

Washington State AV Work Group - Infrastructure and Systems Subcommittee December 13th, 2019 \mid 9:00 am – 12:00 pm

WSDOT HQ Nisqually Board Room | 310 Maple Park Ave SE - Olympia, WA 98501

Attendees:

First Name	Last Name	Organization
Robert	Acevedo	HDR
Bruce	Agnew	ACES Northwest
Amanda	Anderson	Peloton Technology
Logan	Bahr	Association of Washington Cities
Ted	Bailey	Washington State Department of Transportation (WSDOT)
Calvin	Beaton	Urban Logiq
Gaia	Borgias	University of Washington, Mobility Innovation Center
Erica	Bramlet	Washington State Senate Transportation Commission
Daniela	Bremmer	WSDOT
Brian	Brooke	Sound Transit
Sheri	Call	Washington Trucking Association
Marc	Daily	Thurston Regional Planning Council (TRPC)
Andrew	DeSalvo	Independent public policy research
Mike	Ennis	Association of Washington Business
Mariya	Frost	Washington Policy Center, Coles Center for Transportation
Ricardo	Gotla	WSDOT
Chris	Grgich	Intelligent Transportation Society of Washington (ITS-WA)
Eric	Hahn	City of Vancouver
Azmeena	Hasham	Verizon Smart Communities
Carol	Kirsch	WSDOT
Don	MacKenzie	University of Washington, Civil and Environmental Engineering
Francesca	Maier	Fair Cape Consulting
John	Milbrath	AAA Washington
Roger	Millar	WSDOT
Kyle	Miller	WSDOT
Markell	Moffett	WSP USA
Ron	Pate	WSDOT
Jeff	Peterson	First Transit
Eric	Pierson	Chelan County
Anna	Powell	CompTIA
Dana	Quam	Washington State House of Representatives
Dhyana	Quintanar-Solares	WSP USA

First Name	Last Name	Organization
Michael	Transue	Association of Global Automakers
Rae	Tu	HDR
Shannon	Walker	Seattle DOT
Andrea	Weckmueller-Behringer	Walla Walla Valley Metropolitan Planning Organization
Mike	Wendt	WSDOT
Bryce	Yadon	Futurewise
Joey	Yang	HDR

WELCOME, INTRODUCTIONS, OPENING REMARKS

Roger Millar & Mike Ennis

- Walkthrough agenda
- Go-To-Webinar remote participant process
- Introductions (in-person and remote)

Topic closed.

PUBLIC COMMENT

• No public comment.

Topic closed.

ULC AV MODEL BILL

Ted Bailey

- Washington State Transportation Commission (WSTC) and Representative Hudgins requested that AV Work Group Subcommittees review the ULC AV Model Bill and provide feedback before end of 2019
- Background on introduction of ULC Model Bill in Washington State
 - o Intent of the ULC Model Bill is to start a conversation
 - o Anticipate WA DOL and WSP to heavily modify to fit for WA State
 - Member of ULC AV Model Bill drafting committee presenting to AV Work Group Executive Committee at May 6th, 2020 meeting
- To-date, the subcommittee has received feedback from 5 entities:
 - o Chelan County
 - o Teamsters Joint Council 28
 - o Self-Driving Coalition for Safer Streets
 - o Fair Cape Consulting
 - Washington Policy Center
 - o Liability Subcommittee also shared their compiled feedback
- Feedback received to-date is vast, covers every aspect of the model bill

- **ACTION ITEM**: Any subcommittee member / meeting attendee that intends to provide feedback on the ULC AV Model Bill, submit to Ted Bailey by December 20th in writing
- Discussion:
 - o Concerns that the ULC model bill is moving forward into 2020 legislative session without going through AV Work Group process and review
 - Intent of this Work Group is to vet ideas such as this model bill
 - Difficult to participate in the process when the AV WG is not used
 - Hope to see the bill go through Work Group process when it is dropped in session
 - o Bill gives new authority to state agencies, restricts and regulates car manufacturers more than desired
 - o ULC Model Bill intended to regulate only deployments of Level 3 thru 5 AVs and not regulate AV testing is likely premature
 - Do not want to ignore risks associated with ADAS on the roads today
 - Limited training for drivers with ADAS-equipped vehicles
 - No standards for ADAS functionality
 - Need to determine level of regulation needed (local, state, federal) for ADAS technologies
 - Hope to see WA legislature focus on actual risks to the traveling public today, not on future unknown risks
- **ACTION ITEM:** Ted Baily will compile all feedback received by December 20th and send to the WSTC, copying subcommittee members and will post to the AV Work Group subcommittee's webpage.

