

## Governor's Advisory Council on Connected and Automated Vehicles

### Meeting Agenda

July 14, 2021

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#### *Finalizing Minnesota's CAV Guiding Principles and Understanding CAV in Long-Range Planning*

1. **10:00 Welcome** – *Commissioner Margaret Anderson Kelliher and Phil Magney, Council Co-Chairs*
  - Deputy Commissioner Nancy Daubenberger filling in for Commissioner Anderson Kelliher. Nancy has led the Interagency CAV Team for the last few years and works closely with many of the GAC Ex-officio members. Nancy noted we are excited the Med City Mover Autonomous Shuttle project in Rochester is moving forward with route mapping and programming and there is a lot of news coverage of the project as the shuttles begin to hit the roads in this preparation stage.
  - Co-chair Phil Magney noted VSI has been busy collecting data from all over the country and examining roadway conditions like lane marking and plans on bringing the AV Readiness study results to the GAC later this fall. Phil also noted NHTSA new ruling that requires Level 2 vehicles to report collisions that involve vehicles with ADAS engaged.
  - **Council Member Attendees:** Nancy Daubenberger (for Co-chair Anderson Kelliher), Co-chair Phil Magney, Ryan Daniel, Dan Chen, Bret Weiss, Meredith Armstrong (for Jon Hausladen), Patrick Weldon, Danielle Elkins
  - **Ex-officio member and guest attendees:** Jason Gadd, Rep. Connie Bernardy, Margaret Donahoe, Brian Reu, Todd Biewen, Tarek Tomes, Thom Petersen, Mike Hanson, Randy Sanford, Gina Baas, Jon Beck, Charlie Zelle, Kevin McKinnon, Rohit Tandon, Jim Plummer, Joan Willshire, Chris Hadfield, Sarah Psick, Jacqueline Buck, Adesewa Adesiji, Bryan Nemeth, David Fenley, Zach Cairns, Mark Phillips, Alice Roberts-Davis, Emily Smoak, Fawkes Char
  - **MnDOT attendees:** Kristin White, Tara Olds, Jay Hietpas, Ben Lowndes, Philip Schaffner, Josh Pearson, Eric Klute, Ray Starr, Kevin Chan, John Dukich, Erik Rudeen, Cory Johnson, Mike Kronzer
2. **Last Meeting Recap**
  - Kristin White, CAV-X, shared what we heard from the last GAC meeting, including hearing from USDOT, Alliance for Auto Innovation, Partners for Automated Vehicles Education (PAVE), and ITS America.
  - Discussion focused on infrastructure recommendations, engagement toolkits, equity, and future proofing our transportation system.
3. **Minnesota CAV Guiding Policy Principles**
  - Jay Hietpas, Assistant Commissioner of Operations at MnDOT presented the Interagency CAV Team's policy principles when adopting CAV policy, programs, and directing CAV investments.

The goal for today is to have the GAC to adopt and make the formal recommendation to the Governor for the state to adopt to align all CAV-related work in Minnesota.

