

Date / Time / Location	W 18-Dec-2019 / 09:30 AM – 11:30 AM / PennDOT Central Keystone Building, 8 <sup>th</sup> Floor Board Room (8N1)
Attending/ Representing	<b>HAV Advisory Committee:</b> Meredith Biggica (MB), Mike Carroll (MC), Steve D'Ettorre (SD), Eric Donnell (ED), Robert Evanchick (RE), Thomas Foley (TF), Jason Gerard (JG), Michael Humphreys (MH), Gerardo Interiano (GI), Erik Johanson (EJ), Ted Leonard (TL), Jennifer Liptak (JL), Samuel McLaughlin (SM), Kurt Myers (KM), Michael Pack (MP), Alison Pascale (AP), Nolan Ritchie (NR), Matt Rucci (MR), Kristofer Snader (KS), Ed Thompson (ET), Kelley Yemen (KY)
	<b>Additional Attendees:</b> Roger Cohen (RC), Melissa Froelich (MF), Ngani Ndimbie (NN), Jason Sharp (JS), Kara Templeton (KaT), Kevin Tobias (KeT)
	<b>PennDOT Consultant Team:</b> Jeff Bergsten (JB), Casey Bottinger (CB), Amber Reimnitz (AR), Scott Seibel (SS)

Key Points and Decisions	Action Items
<ol style="list-style-type: none"> <li>1. Advisory Committee Purpose               <ol style="list-style-type: none"> <li>a. Provide direction to PennDOT and the PA AV Task Force based upon what is most current/important to the Committee members' constituents.</li> <li>b. Advisory Committee members were selected as outlined in Act 117 to include a wide range of leaders throughout the Commonwealth.</li> </ol> </li> <li>2. Review of Ongoing Initiatives (KT)               <ol style="list-style-type: none"> <li>a. AV Task Force                   <ol style="list-style-type: none"> <li>i. Purpose to help guide and inform PennDOT</li> <li>ii. Wide range of personnel and expertise which allow for collaboration</li> <li>iii. A vital and important body to inform PennDOT</li> <li>iv. The HAV Advisory Committee is intended to provide direction to the Task Force moving forward.</li> </ol> </li> <li>b. Vehicle Platooning Policy                   <ol style="list-style-type: none"> <li>i. The Vehicle Platooning Policy is currently being reviewed for the testing guidance.</li> </ol> </li> <li>c. AV Testing Guidance                   <ol style="list-style-type: none"> <li>i. Locomation has been testing vehicle platooning at the Columbus Closed Track. They have indicated that they expect to be testing within the Commonwealth in the very near future (next 1-3 months).</li> <li>ii. The PA Truck Platooning identification sticker enables police and law enforcement to identify platooning vehicles.                       <ol style="list-style-type: none"> <li>1. The indicator was based off of the design currently being used by the Province of Ontario, Canada.</li> <li>2. The goal is to standardize the design universally for all platooning vehicles in the US.</li> </ol> </li> </ol> </li> <li>d. PennSTART                   <ol style="list-style-type: none"> <li>i. Partnership between PennDOT, PTC, and PSU</li> <li>ii. Concept is a 110-Acre facility which will mimic many driving scenarios (signalized intersections, at-grade crossings, roundabouts, accel/deccel areas, stop controlled intersections, pedestrian crossings, etc.)</li> <li>iii. The facility will conduct research, testing, and training to help safety and operational needs of PA and the Mid-Atlantic region.</li> <li>iv. Focus areas will include:                       <ol style="list-style-type: none"> <li>1. Traffic Incident Management</li> <li>2. Connected and Automated Vehicles</li> <li>3. ITS/Signals/Tolling</li> </ol> </li> </ol> </li> </ol> </li> </ol>	

Key Points and Decisions	Action Items
<ul style="list-style-type: none"> <li>4. Work Zones</li> <li>5. Commercial Vehicles</li> <li>6. Multi-Modal (including Transit, Bike/Ped, etc.)</li> <li>v. The facility will provide training to emergency responders since they often do not have formal training in advance of encountering many incident scenarios (and instead they are trained “on the job”).</li> <li>vi. Funding for the construction of the facility is in good shape but ongoing maintenance costs for the facility are currently being estimated and evaluated.</li> <li>e. PA AV Summit               <ul style="list-style-type: none"> <li>i. Partnership between ITSPA, MASITE, PennDOT, DCED, and PTC.</li> <li>ii. Steady and gradual increase in attendance since the start of the summit in 2017.</li> <li>iii. Primary goal is to educate and receive feedback on automated vehicle policies and initiatives.</li> <li>iv. The Summit is an integral part of the overall approach to vehicle automation in the Commonwealth and is a vital instrument in the approach to public understanding, awareness, and acceptance of vehicle automation.</li> <li>v. The 2020 Summit will be October 26-28, 2020 in Pittsburgh.</li> </ul> </li> <li>f. Ongoing Research               <ul style="list-style-type: none"> <li>i. AV Incident Response Plan                   <ul style="list-style-type: none"> <li>1. A very comprehensive and complete incident report for first responders to respond/manage an incident should an AV be involved.</li> <li>2. Acts in conjunction with PennTIME.</li> <li>3. Consistency, ongoing coordination and training, and education of the public are key components when discussing incident response.</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>➤ <b>ALL</b> – The Advisory Committee is expected to promote the 2020 PA AV Summit (held in Pittsburgh, PA Oct. 26-28).</li> </ul>
<ul style="list-style-type: none"> <li>3. Review of Draft Vision, Mission, and Goals (JB)           <ul style="list-style-type: none"> <li>a. Vision               <ul style="list-style-type: none"> <li>i. There is a concern that the vision sounds like two separate mission statements and should speak more to the “why” and to the following (at a minimum):                   <ul style="list-style-type: none"> <li>1. Safety of the traveling public</li> <li>2. Advance the acceptance and adoption of the technologies</li> <li>3. Efficient movement of people and goods</li> </ul> </li> </ul> </li> <li>b. Mission               <ul style="list-style-type: none"> <li>i. Move “Global leadership position” from the Mission to the Vision. The mission is to pursue that position.</li> </ul> </li> <li>c. Goals               <ul style="list-style-type: none"> <li>i. Goals should include:                   <ul style="list-style-type: none"> <li>1. Keeping up with changing technology</li> <li>2. Leading collaboration efforts with other states and key players to identify opportunities for states to work together.</li> <li>3. Improving ADA Accessibility</li> <li>4. A comprehensive evaluation of all modes of transportation (taking into account life-cycle issues).</li> <li>5. Assisting with Curbside Access Management Programs</li> </ul> </li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>➤ <b>JB</b> – Revise the Vision, Mission and Goals as per the summary and distribute for review/concurrence/correction.</li> </ul>

