

## **MEMORANDUM**

**TO:** Donna Barron, City Manager

**FROM:** David Salmon, P.E., City Engineer

**VIA** Eric Ferris, Deputy City Manager

**DATE:** July 19, 2021

**SUBJECT:** **Consideration of an Ordinance Amending the Lewisville City Code, Section 15-35, Maximum Speed Limits on Specific Streets; Establishing Speed Limits on Josey Lane, from 1,900 Feet South of State Highway 121 to the South City Limits, of 50 Miles Per Hour.**

### **BACKGROUND**

Josey Lane was annexed relatively recently into the City of Lewisville. For this reason, there are no existing posted speed limit signs on Josey Lane in the segment between 1,900 feet south of SH 121 to the south City limits with Carrollton. Based on the speed study results, adjacent land use, and to be consistent with the existing speeds to the north and south, staff recommends a posted speed limit of 50 mph for the above-mentioned segment of Josey Lane.

### **ANALYSIS**

Josey Lane is a 6-lane divided roadway. The section of Josey Lane, from 1,900 south of SH 121 to the south city limits with Carrollton, has been relatively recently annexed by the City of Lewisville. There are no existing speed limit signs on this segment of Josey Lane, and it is not covered under the City Code. Staff conducted engineering and speed studies on the above-mentioned segment of Josey Lane.

The City establishes the prima facie reasonable and prudent speed limits on roadways based on the 85<sup>th</sup> percentile speeds in accordance with the Texas Manual of Uniform Traffic Control Devices. The 85<sup>th</sup> percentile speed represents the speed that most drivers are traveling at or below. Speed studies are conducted on the roadway to determine the 85<sup>th</sup> percentile speed. The observed free-flow speeds of the vehicles are then tallied and the 85<sup>th</sup> percentile speed is calculated using the collected information. To ensure that a true reflection of a normal traffic situation is achieved, speed studies are performed on average weekdays, during off-peak hours and under favorable weather conditions. The speed limit is set at the nearest value to the 85<sup>th</sup> percentile speed ending in 5 or 0.

The 85<sup>th</sup> percentile speeds resulting from the traffic speed study are summarized as follows:

	<b>85<sup>th</sup> Percentile Speeds (in mph) Collected At the Following Locations</b>		
<b>On Josey Lane</b>	<b>~1,000 feet south of Windhaven Pkwy</b>	<b>Just north of Fire Station # 8</b>	<b>Averages</b>
<b>Southbound</b>	54	55	SB Avg: <b><i>54.5 mph</i></b>
<b>Northbound</b>	55	53	WB Avg: <b><i>54 mph</i></b>
<b>Average Both Directions</b>			<b>54 mph</b>

The data indicates an 85<sup>th</sup> percentile speed of 54 mph. This suggests a posted speed limit of either 50 mph or 55 mph. Staff's recommendation of a posted 50 mph speed limit is discussed below.

Factors considered in the evaluation of speed limit of Josey Lane:

There is an elementary school currently under construction on the west side of Josey Lane. The School District also has plans to construct a middle school on the east side of Josey Lane. A school speed zone also needs to be established on Josey Lane for the new elementary school at this time. The state regulations only allow the school zone speed limit to be reduced by a 15-mile decrement. A 50-mph posted speed limit would allow a school zone speed limit of 35 mph whereas a 55-mph posted speed limit would allow a school zone speed limit of 40 mph, which is quite high for a school speed zone.

Similar 35 mph school speed zones currently exist on F.M. 544 for the Killough Middle School, and on F.M. 3040 for the Hebron High School, where the posted speed limit is 50 mph.

