



**COLORADO**

Department of  
Transportation

## **Statewide Transportation Advisory Committee (STAC)**

**June 23, 2017**

**9:00 AM – 11:30 PM**

**CDOT HQ Auditorium, 4201 E. Arkansas Ave., Denver, CO**

### **Agenda**

- 9:00-9:05** **Welcome and Introductions** – Vince Rogalski, STAC Chair
- 9:05-9:10** **Approval of May Meeting Minutes** (pgs. 2-19) – Vince Rogalski
- 9:10-9:20** **Transportation Commission Report (Informational Update)** (pgs. 20-28) – Vince Rogalski
- Summary report of the most recent Transportation Commission meeting.
- 9:20-9:40** **TPR Reports (Informational Update)** – STAC Representatives
- Brief update from STAC members on activities in their TPRs.
- 9:40-9:55** **Chief Engineer Report (Informational Update)** – Joshua Laipply, CDOT Chief Engineer
- 9:55-10:10** **Federal and State Legislative Report (Informational Update)** – Herman Stockinger & Andy Karsian, CDOT Office of Policy and Government Relations (OPGR)
- Update on recent federal and state legislative activity.
- 10:10-10:20** **Break**
- 10:20-10:40** **SB 267 Discussion Update (Informational Update)** (pgs. 29-32) – Herman Stockinger (OPGR) and Debra Perkins-Smith, Division of Transportation Development (DTD)
- Discussion on approach to SB 267.
- 10:40-10:55** **Road X (Informational Update)** (pgs. 33-46) – Peter Kozinski, Road X Program Director
- Overview of the connected vehicle ecosystem.
- 10:55-11:10** **Colorado Road Usage Charge Pilot Program (Informational Update)** (pgs. 47-66) – Tim Kirby, DTD
- Overview of Colorado Road Usage Charge Pilot Program and summary of pilot results.
- 11:10-11:25** **Transportation Planning Toolkit (Informational Update)** (pgs. 67-76) – Tim Kirby, DTD
- Overview of the upcoming Transportation Planning Toolkit series.
- 11:25-11:30** **Other Business**- Vince Rogalski
- 11:30** **Adjourn**

STAC Conference Call Information: 1-877-820-7831 321805#

STAC Website: <http://www.coloradodot.info/programs/statewide-planning/stac.html>

**Draft STAC Meeting Minutes  
May 19, 2017**

**Location:** CDOT Headquarters Auditorium  
**Date/Time:** May 19, 2017, 9:00 a.m. – 11:30 a.m.  
**Chairman:** Vince Rogalski, STAC Chair  
**Attendance:**

In Person: Vince Rogalski (GV), Michael Yohn (SLV), John Adams (PACOG), Norm Steen (PPACG), Doug Rex (DRCOG), Roger Partridge (DRCOG), Bentley Henderson (SW), Jim Baldwin (SE), Thad Noll (IM), Barbara Kirkmeyer (UFR), Mark Arndt (UFR), Elizabeth Relford (UFR), Pete Baier (GVMPO), Commissioner Sidny Zink (District 8), Commissioner Shannon Gifford (District 1), Commissioner Kathy Hall (District 7).

On the Phone: Commissioner Gary Reiff (District 3), Commissioner Kathy Connell (District 6), Terry Hart (PACOG), Trent Bushner (EA), Katie Sickles (GV), Keith Baker (SLV), Becky Karasko (NFRMPO), Sean Conway (NFRMPO), Steve Cook (DRCOG).

<b>Agenda Items/ Presenters/Affiliations</b>	<b>Presentation Highlights</b>	<b>Actions</b>
<p>Introductions &amp; April Minutes / Vince Rogalski (STAC Chair)</p>	<ul style="list-style-type: none"> <li>• Review and approval of April STAC Minutes. No corrections or additions.</li> </ul>	<p><b>Action:</b> <i>Minutes approved.</i></p>
<p>Federal and State Legislative Report / Herman Stockinger and Andy Karsian (CDOT Office of Policy and Government Relations)</p>	<p><b>Presentation</b></p> <ul style="list-style-type: none"> <li>• <u>State:</u> <ul style="list-style-type: none"> <li>○ SB 267 was approved and is slated to be signed by the Governor.           <ul style="list-style-type: none"> <li>▪ Makes the Hospital Provider Fee an Enterprise, which increases flexibility for the rest of the General Fund.</li> <li>▪ Authorizes the Treasurer to execute lease purchase agreements for a total of about \$1.88 billion for transportation (as early as July 2018).</li> <li>▪ Funds must be used for strategic transportation projects identified in the STIP or Tier 1 of the Development Program.</li> <li>▪ At least 10% of these dollars must go to transit.</li> <li>▪ At least 25% of the funds must be expended in counties with populations below 50,000.</li> </ul> </li> </ul> </li> </ul>	<p>No action taken.</p>

- The first \$50 million to pay back lease purchase agreements comes from existing CDOT revenue.
- The remaining \$100 million to come from the General Fund or other sources.
- SB 228 transfer of \$79 million will still occur for FY18.
- CDOT staff will continue working to refine scope, schedule, and cost estimates for the Tier 1 Development Program project list and will share that with STAC and TC next month for review and discussion.
- There is still the possibility of a petitioned ballot measure come November.

**STAC Comments**

- Vince Rogalski: One of the facets of HB 1242 was a share of the revenue for counties, but that's not included in SB 267, right?
- Herman Stockinger: That's correct.
- Thad Noll: Is there any detail on how that 10% of transit would be allocated?
- Mark Imhoff: Not at this time – we were preparing for the distribution system outlined under HB 1242 but of course this is a different approach. We expect that a large percentage of these funds would probably go into our CCCP pool, but we will bring that discussion to the STAC.
- Pete Baier: Is it assumed that SB 267 funds are only for capital, rather than maintenance?
- Herman Stockinger: Well currently the Tier 1 list is mostly that type of project, rather than maintenance, but we could potentially add those types of projects to the list if the TC and STAC feel that is a priority.
- Sean Conway: We have our top priorities identified in each of the regions – will you be working from those in deciding what projects to fund with SB 267?
- Herman Stockinger: I expect so, although this is a smaller pot of money than HB 1242 so we might have to scale some of those top priorities down to ensure that every region gets some of their priorities covered.
- Commissioner Zink: There is the added complication of having to spend 25% of funds in counties with less than 50,000 people, so we may want to think about having different sets of criteria for those projects versus the others and make sure we maximize the funds statewide.

- Barbara Kirkmeyer: Given that we only meet here together on a monthly basis, maybe it would be a good idea to establish a STAC subcommittee to discuss those criteria in the interim and make sure that CDOT is on the right track rather than getting in trouble at the next meeting.
- Thad Noll: I think that this is a process that should be more based on staff expertise, so I don't see the need for us to be involved between meetings. It should be an iterative process between the two groups.
- Barbara Kirkmeyer: I think we all recognize that this is a political process as much as technical, so it's important to have that regional buy-in from the start. We will be the ones trying to sell these projects to the citizens of the state so we should be involved from the start.
- Vince Rogalski: We should also remember that this is a 4-year process, so the funding won't be distributed all at once.
- Josh Laipply: I will leave it up to the STAC to determine whether or not they want a subcommittee to work on this, but I will emphasize that it is critically important that STAC and staff remain united on this issue moving forward so that we present a united front to the public and can deliver the selected projects in a timely manner.
- Barbara Kirkmeyer: I agree and I think the way to remain united is to ensure that there is local buy-in throughout this entire process so there is not a perception that this is "CDOT's List".
- Pete Baier: When do we think that we would need this list completed by? When would it be presented to the TC?
- Debra Perkins-Smith: There's no set time period according to the TC, and I think it's important to get that buy-in rather than jumping right in. I would say we have between 6 and 9 months to really work through it.
- Commissioner Reiff: I think it would be really valuable to spend time working on the criteria and process for determining the final list, which will help take some of the politics out of the discussion.
- Vince Rogalski: As Executive Director Bhatt said yesterday, this is a first step and we may still have other processes coming along (such as a ballot measure), so whatever happens with this list it doesn't mean that some

projects are getting thrown out, we're just refining the timeline of when they would be tackled.

- Joshua Laipply: There is some timeline to consider as well, given that the TC used contingency funds to advance projects a few months ago and we may have to figure out a way to keep those projects moving forward whether these funds are available this year or next year.
- Vince Rogalski: We also need to keep emphasizing with our legislators that this is only tackling a portion of the unfunded needs, but that we still need more funding overall.
- Gary Beedy: I don't think that there will be an issue finding 25% of projects in rural areas, and setting up a separate criteria for those may actually hurt them by *limiting* their funding when there is plenty of need beyond that 25%.
- Commissioner Reiff: I think this is the type of decision that we don't want to make right away, but should really think about and discuss. A lot of the bigger projects in the rural areas may fall more into the maintenance side of the equation and won't compete as well with those big capacity projects along the Front Range.
- Josh Laipply: I think at this point we don't know what we don't know. I suggest that we put together some criteria and then see how they play out and then adjust as needed.
- Norm Steen: It's obvious to say, but rural roads don't just serve rural people. Everyone in the state benefits, so we need to look at statewide solutions and not treat rural areas as a separate class.
- Herman Stockinger: We actually ran through the original Development Program list by county population and found out that, by coincidence, 26% of the projects already qualify by that standard.
- Vince Rogalski: In support of what Barbara said, we are all in this together and need to send the message to the Legislature and the public that we can work together and we need more funding.
- Commissioner Reiff: I agree, we definitely need to avoid the rural-urban discussion – it's divisive and hurts us all in the long-run.
- Gary Beedy: It also hurts us with the voters in the future by making this a fight between different areas of the state.

- Commissioner Zink: In this case it was the legislation that created the rural - urban divide, rather than CDOT or the STAC.
- Debra Perkins-Smith: In the past we've had other programs with geographic requirements and there are ways to consider rural and urban differences without creating a hard division between them.
- Norm Steen: I think that the Legislature is reacting to a concern that rural needs are being underfunded, so I would say that they are responding to the issue more than creating it.
- Pete Baier: What we are seeing is rural highways falling to pieces, so I think that's driving a lot of the rural vs urban perception in the Legislature.

### **Presentation**

- Federal:
  - President signed the CR for federal government funding through September.
  - We've received some questions about rescissions:
    - Congress rescinded \$857 million of unobligated contract authority.
    - The biggest unobligated balances are in CMAQ and National Highway Freight Program right now.
    - While it sounds like we're losing \$11.7 million in Colorado, that's not actually the case.
    - When Congress gives us funding there is always a portion that we're not allowed to spend, which goes into a "piggy bank". The amount that they are taking back from us at this point is less than what is in that bank, so right now we're only losing funds that we aren't allowed to spend anyway.
    - By 2020, that amount may grow beyond what's in our "piggy bank", and which point we *would* be using real dollars. We want to avoid that, so we need to prepare now for any eventualities and avoid a cut down the road.

### **STAC Comments**

- Doug Rex: I had some angst in that respect earlier this week but I appreciate the quick response and feel better about it now.

	<p><b>Presentation</b></p> <ul style="list-style-type: none"> <li>• Previously the Administration had proposed getting rid of TIGER, but with a Continuing Resolution you generally don't change anything in the existing budget, so we are anticipating another call for TIGER grant applications this summer.</li> <li>• One of the benefits of our Development Program is that we can easily select from that existing list of projects for applications like this based on the specific criteria.</li> </ul> <p><b>STAC Comments</b></p> <ul style="list-style-type: none"> <li>• <u>Debra Perkins-Smith</u>: In the past we've seen that the criteria for TIGER has varied a bit each year, so we'll wait for more details on that.</li> <li>• <u>Norm Steen</u>: Secretary Chao talked earlier this week about how the Administration is hoping to fund a large portion of its proposed infrastructure investment with PPPs, but that this doesn't always work so well in rural areas. How can we engage in that process at the federal level?</li> <li>• <u>Herman Stockinger</u>: We can work through my staff and through your individual organizations to send that message and make sure that whatever approach is ultimately developed is one that works for Colorado.</li> </ul>	
<p>Transportation Commission Report / Vince Rogalski (STAC Chair)</p>	<p><b>Presentation</b></p> <ul style="list-style-type: none"> <li>• <u>Transportation Commission</u> <ul style="list-style-type: none"> <li>○ Discussed asset management and pavement condition using the Drivability Life approach, as well as some of the treatments being used on different types of roads. <ul style="list-style-type: none"> <li>▪ This year we treated twice as many lane miles as in 2012 thanks to the Drivability Life system and less expensive treatments.</li> </ul> </li> <li>○ The TIFIA grant for C-470 was approved and the tolling lane project there is ready to proceed.</li> <li>○ The FY18 - FY21 STIP was approved.</li> <li>○ The new CDOT HQ/R1 building project is on schedule, and the move should occur in April 2018.</li> <li>○ The City of Denver is going to purchase the two properties and will lease them back to CDOT until the move.</li> </ul> </li> </ul>	<p>No action taken.</p>

	<ul style="list-style-type: none"> <li>○ The new building will be at the intersection of Colfax and Federal (currently Mile High Stadium Lot M).</li> </ul> <p><b>STAC Comments</b></p> <ul style="list-style-type: none"> <li>• <u>Thad Noll</u>: Thanks to Commissioner Reiff for all of his great work for the people of Colorado and his mentorship to many other folks in the field.</li> <li>• <u>Pete Baier</u>: If the TC could provide criteria for local agencies so we know how to present right-of-way and condemnation requests to them, that might help ease the process on our end.</li> <li>• <u>Joshua Laipply</u>: We have a subcommittee discussing issues around this topic and we will look at developing that type of guidance.</li> <li>• <u>Sidny Zink</u>: We have talked about how important it will be to document the entire process to ensure that there is no question of whether the property owner has gone through the due process.</li> <li>• <u>Joshua Laipply</u>: We will work to include that in our Right-of-Way Manual so we can easily adjust it if need be in the future.</li> <li>• <u>Vince Rogalski</u>: The main emphasis is not getting ahead of ourselves in the process and make sure that it's occurring in a stepwise fashion.</li> </ul>	
<p>TransPlanning Partnership / Michelle Scheuerman (CDOT Multimodal Planning Branch)</p>	<p><b>Presentation</b></p> <ul style="list-style-type: none"> <li>• As background, in the SWP Lessons Learned we heard that this group wanted earlier engagement and more of a role in developing methodologies for the next SWP.</li> <li>• Prior to the kick-off of the next SWP in the summer of 2018 we would like to form some working groups to discuss key issues related to the plan.</li> <li>• We sent out a survey to STAC members to get your thoughts on what those working groups should discuss.</li> <li>• In the survey we asked about support for the overall TransPlanning Partnership concept, recommendations for working group topics, and any other suggestions from the group. <ul style="list-style-type: none"> <li>○ There were 11 respondents.</li> <li>○ Overall there was strong support for the concept. <ul style="list-style-type: none"> <li>▪ There was a request for sensitivity to MPO staff time commitments in scheduling work group activities.</li> </ul> </li> <li>○ CDOT provided a menu of potential working group topics and the following rose to the top:</li> </ul> </li> </ul>	<p>No action taken.</p>

- Scenario Planning
- Technology
- Performance Measures
- RTP Development
- Additional Suggestions included Funding and Policy Development
- Happy to send the survey out again if more people would like to respond.
- 6 STAC members indicated that they would like to participate in the working groups.
- On the question of stakeholder engagement, we heard suggestions to work more closely with:
  - Low Income Communities
  - Disabled / ADA Representation
  - Seniors
  - Freight Industry
  - Cycling Community
  - Broadband Advocates
- A new SWP Steering Committee would meet bi-monthly and include representatives from:
  - FHWA
  - OEDIT
  - DNR
  - DOLA
  - NREL
  - STAC
  - CDOT (DTD, Communications, Government Relations, DTR, TSMO, RoadX, and the RTDs)
- CDOT staff will send invitations, information packets, and calendar for the Steering Committee.
- STAC will receive updates on a regular basis about progress made and other opportunities for input.

