	0	1	0	100.0%	0.0%
50	0	0	1	0	100.0%	0.0%
51	0	0	1	0	100.0%	0.0%
52	0	0	1	0	100.0%	0.0%
53	0	1	1	1	100.0%	0.8%
54	0	0	1	1	100.0%	0.8%
55	0	0	1	1	100.0%	0.8%
56	0	0	1	1	100.0%	0.8%
57	0	2	1	3	100.0%	2.4%
58	0	1	1	4	100.0%	3.2%
59	0	3	1	7	100.0%	5.6%
60	0	0	1	7	100.0%	5.6%
61	0	1	1	8	100.0%	6.4%
62	0	3	1	11	100.0%	8.8%
63	0	3	1	14	100.0%	11.2%
64	0	8	1	22	100.0%	17.6%
65	0	12	1	34	100.0%	27.2%
66	0	10	1	44	100.0%	35.2%
67	0	22	1	66	100.0%	52.8%
68	0	8	1	74	100.0%	59.2%
69	0	13	1	87	100.0%	69.6%
70	0	10	1	97	100.0%	77.6%
71	0	7	1	104	100.0%	83.2%
72	0	9	1	113	100.0%	90.4%
73	0	5	1	118	100.0%	94.4%
74	0	2	1	120	100.0%	96.0%
75	0	1	1	121	100.0%	96.8%
76	0	1	1	122	100.0%	97.6%
77	0	2	1	124	100.0%	99.2%
78	0	1	1	125	100.0%	100.0%
79	0	0	1	125	100.0%	100.0%
80	0	0	1	125	100.0%	100.0%

Westbound 85%tile speed is 0 mph Eastbound 85%tile speed is 71 mph

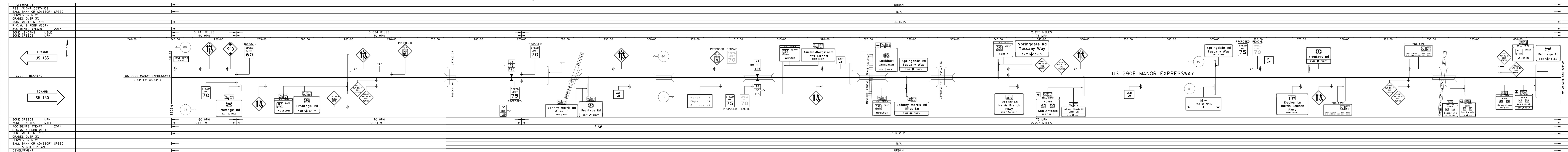
Hwy: US 290 Toll Location: East of Parmer Ln Weather: Sunny
 Date: 7/24/2014 Time: from 11:15 AM to 12:50 PM

Vehicle Mean Speed (mph)	Number of Vehicles Surveyed		Cumulative Total of Vehicles Surveyed		Cumulative Percent of Vehicles Surveyed	
	Westbound	Eastbound	Westbound	Eastbound	Westbound	Eastbound
30	1	0	1	0	100.0%	0.0%
31	0	0	1	0	100.0%	0.0%
32	0	0	1	0	100.0%	0.0%
33	0	0	1	0	100.0%	0.0%
34	0	0	1	0	100.0%	0.0%
35	0	0	1	0	100.0%	0.0%
36	0	0	1	0	100.0%	0.0%
37	0	0	1	0	100.0%	0.0%
38	0	0	1	0	100.0%	0.0%
39	0	0	1	0	100.0%	0.0%
40	0	0	1	0	100.0%	0.0%
41	0	0	1	0	100.0%	0.0%
42	0	0	1	0	100.0%	0.0%
43	0	0	1	0	100.0%	0.0%
44	0	0	1	0	100.0%	0.0%
45	0	0	1	0	100.0%	0.0%
46	0	0	1	0	100.0%	0.0%
47	0	0	1	0	100.0%	0.0%
48	0	0	1	0	100.0%	0.0%
49	0	0	1	0	100.0%	0.0%
50	0	0	1	0	100.0%	0.0%
51	0	0	1	0	100.0%	0.0%
52	0	0	1	0	100.0%	0.0%
53	0	0	1	0	100.0%	0.0%
54	0	1	1	1	100.0%	0.8%
55	0	0	1	1	100.0%	0.8%
56	0	1	1	2	100.0%	1.6%
57	0	0	1	2	100.0%	1.6%
58	0	1	1	3	100.0%	2.4%
59	0	0	1	3	100.0%	2.4%
60	0	0	1	3	100.0%	2.4%
61	0	3	1	6	100.0%	4.8%
62	0	1	1	7	100.0%	5.6%
63	0	3	1	10	100.0%	8.0%
64	0	4	1	14	100.0%	11.2%
65	0	15	1	29	100.0%	23.2%
66	0	17	1	46	100.0%	36.8%
67	0	10	1	56	100.0%	44.8%
68	0	11	1	67	100.0%	53.6%
69	0	16	1	83	100.0%	66.4%
70	0	13	1	96	100.0%	76.8%
71	0	8	1	104	100.0%	83.2%
72	0	5	1	109	100.0%	87.2%
73	0	8	1	117	100.0%	93.6%
74	0	0	1	117	100.0%	93.6%
75	0	3	1	120	100.0%	96.0%
76	0	1	1	121	100.0%	96.8%
77	0	3	1	124	100.0%	99.2%
78	0	0	1	124	100.0%	99.2%
79	0	1	1	125	100.0%	100.0%
80	0	0	1	125	100.0%	100.0%