Topic Closed.

2019 ACTION PLAN SUMMARY / DISCUSSION

High Level Review of 2019 Action Plan

Ted Bailey

- Activity #1: Developing a "Best Practices" Policy Summary Document
 - o Accomplished all Activity #1 actions planned for 2019
 - Assemble Cooperative Automated Transportation (CAT) and related policy and planning documents – local, regional and national
 - Review and evaluate assembled documents for applicability in Washington
 - Conduct in-depth review of selected examples
 - Develop a document and website that communicates products of Activity #1
 - o Will continue efforts with 2020 action plan
- Activity #2: Develop project selection criteria and potential funding approaches for pilot deployments
 - o Proved more difficult than anticipated; Some actions carried over into 2020 action plan
 - Reviewed Seattle DOT project selection scorecard
 - Evaluated other states' activities related to project selection criteria
 - Compiled initial list of potential funding sources

- Work continuing into 2020 fed by Activity #1 adopted policy goals, will progress as Activity #1 progresses
- Activity #3: Conduct open dialogue collaboration discussions with companies self-certified to test AVs in Washington
 - o Completed outreach to 12 companies self-certified in Washington as of October 2019
 - o Will continue process in 2020 as additional companies self-certify
 - Year-end report compiled by Peloton and PACCAR on driver-assistive platooning activity conducted in Washington during 2019 (next agenda topic)

• Discussion:

- O Activity #2 Subcommittee is working to identify potential grant programs to fund future pilot projects. Has the concept for the pilot projects been identified?
 - Still in work. Subcommittee completed a survey identifying potential ideas for pilot deployments and prioritized the list (last page of 2019 Final Action Plan document) and decided to examine criteria instead of prescribing specific pilots.
 - The 2019 work plan focused on developing project section criteria to be proposed to legislature rather than propose specific projects
 - Activity #1 efforts will help drive what pilot deployments could be considered, based on how they relate to the adopted policy goals and strategies and selection criteria
 - Actions developed under Activity #1 will likely translate to pilot ideas
 - Desire for pilot to focus on the entire transportation ecosystem and how a CAT/AV pilot would best meet policy goals, tie to strategies, and have engaged stakeholders ready to support the effort
 - Goal of Action Plan activities are to develop a 'suite of options' to drive pilot deployment selection using the to be developed criteria
 - List of grant programs available
 - Criteria of grant programs and applicability to CAT efforts
 - List of potential pilots to choose from
 - How listed pilots achieve/align with goals and criteria (e.g. infrastructure needs, regulatory barriers, equity etc.)
- o AV Work Group is a place for information sharing, a place to bring initiatives in advance to be vetted by the group
 - Discussions and actions going on outside of the Work Group that can inform, educate and inspire activities of Work Group, needs to be shared – Some examples include:
 - Senator Hobbs included a first/last mile pilot in budget, totaling \$1 million
 - WSDOT working with transportation demand management to deploy the pilot
 - o Pilot paused because of ballot initiative 976
 - Connected signal timing
 - o WSDOT (and all other DOTs) involved in the signal phase and timing (SPAT) challenge for years now
 - Central Puget Sound, Southwest Washington corridor put technology in traffic signal control boxes to talk to emergency vehicles, vehicles equipped with dedicated short range communication (DSRC) technology
 - Utah is using technology on high-transit corridors in Salt Lake City area for signal priority

- Also connected to snowplows for traffic light priority if plow blade is down
- WSDOT considered developing an AV pilot test area within a geofenced area to rollout AV testing
- o WSDOT focusing on overarching CAT concept; AV Work Group was charged with focusing on connected/autonomous vehicles specifically
 - AV Work Group focusing on vehicles, rather than entire transportation system
 - Looking for more focus on mobility, rather than the mode used (e.g. vehicle)

Topic closed.

