

**Engineering and Traffic Investigation – Speed Limit
SR 531 / Arlington Vicinity
MP 6.89 to MP 8.60
August 2013**

Background: The speed limit is presently 35 mph and changes to 50 mph at MP 6.89. The speed limit changes to 35 mph at MP 8.60. A signal was installed at Walmart / 43rd Ave NE at MP 7.01 on April 7, 2009.

Proposed Action:

It has been proposed to extend the 35 mph speed limit zone east of the Walmart intersection, to approximately MP 7.35. We have also been asked to look at extending the 35 mph speed zone further east to 67th (MP 8.6)

Speed Field Study:

Speed studies were conducted in March and August of 2013. Below is a summary of the most recent results.

Date	Location	Direction	85th Percentile Speed (mph)	10 mph Pace Range (mph)
3/5/2013	6.84	EB	39	32 - 41
3/5/2013	6.84	WB	39	31 - 40
3/5/2013	7.35	EB	42	35 - 44
3/5/2013	7.35	WB	41	34 - 43
8/8/2013	7.9	EB	44	34 - 43
8/8/2013	7.9	WB	45	37 - 46
8/8/2013	8.31	EB	46	37 - 46
8/8/2013	8.31	WB	43	32 - 41

85th Percentile Speed: measured speed at which 85 out of 100 vehicles travel at or below
10 mph Pace Range: the 10 mph range of speed that the most vehicles are traveling at

Collision Analysis

MP 6.89 to MP 7.35

- Evaluated period from beginning of 2008 through end of 2012: 76 accidents.
- Almost 70% of all accidents had no injury and there were no fatalities. Half of all collisions had contributing cause of following too closely.
- The collision rate for this segment is 1.80 compared to the statewide average of 2.73

MP 7.35 to MP 8.60

- Evaluated period from beginning of 2008 through end of 2012: 139 accidents.
- 67% of all collisions had contributing cause of following too closely and 25% had contributing cause of exceeding safe speed in this segment
- 55% of all collisions had no injury while 38% had possible injuries.
- The collision rate in this segment is 3.09 compared to the statewide average of 2.73

Other Considerations

MP 6.89 to MP 7.35 - Average Daily Traffic Volume – ranges from 22,000 to 24,000 for 2008 to 2011 at MP 7.12 both east and west of 43rd Ave NE.

MP 7.35 to MP 8.60 - Average Daily Traffic Volume – for 2008 to 2012 values range from 16,000 to 17,000 west of 67th Ave NE and from 11,000 to 12,000 east of 67th Ave NE, which is at MP 8.59.

Truck Percentage - No Truck percentages available within study limits.

Roadway Characteristics

MP 6.89 to MP 7.35

2 general purpose lanes varying from 10' to 12' in both directions and an 11' turn lane separated by c-curbs and islands of varying widths. There are 5' to 6' bicycle lanes up to MP 7.12, where the roadway narrows to one 12' lane in either direction and an 11' eastbound left turn lane. There is curb and sidewalk west of this point as well.

MP 7.35 to MP 8.60

One lane in either direction, with 2' to 8' asphalt shoulder.

Roadside Development and Lighting

MP 6.89 to MP 7.35

- This is a commercial / business area with multiple driveways
- Off road illumination @ most businesses
- Roadway is illuminated for full length
- Athletic Club and school facility at MP 7.35 generates turning traffic

MP 7.35 to MP 8.60

- This is mostly farmland, with some commercial/business on the south side with fewer driveways than the previous section.
- There is no illumination along this segment.
- Few driveways on north side of road