

S T A F F R E P O R T

SUBJECT: Shared Autonomous Vehicles Update

FROM: Christy Wegener, Director of Planning and Communications

DATE: January 23, 2017

Action Requested

None – Information Only

Background

At the June 2016 Board meeting, the Board affirmed their commitment to explore autonomous vehicle technology in Dublin as a partner in the Contra Costa Transportation Authority's (CCTA) Shared Autonomous Vehicle (SAV) project currently underway. LAVTA's SAV pilot will be funded with \$1 million from the Air Quality Management District (AQMD) for *Spare the Air* bus advertising on seven Wheels buses (for up to three years). The funds will be used to join the GoMentum partnership with CCTA, purchase or lease two SAVs, and fund the operation and testing during the pilot.

Discussion

Since the June 2016 Board meeting, the following developments have occurred:

- 1) The AQMD Board approved the advertising contract with LAVTA;
- 2) Staff worked with AQMD on the design of the *Spare the Air* bus wraps (Attachment 1);
- 3) Staff attended the monthly SAV project meetings with CCTA and Stantec staff;
- 4) Staff had one preliminary meeting with the City of Dublin and will be scheduling the next meeting in February to discuss next steps;
- 5) Staff met with Assemblymember Baker to discuss the pathway to legislation;
- 6) Staff worked with CCTA's lobbyist on draft legislation (Attachment 2).

A full presentation on the status of CCTA's project in Bishop Ranch, and next steps for the Dublin SAV pilot, will be delivered at the February 6, 2017 Board meeting.

Recommendation

None – Information only.

Attachments

1. AQMD *Spare the Air* bus wrap design
2. Draft legislation for SAV testing in Dublin

TriValley_30' LF Gillig Hybrid '11 | Wednesday, June 15 2016 20:35:55
CS Full Side



TriValley_30' LF Gillig Hybrid '11 | Wednesday, June 15 2016 20:37:25
SS Full Side



TriValley_30' LF Gillig Hybrid '11 | Wednesday, June 15 2016 20:35:37
BK Full Back



TriValley_30' LF Gillig Hybrid '11 | Wednesday, June 15 2016 20:35:55
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Alternative #1:

SECTION 1. Section 38756 is added to the Vehicle Code, to read:

38756. (a) Notwithstanding Section 38750, the **Livermore Amador Valley Transit Authority** is authorized to conduct a **Shared Autonomous Vehicle (SAV) demonstration** project for the testing of autonomous vehicles that do not have a driver seated in the driver's seat and are not equipped with a steering wheel, a brake pedal, or an accelerator provided the following requirements are met:

(1) The testing shall be conducted only ~~at~~ **within the City of Dublin** ~~a privately owned business park~~ **and the vehicles may traverse** ~~inclusive of~~ public roads within the **area of the demonstration program**.

(2) The autonomous vehicle shall operate at speeds of less than 35 miles per hour.

(b) Prior to the start of the testing of an autonomous vehicle that does not have a driver seated in the driver's seat on or across a public road, the **Livermore Amador Valley Transportation Authority** or a private entity, or a combination of the two, shall do both of the following:

(1) Obtain an instrument of insurance, surety bond, or proof of self-insurance in an amount of five million dollars (\$5,000,000), and shall provide evidence of the insurance, surety bond, or proof of self-insurance to the Department of Motor Vehicles in the form and manner required by the department.

(2) Submit a detailed description of the testing program to the department. The detailed description shall include all of the following:

(A) Certification that, prior to testing on public roads, the autonomous vehicle has been tested under controlled conditions that simulate, as closely as practicable, the real world conditions that the autonomous vehicle will be

subject to during this pilot project, and that the **Livermore Amador Valley Transportation Authority** or a private entity, or a combination of the two, has made a reasonable determination that it is safe to operate the autonomous vehicle on public roads under these conditions.

