

MEMORANDUM

To: CHAIR AND COMMISSIONERS
CALIFORNIA TRANSPORTATION COMMISSION

CTC Meeting: March 25, 2020

From: STEVEN KECK, Chief Financial Officer

Reference Number: 4.35, Action Item

Prepared By: Michael Johnson, State Asset Management Engineer

Subject: **SENATE BILL 1 PAVEMENT LEVEL OF SERVICE CRITERIA**

ISSUE:

Should the California Transportation Commission (Commission) approve the California Department of Transportation's (Department) criteria for the Senate Bill 1 (SB 1) Pavement Level of Service (LOS) requirement to achieve a pavement LOS of 90 or better by 2027?

RECOMMENDATION:

The Department recommends the Commission adoption of the following SB1 pavement LOS criteria that segregates the State Highway System lanes into segments that are each 528 feet long and approximately 12 feet wide. Each segment will be evaluated for cracking and spalls or potholes depending on the material in accordance with the technical criteria below. Each segment will be deemed as passing or failing. The calculation used to determine the pavement LOS is a weighted average of the scores for asphalt and concrete segments.

The SB1 Pavement LOS is calculated using the following formula:

$$\text{SB 1 Pavement LOS} = (\text{FPS} * W_F + \text{RPS} * W_R) / \text{Total number of segments}$$

Flexible Pavement Score (FPS) – [Percent Passing Cracking + Percent Passing Potholes] / 2

Rigid Pavement Score (RPS) – [Percent Passing Cracking + Percent Passing Spalling] / 2

Weighting (W) – Total number of flexible or rigid pavement segments

The technical criteria for determining if a segment passes or fails is as follows:

Attribute	Failure Criteria	Description
Cracking	cracking \geq ½ inch	Any single crack at its widest point
Potholes	> 1 each pothole	Any potholes greater than 36 square inches in area
Spalling	\geq 1 sq. ft.	Cumulative area of spalling

“Provide a safe, sustainable, integrated and efficient transportation system to enhance California’s economy and livability”

BACKGROUND:

SB 1 includes a performance requirement to achieve a LOS for pavement cracking, spalls and potholes of no less than 90 by 2027.

The Department has developed the recommended LOS criteria based on information captured using the Automated Pavement Condition Survey (APCS). The APCS vans utilize state of the art pavement condition assessment technology to capture pavement conditions on 100 percent of the State Highway System lanes. The pavement condition is typically updated annually, applying the defined criteria to the 2018 APCS results in a pavement LOS of 95.

The technical criteria recommended is based on practical thresholds that take into consideration the pavement condition, effectiveness of treatments, traffic impact and employees/contractor safety.