- Guiding Principles provide further guidance on how to invest that summarizes how the state of Minnesota can move forward together. They were developed after reviewing work from around the country, focusing on equity and sustainability, and moving the Council's vision, goals, and values forward. Document includes comments from ICAV and GAC members over the last few months.
- I-CAV member Wendall Meyer, FHWA, spoke about the importance of technology advancing public policy. The principles continue to show how Minnesota is a leader nationally going back to Guidestar work of the past to where Minnesota leads with MAASTO and AASTHO work today. These principles help us advance forward and prepare our transportation system for the future.
- I-CAV member Gina Baas, U o M CTS, spoke about how the principles were developed very intentionally with a lot of refinement and discussion. The principles were developed with a high-level macro view with all of the agencies participating.
- **Safety is Paramount** – focuses on taking a systems approach and ensuring we create a system that is safe for all roadway user
  - Wendall Meyer (FHWA) – safety is top priority for USDOT and FHWA and fully support this principle. Although the principles are not listed in any hierarchal order, safety is priority.
  - Brian Reu (DPS) – been involved with ICAV since the beginning and excited about the potential safety benefits of CAV. Want to ensure policy allows to work with existing infrastructure and is safety tested.
- **Advancing Transportation Equity** – focuses on how we can engage with communities in meaningful ways, can address existing transportation barriers and not create or further existing ones into the future
  - Wendall Meyer (FHWA) – equity is a focus of the administration. It is important to provide multi-modal choice and access to those choices
  - Jason Gadd (Hopkins) – from a local government perspective, it is important to have equity as a part of everything we do
- **Promote Public Health and Sustainability** – focuses on the state's enterprise sustainability goals and MnDOT's Sustainability Report to reduce greenhouse gas emissions and energy consumption
  - Bret Weiss (WSB) – when putting together these guiding principles, we want to make sure we don't lose focus and the principles don't allow us to move things forward.
  - Kristin White (CAV-X) – noted that we have heard from partners and industry about the importance of cross-collaboration in these areas
  - Nancy Daubenberger (MnDOT) – it will be important to find a balance of all of these principles and ensure we stay focused on CAVs but also important to recognize the crossover between electric vehicles as we move work forward
- **Prioritize Shared Mobility and Accessibility** – focuses on integrating modes that may be connected and automated in the future and the opportunity to create shared mobility which many communities are already developing and ensuring that our work benefits all Minnesotans with all abilities.
  - Myrna Peterson (Mobility Mania (offline comment)) – expressed importance of this principle for all communities, urban, suburban, and rural
  - Gina Baas (U of M CTS) – we want to ensure there are options for people and they aren't limited by minimal transportation options available to them

- Danielle Elkins (Minneapolis) – we are working on interoperability of mobility options with mobility hubs
  - Kristin White (CAV-X) – we could consider including specific reference to mobility hubs is the council desires
- **Innovation** – focuses on taking strategic, calculated, and mitigated risks, identify gaps in research and continue to grow and invest in the space while sharing our learnings with one another. We need to keep our contracting and procurement methods flexible and nimble with technology constantly changing.
  - Gina Baas (U of MCTS) – when we are open to the possibilities, we foster the environment for innovation. CTS is very supportive of this principle as researchers have many ideas and there are many opportunities to partner and build collaborative opportunities. We have the opportunity to get large federal grants awarded to Minnesota. Minnesota is on the national stage presenting at the ARTSTRB annual conference where there has been focus on rural AVs and freight – two areas of opportunities for Minnesota to help further with public and private partnerships.
  - Wendall Meyer (FHWA) – innovation is paramount within FHWA with Every Day Counts Initiatives and is really about public and private partnerships and the research behind it. FHWA strongly supports.
  - Phil Magney (VSI Labs) – VSI, like the U of M, can be a bridge to industry and help connect technology providers to the state of Minnesota.
- **Agile Transportation Investment** – need to play for short, mid, and long term to integrated CAV technologies into our system but recognize how quickly technologies can change. There are opportunities to invest in CAV through public and private partnerships and be strategic with our investments
  - Wendall Meyer (FHWA) – unknown risk of not knowing what things will look like in 50 years so creating policy direction at a state level can help us get there. We want to balance regulation while not stifling innovation
- **People-focused Policy** – need to center our laws and guidance on people and ensure we are benefiting the communities we serve. We need to inform the people in Minnesota about CAV so they can help us plan for CAV and be a part of the decision-making process.
  - No comments
- **Economic, Prosperity & Quality of Life** – transportation has the opportunity to connect people to many things including jobs, education, communities, and opportunities. We know the CAV will have economic and workforce impacts and we need to prepare Minnesota for the most opportunities in the area.
  - Phil Magney (VSI) – there are so many opportunities with technology, policy, maintenance and is excited to share opportunities in the CAV field with future generations available to them
- **System Resiliency through Data Access and Security** -focuses on importance of creating safe and secure data that can be shared across government and industry
  - Damien Riehl (FastCase) – if you don't need the data today, don't collect it today because it might be used against you tomorrow
- Council Members voted to adopt the CAV Guiding Principles and recommend to the Governor that all state and public agencies adopt and follow these Principles
- The Principles will be published on the MnDOT CAV website and shared with stakeholders.
- Thank you to the CAV-X Office, I-CAV, and the GAC for developing the Principles and getting us to this point!

