ITE Statement on Connected and Automated Vehicles
(Updated December 4, 2018)

The Institute of Transportation Engineers (ITE) supports the advancement of technology in all areas of transportation and particularly in the development of Connected and Automated Vehicles (CAV). We are optimistic about the innovation and entrepreneurship that the private sector is bringing to our industry. These new technologies have the potential to revolutionize transportation and save thousands of lives.

A strong government role will be critical to ensure that the deployment of CAV improves the quality of life for all citizens. Governments must provide the regulatory oversight to give the public confidence that CAV testing and deployment is being done in a transparent manner and that public safety is not compromised. Governments can also play a key role in working with the private sector to facilitate deployment and remove regulatory barriers to the widespread deployment of **proven** technologies. We believe the private sector must share the responsibility for instilling public confidence in these technologies and ensuring public safety. Structured collaboration is needed among manufacturers, technology developers, infrastructure owners and operators, law enforcement, and relevant government agencies to establish protocols that will help advance safe operations during testing and development.

As a community of more than 15,000 transportation professionals, whose members are active in the development, deployment, and oversight of these new technologies, ITE is recommending the following key tenets for the development of CAV. We recognize that ITE's position and these tenets must evolve as these technologies and the industry mature.

Key Tenets:

1. More than 40,000 people die each year on America's highways and 1.25 million people die worldwide. *This is unacceptable.* Vision Zero must be our goal. **We will only get to zero fatalities and serious injuries through CV/AV technology.**

2. **Clear protocols and measures for testing and evaluation of CAVs must be established.** New technologies must be evaluated in real-world conditions, but only after they have been appropriately tested in off-the-road environments. These protocols must balance between stifling innovation and protecting public safety, but lives should not be sacrificed to achieve business objectives.

3. **Private sector companies and governments must collaborate on data sharing and safety metrics.** Protecting public safety should be viewed as a responsibility not a competitive advantage.

4. Technology can save lives today. **We support the rapid adoption of currently available safety assist technologies**—lane keeping, blind spot warning, adaptive cruise control, automatic braking—on all new vehicles.

5. **Reliance on driver monitoring should be limited to well-defined conditions with proper controls in place.** Additional research and testing is needed concerning the driver's ability to remain vigilant and take over the driving task when required.

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6. **We support pursuit of systems that fully automate the driving task under most conditions, but do not preclude the vehicle being operated by a human driver in unusual or emergency situations**. While it will be challenging to address all driving conditions and situations we believe there are clear opportunities to deploy these systems in controlled environments.

7. **Cooperative systems achieved through communication between vehicles, infrastructure, and other users will provide an enhanced layer of safety and must be advanced.** This ability to communicate will be essential for extending the range of vehicle-based sensing and achieving the full potential of safety benefits envisioned by CAV. Until proven alternatives are available for use, the currently designated 5.9 GHz safety spectrum must be fully protected for use by CAV applications and services.

ITE believes that infrastructure owners and operators, represented by our members, can play an important role in facilitating CAV adoption. Significant knowledge can be gained through pilot deployments and helping the general public increase their awareness of the benefits of these technologies. Challenges such as the lack of nationwide consistency with markings and signage, the need for a national work zone traffic information database, curbspace management, and cybersecurity concerns are examples of the kinds of issues that must be addressed. ITE intends to work with its members to facilitate the advancement of knowledge and practice in these areas.

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