CITY OF SALINAS
TRAFFIC & TRANSPORTATION COMMISSION STAFF REPORT

DATE: **NOVEMBER 14, 2019**

DEPARTMENT: **PUBLIC WORKS, TRANSPORTATION & TRAFFIC DIVISION**

FROM: **ANDREW EASTERLING, TRAFFIC ENGINEER**

TITLE: **2019 ENGINEERING AND TRAFFIC SURVEY FOR SPEED LIMITS**

RECOMMENDATION:

Recommend that the Traffic and Transportation Commission recommend that the City Council receive the 2019 Engineering and Traffic Survey prepared by public works staff and adopt a resolution establishing speed limits.

BACKGROUND:

A Speed Limit Sign is a federal device, which a posting authority is authorized to use providing the limits comply with the law. Article 1 Section 8 of the United States Constitution's mandate is uniform oversight of regulation of the nation's roadways. The US Constitution, Congress' intent in this field is to establish uniformity in the vehicle code and traffic control devices. In the United States, there are 80,000 posting authorities and about 4 million miles of roads. How would a person travelling through different jurisdictions know what is expected of them, or know penalties as they go from sign to sign without a uniform set of rules? The Uniform Vehicle Code (UVC) and Manual of Uniform Traffic Control Devices (MUTCD) establish the rules for which posting authorities shall conform to when establishing posted speed limits.

Speed limits for most roadways are established by prescribed procedures in accordance with the California Vehicle Code (CVC) and the MUTCD. The CVC requires that an Engineering and Traffic Survey (E&TS) be conducted every five years to justify a posted speed limit. Section 40802 of the CVC specifies the time periods within which speed surveys must be performed if the use of radar is to be employed to enforce speed limits. If the E&TS are more than 5 years old, the speed zone is considered a "speed trap" under CVC 40802 and courts may reject evidence of speeding obtained through radar or other electronic devices. E&TS may be up to 7 years old if conditions under CVC 40802(c)(1) related to enforcement training and equipment certification have been met. If an E&TS is not performed within the required time frame, posted speed limits are no longer valid and cannot be enforced properly, which allow for vehicular speeds to gradually rise on given roadway. Local roads with specific characteristics as classified by the Federal Highway Administration (Attachment 2), do not require E&TS and a 25 mph prima facie speed limit is considered legitimate. Local roads provide direct access to adjacent lands and a higher

transportation system. Local roads do not carry through traffic movement within the transportation network.

The MUTCD process of establishing a speed zone is built around a spot speed survey that typically consists of measuring speeds with a radar gun or other electronic device of motor vehicles traveling at free-flow speeds. Measured speeds create a data set and the most relevant data point is the 85th percentile speed. The 85th percentile speed is the speed at or below which 85 percent of motor vehicles travel. The 85 percentile is identified as the maximum speed that the majority of drivers who drive a roadway consider reasonable and safe. As a result, posted speeds are a reflection of the speed that most drivers deem to be safe, as opposed to a minority of drivers who do not drive in a reasonable manner.

According to the California MUTCD Section 2B.13 Paragraph 12a, the posted speed limit "shall be established at the nearest 5-mph increment of the 85th percentile speed of free-flowing traffic." For example, a segment with a measured 85th percentile speed of 37 mph would be rounded-down to have a posted speed limit of 35 mph. While another segment with a measured 85th percentile speed of 33 mph would be rounded-up to have a posted speed limit of 35 mph. The California MUTCD allows the posted speed limit to be decreased by no more than 5 mph from a rounded speed, using one of two options described below that depend on whether the 85th percentile speed has been rounded down or up. There are no provisions for increasing the speed limit above the nearest 5-mph increment of the 85th percentile speed.

California MUTCD option 1 is defined in Section 2B.13 which states, "The posted speed may be reduced by 5 mph from the nearest 5-mph increment of the 85th percentile speed, in compliance with CVC Sections 627 and 22358.5." The cited CVC Section 627 defines an E&TS that is required to consider prevailing speeds, accident records, and conditions not readily apparent to the driver, and optionally consider residential density as well as pedestrian and bicycle safety.

