



**Highway Factors Attachment – Excerpts of speed studies performed by TxDOT in the
I-35W southbound toll lanes for a distance of approximately 8 miles**

Fort Worth, TX

HWY21FH005

(3 pages)

I-35W Managed Lanes Speed Study

This section of I-35W managed lanes, located in Tarrant County, had speed data collected at twenty-two (22) locations. A summary of the data collection is shown below in **Table 4**. **Table 5** shows the average 85th percentile speed by posted speed limit. The spot speed data collection can be found in the **Attachment B – I-35W Managed Lanes**.

Table 4 – I-35W Managed Lanes Speed Data Collection Summary

Approximate Mile Point of Check Station	Control Section	Posted Speed (mph)	Date Collected	Direction of Travel	Total Vehicles Recorded	Max Speed (mph)	85 th Percentile Speed (mph)
16.420	0134-07	75	07/23/2020	Northbound	125	82	76
15.620					125	95	79
14.700					125	87	77
13.800					125	79	66 ⁺
12.785					125	94	78
11.750					125	89	80
10.810					125	85	79
9.940					125	88	76
8.940					125	91	76
8.400					125	88	77
7.710		55		125	88	75 ⁺	
7.710		55		125	79	74 ⁺	
8.400		75		Southbound	125	84	76
8.940					125	87	77
9.952					125	85	75
10.810					125	87	81 ⁺
11.750					125	90	78
12.785					125	88	79
13.800					125	92	79
14.700					125	88	76
15.620					125	75	65 ⁺
16.420					125	93	79

+ Posted speed limit is not within 5 mph of the 85th percentile speed.

Table 5 – I-35W Managed Lanes Average 85th Percentile Speed

Direction	Posted Speed Limit (mph)	Average 85 th Percentile Speed (mph)
Eastbound	55	75.0
Eastbound	75	76.4
Westbound	55	74.0
Westbound	75	76.5

The posted speed limit is within 5 mph at nineteen (19) of the twenty-two (22) locations of the speed checks. At two locations, the 85th percentile speed was significantly below the posted speed limit. A review of historical Google Map traffic data for the same time period as the data collection found delay was present in the southbound direction at these locations. The review of Google Maps also found delay occurred during multiple periods on various days. **Figure 1** shows the delay present on I-35W managed lanes.

Nine (9) of the speed check locations have 85th percentile speeds between 78 and 81 mph. While the average 85th percentile speed shown above does not indicate the posted speed limit should be increased, the average is impacted by the two location significantly lower speeds. If these locations are removed from the calculation, the average 85th percentile speeds increase to 77.3 mph and 77.4 mph. The **Texas Transportation Commission** in Chapter 1, Section 2 of the Procedures for Establishing Speed Zones has established a maximum posted speed limit of 75 mph. The only time the posted speed limit may be increased above 75 mph is if it is determined the design of the roadway will accommodate the higher speed limit. This evaluation has not occurred or is planned. Therefore, it is recommended that the posted speed limit of 75 mph remain for the I-35W managed lanes. A buffer zone of 70 mph was added to transition between the 55 mph and 75 mph speed zones.