4. **CAV in Minnesota Transportation Plans** – Director of Statewide Planning, Philip Schaffner, discussed CAV scenario planning, which includes possible 2040 Futures – not predicted that one specifically would happen and assume mixed fleet with all scenarios. Futures included: (1) Advancing technology; (2) Connected infrastructure; (3) Private automation; (4) Integrated mobility.

### Key Assumptions (2040)

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
CV	15% vehicles	75% of vehicles	50% of vehicles	75% of vehicles
AV	15% Level 3	50% Level 3	75% Level 4+	75% Level 4+
MaaS	5-10% of travel (up to 20% in cities)	5-10% of travel (up to 20% in cities)	50% of travel	75% of travel

Truck platooning common in all. Freight services highly automated in all but Scenario 1

Key takeaways include: Statewide stakeholders identified top 2

opportunities as safety and equity. The

top 2 challenges are ensuring CAVs can advance equity and the implementation. We heard that the state needs to be cautious to promise benefits without having tools to ensure they're realized. The most common questions or points of confusion include: (1) How much ITS/support infrastructure is required? How much will it cost? Who is responsible? Who will maintain? (2) Will CAV increase or decrease the need for separation between motor vehicles and people walking, rolling, and bicycling?

### Statewide Multimodal Transportation Plan

Philip overviewed the SMP, which is developed by MnDOT but covers all transportation. MnDOT is working to update it in 2021. The current plan's goals are: Open decision making, transportation safety, critical connections, system stewardship, healthy communities. Focus Areas include:

- Aging Infrastructure, Climate changes, Economy and Employment, Equity, Safety, and Transportation Options
- Check out more at: [MinnesotaGO.org/Stories](https://MinnesotaGO.org/Stories)
- Transportation Equity working definition: *Transportation equity ensures the benefits and burdens of transportation spending, services, and systems are fair, which historically have not been fair, and people – especially Black, Indigenous and People of Color – are empowered in transportation decision making*

**State Highway Investment Plan (MnSHIP)** directs capital investments on state highway network, which is fiscally constrained for 20 years, focuses on performance and risk and is categorical not project specific. Investment strategies to support advancing technology

GAC members and meeting attendees shared reactions to the plans with emphasis on:

- Equity and safety and ensuring we prioritize communities that have the opportunity to benefit most from investments including BIPOC, disability communities, and other historically underserved and excluded populations
- Priority long-term investment areas of broadband, pedestrian safety, and transit priority
- Plan updates should take into consideration changes resulting from the pandemic like populations shifting from urban to suburban and rural for specific demographics.

- If people would like to provide more input, please visit MinnesotaGO.org and contact Philip if you'd like his staff to present to another organization or group.

5. **Future Meeting Topics** –Council members shared ideas on future speakers and topics which included:

- Cavnue, company focused on CAV infrastructure is interested in engaging with other states outside Michigan
- Minnesota businesses advancing work in CAV and identify how the decisions we are making can benefit companies and the state at the same time
- Chuck Marohn from Strong Towns
- Innovation Alliance updates: (1) Outreach and Communications Committee demo planning; and (2) Safety Committee is defining CAV safety principles.

6. **Public Comment**

- Joan Wilshire (Wilshire Consulting) – Appreciated the focus on people with disabilities and equity. Group is moving forward on so many pieces of policy and Joan urges the GAC to be more intentional about including people with disabilities specifically with Guiding Principle on accessibility to ensure inclusion of people with disabilities in addition to other groups identified

7. **Closing**

- CAV-X shared the Med City Mover automated shuttle project in Rochester, MN is aiming to carry public riders in late August. Check out more at the project website at [www.medcitymover.com](http://www.medcitymover.com)
- CAV-X shared that MnDOT is trying to provide an automated shuttle for one day of the Minnesota State Fair in addition to the U of M's Level 2 vehicle that will be on display.
- Nancy thanked the GAC for all their work and the ICAV members who joined today to move the Guiding Principles forward. Thanks for everyone's participation and discussion regarding CAV and long-range planning that help drive a lot of the work of the council forward.
- Phil appreciated all the input from the breakout sessions on CAV in long range planning and thanks all council member and attendees.

*Council adjourned*