California MUTCD option 2 is defined in Section 2B.13 which states, "For cases in which the nearest 5-mph increment of the 85th percentile speed would require a rounding up, then the speed limit may be rounded down to the nearest 5-mph increment below the 85th percentile speed, if no further reduction is used." An Option 2 round-down, which became available when CVC Section 21400(b) went into effect January 1, 2012, requires no engineering and traffic survey to post the speed limit sign. The E&TS is required nevertheless, however, to allow radar or similar devices to be used for enforcement.

Why is this method used for establishing speed limits? The Federal Highway Administration has conducted numerous studies on the practice of establishing speed zones. The conclusions found in these studies states, "the speed limit should be set at the speed driven by 85 to 90 percent of the free-moving vehicles rounded up to the next 5 mph increment. This method results in speed limits that are not only acceptable to a majority of the motorist, but also fall within the speed range where accident risk is lowest." (Report No. FHWA/RD-85/096 Technical Summary, "Synthesis of Speed Zoning Practice"). Like other traffic laws, it is based upon the assumption that the majority of drivers will behave in a reasonable manner. Laws that arbitrarily restrict the majority of motorist encourage wholesale violations, lack of public support, and usually fail to bring about desirable changes in driving behavior. This is especially true of speed limits.

Public works staff identified fourteen (14) roadway segments where the posted speed limit has expired or scheduled to expire in 2019. Public works staff prepared The 2019 Engineering and Traffic Survey for Speed Limits Technical Report (Attachment 1), which details the methodology and findings of the speed survey. The report details the CVC regulations and CAMUTCD policies. Of the fourteen (14) roadway segments two (2) are increasing, one (1) is decreasing, eleven (11) segments posted speed limits will remain the same. All other roadway segments not evaluated in the 2019 E&TS will remain the same. All existing school zones contained within these segments will remain the same. Highlighted are those street segments where speed limits are required to change in accordance with the MUTCD.

Street Segment	Limits	Existing	New
Harden Parkway	N Main Street to El Dorado Drive	35	35
Independence	Provincetown Drive to Boronda Road	35	30
Riker Street	West Alisal St to West Blanco Road	25	25
Larkin Street	Davis Road to Rico Street	25	25
Market Street, East	Sherwood Drive to Sanborn Road	35	35
Sanborn Road	Del Monte Avenue to Boronda Road	35	35
Sanborn Road	E Laurel Drive to US 101	35	35
Boronda Road	Constitution Blvd to Williams Road	45	45
Front Street	E Market Street to John Street	25/35*	30
Laurel Drive, East	N Main Street to Natividad Road	35	35
Skyway Boulevard	Mortensen Avenue to Alisal Street	35	40
Work Street	East Alisal Street & Sanborn Road	35	35
Garner Avenue	Rider Avenue to Wiliams Road	35	30
Rico Street	Larkin Street to Rossi Street	25	25

Highlighted are segments where speed limits are proposed to change.

It is important to note that using the Engineering and Traffic Survey to establish speed zones is not only a federal requirement, it also lowers the risk of accidents. However, staff acknowledges this practice is only good for lowering the risk of collision while accident severity tends to increase with higher speeds. The California MUTCD process is required in order to be able to conduct speed enforcement by radar. Otherwise, speeding citations cannot be justified in court. Without enforcement drivers traveling at unreasonable speeds, over the 85th percentile speed, cannot be cited for speeding using radar and therefore this behavior may continue to go unenforced.

Why not keep the existing speed limit signs arbitrarily low to slow the speed of traffic? This is a misconception. Many before and after studies have found that changing the speed limit signs does not change how fast Americans drive. The best known study is the "Parker Report", (Report No. FHWA-RD-92-084: The Effects of Raising and Lowering the Speed Limit**).** The federal Department of Transportation hired a consultant to prove that low speed limits slowed traffic and improved safety. The study looked at data from 100 sites in 22 states where speed limits were either raised or lowered. Counter to the hypothesis of the federal DOT, the study found low speed limits had no effect on traffic speed.

Staff recommends the Traffic and Transportation Commission recommend that the City Council receive the 2019 Engineering and Traffic Survey and adopt a resolution establishing speed limits in accordance with federal regulations.

