



Texas A&M Transportation Institute
3135 TAMU
College Station, TX 77843-3135
979-317-2863
<http://tti.tamu.edu>

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: Freight and Delivery Subcommittee
August 10, 2021, Meeting Notes

Attendees:

Aisa Showery	Texas Department of Transportation
Andrea Gold	Texas Innovation Alliance
Anna McAuley	University of Texas Center for Transportation Research
Beverly West	Texas Department of Transportation
Brent Skorup	Mercatus
Brian Moen	City of Frisco
C. Michael Walton, Co-Chair	UT
Caroline Mays	Texas Department of Transportation
Dan Middleton	Texas A&M Transportation Institute
Daniel Goff, Co-Chair	Kodiak
Darran Anderson	Texas Department of Transportation
David Millikan	WGI
Gerardo Interiano	Aurora

Giacomo Yaquinto	Texas Department of Transportation
Jeff	Autonomy Institute
Jimmy Archer	TxDMV
Jordan Coleman	Kodiak
Karan Khosla	HDR, Inc.
Katie Herbek	Ford
Kristie Chin	University of Texas Center for Transportation Research
Mia Zmud	Central Texas Regional Mobility Authority
Monika Darwish	Embark
Morgan Avera	University of Texas Center for Transportation Research
Rama Dhanikonda	City of Plano
Robert Brydia	Texas A&M Transportation Institute
Tom Bamonte	North Central Texas Council of Governments
Zeke Reyna	Texas Department of Transportation

I. Opening Comments/Roll Call – Zeke Reyna

- Welcome to all subcommittee members
- Roll call of members and attendees
- Introduced meeting facilitators.

II. Chair Welcoming Statement - Daniel Goff

- Thanks for joining today
- Looking back over past few years, exciting to see how far we’ve come

III. Review of Meeting Structure – Robert Brydia

- Recap of last meeting
 - Looked at Opportunities introduced in White Paper
 - Prioritized and voted with majority choosing “How Do we Encourage Pilots and Trials?”
- Today’s Mural Board Overview
- Inviting open discussion from subcommittee
 - Opinions
 - Thoughts
 - Questions

IV. Subcommittee Discussion – Robert Brydia (facilitator)

- **TOPIC:** What can Texas do to continue to ensure forward thinking operational opportunities for AV freight companies? What are the main issues and how can they be addressed?
 - Really key regulatory and policy question is how do AVs interact with enforcement activities (especially without drivers)?

- How to create pilots in cooperation with some of the federal components (borders for example)
- First responder interaction education - working with DPS, local police, and other first responder stakeholders
- Question arises as to who leads pilots? How would they be executed, led, funded?
- Developing a challenge for freight systems in Texas. Like Minnesota CAV Challenge.
- Identify where this subcommittee's efforts fit in with TxDOT efforts
 - Planning
 - Investment
 - Decision-Making
- Desire for a tangible product that can influence decisions and planning.
- This group should be a key advisor to SB 1308 work products
- Does this include drones, etc? other freight delivery modes than ground
- How should regional planning organizations plan for AV freight deployments?
- **PRODUCT**
 - Operational Deployments Issues Paper
 - Workshop to work with law enforcement stakeholders and first responders.
 - Recommendations on next steps. So TxDOT...how do you move these elements forward?
 - AV or drone sandbox. Company can test bleeding edge capabilities
 - How can TxDOT respond to goods movement
 - Safety
 - Workforce
 - Economic
 - TxDOT Freight Advisory committee is one avenue to integrate with. Group has industry reps, but not AV.
 - TxDOT freight plan update is coming up. how to provide input and put into the broader freight context in TxDOT
 - TxDOT Border Trade Advisory committee. Cross border environment.
 - Does AV freight industry have some collective sense of what DOT investments will do the most good to accelerate deployment/commercialization? May be humble stuff that needs to be done, but how can TxDOT target limited resources most effectively in this sector?
 - Does the TxDOT budget the Lege just approved for the next two years include any funding for investments in innovative stuff--e.g., "sandbox" or competition--that folks have been referencing?
 - How does Law enforcement and first responders engage with a vehicle when there's no driver? How to facilitate and provide assurance.
 - What data is useful and when and where and how to make this exchange happen in a robust and useful manner
 - Engage municipalities with what they've seen.
 - what can TxDOT do to facilitate what TxDOT can do for companies to operate in corridors?

- An idea is to provide information through the Commercial Vehicle Information Exchange Window (CVIEW) to get the word out to state law enforcement entities regarding CAV.
 - Possible Secondary Product: Framework for an “Operational Assistance” Plan
- **WORK EFFORT**
 - Industry Interviews
 - AV developers: Divisions in TxDOT
 - Identify some key projects (law enforcement, supporting 1308 and planning, 1-2 others)
 - Interim discussions between meetings
 - Examine potential for multiple tracks of work efforts - especially ways to stay engaged in between meetings.
 - TxDOT launching update to freight mobility plan. Subcommittee can help TxDOT determine the shape of the plan.
 - Group makes presentations to TxDOT freight committee.
 - Subcommittee acts as advisory for recommendations (make sense, does it advance operational needs)
 - Programs
 - Policy
 - Projects
 - Identify workstreams / Identify leads from subcommittee
 - Propose more active version of voting with action, volunteering to lead
 - Create list
 - Ask for volunteers

V. **Wrap Up – Zeke Reyna**

- Good discussion today
- Thursday is Full Task Force meeting

VI. **Closing Remarks – C. Michael Walton**

- Good discussion to build on
- As we get into this, we can look for opportunities that exist with urban area input

Comments from Chat:

[3:28 PM] Does the TxDOT budget the Lege just approved for the next two years include any funding for investments in innovative stuff--e.g., "sandbox" or competition--that folks have been referencing?

[3:32 PM] Does AV freight industry have some collective sense of what DOT investments will do the most good to accelerate deployment/commercialization? May be humble stuff that needs to be done, but how can TxDOT target limited resources most effectively in this sector?

[3:40 PM] An idea is to provide information through the Commercial Vehicle Enforcement Information Window (CVIEW) to get the word out to state law enforcement entities regarding CAV.

[3:42 PM] Sorry, it's the Commercial Vehicle Information Exchange Window . . .

[3:48 PM] As part of the Drone Sandbox and use of UAS, it may be worthwhile to integrate technology companies with TxDOT's HERO's operators along with first responders (workshop) for pilots and future adoption strategies...

[3:52 PM] This might be of interest re: I-20 connected corridor: [AIVIA Orchestrated Connected Corridors - Ferrovial](#). Fort Worth/NCTCOG/Cintra are pursuing an ATCMTD grant for a project using this tech on the North Tarrant Express (I-35W/SH-183) corridors.