Activity #3 - Partnership and Collaboration Discussions with Private Sector Companies Amanda Anderson, Peloton

- Transparency and partnership of companies in Washington pursuing truck platooning (as well as other companies self-certified in Washington to test AVs) is well appreciated
 - o Willing to share information, look at data sharing, engage with public sector
 - o These companies are looking at this as "this will only work in a collaborative public-private sector relationship," while others may view it as "we [private sector] don't need you [public sector]"
 - O Rather than ask if public sector has inherent rights to data in the public right of way, ask a business if you are putting a business plan together than relies on public agency partnership to be successful, isn't it good business practice to collaborate and share the relevant data?
 - Example: Just-in-time deliveries with reduced warehousing, worked well with unlimited, congestion free roads...now warehouses are needed again to accommodate business needs in current traffic conditions
- Presentation Activity 3, Action 2 "SAE Level 1 and 2 Truck Platooning Report" Amanda Anderson (Peloton Technology)
 - o Peloton is a C/AV technology company, developing systems to create efficiencies, save fuel, save lives
 - Peloton was asked to present a 2019 year-end report on driver assisted testing in Washington State
 - Expanded scope of report to include general context and country-wide activity, international activity, regulatory landscape, etc.
 - o How platooning systems work
 - Makes vehicles safer (e.g. automated emergency braking on every truck)
 - Vehicle-to-cloud connectivity to help supervise platooning on appropriate roadways and conditions
 - Dedicated video/radio link for the following truck to have view of the lead truck, allows communications between follow and lead trucks
 - Trucks are linked together with DSRC and Vehicle-to-Vehicle (V2V) technologies
 - Following distance approximately 40 to 60 ft, varies by technology provider
 - Lead truck similar to regular truck equipped with similar technologies Eyes on the road, hands on steering wheel, eyes ahead
 - Follow truck varies based on AV level (1 or 2)
 - Level 1 Similar to adaptive cruise control
 - o System actively engaged

- o Breaking and acceleration automated
- Follow truck driver still actively involved, eyes on road, actively scanning
- Level 2 Less engagement from Follow truck driver
 - o Feet off pedals
 - o Not actively steering
 - O Driver assistive, so even though driver is not steering, must still be actively engaged and able to take over when needed

o Benefits:

- Safety Crash reduction and crash congestion-related fuel savings
- Driver teamwork Enhanced driver teamwork and awareness
- Fuel savings Average 7% fuel savings across pair of trucks
- Air quality Corresponding reductions in greenhouse gas emissions and diesel emissions
- Insight High quality data analytics for fleets
- Mobility Increased freight efficiency and mobility
- o Platooning engagement and testing timeline in Washington State (2017-2019)
 - Started when Peloton reached out to WSDOT and Washington State Patrol (WSP) to understand testing opportunities following Governor's executive order
 - Peloton and PACCAR conducted track testing at Mt. Vernon test center
 - Reached out to several agencies to discuss highway testing and exploring platooning under existing executive order, which was focused on higher levels of automation
 - Confirmed that testing driver assistive technologies would support intent of executive order
 - Prior to highway testing, Peloton and PACCAR held a one-day demo with WSP to show how the system works, engagement levels of drivers, how platooning enhances teamwork, etc.
 - Peloton and PACCAR actively involved in trying to advance policy recommendations in coordination with the AV Work Group
- o Highway test on I-5
 - Peloton and PACCAR self-certified with Washington Department of Licensing to test AVs on public roadways
 - Goal of test to improve quality of platooning for a specific PACCAR truck model
 - Conditions: Non-inclement weather, on appropriate roadways (geofenced), during non-peak traffic hours
 - Two participating trucks equipped with PlatoonPro, previously safety-validated in Texas and California
- o Truck platooning activity happening across the country
 - Fleet trials
 - Peloton fleet trial field results consistently positive, no hard braking events, approximately 7% fuel savings, cut-ins only occurring every 620 miles (approximately one per driver shift)
 - Customer routes
 - Interstate platooning trials
 - Platooning activity occurred in at least 16 states through 2019
- FHWA has three truck platooning initiatives
 - o FHWA Human Factors Truck Platooning Project investigating human factures affecting car drivers traveling near a driver-assistive truck platoon