**STAC Comments**

- Barbara Kirkmeyer: I would suggest adding someone from Colorado State Patrol (CSP) to the Steering Committee. I would also like to be on the committee given that I had the most comments the last time around.
- Sean Conway: I would also be happy to serve on that group.
- Thad Noll: Me too.

	<ul style="list-style-type: none"> <li>• <u>Norm Steen</u>: How much time would you expect to devote to this effort?</li> <li>• <u>Michelle Scheuerman</u>: We are currently expecting to start in August of this year and work through late spring or early summer of next year for most of the heavy lifting.</li> <li>• <u>Doug Rex</u>: Are these individual working groups or topics for one working group to address?</li> <li>• <u>Michelle Scheuerman</u>: We envisioned these as separate working groups.</li> <li>• <u>Vince Rogalski</u>: In the past we've encouraged a greater integration of transit planning into the broader transportation planning process, rather than having them in separate silos. That's something we should try to do this time around.</li> <li>• <u>Michelle Scheuerman</u>: That's a great point and we are already coordinating with DTR on that very topic.</li> <li>• <u>Norm Steen</u>: Thank you for listening to the group's feedback on the last SWP – this is a great initiative.</li> <li>• <u>Vince Rogalski</u>: I've been involved in every plan since the early 1990s, and one of our biggest goals is to be more communicative with the public about the importance of transportation. I encourage everyone to participate in these working groups and the SWP more generally.</li> <li>• <u>Commissioner Kathy Hall</u>: I'm encouraged to see that you're including OEDIT in this effort, because it's really crucial to make a connection between transportation and the economy in the minds of citizens and the legislators.</li> <li>• <u>Norm Steen</u>: When is it appropriate to engage members of the Transportation Legislation Review Committee (TLRC) in the planning process? Would it make sense for them to be involved at this point?</li> <li>• <u>Herman Stockinger</u>: Usually we coordinate with them closer to the end of the process, but I think that it might be a good idea to get them involved at the kick-off next summer to make sure they're engaged from the start.</li> </ul>	
<p>Multimodal Freight Plan Update / Norm Steen (STAC Member) &amp; Evan Enarson-Hering</p>	<p><b>Presentation</b></p> <ul style="list-style-type: none"> <li>• The Multimodal Freight Plan (MFP) is in development with significant support and input coming from a number of partners, including the FAC, private industry, the Colorado Motor Carriers Association (CMCA), and members of the STAC.</li> </ul>	<p>No action taken.</p>

<p>(Cambridge Systematics)</p>	<ul style="list-style-type: none"> <li>• CDOT staff would like to recognize STAC participants, particularly Norm Steen, Barbara Kirkmeyer, Thad Noll, Gary Beedy, and Vince Rogalski, for their role in the FAC and in supporting the development of the MFP.</li> <li>• The MFP is building off of earlier plans, including the State Freight &amp; Passenger Rail Plan (2012) and State Highway Freight Plan (2015), while adding a new level of robust industry that hasn't existed in the past.</li> <li>• The FAC and Joint Project Advisory Committee (JPAC) are providing guidance on the plan development, stakeholder engagement, and connecting the topics of freight and economic development.</li> <li>• A key theme is making Colorado more nationally and globally competitive through freight investment. Some core messages are: <ul style="list-style-type: none"> <li>○ "Made in Colorado, Shipped to the World"</li> <li>○ "The Road to the Future is Not Only a Road"</li> <li>○ "Colorado Delivers"</li> </ul> </li> <li>• Project team is working to reach stakeholders through surveys, targeted interviews, and other outreach to trucking, economic development, agricultural, and rail communities.</li> <li>• 350 survey responses have been received so far.</li> <li>• Helping to identify priorities, understand local challenges, and collect illustrative anecdotes.</li> <li>• Able to compare results geographically, compare with national trends, etc.</li> <li>• Identified certain issues as "more important" to Colorado in comparison to the country as a whole: <ul style="list-style-type: none"> <li>○ Railroad service</li> <li>○ Broadband availability</li> <li>○ Airport accessibility</li> <li>○ Proximity to suppliers</li> <li>○ Energy costs</li> <li>○ Public-private partnerships</li> </ul> </li> <li>• Also identified issues by their overall importance in Colorado: <ul style="list-style-type: none"> <li>○ Workforce development</li> <li>○ System condition</li> <li>○ Regional connectivity</li> <li>○ Broadband availability</li> <li>○ Congestion during peak hours</li> </ul> </li> <li>• Responses from farm bureaus and producers identified their top issues: <ul style="list-style-type: none"> <li>○ Road and bridge condition</li> <li>○ Safety</li> </ul> </li> </ul>	
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	<ul style="list-style-type: none"> <li>○ Congestion</li> <li>○ Cost of transportation</li> <li>○ Oversize/overweight restrictions</li> <li>○ Regulation and policy</li> <li>● Project team working to emphasize the economic importance of freight in Colorado: <ul style="list-style-type: none"> <li>○ 1 in 3 Colorado jobs are directly or indirectly reliant on freight transportation.</li> <li>○ 1/3 or \$155.8 billion of the state GDP is generated by freight or freight-reliant industries.</li> <li>○ \$7.98 billion in manufacturing exports and \$1.7 billion in agricultural exports are shipped each year in Colorado.</li> </ul> </li> <li>● Next Steps <ul style="list-style-type: none"> <li>○ Staff will come back at the June STAC Meeting and provide: <ul style="list-style-type: none"> <li>▪ Overview of key findings</li> <li>▪ Strategies and recommendations</li> <li>▪ Implementation ideas</li> </ul> </li> </ul> </li> </ul> <p><b>STAC Comments</b></p> <ul style="list-style-type: none"> <li>● <u>Thad Noll</u>: What are your big takeaways? What’s the main message for this group?</li> <li>● <u>Evan Enarson-Hering</u>: The main thing we heard from the public is “thank you for talking about this with us”. Economic development, agricultural, rail, and freight communities have not always been engaged with these types of processes in the past, and they recognize the connection between transportation and the economy in a way that other members of the public may not.</li> <li>● <u>Michelle Scheuerman</u>: Another takeaway is that public education around freight issues is critical.</li> <li>● <u>Barbara Kirkmeyer</u>: Another thing is the importance of freight to the economy, with 1 in 3 jobs being connected to it, our state economy relies on freight movement and we need to put that message out there. Freight needs a bigger seat at the transportation planning table.</li> <li>● <u>Sean Conway</u>: I agree, freight is absolutely vital for ensuring that the Colorado economy remains strong.</li> </ul>	
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	<ul style="list-style-type: none"> <li>• <u>Debra Perkins-Smith</u>: I want to highlight the fact that this is a new approach for us and it's really important that the freight community remain engaged in these discussions in the future. Trucks can't be a dirty word to the public. I think we're off to a great start and we're still learning and improving.</li> <li>• <u>Norm Steen</u>: One of the other high points here is that freight funding is an investment, not an expense. Business logic tells us to look at the return on investment, and currently we are missing out on returns because we don't invest enough in transportation. It costs more to ship products into Colorado than elsewhere because those trucks are leaving empty, so you have to pay both ways. We need to change that dynamic in the Legislature and among the public at large.</li> </ul>	
<p>Bustang Outrider Program / Mike Timlin (CDOT Division of Transit &amp; Rail)</p>	<p><b>Presentation</b></p> <ul style="list-style-type: none"> <li>• Bustang Outrider is the rebranding of the current FTA 5311(f) rural regional bus program administered by CDOT for several years.</li> <li>• The Outrider network plan is fiscally-constrained and prioritized based on stakeholder, TPR, and MPO input and will enhance the existing network by: <ul style="list-style-type: none"> <li>○ Providing CDOT owned fleet with the latest amenities and comfort.</li> <li>○ Provide a more robust policy foundation.</li> <li>○ Fix the current schedule misalignment.</li> <li>○ Address multiple markets not currently being met.</li> </ul> </li> <li>• FAST Act Funding has been between \$1.6 and \$1.85 million annually.</li> <li>• Changes under the new approach include: <ul style="list-style-type: none"> <li>○ Defund the Denver to Nebraska route in 2017.</li> <li>○ Defund Pueblo to Kansas route in 2018.</li> <li>○ Lease a Bustang vehicle to SUCAP for the Ignacio to Grand Junction route at \$1 per year.</li> <li>○ Replace existing Greyhound Denver to Grand Junction route with Bustang service.</li> </ul> </li> <li>• Seeking local partnerships for the following routes: <ul style="list-style-type: none"> <li>○ Gunnison – Alamosa – Denver</li> <li>○ Lamar – Pueblo – Colorado Springs</li> <li>○ Alamosa – Pueblo</li> </ul> </li> <li>• With additional funding, future potential routes include: <ul style="list-style-type: none"> <li>○ Fort Morgan – Sterling – Fort Collins</li> <li>○ Limon – Colorado Springs</li> </ul> </li> </ul>	<p>No action taken.</p>

- Gunnison – Montrose
- Pagosa Springs – Durango
- Steamboat Springs – Craig – Rifle – Grand Junction
- Steamboat Springs – Frisco – Denver
- CDOT will provide rolling stock using SB 228 funds if local partnerships can be found.
- CDOT will assist in securing Federal Motor Carrier Safety Administration (FMCSA) operating authority, National Bus Traffic Association Membership, and up to \$5 million in operating liability.
- We're currently in the process of procuring 6 new 35-foot buses for our local partners to use as part of this network, and CDOT is willing to work with local partners on future RFPs as needed.

**STAC Comments**

- Michael Yohn: Can you explain the connection of the lines between Alamosa, Denver, and Pueblo? It doesn't look like those meet up.
- Mike Timlin: It is a bit complicated, but currently Black Hills Stage Lines connects Alamosa to Salida and also connects Salida to Denver. Also in Salida you can get on Chaffee Shuttle to Pueblo.
- Michael Yohn: My bigger concern is the future of a route between Durango and Alamosa along US 160. What can you tell us about that?
- Mike Timlin: Currently the demand studies only show sufficient travelers between Durango and Pagosa, so it's not in our horizon right now. There isn't enough ridership demand that we see there.
- Thad Noll: The southeast corner of the state is very rural and doesn't have a large population, but there is still need for good transportation in that area. Also I would point out that if you draw a short, 23-mile line between Fairplay and Breckenridge it would allow folks in that area to connect to the whole Bustang system without having to go all the way to Denver, so you might want to look at that.
- Mike Timlin: That's a great idea, there used to be a shuttle in that area but it stopped operating for lack of local funds.
- Sean Conway: What's the timeline for the future route between Fort Collins, Greeley, and Sterling?

	<ul style="list-style-type: none"> <li>• <u>Mike Timlin</u>: That's a part of the Phase III network plan and we're starting to vet it.</li> <li>• <u>Mark Imhoff</u>: We're just now starting to talk with Northeast Colorado Association of Local Governments (NECALG) about partnering with us on that service to see whether they're interested in it and, if so, what are the best end-points and schedules.</li> <li>• <u>Norm Steen</u>: How many sources of money can go into funding Bustang?</li> <li>• <u>Mark Imhoff</u>: Bustang is 100% paid for using FASTER and fare box. Bustang Outrider is being branded as Bustang, but we're trying to fund it using 5311(f), some FASTER, and then potentially some other funding sources (which may come through Medicaid, Veterans Affairs, or elsewhere depending on the local partner).</li> <li>• <u>Norm Steen</u>: What is a successful fare box recovery rate for regional buses?</li> <li>• <u>Mark Imhoff</u>: Currently we're over 50% for Bustang, but we don't expect that Outrider would do quite as well. That said, we believe that if we schedule the service on these routes correctly we will get ridership, albeit at a lower fare box recovery, maybe 10%.</li> <li>• <u>Mike Timlin</u>: The goal of this program is not to get a high recovery, it's to provide transportation to those who are dependent and have no other option.</li> <li>• <u>Norm Steen</u>: Is there a subsidy per passenger metric that is used?</li> <li>• <u>Mike Timlin</u>: Generally if we're under \$100 per passenger trip we consider that reasonable.</li> <li>• <u>Mark Imhoff</u>: We're aiming to get the rate down to \$0.17 per mile, which should save passengers a lot of money.</li> <li>• <u>Norm Steen</u>: One of the goals of SB 267 was to help support rural hospitals, but without rural transit to and from those hospitals that benefit is not as great. So we need this type of program to compliment that.</li> </ul>	
<p>Technology Infrastructure Expansion / Ryan Rice (CDOT Division of Transportation)</p>	<p><b>Presentation</b></p> <ul style="list-style-type: none"> <li>• Introducing Wes Maurer as the new ITS Branch Manager (formerly with the Colorado Energy Office).</li> <li>• TSMO staff are hoping to work with the STAC to build a refined methodology for prioritizing ITS infrastructure in the future.</li> </ul>	<p>No action taken.</p>

