

CALTRANS HIGHWAY 1 CHIP SEAL FREQUENTLY ASKED QUESTIONS (FAQs)

Construction on this resurfacing project was completed in November 2013.

What is a chip seal and why was it used on Highway 1?

A chip seal is a preventive maintenance strategy in which a layer of bonded aggregate – essentially small pieces of gravel – are affixed to the top of an existing asphalt road. This resurfacing technique can save taxpayers a substantial amount of money by postponing, often by decades, the need for replacing an aging road. It provides a wear surface that protects the underlying pavement from deterioration, in much the same way that a house is painted to protect the siding. Caltrans chose a chip seal for Highway 1 in order to extend the life of the pavement, and efficiently use limited funding.

Why did Caltrans use such large rock with this chip seal without considering the possible effects on cyclists?

This technique has been used successfully for many years with relatively few complaints. The specification on this project called for 3/8-inch rock which requires that the vast majority of the rocks used fit through a 3/8-inch square. The gradation specifications do allow for some larger and some smaller material, which means you could find the occasional rock that has a dimension larger than 3/8-inch. The size of the rock is specified for performance and durability. We are continually adapting our practices in response to a variety of factors and the response from the bicycling community on this project indicated a need to continue to adapt to better serve cyclists.

Why can't you immediately repave the area?

Caltrans is obligated to be good stewards of taxpayer dollars. Repaving this section of Highway 1 is estimated to cost \$7-8 million. This expenditure may not be necessary and would be an irresponsible use of taxpayer funds. The chip seal is performing as intended to protect the pavement and we are researching ways to cost effectively improve the surface for cyclists.

What are you doing about the concerns raised by the cycling community?

Caltrans is partnering with the University of California, Davis Pavement Research Center (UCPRC) to find effective and affordable ways to make cycling a smoother experience along this recently paved section of Highway 1. The research is now underway and will be conducted in two phases.

Phase 1 consists of researching known smoothing techniques, such as applying heavy rollers, and conducting test bed trials, which involves application of other surface treatments. It is anticipated that Phase I will be completed by May 2013.

Phase 2 will utilize the research conducted in Phase 1 to evaluate cost-effective preventive maintenance strategies that will improve the bicycle ride quality. Ultimately, Phase 2 will produce recommendations for the statewide pavement program and is expected to be completed by fall of 2013.

Why are you using a University when Caltrans has professional engineers on staff?

Caltrans Division of Research and Innovation has an ongoing partnership with the UC Davis Pavement Research Center (UCPRC) to scientifically improve all aspects of pavement management. UCPRC provides special expertise that complements and supports the work of Caltrans engineers.

Will the cycling community have a chance to participate?

Yes, local cyclists will be invited to participate in the pavement testing by the UC Davis Pavement Research Center/Caltrans team.

What can you do to improve the road in the short term?

We anticipate that the road will smooth over time under normal traffic conditions. In order to determine if that process can be accelerated, daily heavy rolling of a 1,000-foot test section of Highway 1 is being conducted. If the test rolling proves to be an effective smoothing technique, rolling of the entire 20-mile length of the chip seal area could be done in the short term.

What type of roller is being used and how was it chosen?

A rubber-tired roller is the standard equipment used to press aggregate rock into the asphalt binder. This extra rolling simulates the effects of traffic over time. A heavier steel roller may break the rocks, creating more roadway debris and additional damage to the surface that would require other costly repair treatments.

Why is the testing taking so long?

We need to make informed decisions on how to proceed. The daily test rolling is being conducted for 4-5 weeks or until measurements show no further changes as a result of the daily rolling. The data we collect during the rolling period will then be analyzed to determine if the rolling was effective in smoothing the pavement. Other Phase I testing is being conducted concurrently and all of the data will be collected and analyzed.

Why do we have to wait for testing results to “fix” Highway 1?

Many ideas for solutions have been proposed to address smoothing the surface for a better ride quality. We are awaiting test results to ensure that any techniques used will provide measureable and effective results.

When will the results of the test rolling be available and what will happen next?

Results and recommendations will be completed in May. If the rolling proves to be effective, heavy rolling of the entire 20-mile shoulder section could be done soon after. The earliest that significant construction work would occur is in the fall of this year.

Do you know of any cycling events that have been cancelled?

We have reached out to the major event organizers and all report that there are no plans to change their events. We have also heard from some representatives of the major event organizers after recently riding this section of Highway 1 that they still plan to hold their event. One local event has rescheduled their ride until November.

Is this area of Highway 1 safe for bicycles?

Highway 1 is safe for all users. While we recognize that the current surface provides a rougher ride for cyclists, it remains safe and usable. Many cyclists continue to enjoy the ride.

Will Caltrans continue to use chip seals on its roadways?

Caltrans plans to continue to use chip seals as an effective preventive maintenance strategy. The research through UCPRC will help us to improve practices to best serve all users of the roadway and develop pavement standards for cyclists.

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