- o FHWA Truck Platooning Early Deployment Assessments 3 project teams assessing technical and operational aspects of DATP truck platoons in commercial service
- o FHWA CARMA Platform Promoting development by industry, universities and government of cooperative adaptive cruise control (platooning is one form)
- Department of Energy (DOE) and U.S. Army also pursuing truck platooning efforts
 - DOE ARPA-E NEXTCAR program Looking to improve fuel economy of Class A trucks by 20% by modifying/enhancing vehicle controls
 - o DOE American Center for Mobility Develop and demonstrate an SAE Level 4 truck platooning system by 2020, controlling throttle, braking and steering
 - o U.S. Army exploring applications of platooning for battle and supply chain delivery
- Highly automated platooning outlook (SAE Levels 3 thru 5)
 - o Automated Following Systems
 - Hybrid between levels 1 and 4
 - Human-driven lead truck
 - Systems will continue to use reliable V2V systems
 - On-highway testing, with safety drivers, expected in 2020
 - Locomotion, Peloton, Scania
 - o Fully Automated Platoons (Level 4)
 - Pairs two fully autonomous trucks connected through V2V, removing driver completely
 - Allows trucks to travel together through platooning
 - Achieves fuel economy, labor savings
 - Bosch, Volvo, Tesla, Continental
- 32 U.S. States have updated laws to allow for SAE level 1 and 2 truck platooning
 - o 5 states allow testing
 - o 5 states allow limited commercial deployment
 - o Current Washington State law prevents truck platooning from being deployed because of "following too close" law
 - Allowed to test under executive order, law would need to be altered for actual deployments
 - Washington State currently does not allow higher levels of automation to be deployed
 - Testing can be conducted now
 - Need to evaluate timing of law revisions to support higher automation deployments, if not needed now, suggest focusing on other near-term items
- National context:
 - o Driver-assistive truck platooning complies with federal law
 - o No federal law changes needed for commercial deployments
 - o USDOT, USDOE and others participating in and funding studies
 - o USDOT AV Policy Guidance 3.0 calls on states to remove barriers to truck platooning
- International context:
 - o 12 countries actively engaged in truck platooning testing and deployment
 - o To date, no country is exploring Level 5 platooning yet
 - o German activities conducted first sustained platooning trial using real fleet drivers and real operations
- No new highway or communications infrastructure is needed; Platooning works with existing infrastructure (per 2018 Florida study)
- How can Washington State further enable truck platooning?

- Formal recognition that connected vehicle solutions can operate under Governor's Executive Order 17
- Enact Platooning Testing Allowance Legislation (with a formal commercial freight testing allowance)
- o Separate distinction of levels 1-2 from levels 3-5 in AV Work Group recommendations
- o Address Existing State Laws Regarding Video Screens in Vehicles (RCW 46.37.480)

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- Noted that Safety Subcommittee working on revising this state law (RCW 46.37.480), expecting recommendation in 2020
- o Flexibility is key
- Final Activity 3, Action 2 "SAE Level 1 and 2 Truck Platooning Report will be posted to AV Work Group website by end of 2019

Activity 1: Developing a "Best Practices" Policy Summary Document

Francesca Maier

- o Recap of what happened in Year 1 (2019)
 - Several documents reviewed
 - 11 active subgroup participants
 - Refocused efforts to deliver a recommendation in 2019 focused on policy goal statement revisions
 - Subgroup revised policy goal statements, subcommittee voted and statements taken to AV Executive Committee and WSTC in 2019 for review and endorsement to adopt
 - Updated the original WSDOT CAT Policy Framework template to account for newly adopted policy goals, revising to be Statewide Infrastructure & Systems CAT Policy Framework
 - Introductory text revised
 - Policy goal statements updated
 - Developed interim strategies and illustrative actions to start next phase of Activity #1 efforts
 - o Each subgroup participant submitted at least one strategy and one action for each policy goal
 - As of December 2019, now 9 active participants
 - Looking to gain more engagement and input between meetings to be most effective and efficient
 - Revised draft policy framework audiences
 - Inform Activity #2 efforts
 - Informational for 2020 Legislative session
 - Local partner discussions
 - Announcing and promoting AV Work Group efforts
 - Other AV Work Group subcommittees (6)
- o Provided detailed list of what changed between WSDOT and Infrastructure & Systems CAT Policy Framework documents (*see presentation slide 10*)
- Year 2 (2020) Work Plan
 - o Main activity to develop strategies and actions
 - Conducting this effort remotely, periodically, is slowing progress
 - Looking to hold a workshop to actively facilitate discussion on strategies and actions