2018 Engineering and Traffic Study:

At the December 4th, 2018 City Council meeting, City Council passed a resolution to certify all of the 2018 Engineering and Traffic Surveys for Speed Limits report with the exception of twelve (12) roadway segments which were recommended to increase the speed limit. Over the past year, public works staff in coordination with police department staff have continued survey each of the roadway segments with invalid speed limits. Findings of each survey continue to show that the existing speed limit should be increased and cannot be certified unless the speed limit is raised.

Street Segment	Limits	Existing Speed Limit	Lowest Possible Legal Speed Limit
Beacon Hill Drive	Constitution Blvd to Constitution Blvd	25	30
Casentini Street	N Main St to Rico St	25	30
Chaparral Street	North Main Street to Maryal Drive	25	30
East Market Street	North Sanborn Road to Williams Road	25	30
West Alisal Street	Capitol St & Amherst Dr	25	30
East Laurel Drive	N Sanborn Rd & Williams Rd	25	30
Maryal Drive	Laurel Dr to Bernal Dr	25	35
Rider Avenue	Freedom Pkwy & Boronda Road	25	30
North Sanborn Road	Del Monte Ave & E Laurel Dr	25	30
Sherwood Drive	E Market St & US HWY 101	35	40
Acacia Street, West	Davis Rd & W Alisal St	25	30
Garner Avenue	Sanborn Rd to Williams Rd	25	Speed Limit Updated

One exception is the segment of Garner Avenue between Sanborn Road and Williams Avenue, which has been merged with the adjacent segment of Garner Avenue between Rider Avenue and Sanborn Avenue to have a continuous 25mph speed zone between Rider Ave and Williams Avenue.

Public works staff understands that there are perceived safety concerns related to increasing speed limits, however, a more in depth look at the rationale behind the federal policies for establishing speed limits, will show that these methods of establishing speed limits are nationally recognized as best practices with the lowest probability for collisions. All cities and counties in California follow these best practices policies established in the California Manual of Uniform Traffic Control Devices (MUTCD). For example, the nearby City of Gilroy recently completed its 2019 Engineering and Traffic Surveys for Speed Limits, which some speed limits were increased. The city of Salinas will soon be taking its 2019 Engineering and Traffic Surveys for Speed Limits, for which two roads are expected to increase and one road will decrease. This

year staff has prepared an informational brochure (Attachment 3) to help inform the public and to equip representatives with informational material when responding to concerned residents.

CEQA CONSIDERATION:

The City of Salinas has determined that the proposed action is not a project as defined by the California Environmental Quality Act (CEQA) (CEQA Guidelines Section 15378). In addition, CEQA Guidelines Section 15061 includes the general rule that CEQA applies only to activities which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. Because the proposed action and this matter have no potential to cause any effect on the environment, or because it falls within a category of activities excluded as projects pursuant to CEQA Guidelines section 15378, this matter is not a project. Because the matter does not cause a direct or foreseeable indirect physical change on or in the environment, this matter is not a project. Any subsequent discretionary projects resulting from this action will be assessed for CEQA applicability.

STRATEGIC PLAN INITIATIVE:

The establishment of legitimate speed limits support the City Council's strategic plan "Safe, Livable Community."

DEPARTMENTAL COORDINATION:

The Public Works Department survey, recommend and monitor posted speed limits. Established speed zones allow the Salinas police department to enforce posted speed limits. Public works provides the police department and the Traffic Court with updates and changes to the established speed zones for proper enforcement.

FISCAL AND SUSTAINABILITY IMPACT:

The City must replace existing speed limit signage and school zone signage on the three (3) changing roadway segments. Additionally, some speed zones are missing required speed limit signs which need to be installed. The estimated labor and material cost to replace and install missing signs is $22,730. Sufficient funding is available in the CIP 9162, which funds the replacement of regulatory signs to meet national retroflectivity standards.

ATTACHMENTS:

Attachment 1: 2019 Engineering and Traffic Survey for Speed Limits Technical Report
Attachment 2: FHWA Functional Classification Maps
Attachment 3: Speed Limit Informational Brochure