



CITY COUNCIL AGENDA REPORT

REPORTS AGENDA ITEM NO. L.5

DATE: November 1, 2022

TO: City Council

FROM: Michael Wolfe, Public Works Director, (805) 385-8055, michael.wolfe@oxnard.org

SUBJECT: Recommended Speed Limits-2022 Engineering and Traffic Survey Results and Amending Section 8-2 of Article I of Chapter 8 of the Oxnard City Code. (15 minutes)

RECOMMENDATION

That the City Council:

1. Receive and comment on the 2022 speed limit survey results on 49 streets (175 roadway segments) in the City of Oxnard; and
2. Approve introduction of the 2022 Speed Limit Ordinance for the first reading by title only waiving further reading of the ordinance amending Section 8-2 of Article I of Chapter 8 of the Oxnard City Code.

(Public Works and Transportation Committee approved 2-0.)

Please click the following link to view the required Measure M pre-recorded presentation video: <https://youtu.be/70iF72z-JL8>

BACKGROUND

The California Vehicle Code (CVC) Section 627 and as recommended by the California Department of Transportation Manual on Uniform Traffic Control Devices (CA-MUTCD), requires that speed limits be established based on an Engineering and Traffic Survey (E&TS). However, per CVC Section 40802(c) the established speed limits may remain enforceable for a total of seven (7) years if the arresting officer has completed a radar operating course of not less than 24 hours. In addition, CVC Section 40802(c) states that the enforceable speed limits may be extended to 10 years if a registered engineer has reviewed the selected roadway segments and determined that no significant changes to the roadway or traffic conditions have occurred since the prior Engineering and Traffic Survey was approved.

A speed limit ordinance (Ordinance No. 2941) was enacted in May 2018 based on the speed surveys conducted in 2017 and 2018 by the City Consultant and Police staff. If an E&TS is not completed every five to ten years, it inhibits the City's ability to effectively enforce and prosecute speeding violations. Radar enforcement is specifically prohibited on any street segment without a current E&TS.

CVC 627 defines the requirements of an E&TS:

- The accident record for the surveyed street segments for the most recent three years;
- Highway, traffic, and roadway conditions not readily apparent to the driver;
- Prevailing speeds of free-flowing traffic as determined by traffic engineering measurements or samplings; and
- Additional factors to consider: residential and business density and pedestrian and bicycle safety.

According to the 2019 Caltrans California Manual for Setting Speed Limits, speed limits are established at or near the 85th percentile speed. The 85th percentile speed is that speed at or below which 85 percent of the traffic is moving. Speed limits established on the basis of the 85th percentile speed conform to the consensus of drivers of reasonable and prudent speed, rather than the judgment of one or few drivers. Speed limits set at or near the 85th percentile provide law enforcement officers with a limit to cite drivers who do not conform to what the majority considers reasonable and prudent.

When a speed limit is to be posted, it shall be established at the nearest five-mph increment to the 85th percentile speed, rounding as standard mathematical rounding directs. However, under some circumstances, the posted speed limit may be reduced by five-mph from the 85th percentile speed. If a 5-mph reduction is justified, the E&TS shall document in writing the conditions and justification for the lower speed limit and be approved by a registered Civil or Traffic Engineer. The factors justifying such a reduction include the collision history, any unusual road characteristics, residential and business density, and pedestrian and bicycle safety in accordance with CVC 627.

CVC 21400 (b) allows for setting the speed limit at the five-mph increment below the 85th percentile even if mathematical rounding would require the speed to be posted above the 85th percentile. However, if this option is used, then the additional five-mph reduction mentioned above cannot be applied. In effect, this law allows an engineer to round down to the nearest increment of the 85th instead of up but does not allow the engineer to take a further reduction.

State Assembly Bill No. 43 became law on January 1, 2022, and following are some of the key elements of the bill:

- This bill would authorize local authorities to consider the safety of vulnerable pedestrian groups, as specified.
- This bill would establish a prima facie speed limit of 25 miles per hour on state highways located in any business or residence district and would authorize the Department of Transportation (Caltrans) to change the speed limit on any such highway, as prescribed, including erecting signs to give notice thereof.
- This bill would additionally authorize Caltrans and a local authority to declare a speed limit of 20 or 15 miles per hour, as specified, on these highways.
- The bill would, in some circumstances, authorize the reduction of a speed limit beginning June 30, 2024, or when the Judicial Council has developed an online tool for adjudicating traffic infraction violations, whichever is sooner.
- This bill would extend the period that a speed limit justified by a traffic and engineering survey conducted more than 7 years ago remains valid, for purposes of speed enforcement, if evaluated by a registered engineer, as specified, to 14 years.

DISCUSSION

The California Manual for Setting Speed Limits was utilized in this Study. It involves three major data collection and analysis categories: roadway characteristics, collision rate, and spot speed survey.

Streets are typically split into sections that have similar physical attributes. Please note that not all streets are required to have speed surveys done to determine the speed limit. Streets are selected City-wide that have non-statutory speed limits. Typically, all arterials and collector streets are included in the speed survey. New street segments are added for the speed survey due to the change in the roadway segments and/or recommendations from the Police staff.

Also, State Assembly Bill No. 43 legislation was considered along with the recently completed traffic speed surveys and analysis of collision data and field conditions to set the speed limits that staff recommend for 175 road segments on 49 streets located citywide in Oxnard.

Roadway Characteristics

As a part of this Study, the following were recorded: roadway characteristics, location of speed limit signs, conditions not readily apparent to the driver, type of area adjoining the street (school zone, parks, residential, commercial, etc.), and type of roadway (divided, undivided, number of lanes, bicycle lanes, sidewalks, etc.). The roadway characteristics recorded were used to determine the recommended speed limits in accordance with CVC Section 627. The surveyed roadway characteristics are indicated for each road segment in the attached E&TS Summary (Exhibit A).

