

## Meeting Summary

Tuesday, November 12, 2013

SLO Co. Bicycle Advisory Committee/UC Davis

Dr. Hui Li, UC Davis Pavement Research Center, summarized the preliminary findings of their recent study on pavement and bicycle ride quality. Caltrans was represented by Steve Price DDD Maintenance & Operations and Aileen Loe, Deputy District Director (DDD) Planning.

The basic objectives of the research were to:

- Evaluate the impacts of pavement roughness on bicycle ride quality
- Evaluate potential strategies to remediate the surface of Highway 1, northern San Luis Obispo County
- Make recommendations to CT regarding statewide pavement management practices to consider bicycle ride quality

Dr. Li reviewed the technical methods and process by which pavement roughness was evaluated. The research found that there was a good correlation between measured surface roughness and rider acceptability. The research identified a quantifiable range of surface roughness values that would be acceptable to most bicyclists (50-80%).

The research evaluated different treatments for application over the chip seal that was applied on Highway 1 in 2012. Initial surface testing was conducted on Highway 198 in Monterey County, which also received the same chip seal in 2012 as Highway 1. The testing revealed that the finished surface condition from the 2012 chip seal on the two highways was different, with Highway 198 having a smoother surface (prior to any remedial treatments) than Highway 1. This was important to establish baseline conditions. The testing quantified the smoothing effects of the Hwy 198 surface applied over a chip seal with a variety of treatments.

From among the treatments applied on Hwy 198, a sand seal treatment was then tested on a short section of the Highway 1 chip seal to determine how much of a smoothing effect could result there. The Highway 1 test suggested that, based on the rider acceptability tests, the sand seal could achieve a smoothing effect ***within a range of acceptability for most cyclists***. Construction work proceeded during November on the entire Highway 1 segment (Cambria to Ragged Point) and has now been completed. UC Davis will measure the roughness along the length of the remedial surface of Highway 1 in the month of December.

Some cyclists expressed gratitude for the incremental improvement, however, many also expressed dissatisfaction that Caltrans was not going far enough to bring the surface to a more ideal level of smoothness. Specifically, some expressed their expectation that Highway be treated with a surface that would be ***acceptable to 100% of cyclists***, such as what is achieved with hot-mix asphalt paving. Steve Price agreed that this type of a surface would be most desirable from many perspectives, however, it is not affordable.

The UC Davis measurements this December will determine whether the Department's objective to smooth the surface to within an acceptable range for bicyclists has been achieved with the sand seal. Steve Price indicated that if the desired result is not achieved, further discussion would be in order.

Moreover, the research is providing valuable information to Caltrans for modifying pavement management practices in the future. With considerations for bicycle ride quality built into future guidance and contract specifications, similar controversy on pavement projects will be avoided in the future.