(B) Evidence satisfactory to the department that the **relevant** local authorities with jurisdiction over the public roads in the designated **area contained within the pilot program** approve of the geographic area and environmental, traffic, and speed conditions authorized for purposes of this pilot project.

(C) Certification that the autonomous vehicle can only operate in autonomous mode in the geographic area and environmental, traffic, and speed conditions authorized in this specific pilot project.

(D) Certification that this pilot project complies, or will comply, with National Highway Traffic Safety Administration guidance, if any, on the safe testing, deployment, and operation of autonomous vehicles.

(E) Certification that the autonomous vehicle used in the pilot project complies with all applicable federal Motor Vehicle Safety Standards, or written evidence that the National Highway Traffic Safety Administration either considers the absence of a steering wheel, a brake pedal, or an accelerator permissible under federal Motor Vehicle Safety Standards or has granted the autonomous vehicle an exemption from compliance with the relevant federal Motor Vehicle Safety Standards.

(F) Identify to the department the autonomous vehicles that are to be tested on public roads during this pilot project. For each vehicle, the manufacturer shall provide to the department the make, model, and model year of the vehicle, the full vehicle identification number, and the license plate number and the state of issuance.

(G) Certification that the vehicle is equipped with a communication link between the vehicle and a remote

operator to provide information on the vehicle's location and status and to allow two-way communication between the remote operator and any passengers if the vehicle experiences any failures that would endanger the safety of the vehicle's passengers or other road users while operating without a driver.

(H) Certification that the autonomous vehicle is designed to detect and respond to roadway conditions in compliance with all provisions of this code and local regulations applicable to the operation of motor vehicles.

(I) A copy of a law enforcement interaction plan, which includes information that the **Livermore Amador Valley Transportation Authority** or a private entity, or a combination of the two, will provide to the law enforcement agencies whose jurisdiction covers the designated privately owned business park to instruct those agencies on how to interact with the vehicle in emergency and traffic enforcement situations.

(c) The operator of the autonomous vehicle technology tested pursuant to this section shall disclose to an individual who participates in the pilot project what personal information, if any, concerning the pilot project participant is collected by an autonomous vehicle.

(d) For the testing of autonomous vehicles within the designated business park, the department may require data collection for evaluating the safety of the vehicles, including, but not limited to, both of the following:

(1) A report to the department of any accident originating from the operation of the autonomous vehicle on a public road that resulted in the damage of property or in bodily injury or death. Accidents shall be reported within 10 days in the form and manner specified by the department pursuant to the regulations adopted by the department under Section 38750.

(2) The submission to the department of an annual report in the form and manner specified by the department

pursuant to the regulations adopted under Section 38750 summarizing information on unplanned technology disengagements that occurred while the autonomous vehicle was being tested on public roads. "Disengagement" means a deactivation of the autonomous mode when a failure of the autonomous technology is detected or when the safe operation of the vehicle required disengagement from the autonomous mode.

(e) This section does not limit the authority of the department to promulgate regulations governing the testing and operation of autonomous vehicles on public roads, with or without the presence of a driver inside the vehicle, pursuant to Section 38750.

(f) It is the intent of the Legislature, in enacting the act that added this section, to address the specific circumstances of the **demonstration** project proposed by **the Livermore Amador Valley Transit Authority**. Pursuant to Section 38750, the Department of Motor Vehicles is developing regulations for the testing and operation of autonomous vehicles, and it is not the intent of the Legislature to influence the content of those statewide regulations through the adoption of the act that added this section, which is only intended to govern the establishment of one local pilot project.

(g) This section shall remain in effect only until 180 days after the operative date of regulations promulgated by the department to allow testing of autonomous vehicles without a driver in the vehicle, on which date any testing of autonomous vehicles by the **Livermore Amador Valley Transit Authority** shall conform to those regulations, and as of the January 1 following that date this section is repealed, unless a later enacted statute, that is enacted before that January 1, deletes or extends that date.