



Oregon

Kate Brown, Governor

Department of Transportation

Transportation Development

Research Section

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April 27, 2017

Jasmine Harris
Federal Highway Administration
530 Center St. NE, Suite 420
Salem, OR 97301

Dear Jasmine,

In support of the current pooled fund solicitation #1447, "Developing *Highway Capacity Manual* (HCM) Capacity Adjustments for Agency Connected and Autonomous Vehicle Operational Planning Readiness under Varying Levels of Volume and Market Penetration" the Oregon DOT is requesting the waiver of the non-Federal funding match for State Planning and Research funds for use on the proposed project. Oregon DOT will serve as the lead agency of this proposed project. The estimated number of partners will be five, including the lead agency, and the approximate level of funding required to complete the research is \$150,000.

The capability of Connected and Autonomous Vehicles (CAV) is progressing at a faster rate with particular focus on technological performance, and its wide-ranging potential impacts on safety, operation, and regulatory issues. The HCM is at risk of becoming outdated or limited in relevance/usefulness as the CAV technologies become more prevalent on the market in the near future. This project will develop highway capacity adjustments for CAV at different levels of volume and market penetration in order to adapt the use of the HCM in analyzing CAV applications.

We request that participating states contribute \$15,000 each for the fiscal years 2018 through 2019.

- 1) Identify CAV modeling scenarios and their application based on the HCM
- 2) Model the CAV applications for chosen scenarios as functions of market penetration rate, roadway configuration, traffic characteristics, and automobile design parameters.
- 3) Report modeling results back to the TAC frequently and determine new scenarios based on feedback from them and incorporate recent CAV technology changes as well.
- 4) Create HCM adjustment lookup tables and figures for CAV applications that transportation agencies can use.

So that states may use 100% State Planning and Research funds for the conduct of this study, I request that you approve a waiver of the requirement that states provide matching state funds. If you have any questions or need further information please contact me.

Sincerely,

Michael Bufalino

Research Program Manager

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