MEMORANDUM

To: Traffic Study Files

From: Dipti Borkar-Desai, P.E., North Area Engineer
Transportation Engineering Division
Austin Transportation Department

Date: December 14, 2021

Subject: SPEED ZONE INVESTIGATION

Location: W. Yager Lane – N. Lamar Boulevard to IH 35 Northbound Frontage Road

Date(s) of Previous Investigation: N/A

A Traffic Engineering Investigation has been conducted by the Transportation Engineering Division of the Austin Transportation Department to determine the posted speed limit on W. Yager Lane from N. Lamar Boulevard to IH 35 Northbound Frontage Road in accordance with Texas Department of Transportation’s Texas Procedures for Establishing Speed Zones, 2006 and the Federal Highway Administration’s USLIMITS2 tool.

The existing City Code Section 12-4-64 (D) Table of Speed Limits establishes the speed limit on W. Yager Lane from N. Lamar Boulevard to 2,580 feet east of N. Lamar Boulevard as 40 mph. However, W. Yager Lane extends from N. Lamar Boulevard to IH35, where it changes name to Tech Ridge Boulevard, east of IH35.

General Conditions:

W. Yager Lane is a two-lane undivided road from N. Lamar Boulevard to approximately 300 feet west of IH 35 Southbound Frontage Road and transitions to a four-lane divided road for the remaining section to IH 35.

Development along W. Yager Lane is commercial and primarily located on the north side. Additionally, the NYOS Charter School is located on the northeast corner of the intersection of N. Lamar Boulevard and W. Yager Lane.

W. Yager Lane is classified as a Level 2 (collector street) as per the Austin Strategic Mobility Plan (ASMP).

Figure 1 presents the study segment and surrounding street network.
Segment Limits: W. Yager Lane from N. Lamar Boulevard to IH 35 Northbound Frontage Road
Traffic Investigation

This investigation was conducted in accordance with the Texas Department of Transportation’s Texas Procedures for Establishing Speed Zones, 2006 and the Federal Highway Administration’s USLIMITS2 tool to evaluate speed limits from a safe systems approach, which includes the 85th and 50th percentile speeds; length and alignment of the road; number of lanes; road treatments and traffic control devices; land use; driveways; traffic volume; and crash rates as inputs to consider in setting reasonable, safe, and consistent speed limits based on the context and operating characteristics on the study segment.

Speed/Volume Data Collected:

The following speed and volume data were collected in October 2021 to measure conditions along the study segment.

<table>
<thead>
<tr>
<th>Block Number</th>
<th>Street Segment</th>
<th>Existing Speed Limit</th>
<th>85% Percentile Speed</th>
<th>Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>EB</td>
<td>WB</td>
</tr>
<tr>
<td>500</td>
<td>West of IH 35 Southbound Frontage Road</td>
<td>40 MPH</td>
<td>39.2</td>
<td>44.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EB-7,531</td>
<td>WB-2,691</td>
</tr>
<tr>
<td>700</td>
<td>East of N. Lamar Boulevard</td>
<td>40 MPH</td>
<td>42.8</td>
<td>37.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EB-7,200</td>
<td>WB-5,636</td>
</tr>
</tbody>
</table>

Crash Data

Austin Police Department’s crash database was reviewed to analyze documented crashes along the study segment within the past three years. Crashes at the intersections with N. Lamar Boulevard and IH 35 Northbound and Southbound Frontage Roads were not included. Three crashes which were attributed to various driver errors were documented during this period:

<table>
<thead>
<tr>
<th>Date / Time</th>
<th>Direction</th>
<th>Weather</th>
<th>Light</th>
<th>Road</th>
<th>Injury</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>02/02/21 2:26 PM</td>
<td>EB EB</td>
<td>Clear</td>
<td>Daylight</td>
<td>Dry</td>
<td>None</td>
<td>Leading EB vehicle had stopped for a left turning turning vehicle into a private drive and the following EB struck the stopped vehicle – driver inattention</td>
</tr>
<tr>
<td>11/06/20 10:49 PM</td>
<td>WB WB</td>
<td>Clear</td>
<td>Dark</td>
<td>Dry</td>
<td>Incapacitating Injury &amp; Possible Injury</td>
<td>Leading WB vehicle hit brakes for a curve and following WB vehicle struck the braking vehicle – driver inattention</td>
</tr>
<tr>
<td>09/13/19 7:31 AM</td>
<td>WB WB</td>
<td>Clear</td>
<td>Daylight</td>
<td>Dry</td>
<td>None</td>
<td>Failure to Yield ROW – Private Drive</td>
</tr>
</tbody>
</table>
Recommendation

The analysis of the speed data indicates that the 85th percentile speed along W. Yager Lane is between 37.7 and 44.5 mph in the section from N. Lamar Boulevard to IH 35 Northbound Frontage Road. The USLIMITS2 investigation recommended a speed limit of 40 mph.

W. Yager Lane is classified as a Level 2 (collector street) as per the Austin Strategic Mobility Plan (ASMP). Additionally, W. Yager Lane is a two-lane undivided road from N. Lamar Boulevard to approximately 300 feet west of IH 35 Southbound Frontage Road. Due to the existing road geometry and presence of a school, a speed limit greater than 35 mph is not recommended.

Based on the analysis of this information, it is my engineering judgment that the speed limit on W. Yager Lane from N. Lamar Boulevard to IH 35 Northbound Frontage Road should be 35 miles per hour as presented in Figure 2.
FIGURE 2.

W. Yager Lane

Proposed Speed Limits

SPEED LIMIT 35 (Proposed)