<p>System Management &amp; Operations) &amp; Peter Kozinski (RoadX)</p>	<ul style="list-style-type: none"> <li>• Current ITS infrastructure includes fiber, cameras, variable signs, etc. – anything that helps distribute information, manage safety, operations, weather, and incidents.</li> <li>• This will only become more important in the future: “technology is the new pavement”. <ul style="list-style-type: none"> <li>○ Critical to vehicle safety, freight efficiency, transit operations, autonomous vehicles, and incident management.</li> </ul> </li> <li>• Many of CDOT’s current challenges could be improved with ITS technology: <ul style="list-style-type: none"> <li>○ Safety improvement</li> <li>○ Population and VMT growth</li> <li>○ Worsening congestion</li> <li>○ Constrained funding</li> </ul> </li> <li>• Fiber and data sharing will become critical as we move towards Connected and Autonomous Vehicle (CAV) adoption.</li> <li>• CAVs offer the potential for an 80% reduction in crashes on the system and a 40% - 400% increase in capacity. <ul style="list-style-type: none"> <li>○ There are 5 Levels of Vehicle Automation, with the real safety and operational dividends occurring at Levels 4 and 5.</li> </ul> </li> <li>• NHTSA has mandated that all new vehicles include DSRC and will require an Operational Design Domain to push and pull vehicle information for real-time understanding of surroundings.</li> <li>• CDOT has developed a Connected Road Classification System to assess our infrastructure’s readiness for CAV implementation. <ul style="list-style-type: none"> <li>○ Currently our roadways are between Levels 1 – Level 3, but with fiber expansion we can take them to Levels 4 – Level 6.</li> <li>○ We need to start planning and expanding our fiber network now, because these vehicles will be on the market within 5 years.</li> </ul> </li> <li>• ITS currently manages 1,200 miles of fiber optic cable statewide. <ul style="list-style-type: none"> <li>○ An additional 380 miles are available to CDOT through public and private partnerships.</li> <li>○ In total there are 1,580 miles of fiber accessible to CDOT.</li> <li>○ Current the geographic extent of CDOT’s fiber network is concentrated along the Front Range, on I-70, and parts of US 160.</li> </ul> </li> <li>• New technology is changing very quickly, so we need to raise awareness of the issue and emerging opportunities among the traveling public.</li> <li>• Making smart investments now can literally save hundreds of lives in the coming years.</li> </ul>	
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- CDOT is currently developing a methodology for prioritizing ITS infrastructure:
  - Seeking to better understand the potential market penetration of CAVs statewide.
  - Working to better integrate technology issues as a priority in the long-range planning process.
  - Initial criteria to consider include:
    - Safety
    - Mobility
    - Freight Routes
    - Fiber Network Redundancy
    - Connected Road Classification System
  - Other proposed criteria:
    - Weather Management
    - Smart Traffic Signal Operations
    - Cellular network gaps
    - Managed Lanes
    - Economic Development
    - Partnership Opportunities
    - Ease of Delivery

**STAC Comments**

- Norm Steen: By partnerships are you talking about other entities having access to fiber apart from CDOT? Is there potential revenue generation there?
- Ryan Rice: Yes, there is definitely potentially for public-private partnerships like we already have in some locations. We currently have an agreement with Comcast to share some of our fiber with them in exchange for annual revenue that we reinvest back into the system.
- Norm Steen: As you know, rural fiber development is a top priority among the great majority of Colorado counties. We need to look for opportunities to combine these efforts. How would a local company get access to CDOT fiber?
- Ryan Rice: If it's a corridor where we already have fiber then it would be looking at existing capacity, their needs, and opportunities for partnering. If it's a corridor without existing fiber, that can be more complicated. One model is for us to provide right-of-way while the company pays to install fiber

	<p>and then we both use it. There are many different approaches based on the local context.</p> <ul style="list-style-type: none"> <li>• <u>Thad Noll</u>: I think that we're all struggling with how to get fiber into areas where it doesn't currently exist and that must be a statewide solution. This is the infrastructure of the future and we need to invest in this – it's cheaper than adding a lane or building a high-speed rail line.</li> <li>• <u>Debra Perkins-Smith</u>: We are working to integrate these types of issues into our Statewide Transportation Plan because they are only growing in importance. Also, our Development Program is largely focused on capacity improvement projects right now, but we may consider building more technology infrastructure focused projects into that so they're not isolated into some other bucket.</li> <li>• <u>Thad Noll</u>: Is there any dedicated funding carve-out for ITS / technology improvements like we have for bridges and pavement?</li> <li>• <u>Debra Perkins-Smith</u>: Not currently. That's a good thought, though sometimes it's difficult to know how to set up a fund like that until you see the specific project.</li> <li>• <u>Michael Yohn</u>: They're currently doing some fiber installation on the east side of Wolf Creek Pass. How far is that going to extend?</li> <li>• <u>Mike McVaugh</u>: Given our limited funding we're currently building up to the top of Wolf Creek Pass through a partnership with the San Luis Valley Rural Electric Cooperative. We're now looking at applying for a federal grant that would allow us to continue that work down the west side of the pass and connect the fiber all the way to Pagosa Springs.</li> </ul>	
<p>Other Business / Vince Rogalski (STAC Chair)</p>	<p><b>Presentation</b></p> <ul style="list-style-type: none"> <li>• There is a Statewide Planning Rules memo included in the STAC packet and we will begin the update process for those next years.</li> <li>• CDOT will be sending out a STIP Lessons Learned survey next week and we appreciate your feedback.</li> <li>• A Scenario Planning Peer Exchange will be held on June 8<sup>th</sup> with representatives of other DOTs and MPOs across the country, and CDOT would like 2 STAC representatives to participate in that event.</li> <li>• The ongoing Rest Area Study will include a regional stakeholder webinar tentatively scheduled for June 28<sup>th</sup> at 1:00 PM.</li> </ul>	<p>No action taken.</p>

	<ul style="list-style-type: none"><li>• A new round of Telephone Town Halls will occur in June on the following dates and times:<ul style="list-style-type: none"><li>○ <u>June 5<sup>th</sup></u>: Region 1/4 at 7:00 PM</li><li>○ <u>June 6<sup>th</sup></u>: Region 1 at 7:00 PM</li><li>○ <u>June 12<sup>th</sup></u>: Region 2 at 5:30 PM and Region 3 at 7:00 PM</li><li>○ <u>June 13<sup>th</sup></u>: Region 4 at 5:30 PM and Region 5 at 7:00 PM</li></ul></li><li>• The next STAC Meeting will be held on June 23<sup>rd</sup> at CDOT Headquarters.</li></ul>	
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**STAC ADJOURNS**

**Transportation Commission Workshops were held on Wednesday, June 14, 2017. The Regular Transportation Commission Meeting was conducted and was hosted at CDOT HQ Auditorium on Thursday, June 15, 2017.**

**Note:** Materials for specific agenda items are available at <https://www.codot.gov/about/transportation-commission/meeting-agenda.html> by clicking on the agenda item on the schedule provided at this site. For the full agenda of workshops and sessions see the link presented above.

## **Transportation Commission Committee Meetings Wednesday, June 14, 2017**

### **Right of Way Acquisition Workshop (Josh Laipply)**

Purpose: To discuss right-of-way acquisition (negotiations), and settlements.

Action: Approve resolutions for right-of-way acquisition, and settlement.

Projects with property acquisition requests for June 2017 include:

- R2 SH 21, Powers Blvd, Project Code:18318
- R3, US 24, Minturn Resurfacing Project, Project Code: 20813
- R3, US 34, Bridge Over North Fork of Colorado River Projects, Project Code: 21010
- R4, US 34 Big Thompson Canyon Project, Project Code: 20279
- R4, US 34 & US 36 FLAP Estes Park Couplets Project, Project Code: 20298
- R4, Flood Repair SH 55, SH 59, SH 385 Project, Project Code: 20257
- R4, I-25 North SH 402 to SH 14 Project, Project Code:21506
- R5, US 550 VMS Acq. N. of Ouray Project, Project Code: 20894

Approving property acquisitions and settlement amounts for:

- R2, SH 12 MP 51.4 and 53.7 Project, Project Code: 21399
- R2, SH 94 MP 3.5 to 4.5 Project, Project Code: 20589

No Condemnation documents this month.

### Discussion:

- No comments on the right-of-way acquisitions were raised.
- The Chief Engineer noted for the R4, US 34 & US 36 FLAP Estes Park Couplets Project, Project Code: 20298 that improvements to the parcel would be outlined in more detail in a memo to provide more visibility.
- A Commissioner noted his desire to make sure the Commission members are aware of any potentially controversial nuances related to right-of-way acquisitions, settlements or condemnations such as cemeteries or burial plots.
- The Chief Engineer noted that situations that are potentially controversial are brought to the attention of the Commission.
- The Commission Chair noted that for settlement on R2, SH 94 MP 3.5 to 4.5 Project, Project Code: 20589 had a much higher settlement amount than the amount proposed by the Chief Engineer (\$700 vs. \$4,620); it was requested that the Chief Engineer explain the rationale for the discrepancy at the Regular Commission meeting.

**SB 267 Approach Workshop (Debra Perkins-Smith and Herman Stockinger)**

Purpose: To discuss issues and considerations related to Senate Bill (SB) 17-267, and develop principles for an approach for moving forward.

Action: No action. Requesting input and direction for SB 17-267 program principles.

Background: Staff are currently working to further assess SB 267, identify issues, and work with financial advisors, the State Treasurer, and the Attorney General’s Office to answer questions and better understand the financial implications of the lease-purchase agreements and CDOT’s repayment liability. The approach over the next several months will be to first address some of these questions and clarify implications, work with the Transportation Commission to develop a strategy for repayment, and then develop approach and criteria to project selection. The final bill is available at:

[https://leg.colorado.gov/sites/default/files/documents/2017A/bills/2017A\\_267\\_enr.pdf](https://leg.colorado.gov/sites/default/files/documents/2017A/bills/2017A_267_enr.pdf).

- The first payment from CDOT is anticipated to occur in FY 2018-19.
- Staff will return in subsequent months with additional information on the outstanding questions relating to repayment, and for additional discussion on approach to repayment and project selection.

Discussion:

- The timeline for Certificates of Payment (COPs) – by the end of this year, the State will identify \$2 billion of buildings to consider for COPs.
- The first issuance of COPs in FY 2018-2019 will make \$380 million available to CDOT, with an additional \$500 million per year in the following three years.
- The bill commits CDOT to \$50 million towards the annual COP repayment, but the legislature could increase that share through subsequent action. The total annual repayment amount is estimated to reach \$150 million per year once all four issuances have been made.
- Today is intended to begin the discussion of how to proceed with a process to spend the money and meet payment; for example we know we need \$50 million annually with the possibility of additional repayment of approximately \$100 million more; establishing a repayment strategy is critical.
- Concept of holding the Statewide Transportation Improvement Program (STIP) harmless was discussed.
- Maintenance and Asset Management, representing the bulk of the CDOT budget, are likely to bear brunt of repayment with negative impacts to the maintenance of the system.
- Need to make sure CDOT remains able to maximize opportunities to receive funds for discretionary funds.
- It is important to understand the expectations of the legislature and define terms universally for SB 267 among parties to make sure all are speaking the same language for terms communicated.
- The Statewide Transportation Advisory Committee (STAC) recommendation is to consider a statewide approach to project selection and not get into rural vs. urban in decisions.
- The name of the SB 267 bill is Sustaining Rural Colorado – but it was noted that this is mainly related to the hospital fee component of the bill, but also stipulating 25% of funds being spent in counties under 50,000 population relates to rural area consideration.
- There was concern that other areas like La Plata and Pueblo counties have large rural areas, but are considered urban by the bill.

- The Division of Transit and Rail (DTR) Director announced that DTR is planning to develop their own list of projects to cover the 10% and to stay tuned for next month. The DTR recommendation will likely focus significantly on bus purchases.
- It was suggested by the Division of Transportation Development Director to consider SB 267 funding source as a loan and consider how CDOT would normally spend the money for example with the Transportation Infrastructure Finance and Innovation Act (TIFIA) loan, but use this source instead; this concept received support from Commission members.
- Concern was expressed that CDOT's repayment commitment could potentially increase, as happened under TransBond.
- First steps decided at the workshop included:
  - Determine how CDOT would spend a smaller amount first, rather than the full \$1.88 billion.
  - Look at statewide- don't bifurcate into urban and rural, but rather move forward and we'll track and adjust against minimum 25% rural requirement.
  - Establish goals –safety, mobility, maintenance, capacity and connectivity and categorize projects and programs under goals.
  - Follow up step would then be to outline criteria for project selection.

**Bridge Enterprise Program Forecast Workshop- Central I-70 (Josh Laipply)**

Purpose: To provide updated 10-year cash flow projection, outline forecasted impacts to the BE program, and approach to programming BE projects during Central 70 construction.

Action: No formal action is being sought. The BE program staff is seeking guidance from the Commission in regard to the preferred methodology to manage future programming of BE projects during the Central 70 construction period when potential inadequate cash balances are forecasted.

Discussion:

- Commitment from BE is capped at 50%, with another 50% to be spent elsewhere in the state.
- Under the Interagency Agreement (IAA) between CDOT, High Performance Transportation Enterprise (HPTE), and BE milestone payments for BE have been laid out; this process identified a need to share risk between CDOT, HPTE and BE.
- In response to risk for BE a \$40 million contingency was recommended to cover BE and if BE happens to need more money for milestone payments – they would have CDOT and HPTE as resources for potential loans.
- If contingency money is not spent, it would go to improving other bridges across the state.
- Commission members expressed comfort with this approach to sharing risk among CDOT, HPTE and BE and providing the BE with the contingency money proposed.
- HPTE Board will meet next week to discuss the IAA in more detail and request their approval.

**MS 4 Permit and EPA Audit (Debra Perkins-Smith)**

Purpose: To provide an overview of CDOT's Municipal Separate Storm Sewer System (MS4) Permit, the recent EPA Audit, and how that affects CDOT.

Action: No Action. Potential for future decision.

Discussion:

- Purpose of today’s workshop is to bring Commission up to date on the results and response to EPA audit regarding CDOT’s Municipal Separate Storm Sewer System (MS4) permit; may come back next month with related action items for the Commission.
- CDOT has an individual permit held by our Chief Engineer.
- Amber Williams, CDOT Water Quality Manager and Jean Cordova, CDOT Colorado Department of Public Health and Environment (CDPHE) Liaison were recognized for their work in Water Quality and the EPA audit response regarding the MS 4 Permit.
- 2015 Environmental Protection Agency (EPA) Audit identified 17 findings under five key categories for CDOT to address; since that time 13 of the 17 findings have been addressed via submittals and coordination with the EPA.
- So far CDOT has not been fined, but needs to address remaining 4 findings to avoid potential fines that can be high, for example \$40 million – what other agencies have been known to experience.
- Addressing findings will require reallocation of staff, purchasing equipment, or hiring a contractors; this is where help from the Commission could occur.
- Chief Engineer noted that placing risk with contractor is the more desirable option for CDOT to pursue.
- Another discussion on addressing the remaining four findings of the EPA audit will occur next month with the Commission to determine an appropriate approach to moving forward.