- o Current 2020 Work Plan timeline
 - Deadline: September 24, 2020 Executive Committee meeting
 - March 11, 2020 Strategy and Action Workshop
 - March/April 2020 Incorporate workshop results into a revised draft
 - April 2020 Subcommittee meeting: Full subcommittee review and initial endorsement
 - May 6, 2020 Executive Committee briefing
 - June 2020 Subcommittee meeting: Final subcommittee endorsement
 - June 24, 2020 Executive Committee meeting: Present to Executive Committee with recommendation to adopt
 - May 6, 2020 Executive Committee meeting
 - July-September 2020 Revised based on Executive Committee feedback and collaboration with other Subcommittees
 - September 2020 Subcommittee meeting: Final subcommittee endorsement (if revised July-Sept)
 - September 24, 2020 Executive Committee meeting: Final presentation and recommendation (if revised July-Sept) to Executive Committee
 - November 15, 2020 Deadline for recommendations for 2021 legislative session
 - December 2020 Subcommittee meeting
 - March 2021 Subcommittee meeting
- o 2020 Tasks
 - Receive and incorporate feedback on current draft policy framework
 - Hold strategy and action workshop
 - Finalize policy framework for adoption
- Workshop proposal and vision to hold an icebreaker, discuss objectives and rules of engagement, organize actions into strategies, assign strategies to goals and receive buy-in from attendees to finalize document
- O Suggest requiring registration for workshop to know attendees in advance, and for ability to assign pre-work (e.g. draft and submit actions for discussion)
- o Many sources of potential actions and strategies from previous framework document, Activity #1 document reviews, document revisions, etc.
 - Already gathered 200 illustrative actions
 - Workshop should be well-facilitated to sort, assign and prioritize actions to strategies to goals
 - Seek transparency and consent in workshop
 - Workshop logistics
 - Date: March 11, 2020
 - Location: Olympia WSDOT MATS Lab
 - Duration: Half or full day, TBD (depends on attendees)
 - Participants Goal of 30 people or less
 - o Activity #1 members
 - o Activity #2 and #3 representatives
 - o Other Subcommittee members
 - o Representatives from other AV WG Subcommittees
 - o Goal-related subject matter experts
 - o WSDOT staff
 - o If you have a strong opinion on this topic, please attend the workshop

• Discussion:

- o All of the efforts of Activity #1 subgroup volunteers is very well appreciated
- o 2020 Work Plan looks like a heavy lift, a lot of work to get through in condensed timeline
- o **ACTION ITEM**: Anyone who wants to participate in March 2020 workshop, email Daniela Bremmer and Francesca Maier email noting interest
- Noted that March 11th is three days prior to end of legislation session, some may be unable to attend workshop
 - Suggestion to allow sending of proxies if unable to attend workshop Request to provide background to proxy so they can come prepared
- o Do not want to spend first part of workshop leveling the knowledge base of attendees, suggest pre-workshop engagement with attendees
 - Work should be done to synthesize actions prior to pre-workshop engagement so refined actions list can be provided to attendees
 - Webinar or teleconference
 - Provide workshop materials in advance to allow attendees time to absorb
 - Walk through actions to discuss in workshop, provide time for questions
- o WSDOT working to identify a facilitator for workshop
 - Enables Activity #1 subgroup and others to focus on content, not process
 - Needs to be independent, objective, neutral
- As an attendee puts an idea on the table, needs to have ability to define and describe the idea in more detail
- Need to encourage and promote attendance from diverse group of interested parties to get the right voices to the table
 - Suggestion not to have an abundance of the same type of stakeholder (e.g. 70% WSDOT attendees)
 - Subcommittee co-chairs can perform individual outreach to desired attendees if provided a list of what entities are missing