Collision Rate Analysis

The collision rate for the roadway sections was analyzed based on the most recent collision records from the Statewide Integrated Traffic Records System (SWITRS) as required by CVC Section 627. Based on a review of the collision records from January 2017 to December 2019, mid-block collision rates were calculated for each street segment.

The results of the collision rate calculations, including the Average Expected Accident Rates for each type of roadway facility, are shown in the attached E&TS Summary (Exhibit A). The table below lists the Average Expected Accident Rates based on the latest average rate for each type of roadway in the City of Oxnard, derived from the 2019 Crash Data on California State Highways published by Caltrans.

Table 1.

| Roadway Type | Average Expected Accident Rate |
|-------------------------------|---------------------------------------|
| 5-6 lanes divided (<45mph) | 1.06 |
| 5-6 lanes divided (>=45mph) | 1.00 |
| 5-6 lanes undivided (<45mph) | 1.37 |
| 5-6 lanes undivided (>=45mph) | 3.02 |
| 4 lanes divided (<45mph) | 0.91 |
| 4 lanes divided (>=45mph) | 0.90 |
| 4 lanes undivided (<45mph) | 0.94 |
| 4 lanes undivided (>=45mph) | 0.67 |
| 3 lanes | 1.17 |
| 2 lanes (<45mph) | 1.20 |
| 2 lanes (>=45mph) | 0.82 |

The mid-block collision rate in terms of “collision per 1,000,000 vehicle miles of travel” for each street surveyed was calculated and the collision rates for each segment are shown in the attached E&TS Summary (Exhibit A).

Speed Survey

The E&TS and Spot Speed Survey (Engineering and Speed Survey) were conducted by the City’s on-call traffic engineering firm, LSY Enterprise, Inc., and under the supervision of a registered Traffic Engineer in the State of California. Spot speed surveys were conducted at each roadway segment to establish a reasonable and prudent speed limit based on the premise that the established speed limit conforms to most motorists' actual behavior.

The summary of the Engineering and Traffic Survey data and analysis for each of the surveyed 175 roadway segments is provided in Exhibit A.

PROPOSED CHANGES TO SPEED LIMITS

The “existing speed vs. proposed speed limits” table provided in Exhibit A identifies the streets surveyed for this update and provides a comparison to current speed limits. Based on the E&TS study for the 175 roadway segments, staff recommend:

- Decrease speed limit for 10 roadway segments,
- Establish new speed limits for 3 roadway segments, and

- Current speed limits be re-established for the remaining 162 roadway segments.

Table 2.

Decrease Speed Limit

| Street | From | To | Posted Speed Limit (mph) | Recommended Speed Limit (mph) |
|----------------|------------------------------|------------------------------|---------------------------------|--------------------------------------|
| Del Norte Blvd | Fifth St | Camino Del Sol | 50 | 45 |
| Gonzales Rd | Ventura Rd | H St | 45 | 40 |
| Gonzales Rd | H St | Oxnard Blvd | 45 | 40 |
| Hemlock St | Victoria Ave | Patterson Rd | 40 | 35 |
| Lombard St | Gonzales Rd | 150 feet n/o of Posada Dr | 35 | 30 |
| Oxnard Blvd | Town Center Dr | Wagon Wheel Rd | 50 | 45 |
| Oxnard Blvd | Wagon Wheel Rd | Vineyard Ave | 50 | 45 |
| Oxnard Blvd | Rose Ave | Channel Islands Overcrossing | 55 | 50 |
| Oxnard Blvd | Channel Islands Overcrossing | Pleasant Valley Rd | 60 | 55 |
| Ventura Blvd | Vineyard Ave | Balboa St | 40 | 35 |

Table 3.

Establish New Speed Limit

| Street | From | To | Posted Speed Limit (mph) | Recommended Speed Limit (mph) |
|---------------|--------------------|--------------------|---------------------------------|--------------------------------------|
| Etting Rd | Pleasant Valley Rd | East City Limit | N/A | 30 |
| Fifth St | Rice Ave | Del Norte Blvd | N/A | 55 |
| Maulhardt Rd | Dodge Rd | Pleasant Valley Rd | N/A | 25 |

Provided there is an operative motion by Council on this Ordinance at the November 1, 2022 council meeting, this item will be brought to Council at the December 6, 2022 meeting for consideration by the Council for adoption of the Ordinance.

STRATEGIC PRIORITIES

This agenda item supports the Infrastructure and Natural Resources strategy. The purpose of the Infrastructure and Natural Resources strategy is to preserve and improve our roads, utilities, parks, trees, water supply and natural resources through effective planning, prioritization, and an equitable and efficient use of available funding.

FINANCIAL IMPACT

The estimated cost for changing and/or adding speed limit signs for the 13 roadway segments is \$5,000, which includes the cost of new signs and staff time. Funds are available in the approved FY 2022-23 Adopted General Fund Budget of the Streets Division to sufficiently cover the estimated costs of the signs.

COMMITTEE OUTCOME

The Public Works and Transportation Committee approved 2-0 on October 11, 2022 to approve the staff recommendation and to forward the item for Council approval.

Prepared by: Tatiana Arnaout, City Engineer

ATTACHMENTS

1. Proposed 2022 Speed Limit Ordinance
2. Speed Limit Ordinance - 2941 (May 22, 2018)
3. Exhibit A 2022 Engineering and Traffic Survey
4. Presentation