**Road User Charge (Debra Perkins-Smith)**

Purpose: To update the Transportation Commission on the status of the Department’s Colorado Road Usage Charge (RUC) Pilot Program (RUCPP).

Action: No Action. Informational item.

Discussion:

- Commission members participated in this pilot and it would be good to hear from them today.
- When describing the pilot, we usually start by explaining our funding gap.
- CAFE standards for vehicles means less money for CDOT via the gas tax.
- Under the RUC, all vehicles would pay equally for the use of the road.
- There is a perception that under a RUC the rural areas of the state would pay more; but the pilot demonstrated that this is not necessarily true.
- The pilot did not include heavy trucks, but did get a cross-section of passenger vehicle types.
- Goals of the pilot were to demonstrate the usefulness of RUC, see the dollars generated and paid by users, and identify issues, concerns, and benefits of this type of program.
- A technical advisory committee was formed to gather input, via surveys and solicit additional ideas; this pilot was essentially an experiment.
- The process for participation in the pilot was described:
  - Devices in vehicles were installed.
  - Monthly statements with details on RUC charges generated compared to gas tax fees.
  - 100 people participated from across various areas of the state; it was important to show how RUC would work in Colorado.
  - Three types of monitoring were offered:
    - Monthly odometer reading via submitting a photo
    - Non-GPS mileage reporting device
    - GPS enabled mileage reporting device that could also subtract miles traveled outside of Colorado; most participants chose the GPS enabled device.

- CDOT staff and Commission members described their experiences with participating, including noting some of the helpful device notifications on low battery charge, and hard breaking. In one instance a hybrid car valet parked was not turned off, and the vehicle owner was notified of a low battery that prompted them to notify the valet to turn off the car.
- Initially only 29% of participants thought the RUC would be a fair approach to charging for transportation, but after the pilot was completed 73% thought it was fair.
- Having a help desk proved to be a critical component of an effective RUC program.
- Participant satisfaction rating noted 94% found it easy, and 92% thought the program was good, but 65% were concerned with security and private information being compromised.
- The pilot did not differentiate between state highways and local roads, but this is a potential consideration for future programs.
- Colorado is the only state that has done a RUC Pilot that was not mandated by legislation; want to educate the legislators with findings from this pilot.
- Concerns of Colorado visitors not paying their fair share was expressed.
- CDOT is participating in a Western RUC Consortium that will look at other considerations expressed here today. Fourteen other states are involved in this work, and second meetings is scheduled for July.
- Need to consider other factors for example - vehicle weight, and time of day – it is anticipated the 14-state Western RUC consortium will evaluate these factors.
- In Singapore there exists technology in vehicles to convey road usage costs to drivers.
- CDOT recently submitted an application for a grant to determine how to collect RUC taxes/fees; the Department of Revenue (DOR) is participating. Nebraska is doing this and the Farm Bureau has expressed interest in this program and a rural pilot.

### **Technology Committee (Amy Ford and Peter Kozinski)**

Purpose: To inform the Transportation Commission & Technology Committee on the progress and potential next steps with Panasonic.

Action: Information only.

#### Discussion:

- Winter 2017 National Highway Transportation Safety Administration (NHTSA) is mandating connected vehicle/vehicle to vehicle (V2V) technology in new vehicles.
- The next step would be to have technology that put vehicles in communication with each other and with infrastructure.
- CDOT is working with Panasonic on creating this environment (eco-system) where connected vehicles (CVs) can eventually communicate with infrastructure and infrastructure can collect data and feed it back to passing vehicles in milliseconds.
- Benefits include increasing travel capacity up to four times, and drastically reducing crashes (up to 80%), and decreasing travel times too. In addition, ultimate situational awareness of other vehicles and infrastructure would be made possible.
- High level return on investment indicates that this system could prevent 8,400 additional crashes per year in Colorado with approximately a \$78 million benefit, and save 100 more lives and avoid 100 more fatal crashes in Colorado per year, with approximately a \$150 million annual crash reduction benefit.
- This eco-system does not yet exist, but CDOT is taking steps with Panasonic to build this type of environment in phases.
- The initial investment is currently \$10-15 million annually for the next five years.

- The benefits are that if this eco-system is expanded nationally and becomes the recognized national platform, CDOT would have lifetime access to the system and free upgrades.
- This is not without risk, as other companies could also develop eco-systems that would become popular, but someone needs to jump in and CDOT has decided to do so as we know what will happen if someone does not jump in.
- CDOT is minimizing risk through Panasonic having devices in most auto company vehicles currently. Part of mitigation of risk is understanding what original equipment manufacturers (OEMs) are doing. Panasonic is in this space and well positioned to create this type of eco-system.
- This would not be for just one location or place, the eco-system could potentially be provided everywhere.
- Will invite the Commission to visit the Panasonic living lab to see live demonstrations of what CDOT and Panasonic have in mind and demo connected vehicles too.
- Plans are to come back to the Commission next month to discuss in more detail the potential return on investment associated with this partnership with Panasonic.
- If CDOT could ensure somehow that an Apple/Android situation does not arise and security/hacking would be prevented this is the future of transportation.
- To this end, CDOT is also installing core elements into projects to build the eco-system.
- Overall the Commission expressed excitement and support for CDOT's decision to partner with Panasonic.

## **Transportation Commission Regular Meeting Thursday, June 15, 2017**

### **Call to Order, Roll Call**

- All Commissioners were in attendance.

### **Comments of Individual Commissioners**

- Commissioners expressed gratitude and appreciation for the leadership and service of Commission Chair Reiff, wished him well, and will miss him.
- Several Commissioners mentioned participating in the telephone town halls last week and noted that they were successful and a great way to engage a large number of stakeholders; some Commissioners noted CDOT should do telephone town halls more frequently and to keep refining them over time.
- It was noted that the telephone town halls highlighted that many stakeholders do not understand CDOT's responsibilities compared to other local entities.
- A Denver Metro Bus tour for the Commission occurred yesterday and being caught in traffic congestion was an eye-opening experience for many Commissioners.
- Appreciation for new express lane signage was expressed by Commissioner Stuart.
- Commissioner Reiff thanked all the Commissioners, CDOT staff, and Executive Staff and STAC for all their support that enabled the Commission Chair to do his work.

### **Executive Director's Report (Mike Lewis for Shailen Bhatt)**

- Recognized Commissioner Reiff on behalf of CDOT staff.
- Recognized staff and Paul Jesaitis for their work on the I-25 fuel tanker fire on May 31<sup>st</sup>.
- Noted this incident calls out the fragility of the system, and the need to continue focusing on resiliency.
- Thanked staff and provided kudos to emergency responders; pre-established partnerships with other agencies were key in providing a successful and rapid response to keep traffic moving for the following morning rush hour.
- Presented Commissioner Reiff with a parting gift of a CDOT hardhat.

**Chief Engineer's Report (Josh Laipply)**

- Recognized and thanked Commissioner Reiff for his service.
- Commissioner Reiff helped to make better several tasks by asking key questions related to major challenges, including but not limited to:
  - P3 Agreements
  - The new right-of-way approval process
  - Interagency Agreements
  - Loans
  - New HQ and Region 1 building acquisition
- During the May 31<sup>st</sup> I-25 fuel tanker fire disaster the Chief Engineer was out of town – but felt a sense of pride in how staff covered for him and took care of business in his absence.
- US 85/Union Pacific (UP) Negotiations – 37 parcels along US 85 are in UP right-of-way with a 50-year lease about to expire. Two solutions:
  - CDOT move the highway
  - Purchase Permanent Easements in Perpetuity
- CDOT worked with/negotiated with UP, Adams and Weld Counties to find a solution. Negotiations involved CDOT trips to Omaha and UP trips to Colorado.
- Weld County Commissioner, Barbara Kirkmeyer spoke and provided an overview of the US 85 negotiations.
  - 12 communities would be impacted by US 85/UP arrangement
  - UP was desiring options to increase rail capacity along US 85.
  - 85 county road railroad crossings were evaluated for closing as a trade-off with UP.
  - Plan/agreement involves UP providing five sidings and evaluated the corridor (both rail and highway) holistically.
  - Plan also involves safety enhancements within the corridor to meet goals.
  - Next month will hold a work session with UP, CDOT and Counties to come to an anticipated final solution/agreement.
  - Commissioner Kirkmeyer recognized the work of Johnny Olson and Josh Laipply on the negotiations, and recognized Gloria Jones of CDOT and Elizabeth Relford of Weld County too.
- Commissioner Gilliland and the Commission as a whole, recognized and thanked Commissioner Kirkmeyer for her work for this effort on US 85.

**HPTE Director's Report (David Spector)**

- Recognized and thanked Commissioner Reiff for his service on the Commission and on the HPTE Board.
- Financing for C-470 has closed- a seven-year call feature is part of the financing
- HPTE will save approximately \$30 million on the financing contract due to good pricing.
- Interest rates are low 4.5 % and TIFIA loan is 2.8%.
- Anticipate operating C-470 at the end of 2018/early 2019.
- This is the first debt contract of HTPE, and also the first TIFIA loan granted under the Trump Administration.
- Commissioner Peterson noted HPTE was good to be prepared, innovative and engaged for this project.
- Commissioner Gilliland expressed excitement, a thank you and congratulations to HPTE; overall the Commission was happy to hear the news of C-470 financing closing.
- Announced restructuring of the Office of Major Project Development (OMPD) – OMPD will fold into HPTE with its three employees and will create efficiencies.

**Federal Highway Administration (FHWA) Director Report (Alicia Nolan)**

- The fuel tanker fire on I-25 caught national attention and CDOT shined; this event showcased CDOT's ability to operate and respond extraordinarily well. Thank you.
- Commissioner Gilliland noted the quick response to fuel tank fire was due to previously established partnerships; for example, E-470 opened up to travelers free of charge to provide an alternate route of travel.
- Performance measures – final rule passed – two measures previously outstanding are now effective.
- CDOT to report on:
  - Pavement Condition
  - Bridge
  - Safety
  - Asset Management
- From a national perspective – last week was infrastructure week; President Trump visited USDOT to discuss streamlining of environmental clearance practices; Colorado already has assessed streamlining and experiences with public private partnerships (P3).

**Statewide Transportation Advisory Committee (STAC) Report (Vincent Rogalski)**

- A thank you to Commission members who attended last month's STAC meeting.
- STAC discussed the SB 267 funding and noted at yesterday's Commission workshop that work to spend funds should be done on a statewide.
- TransPlanning Partnership – includes forming a Steering Committee for the next Statewide Transportation Plan and Working Groups – one working group will focus on scenario planning considering technology. Entities anticipated to participate on the Steering Committee may include, but not be limited to:
  - FHWA
  - Office of International Trade and Economic Development (OEDIT)
  - Department of Natural Resources (DNR)
  - National Research Energy Lab (NREL)
  - Colorado State Patrol (CSP)
  - CDOT
- The Multimodal Freight Plan was discussed; key theme is "Made in Colorado – Shipped to the World" and the need for public education surrounding freight is a key emphasis area. Would like to see freight have a bigger seat at the table – STAC often requests Freight Advisory Council input on issues surrounding freight and the economy.
- Bustang and Bustang Outrider update were presented and discussed; phasing of Outrider program described; along with farebox recovery, and the importance of rural connections via transit to vital services (health-related, etc.)
- Related to technology and CVs – CDOT is partnering with local stakeholders to install fiberoptics into projects – but STAC also recommends we identify a separate funding source/revenue stream for transportation planning that integrates technology.
- Recognized and thanked Commissioner Reiff for his service on the Commission.

**Act on Consent Agenda (Herman Stockinger) – Approved unanimously on June 15, 2017.**

- a. Resolution to approve regular meeting minutes of May 18, 2017 (Herman Stockinger)
- b. Discuss and Act on Property Disposal: SH 85 (Parcel 19A-EX) (Paul Jesaitis)
- c. Discuss and Act on Repeal of PD 1401.0 "Product Evaluation and Experimental Features" (Herman Stockinger)
- d. Discuss and Act on SH 227 Devolution to the City of Pueblo (Karen Rowe)
- e. Discuss and Act on SH 233 Devolution to County of Pueblo (Karen Rowe)

**Discuss and Act on the 12th Budget Supplement of FY 2016-17 (Michael Krochalis) – No Action required for this placeholder action for June 15, 2017.**

- There were no budget action requests for the month of June 2017.

**Discuss and Act on Right-of-Way Acquisition Approvals (Josh Laipply) – Approved unanimously on June 15, 2017.**

**Discuss and Act on Right-of-Way Settlement Approvals (Josh Laipply) – Approved unanimously on June 15, 2017.**

**Discuss and Act Central I-70 IAA (David Spector/Tony DeVito) – Approved unanimously on June 15, 2017.**

**Discuss and Act on Pollination Corridor Designation (Debra Perkins-Smith) – Approved with a vote of 10 to one.**

- During 2017 Colorado Legislative Session, House Joint Resolution HJR17-1029 designated Interstate Highway 76 from Mile Marker 1 to Mile Marker 183 as the "Colorado Pollinator Highway."
- Work of CDOT Landscape Architect, Michael Banovich was recognized.
- Commissioner Hofmeister explained why the no vote on this item expressing concerns related to pollinator swarms creating safety conflicts with vehicle operators along the interstate.

**Recognitions**

- SH 9 International Partnership Institute Award (Dave Eller)
  - State Highway 9 – River South – Wildlife and Safety project awarded project owner: CDOT Region 3, Prime Contractor Kirkland Construction and the Construction Manager: Rocksol Consulting Group, along with the partnering facilitator Kracum Resources.
  - Recognitions included:
    - Grant Anderson, CDOT
    - Justin Kuhn, CDOT
    - Rocksol Consulting
    - Kirkland Construction
- The Asphalt Pavement Alliance's 2016 Perpetual Pavement Award - State Highway 40/Rabbit Ears Pass in Grand, Routt & Jackson counties (Dave Eller and Tom Peterson of the Colorado Asphalt Pavement Association)
  - Recognized – Jeremy Lucero, CDOT; Bill Schiebel, CDOT; Russ Larsen of Elam Construction and Transportation Commissioner Connell.
- CDOT Hero Awards: Matthew Bell and Richard Smith – for the May 31<sup>st</sup> I-25 Fuel Tanker Fire
- Unsung Hero Award presented to Cheryl Wright from Employee Engagement Society, awarded by CDOT Deputy Director, Mike Lewis; competed against big companies – American Express, Sysco, etc. CDOT was only state agency represented.

**Discuss and Act on Nominating Committee Report – Election of officers:**

- Nominating Committee of Commissioners Connell, Theibaut, Hofmeister, and Scott nominated Commissioner Zink for Chair, Commissioner Gifford for Vice-Chair, and Herman Stockinger as Commission Secretary. Change will take effect on July 1, 2017.