Activity 2: Project Selection Criteria

Robert Acevedo

Overview

- o How do we get projects implemented...how do we get them funded...strategies to facilitate
- o Activity had a slow start, activity is contingent on Activity #1 efforts to help identify and guide criteria selection
- o Action Items for Activity #2
 - Evaluate Seattle Pilot Evaluation Scorecard
 - Evaluate criteria from existing grant programs
 - Incorporate recommendations from Activity #1
 - Assess feasibility of new criteria against deployment scenario priorities identified by subcommittee

Progress

- o Compiled "comprehensive" (moving target) list of funding sources
 - Became sizeable document very quickly
 - Need to figure out how to continue to keep this up to date
 - Encouraging to see US Department of Energy grant funding opportunity in the Peloton presentation – indicates that other entities are looking for funding opportunities in this space

- Taking different approach than current spreadsheet of funding opportunities
 - Individual Funding Breakdown Example: ATCMTD
 - o Developed an infographic / fact sheet on ATCMTD grant
 - o Infographic outlines what the grant entails, focus areas, current projects, funding caps, etc.
 - Look at previous and current projects what type of projects are being awarded grants, what are they trying to achieve, how that aligns with CAT goals
 - Pursuing this approach for other funding opportunities for better presentation and consumption of information
- o Suggestion to look at funding potential of program itself Where DOT, DOL, etc. may be going forward in the future
 - Example: Multimodal account is not on front burner for WSDOT, underlying grant programs may not have funding potential moving forward
- Once strategies and actions are identified (Activity #1), can use these resources to identify
 what grant programs have funding potential and align with CAT goals, strategies and
 actions
- o 5 other states are more advanced in reviewing investment guidelines Minnesota, Colorado, Pennsylvania, Virginia and Florida
 - 21 investment categories that they value and want to push as initiatives moving forward
 - Activity #2 subgroup learning from these 5 states and their investment review activities
- Activity #2 2020 Work Plan
 - o Ongoing: Continue to update funding tracker
 - o March: Participate in Activity #1 workshop start to merge these groups/activities together
 - o April May: Prepare a gap analysis of Activity #1 strategies and actions compared to criteria of existing grant sources
 - What are we missing?
 - Key goals or initiatives we want to accomplish that do not have potential funding sources
 - o May: Identify impacts from introducing CAT strategies to existing programs
 - o July: Identify gaps in funding and eligibility
- Scorecard
 - o Scorecards present a way to measure projects against each other and against goals
 - o Activity #2 subgroup looked at Seattle DOT and Florida DOT scorecard examples
 - o Seattle DOT focused on consumer approach, more objective, softer grading process
 - o Florida DOT straightforward scoring and ranking, self-scoring
 - o Start conversation on approach...How best to funnel criteria into this type of mechanism
 - Need to figure out how to develop a scorecard and grade/prioritize CAT pilots/projects without data to feed criteria to include in scorecard

REVIEW PROPOSED 2020 ACTION PLAN

Daniela Bremmer

- A lot of work was accomplished in 2019, 8 policy goals were adopted shows work being done is deliberate, thoughtful and meets the goals of the subcommittee
- 2020 Action Plan Activity #1 Target/Goal: Develop a Washington State CAT Policy Framework

