October 19, 2016

Director Jean Shiomoto
Department of Motor Vehicles
2415 1st Ave., Mail Station F101
Sacramento, CA 95818-2606

RE: Proposed Revision of California DMV Autonomous Vehicle Regulations

Director Shiomoto:

The Los Angeles County Economic Development Corporation's e4 Mobility Alliance (LAEDC e4), is pleased to submit the below comments on the proposed revision of the California Autonomous Vehicle Regulation code.

The LAEDC e4's mission is to promote Southern California as the national hub for advanced transportation technology research, development, demonstration, production and exportation, with the goal to realize the marked job, output and tax revenue ripple effects associated with leadership in each phase along transportation technology product/service value chain. The alliance's efforts include: attracting investment to spur innovation; encouraging the transfer of technology out of academia into the hands of private firms; strengthening the region's workforce and education systems to develop the requisite talent to support this fast-growing industry; and advocating for sensible policy initiatives to engender a regulatory environment that is conducive to achieving the co-equal goals of accelerating the adoption of advanced vehicle technology and building the world's leading export-oriented advanced transportation industry here in Southern California.

The LAEDC e4 members are comprised of advanced transportation industry, education, research, finance and government thought leaders from across Southern California. Over the past three years, LAEDC e4 has examined global best practices in the areas of: rulemaking and administrative law; economic and community development; infrastructure planning and deployment; and education and workforce development. The following comments are based upon the collective input and efforts of LAEDC e4 members to develop a strategy for incorporating autonomous vehicle utilization and deployment into the region's transportation, goods movement, land use and sustainable communities planning.

LAEDC e4's top-line regulatory goal is to facilitate a uniform, user-friendly regulatory schema that ensures public safety - first and foremost - while enabling innovation to thrive. California is by all accounts a world leader in innovation. As a state, we have always proactively pursued the untested and sought to better use, align and deploy policy and regulations in a way that spawns, embraces and drives entirely new industries and markets, not restricts, constricts and/or inhibits them.

Autonomous vehicles are no exception. The State of California and the Department of Motor Vehicles (DMV) have been at the forefront of regulations to enable the safe testing of autonomous vehicles. There was not a guidebook to follow or a litany of "lessons learned" from other regions when these regulations were developed and adopted. Accordingly, and in this same spirit to amplify California's advanced transportation leadership, the LAEDC e4 proposes the following:

First, we believe the regulatory focus should be on the transportation environment in which autonomous vehicles operate, versus limiting regulation by vehicle class or by the technology itself. Transportation overall has progressed

to the next stage in the evolution of autonomous vehicles as a viable transportation modality. And, California's autonomous vehicle policies and regulations should serve as a best practices model for the nation as this progression continues and we build upon the lessons learned thus far.

We strongly urge the DMV to replace exclusion on the testing of autonomous vehicles by type, e.g., vehicles weighing over 10,001 pounds (§227.52), with a uniform approach for all vehicle types, all classes and configurations. Correspondingly, we urge the DMV to consider parameters under which testing of all vehicle classes can occur safely, such as use of closed public road environments with specified permitting. Setting uniform regulations covering all classes of vehicles will facilitate the creation of a holistic, real-world testing environment in which all classes of vehicles will contribute to the collection of data for evaluation, improve safety of all autonomous vehicle applications, and help to ensure that California will continue to lead the nation in advanced transportation adoption, production and deployment.

California is the home to some of the busiest ports in the nation. The Ports of Los Angeles and Long Beach receive approximately 40 percent of the nation's in-bound waterborne goods. Heavy-duty vehicles make up a large percentage of total traffic on Southern California surface roads and highways. By allowing the goods movement industry to conduct highly automated vehicle testing, California can at-once help reduce worsening congestion due to moving goods from the ports to their local, regional and national destinations, and reclaim its position as the innovation leader in goods movement technology, which is threatened by growing competition from other states that already permit heavy-duty autonomous vehicle testing, such as Nevada, which have been attracting large scale vehicle demonstrations in these weight classes.

California is also home to some of the most forward-looking transit agencies in the nation, and there are numerous cities and agencies across California that have been looking at autonomous vehicle applications. If conducted safely and in a desired environment, there are significant opportunities to see these technologies used for transit buses; campus, industry and/or community-based shuttles; and other transit vehicle applications as well. Furthermore, highly automated two- and three-wheeled vehicles, which may be used as courier vehicles and short trip vehicles, offer greater accessibility for individuals and should be included in future transportation strategies; hence, they should be allowed within DMV regulations for vehicle testing.

Significant opportunities exist for autonomous vehicles in low-speed applications such as shuttles and first- and last-mile scenarios, including to and from airports, seaports, transit stations, self-contained communities, stadiums, amusement parks, and other entertainment venues. Unfortunately, the vehicles used for these purposes all exceed the weight threshold allowed in current DMV regulations, which focus on the class of vehicle.

Inclusion of all vehicle classes would benefit businesses; public agencies including public safety entities; traffic and city planners; and individuals, and would create a holistic research and testing environment. In turn, this will be instrumental in developing an implementation strategy that provides safe, consistent regulation, which would serve as a national uniform model for integrating autonomous vehicle technology into the transportation system, as California has done with emissions regulation.

Second, we believe regulations should pave a path for local jurisdictional involvement by providing a series of sample ordinances that municipalities can adopt to become "AV friendly", thereby enabling municipalities to proactively attract autonomous vehicle testing and demonstration, further stimulating industry growth. LAEDC pioneered a

similar approach for the film industry in collaboration with the California Film Commission, creating a Model Filming Ordinance, which offered continuity in film permitting ordinances adopted by individual California cities. The model ordinance can be read here: http://laedc.org/wp-content/uploads/2012/08/ModelFilmOrdinance_final.pdf. Before this Model filming Ordinance, directors and producers were forced to navigate a confounding assortment of laws that varied widely from jurisdiction to jurisdiction. The Model Filming Ordinance has strengthened the film industry in Southern California by eliminating differing, and even conflicting, laws thereby encouraging film makers to keep production in the state.

Parameters should be set for testing of this wider range of vehicles in cooperation with local jurisdictions, such as closing a portion of a public roadway during pre-dawn hours or weekends on roadways which have negligible usage during this off hours. The e4 Mobility Alliance is prepared to work with local governments in creating a model ordinance that allows the uniform adoption of permitting standards, locations, cooperation with local law enforcement, and other criteria to ensure public safety and minimal disruptions.

Indeed, California is uniquely poised to develop the autonomous vehicle industry and testing model as an exportable business opportunity and economic model. But, the LAEDC e4 Mobility Alliance believes there is real urgency to widen the range of vehicles for testing and demonstration, as California has fallen behind other states as a result of DMV's original vehicle class exclusions, causing heavy-duty, transit, through motorcycle-classed vehicle testing to leave for other states, including Nevada, Michigan, Florida, Pennsylvania, Ohio, Wyoming, Arizona, and Texas.

For these reasons, the LAEDC e4 Mobility Alliance strongly urges consideration of the above recommended changes to the State of California's autonomous vehicle regulations, which will ensure that our state continues to lead the nation in transportation innovation. Should you have any questions, please contact Misha Houser, LAEDC staff at misha.houser@laedc.org.

Sincerely,

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