**Other Matters**

- Commissioner Reiff presented with an engraved gavel from the Commissioners as a token of their appreciation for his leadership and service.



**COLORADO**  
**Department of Transportation**

Division of Transportation Development  
 Multimodal Planning Branch  
 4201 E. Arkansas Ave, Shumate Bldg.  
 Denver, CO 80222

**DATE:** June 14, 2017  
**TO:** Transportation Commission  
**FROM:** Debra Perkins-Smith, Director, Division of Transportation Development (DTD)  
**SUBJECT:** Senate Bill (SB) 267 Issues and Considerations

**Purpose**

To discuss issues and considerations related to Senate Bill (SB) 17-267, and develop principles for an approach for moving forward.

**Action**

No action. Requesting input and direction for SB 17-267 program principles.

**Background**

Senate Bill 17-267 “Concerning the Sustainability of Rural Colorado” authorizes the execution of lease-purchase agreements on state facilities totaling \$2 billion, to be issued in equal amounts over four years, beginning in Fiscal Year (FY) 2018-19. CDOT will be the recipient of \$1.88 billion of those proceeds, with the remainder dedicated to controlled maintenance and capital projects on state buildings. Proceeds to CDOT may be used for projects that are identified as Tier 1 in the 10-Year Development Program Plan, and at least 10% of proceeds must be used for transit projects. The bill further requires at least 25% of CDOT’s proceeds be applied to projects in counties with a population of 50,000 or less, as of July, 2015 (see Attachment A).

	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	TOTAL
<b>Total to CDOT</b>	\$ 380.0	\$ 500.0	\$ 500.0	\$ 500.0	\$ 1,880.0
<b>Transit (min 10%)</b>	\$ 38.0	\$ 50.0	\$ 50.0	\$ 50.0	\$ 188.0
<b>Highway or Transit (90%)</b>	\$ 342.0	\$ 450.0	\$ 450.0	\$ 450.0	\$ 1,692.0
<b>Rural (min 25%)</b>	\$ 95.0	\$ 125.0	\$ 125.0	\$ 125.0	\$ 470.0
<b>Urban or Rural (75%)</b>	\$ 285.0	\$ 375.0	\$ 375.0	\$ 375.0	\$ 1,410.0

After the state covers payments for the capital construction proceeds, CDOT is responsible for the first \$50 million in lease payments related to state highway projects, with the remainder being paid by the General Fund or “any other legally available source.” After four years of lease-purchase agreements are executed, the repayment is expected to reach approximately \$150 million per year. Each lease-purchase agreement would have a term of twenty years.

SB 267 eliminates SB 228 transfers in FY 2018-19, and FY 2019-20, but the FY 2017-18 transfer of \$79 million is unaffected.

Staff are currently working to further assess SB 267, identify issues, and work with financial advisors, the State Treasurer, and the Attorney General’s Office to answer questions and better understand the financial implications of the lease-purchase agreements and CDOT’s repayment liability. The approach over the next several months will be to first address some of these questions and clarify implications, work with the Transportation Commission to develop a strategy for repayment, and then develop approach and criteria to project selection.

The final bill is available at [https://leg.colorado.gov/sites/default/files/documents/2017A/bills/2017A\\_267\\_enr.pdf](https://leg.colorado.gov/sites/default/files/documents/2017A/bills/2017A_267_enr.pdf).

**Details**



SB 17-267 commits CDOT to \$50 million in annual lease payments from existing CDOT revenues. Four issuances, each with a twenty-year term, equates to 23 years of payments totaling approximately \$1.1 billion. The first and final payments (years 1 and 23) are expected to total approximately \$28.5 million each, with the other years being full payments of \$50 million. Once all four issuances of lease-purchase agreements have been made, it is anticipated the total repayment will reach approximately \$150 million annually. While SB 267 commits CDOT to the first \$50 million in repayment, additional exposure for CDOT may exist in the future because the remaining repayment shall be paid from the General Fund or “any other legally available source.” Some of the outstanding questions we are seeking to address or clarify include:

- Does the state have eligible facilities totaling \$2 billion, or is there a possibility of a smaller issuance of lease purchase agreements? The State Architect, Office of State Planning and Budgeting, and state institutions of higher education are tasked with identifying and preparing a list of eligible state facilities by December 31, 2017.
- Will specific revenue sources for repayment need to be identified in the lease-purchase agreements (i.e. will the lease purchase agreements outline specific commitments from CDOT, General Fund, etc.)?
- What ability will CDOT have to actively participate in and/or influence the State Treasurer’s structuring of the lease-purchase transactions?

The first payment from CDOT is anticipated to occur in FY 2018-19. As we move into the FY 2018-19 budget cycle, the Commission will need to give consideration to the source of these funds. It may also be advisable to identify the source of repayment prior to identifying projects as there may be a desire to tailor the approach to projects to mitigate the effect of repayment on other programs. Questions for the Transportation Commission to consider include:

- How should the \$50 million annual lease payments be funded?
  - The Commission will need to identify which program or programs are reduced in order to reassign funds to annual lease payments.
- How could CDOT reduce or mitigate exposure to additional repayment liability?
  - Although the state, not CDOT, is the issuer of the lease-purchase agreements and SB 267 commits CDOT to only the first \$50 million in annual payments, the legislature could, through subsequent action, increase the share payable by CDOT. The Commission may want to consider strategies to reduce or mitigate this exposure, as well as plan for the possibility of an additional \$100 million per year in repayment in the event some or all of this liability is transferred back to CDOT.

Projects identified for funding must be Tier 1 projects in the 10-Year Development Program Plan. This currently includes 74 projects. These projects were the focus of a recent effort to develop updated scopes, schedules, and cost estimates in order to prepare for the potential passage of House Bill 17-1242, which would have referred a measure to the voters for a roughly \$3.5 billion bonding package (see 10-Year Development Plan memo). Staff anticipate updating the 10-Year Development Plan over the summer months to incorporate updated scope, schedule, and cost information, remove projects that have since been completed or funded, account for any changes in priorities that have been identified through the planning process, refine transit projects, and incorporate additional large asset management and operations projects. As this occurs, several issues need to be considered related to how this updated 10-Year Development Plan is used to identify projects for SB 267 funding. Questions for the Transportation Commission to consider include:

- How do we best leverage opportunities for future rounds of discretionary grant funding?
  - SB 267 funds could be assumed as match for discretionary grant applications. On the other hand, if funding for a project is completed by using SB 267 funding, it may take that project off the table for future discretionary grant funding.
  - The color of money is important on federal match, so how do we ensure that we have sufficient “non-federal” funds?
- Should projects be identified for all four years of funding prior to the first issuance of lease-purchase agreements, or incrementally as funds become available?
  - There are several benefits to identifying projects in advance including the ability to identify SB 267 funds as match for discretionary grants. It may also accelerate delivery of projects by focusing efforts on more quickly advancing selected projects to construction. There are also drawbacks. The fourth issuance of lease-purchase agreements is at least four years away. Identifying projects for multiple years today creates expectations and limits flexibility as priorities change, new funding becomes available, etc.



- What do we seek to achieve with the projects funded through SB 267?
  - The Commission will need to consider what we want to achieve with SB 267 funds, for example, should the primary objective be to mitigate the effects of annual payments on the CDOT budget, advance large strategic projects, address safety and mobility issues throughout the state, etc. Park and rides for transit service may be considered to complement highway capacity projects.

Staff will return in subsequent months with additional information on the outstanding questions relating to repayment, and for additional discussion on approach to repayment and project selection. Additional considerations for discussion at workshops later this summer include:

- Should there be an effort to mitigate the impact of annual lease payments by selecting projects related to the program or programs reduced to provide payment?
- To what extent should other funding sources or local match factor into project selection? If local match is an element of the program should there be a transfer or sharing of financial risk with local partners?
- Should preconstruction be eligible, or only projects that result in construction?
- How important is readiness? How quickly should a project be ready to go to construction from the time an award is made?
- What criteria should be used in project selection?

#### **Basic Principles of SB 267 Approach**

- Are there some basic principles that Commission would like to consider at this time to guide staff as they explore the approach for the SB 267 program? Examples could include:
  - Minimize risk/impact to CDOT's current programs and to projects/programs currently programmed in the Statewide Transportation Improvement Program (STIP)?
  - Seek to mitigate the likelihood of an increase in CDOT's payback responsibility above the \$50 million outlined in SB 267.
  - Maintain reasonable adherence to the 10-Year Development Plan Tier 1 projects as in place during the legislative session.
  - Maximize ability to leverage funding opportunities for federal discretionary programs.

#### **Advisory Committee Input**

The Statewide Transportation Advisory Committee (STAC) was briefed on SB 17-267 at their May meeting, with several Commissioners also in attendance. The STAC expressed strong interest for early involvement in the process of identifying projects in order to ensure support for the process, and for the projects which are ultimately funded. STAC members noted that the requirement is that a *minimum* of 25% of funds be spent in rural areas (counties < 50,000). Discussion also reflected concern about the creation of a separate rural pot of funds, with the primary concern being that the creation of a separate pot of funds was likely to emphasize an urban/rural divide, and may limit the extent to which rural projects are considered. It was also noted that the consideration of urban and rural projects together has been part of many past processes, and that there are ways to account for differences in rural and urban projects when comparing.

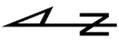
#### **Next Steps**

- July - Transportation Commission Workshop on responses from discussions with the Attorney General and State Treasurer. These responses can inform discussions on program principles, approach to repayment and project selection

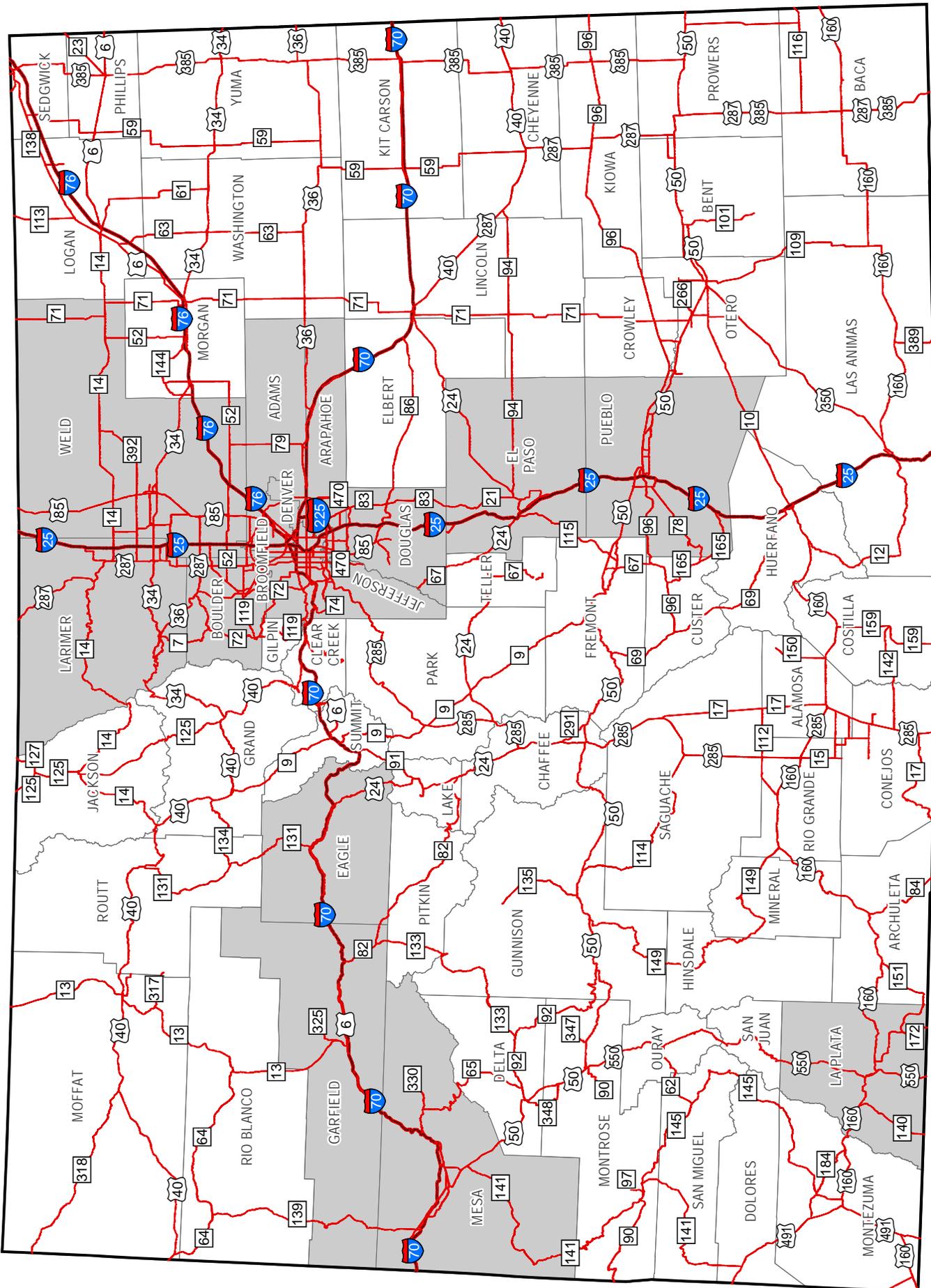
#### **Attachments**

- Attachment A: Colorado Counties > 50,000 Population





1" = 40 Miles



Counties with Population above 50,000



Data Source: CDOT 2017  
Published: May 2017  
www.codot.gov



**COLORADO**

Department of  
Transportation



**How a Connected Vehicles Ecosystem Supports  
CDOT's Mission  
June 23, 2017**



# TODAY'S OBJECTIVES

- Introduce how Connected Vehicles Ecosystem (or V2X) will help save lives and make people's lives better
- Introduce how CDOT is preparing for V2X future
- Introduce Panasonic as our partner in V2X future and what we are seeking to build



# CDOT'S PURPOSE

SAVE LIVES



MAKE PEOPLE'S LIVES BETTER



TECHNOLOGY CAN HELP US DO BOTH



# THREE BIGGEST PROBLEMS ON NATION'S ROADWAY

SAFETY



5.6 million crashes  
32,719 deaths

MOBILITY



6.9 billion hours in traffic

ENVIRONMENT



3.1 billion gallons wasted



# NTSHA IS MANDATING THAT ALL NEW VEHICLES ARE CONNECTED STARTING IN 2020

Some car manufacturers are already adding the technology

Connected vehicles will also benefit autonomous vehicles

Estimate up to 1.2 million connected vehicles in CO by 2025

“The safety benefit of V2V is undeniable. It will save lives, and everybody knows that. A delay in rolling out V2V will cost lives, and that’s a tragedy.”