- o Action 1: Finalize WA State CAT Policy Framework to be presented to the 2021 Legislature
 - Develop strategies and actions to support the 8 adopted policy goals
 - Hold a workshop (planned for March 2020) to vet strategies and actions
 - Challenging timeline
 - Subcommittee review in April
 - Executive Committee briefing in May
 - Final subcommittee endorsement in June
 - (ongoing through 2020) Communicate with and encourage participation from 6 other subcommittees
 - Finalize for adoption by Executive Committee in September
 - Present to Executive Committee for formal vote/adoption in September
- o Action 2: (carry over from 2019) Conduct in-depth review of policy examples, and identify qualitative and quantitative performance measures for policy goals, strategies and actions
- 2020 Action Plan Activity #2 Target/Goal: Develop high-level project selection criteria and summarize funding opportunities/approaches to enable near-term pilot deployments
 - o Action 1: (carry over from 2019) Build on near-term pilot survey and priorities to develop project selection criteria
 - o Action 2: (carry over from 2019) Update and continue to identify potential funding opportunities and approaches
 - Activity 1 efforts feed directly into this
 - Identify impacts of introducing CAT ideas into existing grant programs
 - Identify gaps in eligibility for funding, develop recommendations
 - Action 3: Based on progress to date, deliver recommendations to Executive Committee in September
- 2020 Action Plan Activity #3 Target/Goal: Summarize information gathered from private companies currently self-certified to test automated vehicles in WA State
 - o Continue to use open dialogue approach as new companies self-certify
 - o Potentially reach out again to companies already contacted responsive and non-responsive
- 2020 Action Plan Activity #4: What else do we want to accomplish in 2020?
 - o Activity #1, 2 and 3 present a full plate for subcommittee efforts in 2020
 - o As the subcommittee and its members meet with the Executive Committee and legislators, other activities may come up organically

Topic Closed.

GROUP DISCUSSION / APPROVAL: 2020 ACTION PLAN

Roger Millar & Mike Ennis

- Review of 2019 activities and plan for 2020
- Planning workshop in March 2020 to develop strategies and actions (next phase of Activity 1) Looking for appropriate representation and participation

Topic Closed.

MEETING ADJOURNED.

Upcoming Meetings: Participate and/or listen in remotely

- December 13th, 9am-12pm: **Infrastructure and Systems Subcommittee**, WSDOT HQ Olympia WA WSDOT HQ Building Nisqually Conf Room 310 Maple Park Ave SE Olympia WA
- December 17/18th, **Transportation Commission Meeting**, WSDOT HQ Olympia WA WSDOT HQ Building Nisqually Conf Room 310 Maple Park Ave SE Olympia WA
- March 11, 2020: Infrastructure and Systems Subcommittee Activity #1 Workshop, Olympia WA
- April 2020 (Date/Time TBD): Infrastructure and Systems Subcommittee, WSDOT HQ Olympia WA WSDOT HQ Building Nisqually Conf Room 310 Maple Park Ave SE Olympia WA
- May 6th, 9am-2pm, **Autonomous Vehicle Work Group Executive Committee** Meeting SeaTac Airport Conference Center in the International A Conference Room.
- June 2020 (Date/Time TBD): Infrastructure and Systems Subcommittee, WSDOT HQ Olympia WA WSDOT HQ Building Nisqually Conf Room 310 Maple Park Ave SE Olympia WA
- June 24th, 9am-2pm, **Autonomous Vehicle Work Group Executive Committee** Meeting SeaTac Airport Conference Center in the International A Conference Room.
- September 2020 (Date/Time TBD): Infrastructure and Systems Subcommittee, WSDOT HQ Olympia WA WSDOT HQ Building Nisqually Conf Room 310 Maple Park Ave SE Olympia WA
- September 24th, 9am-2pm, **Autonomous Vehicle Work Group Executive Committee_Meeting SeaTac** Airport Conference Center in the International A Conference Room.
- October (Date/Time TBD), Transportation Commission Meeting, WSDOT HQ Olympia WA WSDOT HQ Building Nisqually Conf Room 310 Maple Park Ave SE Olympia WA

-----November 15th, 2020: Deadline for WSTC Annual Report to the Legislature ------

- December 2020 (Date/Time TBD): Infrastructure and Systems Subcommittee, WSDOT HQ Olympia WA WSDOT HQ Building Nisqually Conf Room 310 Maple Park Ave SE Olympia WA
- December (Date/Time TBD), Transportation Commission Meeting, WSDOT HQ Olympia WA WSDOT HQ Building Nisqually Conf Room 310 Maple Park Ave SE Olympia WA
- March 2021 (Date/Time TBD): Infrastructure and Systems Subcommittee, WSDOT HQ Olympia WA WSDOT HQ Building Nisqually Conf Room 310 Maple Park Ave SE Olympia WA