TECHNICAL MEMORANDUM

TxDOT IAC – Technical Support to the CAV Task Force

DATE: September 1, 2021

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: Education, Communication, and User Needs
                 August 11, 2021, Meeting Notes

Attendees:

Ami Parikh	Stantec
Blake Calvert	Texas Department of Transportation
Bobby Cottam	Burns and McDonnell
Brad Wheelis	Texas Department of Transportation
Brian Moen	City of Frisco
Darran Anderson	Texas Department of Transportation
Greg Winfree - CHAIR	Texas A&M Transportation Institute
Hannah Barron	Austin Transportation Smart Mobility Office
Jordan (Alex) Payson	City of Austin
Karan Khosla	HDR, Inc.
Kathleen Baireuther	Ford
Katie Herbek	Ford
Krishna Satti	Michael Baker International

Mia Zmud	Central Texas Regional Mobility Authority
Reza Langari	Texas A&M University
Robert Brydia	Texas A&M Transportation Institute
Tina Geiselbrecht	Texas A&M Transportation Institute
Zeke Reyna	Texas Department of Transportation

I. Opening Comments/Roll Call – Zeke Reyna, TxDOT
- Welcome to all subcommittee members
- Roll call of members and attendees
- Introduced meeting facilitators.

II. Chair Welcoming Statement – Greg Winfree, Chair, Texas A&M Transportation Institute
- Thanks to all for time and energy supporting this important topic
- Communication, education and outreach is such an important component of this committee as well as the whole CAV Task Force
- Makes sense to poll the activities of the other committees to figure out where their outreach and education thought processes led them
- Information needed to frame where we are as well as the challenges and opportunities:
  - Who are the audiences?
  - What is the method for reaching them?
  - K-12 – seek to be impactful and expand from there
  - Reach out to those organizations in tune with our constituents

III. Review of Meeting Structure – Robert Brydia
- Recap of last meeting
  - Voted on topics and opportunities identified at the end of last year
  - Set us in motion for topic on which we begin our focus
- Today's Mural Board Overview
- Inviting open discussion from subcommittee
  - Opinions
  - Thoughts
  - Questions

IV. Subcommittee Discussion – Robert Brydia (facilitator)
- **TOPIC**: Develop a communication plan addressing audiences, messages and outreach mechanisms
  - Need for information sessions (K-12) and interactive sessions (about to utilize the technologies)
  - Internship programs could be a part of the educational process
  - Use professional organizations to help spread the message
  - Haven't yet defined the information that needs to be shared. How do we do that? Consultant?

- Partnering with ISDs
- Encourage the private companies here in Texas to join up with local districts for STEM outreach.
- Additional audience might be other communicators for agencies doing pilots--suggested outreach tactics and messaging they can used based on best practice.
- Do we need to define and end goal? What result are we seeking with educating the public? Are we just familiarizing them with various technologies? Do we want them using technology already available?
  - educate them and provide them an experience in order to build trust so they can be accepting and become users.
  - Trust building
  - And who is the communications plan for? TxDOT? All agencies?
- Goals: Excitement? Skills? Knowledge?
  - Do we want them to understand how vehicles work?
  - Do we want them to be more comfortable?
  - Do we want to encourage people to buy these vehicles?
- Audiences and engagement strategy that would be involved in outreach to each particular audience
- Audiences Identified:
  - Audience: Public involvement add on
  - Audience: K-12
  - Audience: Professional orgs: APA, etc.
  - Audience: Public through DPS?
  - Audience: University students, several disciplines
- Hands on opportunities within industry:
  - Town Hall Touch it Feel it
  - STEM demonstration
  - Demo pilots to other communities
- Need to discover:
  - Audiences and what information goes to each audience
  - Audiences and mechanisms to reach them
  - Audiences and when to communicate with them
- In the absence of having demonstration, need to consider the "ask" about communication. Why should the public (or a specific public) care about what we are telling them?
- Linkages to groups like PAVE
- build trust of public so they will use these technologies to realize the potential safety benefits they can provide. It will also help us to realize the improved mobility it could provide for "all" users.
- Do people overrate these technologies / Are technologies overstated by some OEMs? Provide realistic understanding.
- Do we want to be a promoter of technology and trust?
  - Likely to an arc of trust as tech develops. Is there education as to how this develops?
  - Trust. Our value is advisor and advice on what current capabilities are and what tech is working towards current / forthcoming / future

- o Dynamic playbook - can change over time. Allows "us" to all communicate effectively and with a single voice. But who is "us"? TxDOT? All state agencies?
  - Dispel current myths?
- o What does building trust mean?.... Agency: We wouldn't let an operator operate without it being safe. OEM: Our technology is safe. Various approaches to building trust and who owns the approaches.

- **PRODUCT:** Communications Outreach Plan

- **WORK EFFORT**
  - o Subcommittee Interviews: What are their expectations of us?
    - Licensing: ADAS/ADS;
    - Freight? First responder education, public understanding from PDD to long haul
    - Potential future workforce subcommittee, skills, degrees, changing roles
  - o Education expertise: 2 generation model (kids and parents)
  - o Distinguish types of plans
    - Communications plan: Typically, 1-way style
    - Engagement plan: Typically, 2-way style (disseminate and collect information)
  - o Do we want to gauge how things (trust, etc.) change over time?
  - o Look broadly across different communities to get their input and the information we send
  - o Our education can be more impactful if people can be experiential and tactile
  - o Engage with RELLIS, CIEDAR, NTinnovation alliance, etc. on how to bring CAV TF info to students and excite them about new careers
  - o TxDOT look at potential support contract

V.   Wrap Up – Zeke Reyna / Greg Winfree
- Full Task Force meeting tomorrow
- Looking forward for opportunity for everyone to be involved.
- Thank you for your participation

VI.   Closing Remarks – Greg Winfree
- We've had a pretty robust discussion, honing in on our bullseye
- We have a very challenging mission as it covers every aspect of the CAV Task Force and is part of everyday life of our end users.

Comments from Chat:

[11:14 AM] Encourage the private companies here in Texas to join up with local districts for STEM outreach.

[11:19 AM] Would it be useful to start a list of audiences?

[11:22 AM] In the absence of having demonstration, need to consider the "ask" about communication. Why should the public (or a specific public) care about what we are telling them?

[11:23 AM] Do we need to define and end goal? What result are we seeking with educating the public? Are we just familiarizing them with various technologies? Do we want them using technology already available?

[11:25 AM] educate them and provide them an experience in order to build trust so they can be accepting and become users.
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[11:26 AM] Yes, trust building!

[11:27 AM] And who is the communications plan for? TxDOT? All agencies?

[11:28 AM] In rural - is it farming equipment?

[11:36 AM] Is it build trust of public so they will use these technologies to realize the potential safety benefits they can provide. It will also help us to realize the improved mobility it could provide for "all" users.

[11:37 AM] Great Point. Fighting misinformation is critical and helps to build trust Brian is mentioning. Building trust builds public acceptance.

[11:39 AM] I took a closed course defensive driving course when I was younger where you got to actually practice emergency breaking and swerving and understand how a vehicle actually performed in an emergency, perhaps partnering with an organization to have similar for ADAS systems where people can actually get in a car and see how systems works. It's tricky because they all work slightly difference but showing capabilities and limitations in a setting like this could be valuable

[11:41 AM] Agree - Providing information so individuals can make informed decisions