Key Points and Decisions	Action Items
<ul style="list-style-type: none"> <li>6. Revising the Vehicle Code with a sustainable structure that does not require extensive changes throughout and can reduce the need for future changes that will be required due to technological advancements.</li> <li>7. Engaging at National, State, and City levels.</li> </ul>	
<p>4. Open Discussion – Year 1 Areas of Focus (JB)</p> <p>Potential Topics –</p> <ul style="list-style-type: none"> <li>a. Vehicle Code Changes <ul style="list-style-type: none"> <li>i. Top priority from the law enforcement perspective. Liability and enforcement issues are of particular interest.</li> <li>ii. Vehicle codes are different in each state which can cause future issues with AVs or platooning.</li> <li>iii. Research what other jurisdictions are doing to find consistency and best practices for testers and law enforcement.</li> <li>iv. Liability issues will increase in complexity as Automation Levels 4 and 5 are experienced.</li> <li>v. There was recognition by the group that legislative changes through the General Assembly are challenging, even if they are minor/small ones.</li> </ul> </li> <li>b. Workforce Development <ul style="list-style-type: none"> <li>i. Number two priority – How do we identify the talent, how do the jobs change, and what is the impact?</li> <li>ii. How do we bring the community together?</li> <li>iii. Leverage research nationally</li> <li>iv. Focus on job needs and opportunities. AVs will provide opportunities for individuals who experience transportation as a barrier to get to work.</li> <li>v. Technology advancements will change the needs of state inspections. <ul style="list-style-type: none"> <li>1. Currently, only 15 states have a safety inspection program. Will the implementation of AVs cause states to consider reinstating their safety inspection programs?</li> </ul> </li> <li>vi. Although AVs will increase the number of jobs, it will cause target job loss. Jurisdictions should be mindful of this when developing training and job development programs.</li> <li>vii. Erica Groshen has done extensive research preparing workers and employers for automated vehicles.</li> </ul> </li> <li>c. Local Government Support <ul style="list-style-type: none"> <li>i. Local agencies plan on longer cycles. There is a need to assist municipalities and local agencies to understand data.</li> <li>ii. How to help municipalities with minimal budgets?</li> </ul> </li> <li>d. Public Outreach <ul style="list-style-type: none"> <li>i. If the public isn't demanding it, it's not being pushed legislatively.</li> <li>ii. What are land use implications of AVs? How does land use come into play?</li> <li>iii. Will there need to be a change in driver's license testing?</li> <li>iv. Drivers education is overseen by the Department of Education. <ul style="list-style-type: none"> <li>1. PennDOT does driver testing – how will this affect other agencies?</li> </ul> </li> <li>v. Partners for Automated Vehicle Education (PAVE) is changing dealer education so it is more robust to deal with the added technologies.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>➤ <b>AV Taskforce Workgroup</b> – Develop an approach outline for each of the 3, Year 1 Areas of Focus (Outreach, Vehicle Code, Workforce).</li> </ul>

Key Points and Decisions	Action Items
<ul style="list-style-type: none"> <li>vi. AAA is working with the National Safety Council for Consumer Reports to make it clear what features should be called/labeled so public knows what they have (auto pilot, Super Cruise, etc.).</li> <li>vii. Drivers education needs to account for distractions. Motorists believe they are safer than they are. Current levels of automation may give a false sense of security.</li> <li>e. Year 1 Areas of Focus include:               <ul style="list-style-type: none"> <li>i. Outreach</li> <li>ii. Vehicle Code Revisions</li> <li>iii. Workforce</li> </ul> </li> <li>f. The Commonwealth is working on its 2020 land use report. This is a good opportunity to provide suggestions on how to connect AVs with land use.</li> </ul>	
<ul style="list-style-type: none"> <li>5. Additional Discussion               <ul style="list-style-type: none"> <li>a. Information should be sent to the Advisory Committee as it is developed. More frequent contact is desired in addition to the three meetings a year.</li> <li>b. A monthly/bi-monthly status report should be sent to the Advisory Committee – however, more urgent updates should be sent between status reports.</li> <li>c. Reminder that Act 117 requires a yearly report from this Advisory Committee.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>➤ <b>AV Taskforce Workgroup</b> – Determine desired materials and frequency of updates communicated to the Advisory Committee.</li> </ul>
<ul style="list-style-type: none"> <li>6. Adjournment               <ul style="list-style-type: none"> <li>a. Meeting adjourned at 11:14 AM</li> </ul> </li> </ul>	