Westbound 85%tile speed is 0 mph Eastbound 85%tile speed is 71 mph

Appendix C

Strip Map



DIST. NO. 14 COUNTY: TRAVIS		MINUTE NO.
HIGHWAY: US 290E CITY: AUSTIN		REPLACES DATE
DATE OF SURVEY: N/A		REPLACED BY DATE
SCALE: 1" = 300'		CANCELED BY DATE

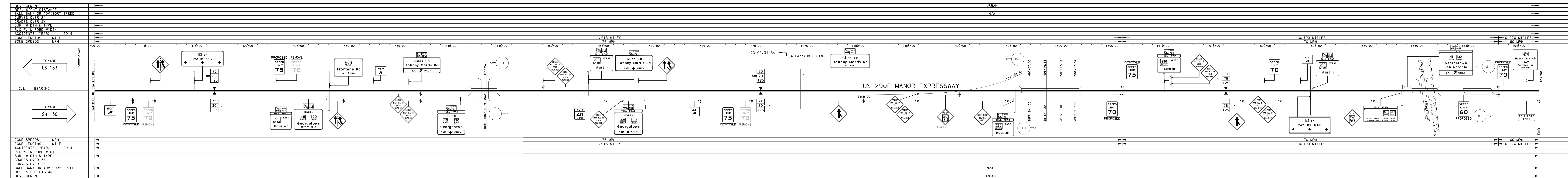
LIMITS OF ZONE	
SECTION ONE LENGTH 3.038 MILES	SECTION TWO LENGTH 0.000 MILES
BEGINS STA. OR M.P. CONT. & SEC. PROJECT	BEGINS STA. OR M.P. CONT. & SEC. PROJECT
ENDS STA. OR M.P. CONT. & SEC. PROJECT	ENDS STA. OR M.P. CONT. & SEC. PROJECT

SPEED ZONE
US 290E MANOR EXPRESSWAY
TRAVIS COUNTY

CENTRAL TEXAS
Regional Mobility Authority
© 2012

ATKINS
T&E REG. # F-474

- 42 85 PERCENTILE SPEED (MPH)
- 62 TOP SPEED MEASURED (MPH)
- 125 NUMBER OF CARS CHECKED
- INDICATES TRIAL RUN SURVEY (MPH)
- XX (DATE : 08/06/2014)
- INDICATES SECTION ZONED BY COMMISSION MINUTE
- EXISTING SIGN - SINGLE POST
- EXISTING SIGN - DUAL POST
- PROPOSED SIGN - SINGLE POST
- PROPOSED SIGN - DUAL POST
- FATAL ACCIDENT
- PERSONAL INJURY ACCIDENT
- PROPERTY DAMAGE ACCIDENT



DEVELOPMENT	RES. SIGHT DISTANCE	URBAN
BALL BANK OR ADVISORY SPEED	N/A	
CURVES OVER 2°		
GRADES OVER 3%		
SUR. WIDTH & TYPE		
R.O.W. & RDBD WIDTH		
ACCIDENTS (YEAR) 2014		
ZONE LENGTHS MILE	1.913 MILES	0.700 MILES
ZONE SPEEDS MPH	75 MPH	70 MPH
		60 MPH

DIST. NO. 14	COUNTY: TRAVIS	MINUTE NO.
HIGHWAY: US 290E	CITY: AUSTIN	REPLACES DATE
DATE OF SURVEY: N/A	SCALE: 1" = 300'	REPLACED BY DATE
		CANCELED BY DATE

LIMITS OF ZONE			
SECTION ONE	LENGTH 2.69 MILES	SECTION TWO	LENGTH 0.000 MILES
BEGINS	STA. OR M.P. CONT. & SEC. PROJECT	BEGINS	STA. OR M.P. CONT. & SEC. PROJECT
ENDS	STA. OR M.P. CONT. & SEC. PROJECT	ENDS	STA. OR M.P. CONT. & SEC. PROJECT