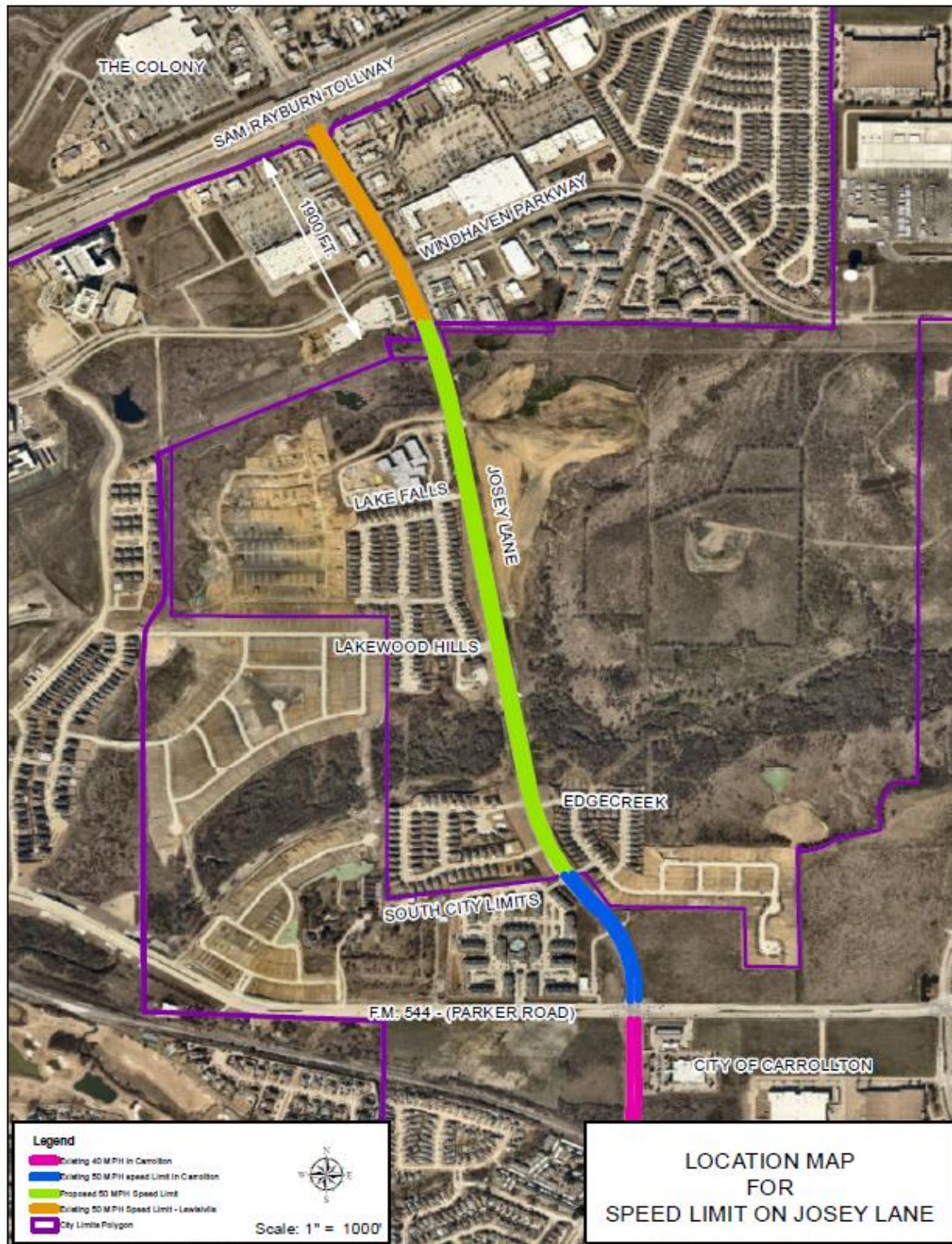
Additionally, there are three (3) residential subdivisions – Lakewood Hills – abutting Josey Lane.

Existing Speed Limits in the Adjacent Segments of Josey Lane:

- The existing posted speed limit on Josey Lane between SH 121 and the point located 1,900 feet south of SH 121 is 50 mph.
- The existing posted speed limit on Josey Lane in Carrollton City limits in the section between south City limits and F.M. 544 is also 50 mph.

Recommended Speed Limit:

Based on the speed study results, the adjacent land use (including a new school and a future middle school), and to be consistent with the existing speed limits on the adjacent segments of Josey Lane, staff recommends the following: Posting a speed limit of 50 mph on Josey Lane from a point 1,900 feet south of SH 121 to the south city limits with the City of Carrollton.



**Figure 1:** Proposed Speed limit on Josey Lane, and Existing Speed Limits in Adjacent Segments

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Signage will be installed by the Public Services Department.

**RECOMMENDATION**

It is City Staff's recommendation that the City Council approve the ordinance as set forth in the caption above.