

The Safety Commission, at their meeting on February 5, 2014, voted to concur with staff's recommendations to establish a 45 mph speed limit on San Miguel Ranch Road, between Proctor Valley Road and SR-125.

DISCUSSION

As part of the initial roadway construction project for San Miguel Ranch Road, between Proctor Valley Road and SR-125, 35 mph speed limit signs and legends were installed (see Attachment 1, Location Plat). Now that the roadway has been accepted by the City of Chula Vista, it is necessary to establish the speed limit. Speed zones are established on the basis of an "Engineering and Traffic Survey" and adoption of City Council Ordinance. The survey includes an analysis of the current speed distribution of free-flowing vehicles without any impacts from roadside, nearby development and/or construction.

Engineering and Traffic Survey

City staff completed speed surveys on San Miguel Ranch Road, between Proctor Valley Road and SR-125 in accordance with the California Vehicle Code which indicates that the posting of speed limits be determined by an Engineering and Traffic Survey (see Attachment 2). As described in the California Vehicle Code, the survey shall include:

- (1) Prevailing speeds as determined by traffic engineering measurements;
- (2) Accident records;
- (3) Traffic/roadside conditions not readily apparent to the driver.

These roadway characteristics are then used to help determine an appropriate speed limit. The Manual on Uniform Traffic Control Devices (MUTCD) states that the speed limit shall be established at the nearest 5 mph increment of the 85th percentile speed. Speed limits established on the basis of the 85th percentile speed conform to the consensus of those who drive the street as to what speed is reasonable and safe, and are not dependent on the judgment of one or a few individuals. Speed limits posted higher than the 85th percentile speed are not generally considered reasonable and safe while speed limits posted below the 85th percentile typically do not facilitate the orderly movement of traffic. When roadside development results in excessive traffic conflicts or unusual conditions exist that are not apparent to drivers, the 85th percentile speed limit may be further reduced by 5 mph. If the 5 mph reduction procedure is applied, the Engineering and Traffic Survey shall document in writing the conditions and justification for the lower speed limit and be approved by a registered Civil or Traffic Engineer.

The Engineering and Traffic Survey determined that the 85th percentile speed on San Miguel Ranch Road, between Proctor Valley Road and SR-125 is 44 and 47 mph. Per speed limit establishment protocol, this was measured during the off-peak hours under normal driving conditions, as required per the MUTCD.

Physical Conditions

San Miguel Ranch Road, between Proctor Valley Road and SR-125 is 3,853 feet (0.73 miles) long and 74' curb-to-curb with a 10' raised median. The street is classified as a Class I Collector.

The following table describes the existing conditions along San Miguel Ranch Road:

Segment Limits:	San Miguel Ranch Road, between Proctor Valley Road and SR125.
Length/Width:	3,853 feet (0.73 miles)/74' curb to curb with a 10' raised median
Classification:	Class I Collector.
ADT (Year):	7,647 (2010, Avenida Loretta - SR125).
Exist. Speed Limit:	Posted 35 mph on San Miguel Ranch Road, between Proctor Valley Road and SR-125, but without the required "Engineering and Traffic Survey" and adoption of City Ordinance.
85th% Speed:	47 mph between Avenida Altamira and Avenida Loretta, and 44 mph between Avenida Loretta and SR125.
Number of Lanes:	4 total lanes (2 per direction) between Proctor Valley Road and SR125 and left turn lane pockets.
Striping:	4 lanes, left-turn pockets, right-turn pocket, crosswalks, limit lines and bike lanes.
Parking and Bike Facilities:	No Parking allowed. Bike lanes are located along the entire segment in both directions.
Land Use:	Residential with no direct driveway access or frontage.
Horizontal Alignment:	A horizontal curve is located west of the SR125 ramps with a radius of 1100' over a length of 416' along the centerline with a design speed of 60 mph.
Vertical Alignment:	A crest vertical curve, located between Avenida Loretta and the SR125 with an +8.00% to a 2.25% grade change over 600' produces a design speed of 47 mph.
Accident Rate:	The accident rate at this segment is 0.33 (accidents per million vehicle miles) and is lower than the rate of 1.53 for similar roadways in the State of California (2010).
Special Conditions:	Bike lanes exist on both sides of San Miguel Ranch Road. SR125 on and off ramps located at the easterly end of the segment.

CONCLUSION:

When speed limits are appropriately established (set at the 5 mph increment of speed in the upper half of the normal pace of traffic (85th percentile)) the following objectives are achieved:

- Meaningful, unambiguous enforcement
- Voluntary public compliance
- Clear identification of the unreasonable violator
- Elimination of unjustifiable "tolerances" of higher speed travel

Based on the 85th percentile speed of the roadway, as well as low collision rate and other roadway characteristics outlined in the Engineering/Traffic Survey, staff has determined that the 45 mph speed limit should be established along San Miguel Ranch Road.

Should the City Council establish the proposed 45 mph speed limit, Schedule X of the register maintained in the office of the City Engineer would be revised to show the following:

10.48.020 Schedule X - Established Speed Limits in Certain Zones - Designated

Name of Street: San Miguel Ranch Road

Beginning At: Proctor Valley Road

Ending At: SR125

Proposed Speed Limit: 45 mph

DECISION-MAKER CONFLICT

Staff has reviewed the property holdings of the City Council and has found no property holdings within 500 feet of the boundaries of the property which is the subject of this action. Staff is not independently aware, and has not been informed by any Council member, of any other fact that may constitute a basis for a decision maker conflict of interest in this matter.

CURRENT YEAR FISCAL IMPACT

The proposed speed limit modification would require the replacement and posting of new speed limit signs and marking of new pavement speed limit legends. The cost to install these improvements is approximately \$1,500. The required work will be funded by TransNet funds associated with Capital Improvement Project, TF-332, Signing and Striping Program. There is no additional impact to the TransNet Fund as sufficient funding is available to cover program costs associated with this project.

ONGOING FISCAL IMPACT

There is no ongoing fiscal impact at this time. The improvements will require only routine City maintenance.

ATTACHMENTS

1. Location Plat
2. Speed Survey