

Research Notes

Program Steering Committee (PSC): Pavement

JUNE 2014

Title: PPRC14 SPE PMS-H: Evaluate Linear Reference System

Task Number: 2722

Start Date: July1, 2015

Completion Date: September 30, 2017

Task Manager:

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TITLE:

Evaluate Linear Reference System

WHAT IS THE NEED?

Caltrans locates points along California's highways using a Linear Reference System based on county, route (highway/roadway number) and post-mile (distance along the highway centerline from the county boundary). This is a traditional method that has worked well and has been widely used.

Caltrans wants to improve the accuracy of this "county/route/post-mile" system. As roadway improvements and changes are made, such as roadway realignments and route relinquishments, designation of County/Route/Post-mile for affected roadway segments must be updated and revised.

There are various technical approaches to determine designations of locations along a route. There is a need to identify, evaluate, and consider making changes to the current Linear Reference System used by Caltrans.

WHAT ARE WE DOING?

This research will evaluate Caltrans's current Linear Reference System, which is based on County/Route/Post-mile with equation points where alignments have changed.

Evaluations will review approaches in Linear Reference Systems and the system needs and federal MAP-21(Moving Ahead for Progress in the 21st Century Act) legislation requirements.

Project activities will include identification and comparison of approaches for Linear Reference Systems that are used in other states as well as other countries. Federal requirements will be reviewed. Advantages and disadvantages of updating or changing Caltrans's Linear Reference System approach will be evaluated. A project report will present results and findings from the research, summarize the evaluation, and provide recommendations to Caltrans for changing or possibly keeping the current Linear Reference System or changing to a county and state odometer system.

Updated: 15 June 2014

WHAT IS OUR GOAL?

The goal of this task is to find and recommend improvements to Caltrans's Linear Reference System. Improvements may save money and enable Caltrans to better meet federal requirements for surface transportation provision in the highway provisions of MAP-21 and future legislation.

WHAT IS THE BENEFIT?

Provide information for Caltrans decision-making about procedures and policies in the Department's linear reference system. Drawing from techniques used in other municipalities will increase efficiencies, may save money, and will better meet the federal requirements.

WHAT IS THE PROGRESS TO DATE?

This is a new task that will begin in FY 2015-16.