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TECHNICAL MEMORANDUM

TxDOT IAC – Technical Support to the CAV Task Force

DATE: September 10, 2020

TO: Zeke Reyna, TxDOT
Strategic Research Analyst, CAV

COPY TO: TTI_Reports@tti.tamu.edu
Tim Hein, Research Development Office, TTI
Ed Seymour, Executive Associate Agency Director, TTI
Robert Brydia, Senior Research Scientist, TTI

FROM: Beverly Kuhn, Research Supervisor
Senior Research Engineer Texas A&M Transportation Institute

RE: Licensing and Registration
August 25, 2020 Meeting Notes

Attendees:

Aidan Ali-Sullivan	Nuro
Alison Pascale	Audi of America
Anne O’Ryan	AAA Texas
Brian Moen	City of Frisco
Jason JonMichael	City of Austin
Maniel Vineberg	CAVWAY
Marcelle Jones	Stantec
Monika Darwish	Embark
Rachelle Celebrezze	Cruise
Rob Braziel	Texas Automobile Dealers Association
Tammy Meehan Russell	Plum Catalyst LLC
Shelly Mellott - CHAIR	Texas Department of Motor Vehicles
Bob Brydia	Texas A&M Transportation Institute

Beverly Kuhn	Texas A&M Transportation Institute
Andrea Chacon	Texas A&M Transportation Institute
Brittany Gick	Texas A&M Transportation Institute
Jeremiah Kuntz	Texas DMV
Liz Fishback	Argo AI
Allan Rutter	Texas A&M Transportation Institute
Ed Seymour	Texas A&M Transportation Institute
Stacey Bennett	EasyMile
Terry Martinez	TxDOT Government Affairs Division
Zeke Reyna	Texas Department of Transportation

I. Opening Comments/Roll Call – Zeke Reyna, TxDOT

- Zeke welcomed the group to the 3rd Licensing & Registration subcommittee meeting.
- Expressed sympathetic thoughts toward anyone in path of hurricane
- Appreciated everyone participating in survey
- Will continue to use Mural today
- Took roll call of all attendees.

II. Chair Welcoming Statement – Shelly Mellott.

- Shelly welcomed everyone
- Reviewed survey that determined White Paper
- TTI working on draft outline from which all participants received via email
- Thanks in advance for participation

III. Review Meeting Structure – Beverly Kuhn

- TTI reviewed the agenda and discussed using MURAL to support commenting on the white paper outlines.
- White Paper Polling Results

IV. White Paper Outline: Facilitated Discussion

- Terminology
 - Intended for all subcommittees
 - List has morphed though each subcommittee meeting
 - Intended to address specific CAV terms/topics
 - Platform for all subcommittees, all WP’s, all audiences
 - Will provide references
 - 12 Terms were added at this meeting
- Licensing and Registration – Outline order updated at this meeting
 - Public Agency Roles and Responsibilities - companies using vehicles (motor carriers/owners)
 - USDOT—AV research funding and coordination, interstate motor vehicles

- NHTSA—federal motor vehicle safety standards (FMVSS) on vehicles
 - Texas DPS—driver licensing for personal and commercial operations, traffic law enforcement
 - Texas DMV—vehicle registration (road use fees) and titling (vehicle ownership)
 - TxDOT—infrastructure provision and safety, state and federal funding, safety on roadways
 - Texas Department of Insurance—regulates property and casualty insurance, including mandatory motor vehicle coverage, insurance requirements
 - Municipalities—sidewalk regulation and roadway law enforcement
 - Municipal can only regulate speed if they desire in pedestrian areas. (PDD’s can drive on roadways too)
 - PDD’s on roadways can operate up to 20 mph. Type of roadway no restricted by speed limit.
 - Municipalities seem to be agency with most direct Texas resident contact
 - Operators of all types AV’s are not required to notify or work with municipalities who ultimately have the most day to day interaction
 - FMCSA
 - FAA
 - ADA
- Private Roles and Responsibilities
 - OEMs and AV developers—equipment and software
 - Vehicle owners and operators, public and private
 - Property owners and developers supporting experimentation
 - Customers and passengers
- Types of Automated and Connected Vehicles Active in Texas (focus on vehicle – not operator of vehicle)
 - Large and small freight vehicles operating on roadways with safety drivers
 - Autonomous vehicles on roadways (delivery but not people; no human driver)
 - Autonomous freight vehicles on roadways
 - Shuttles and robotaxis carrying people on roadways
 - Statute that deals with taxicabs and local jurisdictions (passenger carrying for-hire vehicles)
 - Sidewalk/Non-Roadway Vehicles
 - Make clear: passenger vehicles; vehicles used for commercial purposes
- Licensing (drivers/operators) – motor carrier credentialing / registration of companies
 - Consider audience objective of making sense to legislature but don’t limit scope to them only. Goal is to make roads safer for all
 - What are the Current Licensing Requirements for Different Types of Vehicles?

