

#### MEMORANDUM

To:

Traffic Study Files

From:

Eric Bollich, P.E., PTOE South Austin Area Engineer

Austin Transportation Department

Date:

July 22, 2013

Subject:

Speed Zone Investigation

Location:

Brodie Lane - West Slaughter Lane to Austin City Limit

Year(s) of Previous Investigation: 1993

A speed zone investigation has been conducted by the Austin Transportation Department to determine an appropriate speed limit on Brodie Lane between West Slaughter Lane and the Austin City Limit (the study segment), located 480 feet south of Aspen Creek Parkway. Figure 1 at the end of this document presents a map of the study area with existing and proposed speed limits along the study segment.

#### **Location Conditions**

Brodie Lane is a two-lane, undivided major arterial that runs in a general north-south direction for a length of approximately 2,200 feet along the study segment. South of the study segment, Brodie Lane transfers jurisdiction to Travis County for 1.5 miles, returns to the City of Austin for another 1.5 miles, and terminates at FM 1626. North of the study segment, Brodie Lane transitions to a four-lane, divided major arterial for approximately four miles before terminating at SH 71.

Brodie Lane has a generally rural cross section along the study segment with 30 feet of travel way and open ditches. Three City streets and nine residential driveways intersect Brodie Lane. In 2011, the City of Austin constructed sidewalk and curb along the west side of Brodie Lane, but the east side remains without them. Adjacent land use is primarily residential.

7/25/13

2.723/1

## **Traffic Data**

Speed and volume data were collected in May 2013 to determine the appropriate posted speed limit for the study segment. The 85<sup>th</sup> percentile speeds are lower than the posted speed limit.

Block	Location	Posted Speed	85 <sup>th</sup> - Percentile Speed		Daily Traffic
Number		Limit	NB	SB	Volumes
10160	North of Aspen Creek Parkway	45	42.6	41.5	25,280
10650	North of Wyldwood Road	45	43.2	42.6	25,615

# **Crash Data**

Austin Police Department's crash database was reviewed to analyze documented crashes along the study segment within the past three years. Eight crashes were documented during this period; no discernible pattern from excessive speed is present.

Date / Time	Direction							
	At Fault	Other	Weather	Light	Road	Injury	Comments	
08/11/10 5:18 PM	N/A	N/A	Cloudy	Day	Dry	Minor	Vehicle 1 attempted to make u-turn and was struck by oncoming Vehicle 2.	
04/02/11 7:46 AM	SB	SB	Cloudy	Day	Dry	Minor	Vehicle 1 rear-ended Vehicle 2 that was attempting SB left-turn to Dobbin Dr.	
03/20/12 8:42 AM	NB	NB	Cloudy	Day	Wet	Minor	Vehicle 1 rear-ended Vehicle 2 that stopped NB for traffic.	
04/23/12 7:25 PM	NB	N/A	Clear	Day	Dry	None	Vehicle 1 lost control after NB left-turn onto Aspen Creek. Cited for DWI.	
05/12/12 12:45 AM	SB	N/A	Cloudy	Dark- Lighted	Dry	None	Vehicle 1 lost control trying to avoid Vehicle 2 turning in front. Cited for DWI.	
10/31/12 5:16 AM	SB	N/A	Clear	Dark- Lighted	Dry	None	Vehicle 1 lost control and struck fence. Cited for DWI.	
12/12/12 7:50 AM	NB	N/A	Clear	Day	Dry	Minor	Vehicle 1 drifted from road and struck tree. Cited for distracted driving.	
02/08/13 6:05 PM	SB	SB	Clear	Day	Dry	Minor	Vehicle 1 rear-ended Vehicle 2 that stopped SB for traffic.	

## Recommendation

Since the last documented speed study in 1993, traffic on Brodie Lane along the study segment has increased from approximately 11,000 daily vehicles to over 25,000. The 85<sup>th</sup> percentile speed has decreased by approximately 5 mph. Based on my analysis of the location information and traffic data, the speed limit on Brodie Lane between West Slaughter Lane and the Austin City Limit should be established at 40 mph. Speed limit signs indicating the transition point between the 35 mph and 40 mph zones should be relocated from their current locations to the actual Austin City Limit.





Figure 1: Brodie Ln Study Area

Existing 35 MPH
Existing 45 MPH
Proposed 40 MPH