- Harry Lightsey, General Motors



CONNECTION



TIMING : STARTING WINTER 2017



**ROAD X**  
ACCELERATING TECHNOLOGY



# SHARING DATA BETWEEN CONNECTED/ AUTONOMOUS VEHICLES AND WITH INFRASTRUCTURE COULD ADDRESS

SAFETY



80% crashes reduced

MOBILITY

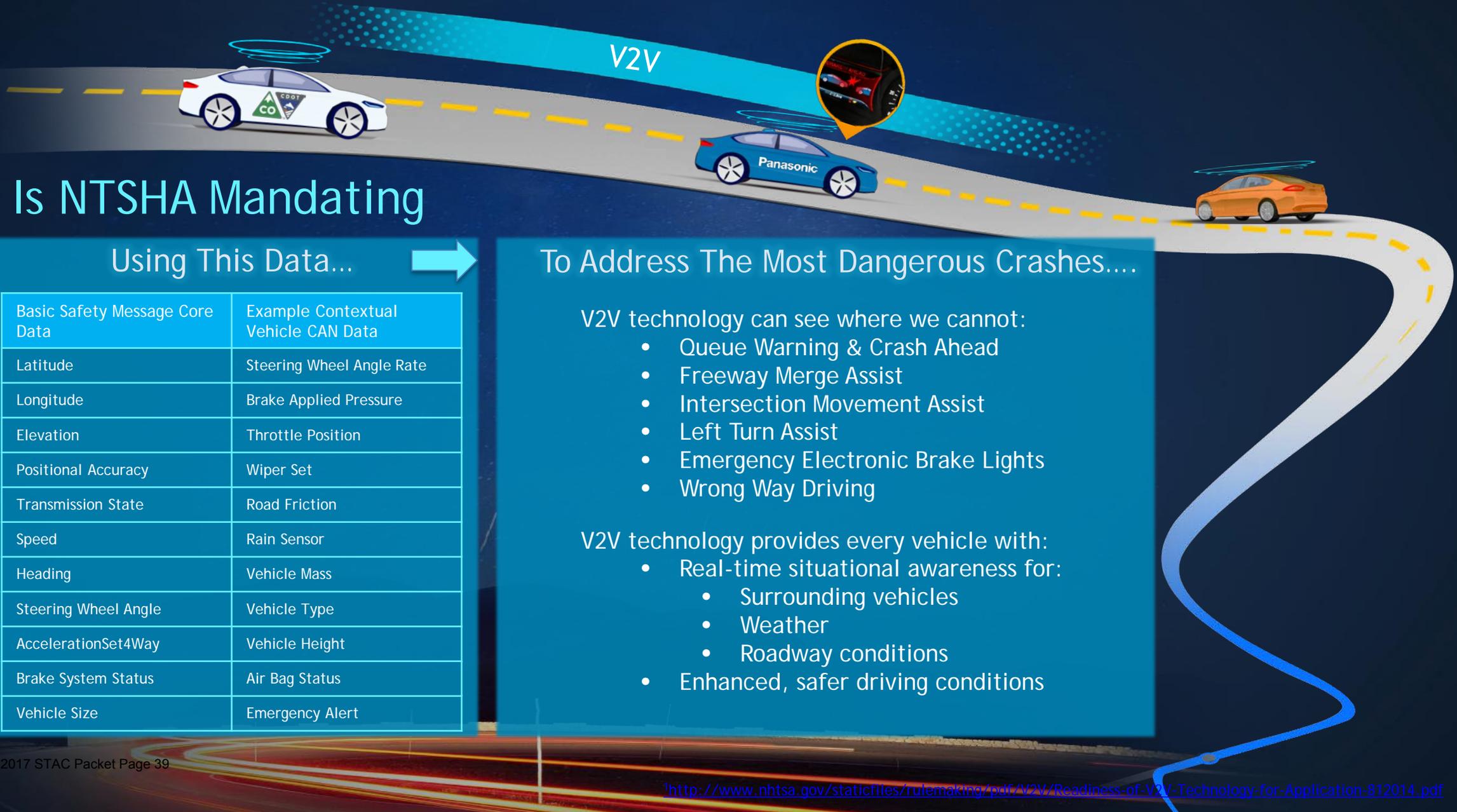


4X capacity of roadways increased

ENVIRONMENT



Emissions and fuel waste reduced



# What Is NHTSA Mandating

## Using This Data...



Basic Safety Message Core Data	Example Contextual Vehicle CAN Data
Latitude	Steering Wheel Angle Rate
Longitude	Brake Applied Pressure
Elevation	Throttle Position
Positional Accuracy	Wiper Set
Transmission State	Road Friction
Speed	Rain Sensor
Heading	Vehicle Mass
Steering Wheel Angle	Vehicle Type
AccelerationSet4Way	Vehicle Height
Brake System Status	Air Bag Status
Vehicle Size	Emergency Alert

## To Address The Most Dangerous Crashes...

V2V technology can see where we cannot:

- Queue Warning & Crash Ahead
- Freeway Merge Assist
- Intersection Movement Assist
- Left Turn Assist
- Emergency Electronic Brake Lights
- Wrong Way Driving

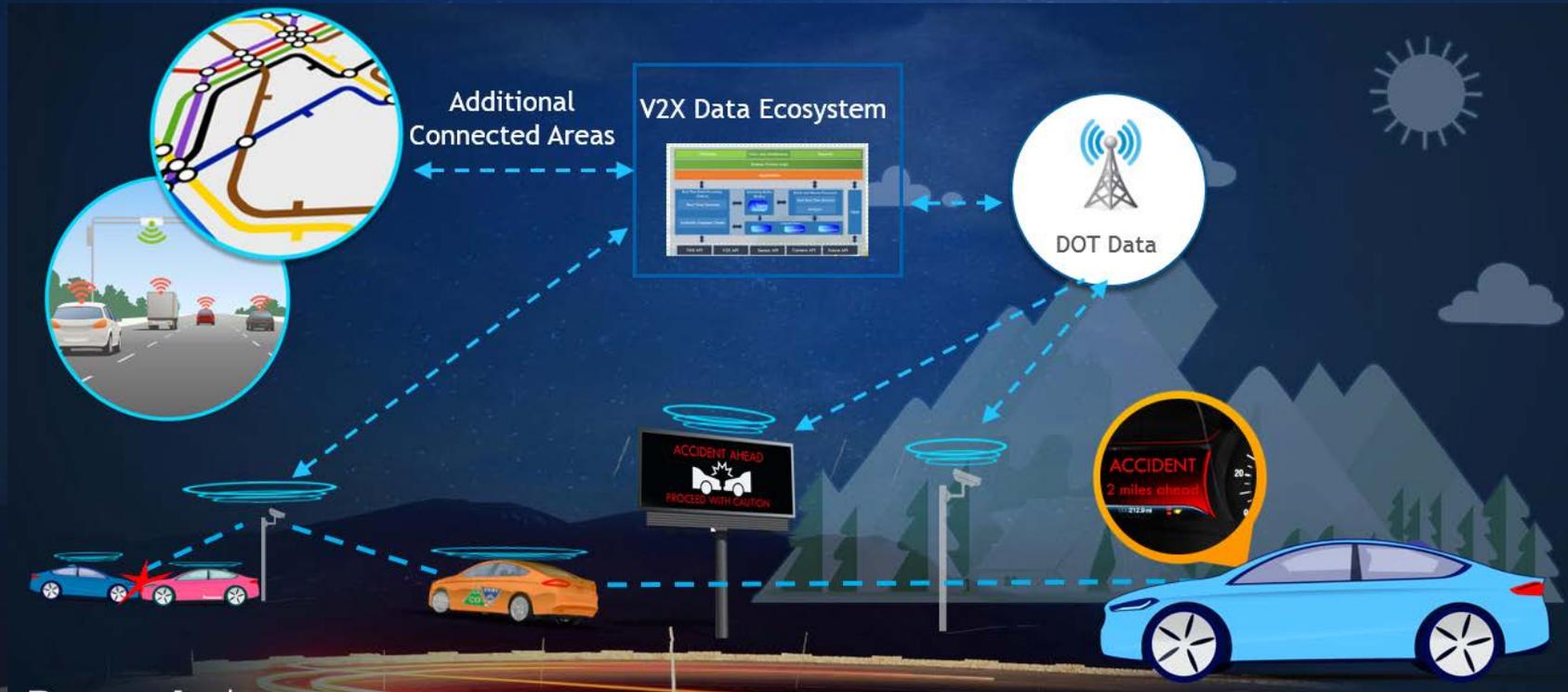
V2V technology provides every vehicle with:

- Real-time situational awareness for:
  - Surrounding vehicles
  - Weather
  - Roadway conditions
- Enhanced, safer driving conditions



# BUT WE CAN DO MORE

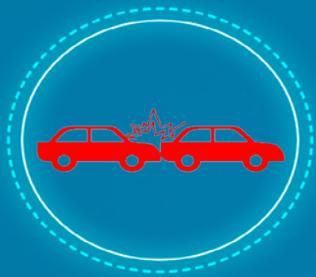
Advancing Connected Vehicle Technology via investing in a Connected Vehicle Ecosystem Pays Dividends Soon & Into the Future





# WHAT IS THE RETURN ON INVESTMENT FOR CO? IT SAVES LIVES...

SAFETY



Prevent **8,400** additional crashes in Colorado per year  
**\$78 million** crash reduction benefit

Save **100** more lives and avoid **100** more fatal crashes in Colorado per year  
**\$150 million** annual crash reduction benefit



# WHAT IS THE RETURN ON INVESTMENT FOR CO? IT SAVES TIME...

## MOBILITY



Improve freeway travel times by **42** percent  
Improve arterial travel times by **27** percent  
Reduce poor weather incidents by **25** percent



# WHAT IS THE RETURN ON INVESTMENT FOR CO? IT IMPROVES OUR AIR QUALITY...

ENVIRONMENT



Improve fuel savings by **22** percent  
Reduce VMT by **20** percent  
Improve freeway travel times by **42** percent



# WHAT'S THE RETURN ON INVESTMENT? IT MAXIMIZES SYSTEM MANAGEMENT...

V2X ecosystem gives CDOT the ultimate situational awareness of all roadways, providing:

- Highly accurate, geo-located traveler information
- Highly accurate, localized weather data
- Faster emergency response times
- Improved incident management
- More intelligent, coordinated traffic signal systems
- Improved truck parking information/availability
- Enhanced maintenance decision support systems (e.g., snow plow operations)
- Improved infrastructure diagnostics (e.g., pothole identification, roadway friction), and
- Prepares our systems for autonomous vehicles

SYSTEM



CONNECTION



TIMING : STARTING WINTER 2017



**ROAD X**  
ACCELERATING TECHNOLOGY



WHAT IT LOOKS LIKE ?