- What is Expected of an Automated and Connected Vehicle in Texas? Safety drivers? Remote Operators? Owners/programmers?
 - Data sharing? Not required now
 - Direct interaction with public as a municipality
 - Most companies okay with 2017 law allowing operations (SB 2205)
- What Are Gaps in Licensing Requirements for CAVs?
- Title and Registration – Distinction between drivers/operators (who is responsible for making them move) and vehicles (who builds them). Between these sections, what is required on a vehicle wrt code; how the state regulates who builds/operates vehicles
 - What are the Current Registration Requirements for Different Types of Vehicles?
 - What is Expected of an Automated and Connected Vehicle in Texas? Do sidewalk-based personal delivery devices need to be registered with municipalities to operate on public sidewalks?
 - Do sidewalk-based vehicles need a connected vehicle connection to signals?
 - What Are Gaps in Registration Requirements for CAVs?
- Training and Education of Audiences (consider how this intersects/overlaps Education committee)
 - Legislature
 - General Public
 - Pedestrians & bicyclists
 - Passengers in AVs
 - Drivers and vehicle owners
 - Commercial Drivers and trucking companies
 - Governmental Agencies
 - Public agencies
 - Elected Officials,
 - Local staff, police, fire, etc.
 - Other NGO's
- Other Regulations / Issues
 - Current Federal Safety Standards
 - FMVSS
 - FHWA safety planning and CAVs
 - High-level Summary of State laws on vehicle operations that can affect CAV interactions
 - Bike and pedestrian regulations
 - Need for better requirements on visibility/ markings. Drivers voiced concern over not being able to see them.
 - No requirements for PDD's to cross at signal intersection. Are distance limits needed, ped timing requirements for connected vehicle solution
 - Passenger vehicles
 - Commercial vehicles
 - Law enforcement issues with current or proposed CAV licensing or registration regulations

- Case Studies of Other State/Locality Licensing and Registration Requirements for consideration
 - Frisco: Drive AI Project
 - Possible ODD work
 - Arizona (executive order approach)
 - California
 - Florida
 - Wyoming, NYC, FLA (CV Pilog); clarify that it is connected and not AV
 - Smart Columbus
- Balancing Regulatory Posture and Economic Development
 - Section 545.454 Transportation Code Has Encouraged Deployments and Innovation
 - Sec 552A has done same by covering PDDs and Mobile Carrying Device
 - What Are Scenarios for Public Expectations for Regulation and Risk Management with More CAVs on the roads?
- Opportunities for Texas
 - Awareness of restrictions on municipalities
 - Requirement of industry company notify municipalities of testing
 - Vehicle inspection requirements for ZOV's
 - Franchise dealer laws and impacts on AV manufacturers also owning/operating in state
 - Upcoming Legislative Session
 - What Is Expected to Be Filed? (*possibly reword and/or omit*)
 - Overarching themes that could be problematic moving forward: vehicle inspection requirements, manufacturer/dealer laws, etc.
 - Discussion on manufacturer and owner issue (if manufacturer for only their own use, they cannot be an owner in State of Texas)
 - Unified framework across the state at statewide level (e.g. notification)
 - What Could Be Filed to Advance CAV Development in Texas? What Legislation Might Be Necessary to Maintain Texas' Leadership Posture?
 - Longer term state changes
 - Why are we proposing whatever we do? For example, we want to make Texas roads safer. Then say how this proposal would accomplish that.
 - Accomplishments for vehicles that are not necessary if the vehicle is an AVS and doesn't have a driver
 - Update vehicle code to be relevant for the types of vehicles on the roads
 - Longer term federal changes
 - Industry definitions that are not in the vehicle code
 - Regulatory authority vs legislative action

➤ Zero-occupant vehicle, ODD, etc.

V. Next Steps – Shelly Mellott / Zeke Reyna

- Shelly encouraged everyone to continue thinking on these topics and communicate their thoughts after the meeting.
- Beverly told the group the next phase was to develop a draft of the WP's and provide a copy to each member of the subcommittee prior to the next meeting
- An updated /re-ordered outline will be sent out next week prior to the writing
- The next meeting will be held in roughly 4 weeks (near the end of September)

VI. Closing Remarks – Shelly Mellott

- Zeke Thanked everyone for a great discussion beneficial for the whole task force.
- Don't hesitate to reach out for you have any additional thoughts.
- Shelly expressed appreciation for everyone's participation.