INDICATES PROJECT SPEED STUDY ZONE

SHEET 2 OF 2

CENTRAL TEXAS
Regional Mobility Authority

ATKINS
TBP# REG. # F-474

SPEED ZONE

US 290E MANOR EXPRESSWAY TRAVIS COUNTY

- 42 62 125 85 PERCENTILE SPEED (MPH)
TOP SPEED MEASURED (MPH)
NUMBER OF CARS CHECKED
- INDICATES TRIAL RUN SURVEY (MPH)
(DATE : 08/06/2014)
- FATAL ACCIDENT
- PERSONAL INJURY ACCIDENT
- PROPERTY DAMAGE ACCIDENT
- INDICATES SECTION ZONED BY COMMISSION MINUTE
- EXISTING SIGN - SINGLE POST
- EXISTING SIGN - DUAL POST
- PROPOSED SIGN - SINGLE POST
- PROPOSED SIGN - DUAL POST

301.016 **183A Turnpike Speed Limits for Specific Roadways**

(a) The maximum speed of a motor ~~vehieles~~vehicle on the main tolled lanes of the 183A Turnpike ~~shall be~~is limited to 75 miles per hour except within construction, transitional, or reduced speed zones, or during any period of adverse atmospheric or weather conditions. Notwithstanding the foregoing, the maximum speed of a motor ~~vehieles~~vehicle on the ~~portion~~a non-tolled frontage road of the 183A Turnpike ~~as Frontage Roads lying north of FM 1431 shall be~~is limited to 60 miles per hour.

(b) The maximum speed of a motor vehicle on the main toll lanes of the Manor Expressway is limited to 75 miles per hour except within construction, transitional, or reduced speed zones, or during any period of adverse atmospheric or weather conditions. Notwithstanding the foregoing, a lesser transition maximum speed limit for a motor vehicle that is entering or exiting a main toll lane of the Manor Expressway is established as identified on the strip map attached as Appendix C to the September 8, 2014, Speed Zone Study, on file in the Mobility Authority offices.

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 14-___

**AMEND THE POLICY CODE TO ESTABLISH SPEED LIMITS FOR
THE TOLLED MAIN LANES OF THE MANOR EXPRESSWAY.**

WHEREAS, Chapter 370 of the Transportation Code and other applicable law authorizes the Board to establish speed limits on Mobility Authority roadways; and

WHEREAS, the Board has adopted in Section 301.015 of the Policy Code procedures consistent with state laws and regulations to establish maximum speed limits on its roadways; and

WHEREAS, the Board has reviewed and considered the “Manor Expressway 2014 Speed Zone Study” dated September 8, 2014, prepared by Atkins North America, Inc., and on file in the Mobility Authority offices (the “Speed Zone Study”); and

WHEREAS, based on the Speed Zone Study, the Board finds that a maximum speed limit of 75 miles per hour is a safe and reasonable speed for those who travel on the tolled main lanes of the Manor Expressway, and that it is in the best interests of the Mobility Authority and those who travel on the tolled main lanes of the Manor Expressway to establish a 75 miles per hour speed limit, including lesser transition speed limits where motor vehicles enter or exit from the Manor Expressway toll lanes as identified on the strip map attached as Appendix C to the Speed Zone Study.

NOW THEREFORE, BE IT RESOLVED, that the Board accepts the Speed Zone Study and hereby approves the recommended maximum speed limit of 75 miles per hour on the tolled main lanes of the Manor Expressway, as set forth in the Speed Zone Study; and

BE IT FURTHER RESOLVED, that the Board hereby amends Section 301.016 of the Mobility Authority Policy Code to read in its entirety as shown on Exhibit 1 to this resolution.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 24th day of September, 2012.

Submitted and reviewed by:

Approved:

Andrew Martin
General Counsel for the Central
Texas Regional Mobility Authority

Ray A. Wilkerson
Chairman, Board of Directors
Resolution Number: 14-___
Date Passed: 9/24/2014

Exhibit 1

301.016 Speed Limits for Specific Roadways

(a) The maximum speed of a motor vehicle on the main tolled lanes of the 183A Turnpike is limited to 75 miles per hour except within construction, transitional, or reduced speed zones, or during any period of adverse atmospheric or weather conditions. Notwithstanding the foregoing, the maximum speed of a motor vehicle on a non-tolled frontage road of the 183A Turnpike is limited to 60 miles per hour.

(b) The maximum speed of a motor vehicle on the main toll lanes of the Manor Expressway is limited to 75 miles per hour except within construction, transitional, or reduced speed zones, or during any period of adverse atmospheric or weather conditions. Notwithstanding the foregoing, a lesser transition maximum speed limit for a motor vehicle that is entering or exiting a main toll lane of the Manor Expressway is established as identified on the strip map attached as Appendix C to the September 8, 2014, Speed Zone Study, on file in the Mobility Authority offices.