# Panasonic | V2X Deployment Program



CONNECTION

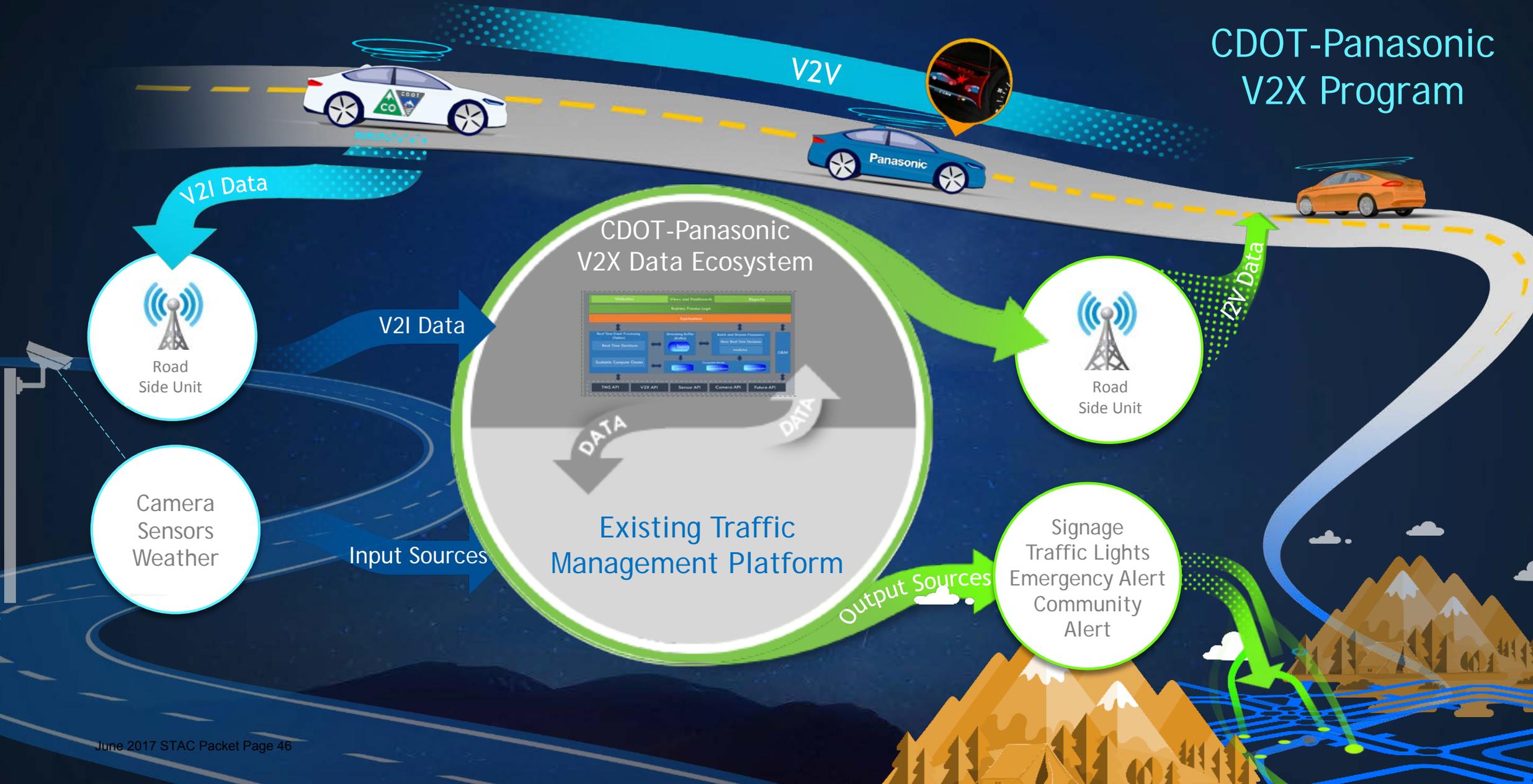


TIMING : STARTING WINTER 2017



**ROAD X**  
ACCELERATING TECHNOLOGY

# CDOT-Panasonic V2X Program





**COLORADO**

Department of  
Transportation

# Colorado Road Usage Charge Pilot Program

*Statewide Transportation Advisory Committee Presentation*

*June 23, 2017*



## 2040 Statewide Plan

estimated a gap of \$1 billion annually over the next 25 years

# OVERALL SYSTEM FUNDING GAP OVER THE NEXT 25 YEARS

**CDOT  
REVENUES  
\$21.1  
BILLION**



**\$24.9  
BILLION  
GAP**



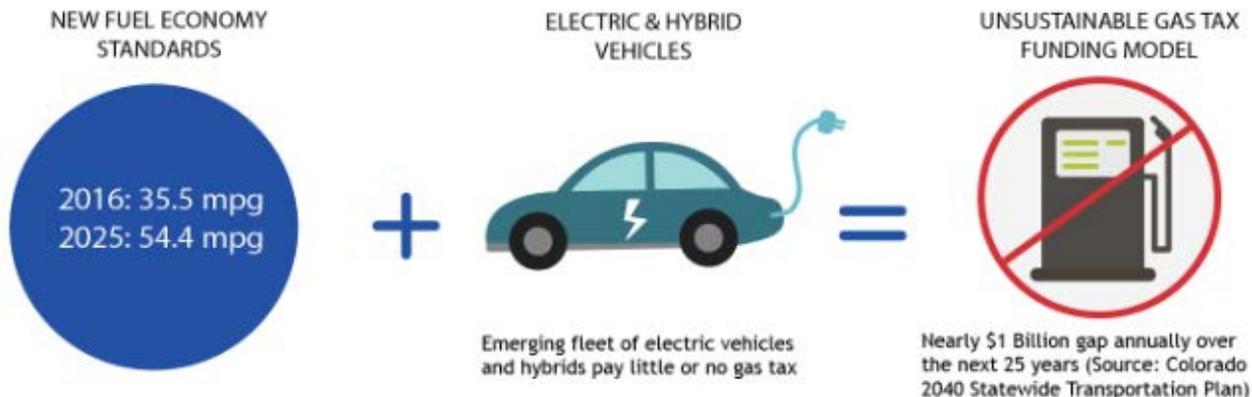
**TOTAL  
NEEDS IDENTIFIED  
BY CDOT  
\$46.0  
BILLION**

2016 - 2040

Source: Colorado Department of Transportation, 2014



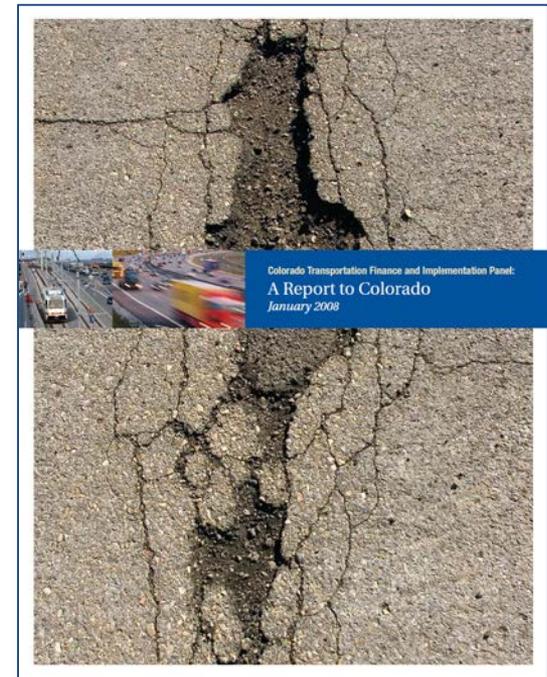
- **Increased Vehicle Fuel Efficiency Standards**
  - New vehicles in 2016 have an average fuel economy of 35.5 mpg
  - 2025 that standard increases to 54.4 mpg
- **Emerging fleet of alternative fuel vehicles**





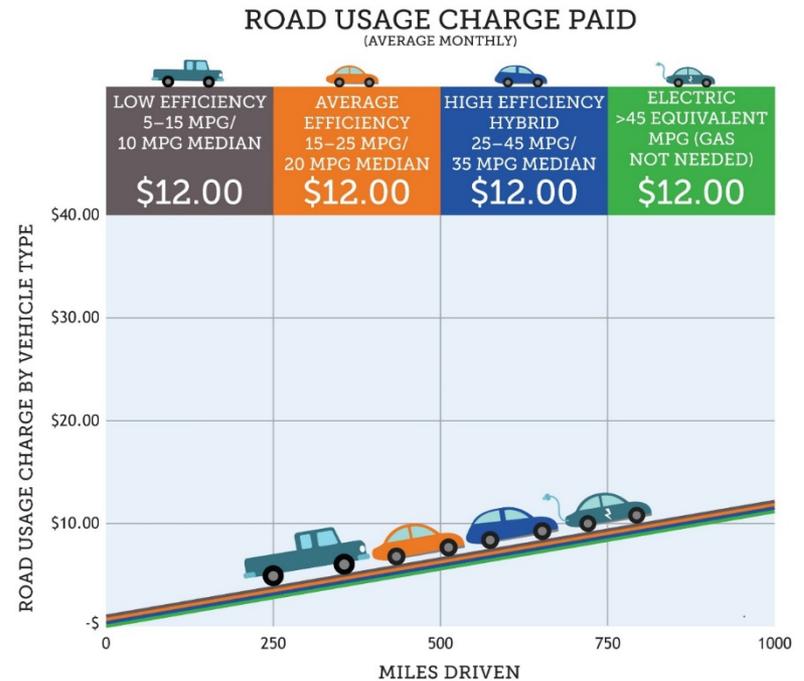
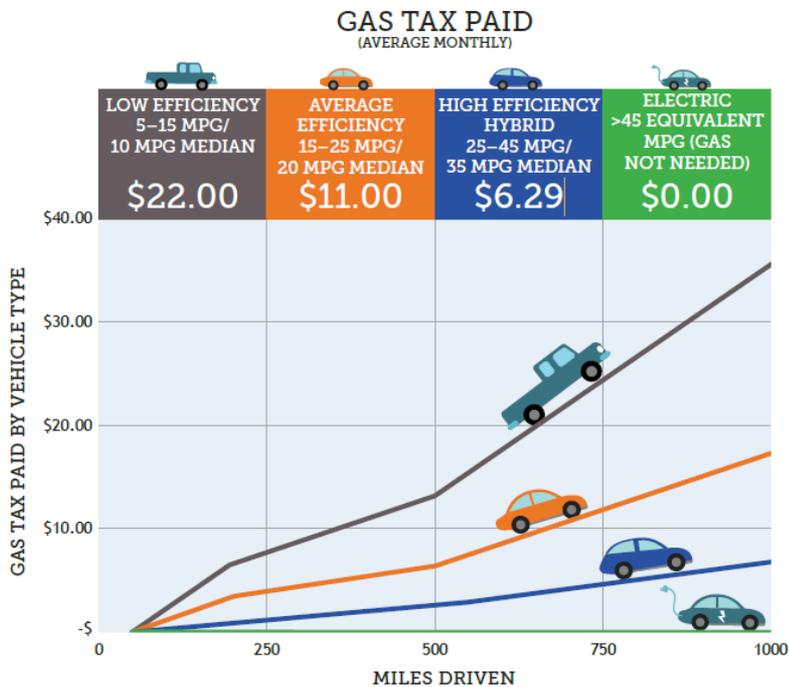
# Colorado Transportation Finance and Implementation Panel (2008)

- 39 Options Considered – 5 Final
  - Highway and Bridge User Fee
  - Vehicle Rental Fee
  - Motor Fuel Tax Increase/Indexed
  - Sales and Use Tax Increase
  - Severance Tax increase
- Vehicle Miles Traveled (VMT) Fee
  - Otherwise known as Road Usage Charging (RUC)
  - Pilot VMT Program supported by Panel





# All vehicles pay an equal amount for the same miles traveled





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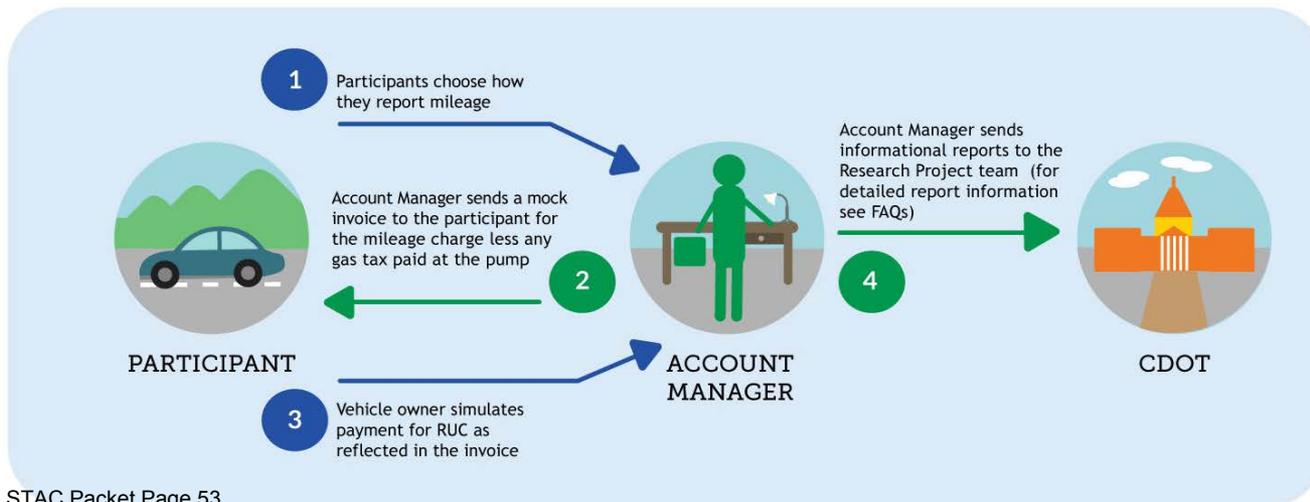
## Pilot Program Goals (Proof of Concept)

- Demonstrate an operational RUC
- Identify and evaluate potential issues
- Test the feasibility of various mileage reporting methods/ technologies for Colorado
- Solicit feedback and ideas



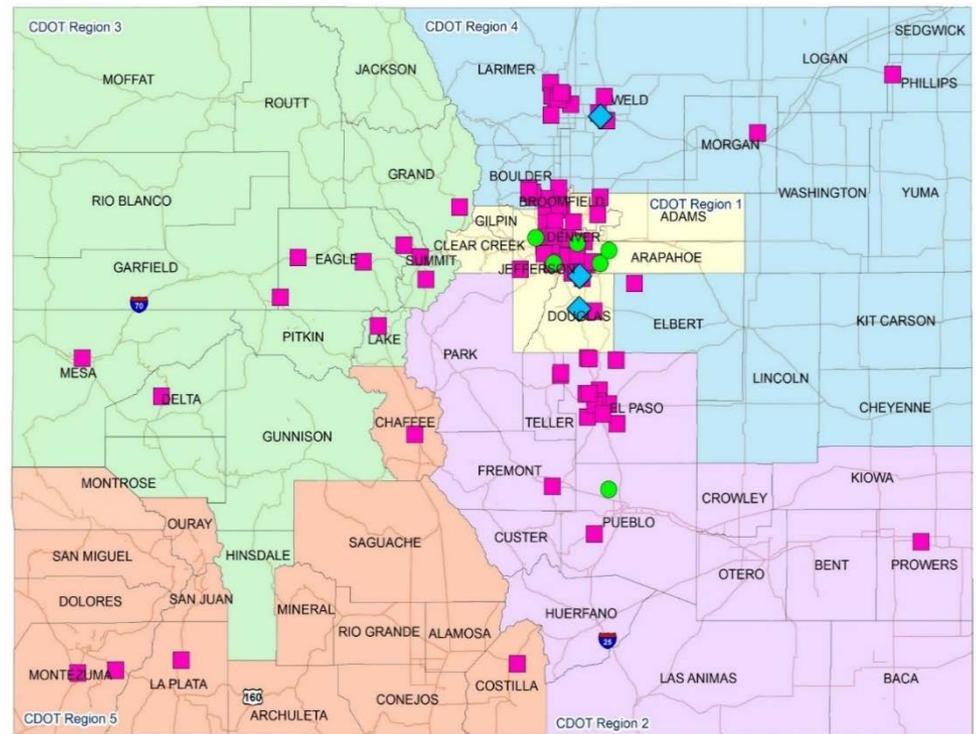


- Enroll in the Pilot
  - Choose Mileage Reporting Option
  - Create account/register vehicle with Account Manager
- Install Mileage Reporting Device (if applicable)
- Drive/Report Mileage
- Receive/Review monthly statements
- Complete participant surveys
- Closeout account/return device





- 100 Participants/101 vehicles enrolled (30 stakeholders/71 general public)
- Geographic Stratification (27 counties, urban/rural)
- Vehicular Stratification (Gas, Hybrids and Electrics)





- **Odometer Reading**

Report odometer reading via the account management website or mobile app



- **Non-GPS-Enabled Mileage Reporting Device (MRD)**

Receive a device to plug into the vehicle's OBD-II port. Counts distance traveled and gasoline consumed, but does not assess location.



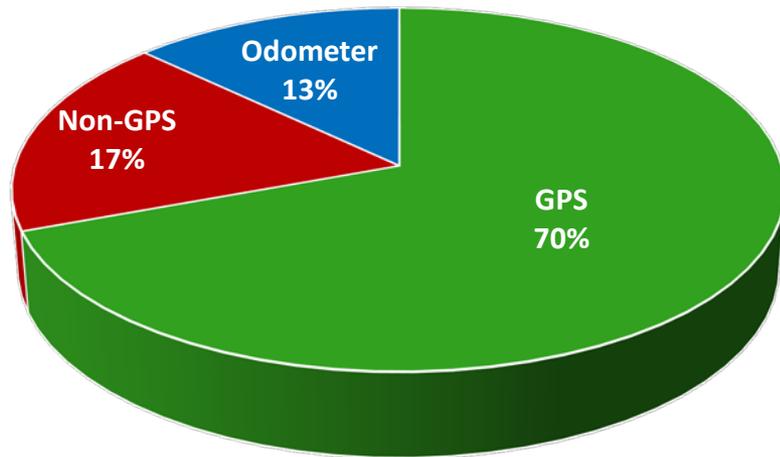
- **GPS-Enabled Mileage Reporting Device (MRD)**

Receive a device to plug into vehicle's OBD-II port. Uses location-based data to calculate total miles driven with differentiation between in-state and out-of-state roads.



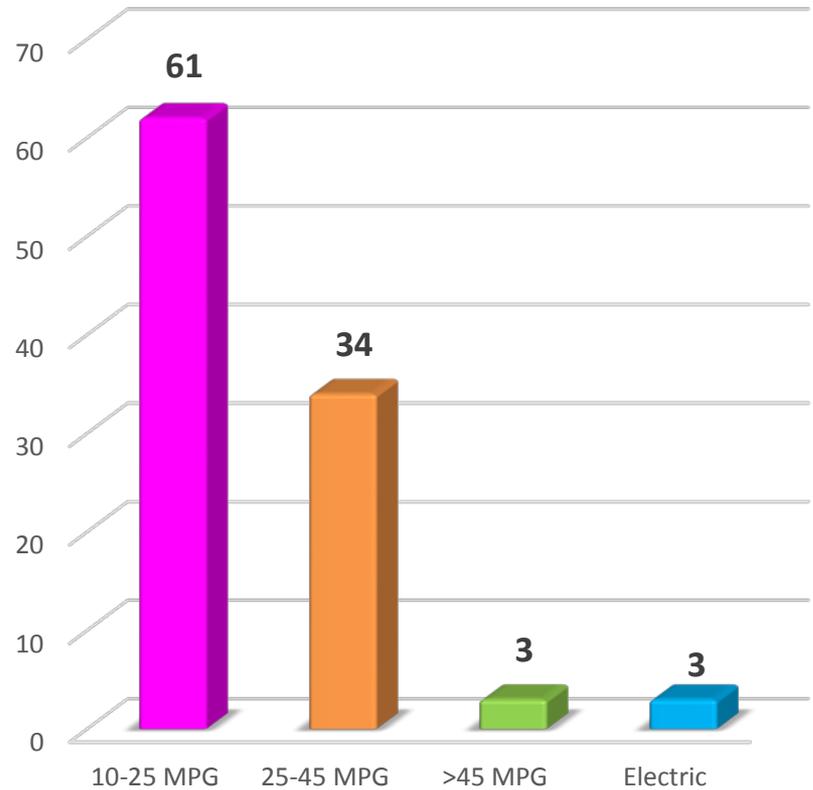


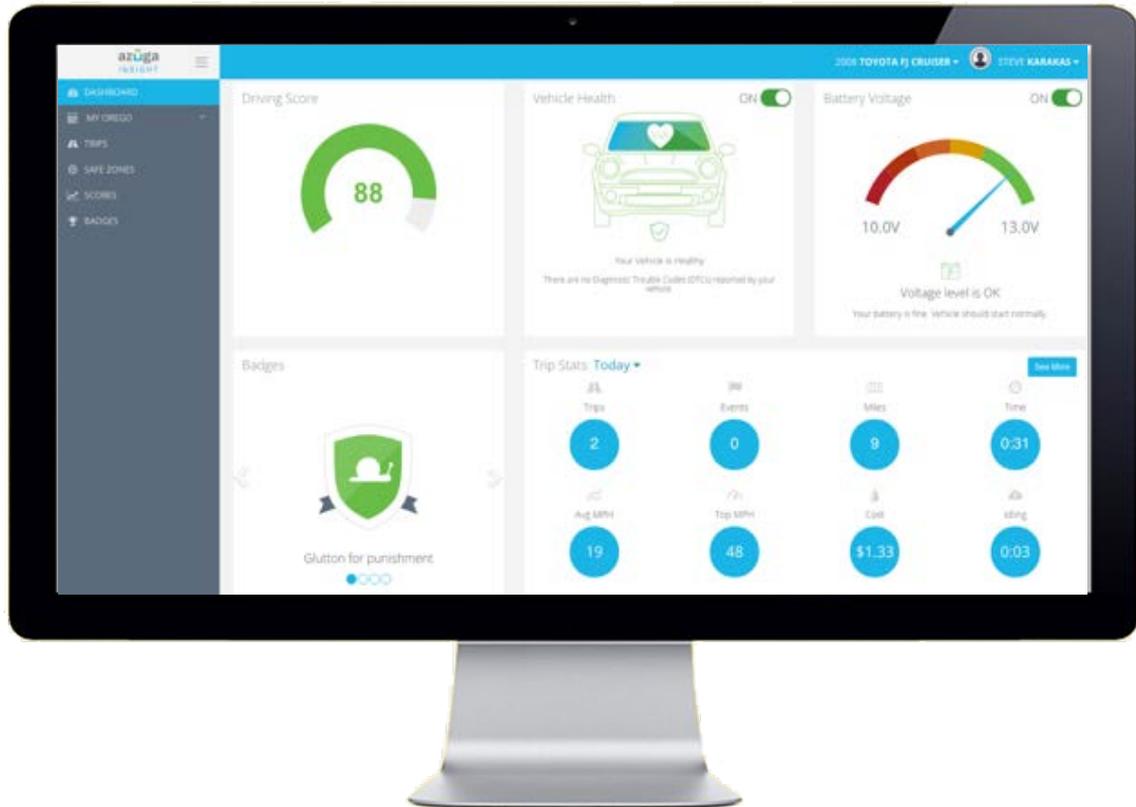
### Selected Mileage Reporting Options



**GPS Option most popular**

### Vehicle Stratification







Vehicle	Chargeable Miles	Mileage Fees on Chargeable Miles	Fuel Consumed	Fuel Tax Credit	Total Road Usage Charge
GMC Acadia 2014	402.2	\$4.83	22.83	-\$5.02	-\$0.20

**Daily Log - GMC Acadia 2014 1GKKVRKD6EJ287770**

Date	Chargeable Miles	Out of State Miles	Total Miles	Mileage Fees on Chargeable Miles(\$)	Fuel Consumed (Gallons)	Fuel Tax Credit (\$)	Daily Net Road Usage Charge (\$)
01-01-2017	0.0	0.0	0.0	\$0.00	0.00	\$0.00	\$0.00
01-02-2017	0.0	0.0	0.0	\$0.00	0.00	\$0.00	\$0.00
01-03-2017	0.0	0.0	0.0	\$0.00	0.00	\$0.00	\$0.00
01-04-2017	17.3	0.0	17.3	\$0.21	1.12	-\$0.25	-\$0.04
01-05-2017	17.8	0.0	17.8	\$0.21	1.16	-\$0.26	-\$0.04



As participants became **more familiar** with the invoice process, satisfaction with invoices and the web portal **increased.**

More importantly, as **satisfaction** in these areas **increased**, overall **support of RUC increased.**



<b>ALL ASPECTS OF THE PILOT PROGRAM</b> satisfaction <b>HIGH</b>	<b>INFORMATION SECURITY</b> satisfaction <b>INCREASED</b>	<b>AWARENESS OF DRIVING HABITS</b> <b>INCREASED</b>
	<b>ACCURACY OF INVOICES</b> satisfaction <b>INCREASED</b>	<b>CHANGE IN DRIVING BEHAVIOR</b> No change
<b>RUC SUPPORT STRONGER THAN GEN. PUBLIC IN CO.</b>	<b>NEED MORE PUBLIC EDUCATION</b>	



## RUC AS SUSTAINABLE FUNDING

**GREW MORE  
APPEALING**

## CONCERNS

- Out-of-state drivers
- Drivers of fuel-efficient vehicles paying more
- Privacy

## MILEAGE REPORTING DEVICE PARTICIPANTS

**MORE SATISFIED**

than odometer reading participants

## ONGOING PRIVACY COMPROMISES:

Although many participants acknowledged that they had sacrificed some privacy, the majority were still satisfied with the Pilot's privacy protections,

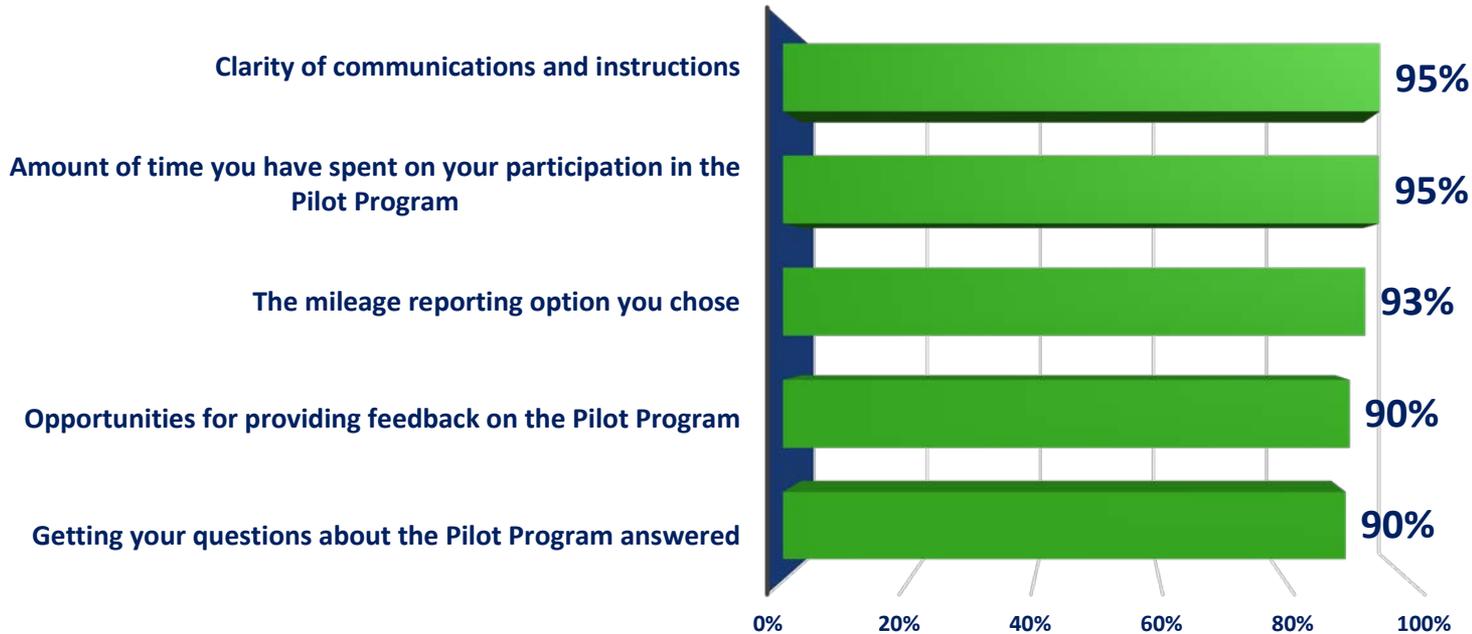
**indicating that they were willing to make some privacy compromises.**



# Overall Satisfaction

**91% would participate in a future pilot**

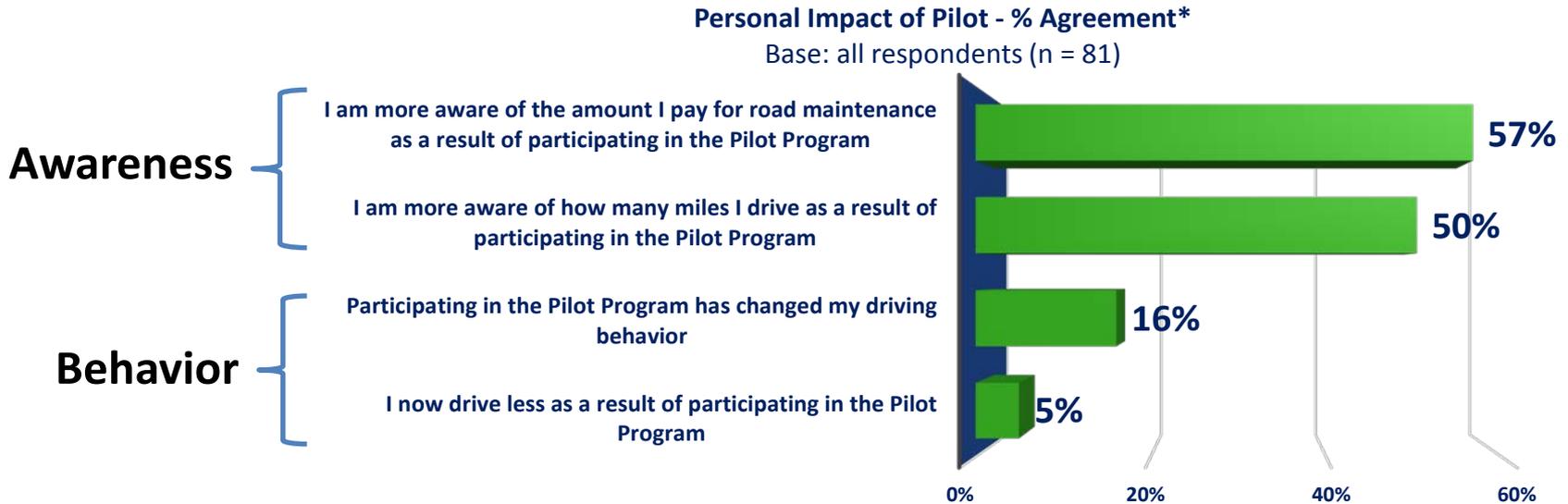
**Overall Pilot - % Satisfaction\***  
Base: all respondents (n = 84)



June 2017 STAC Packet Page 62  
\*Proportion of participants who chose 4 or 5 on a scale of 1 (very unsatisfied) to 5 (very satisfied).



# Personal Impact of Pilot



“The biggest impact for me personally has been the realization that I rarely drive more than 75 miles in a single day. As a result, I'm now planning on purchasing a fully-electric vehicle within the next year. The pilot has resolved any concerns I had about EV range anxiety.”

-Public

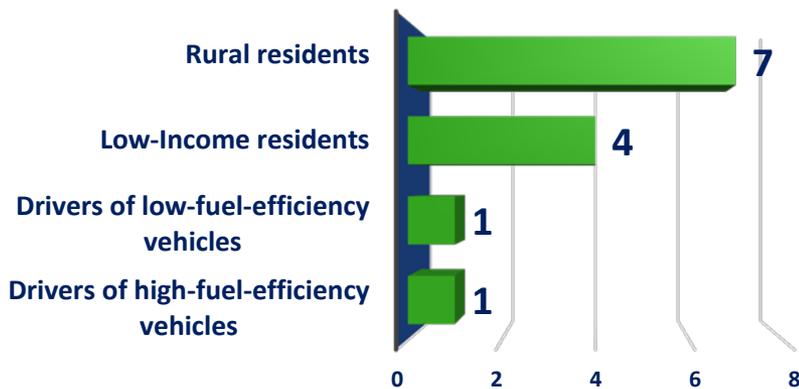
June 2017 STAC Packet Page 63  
\*Proportion of participants who chose 4 or 5 on a scale of 1 (strongly disagree) to 5 (strongly agree).



# Groups That Could Be Negatively Impacted

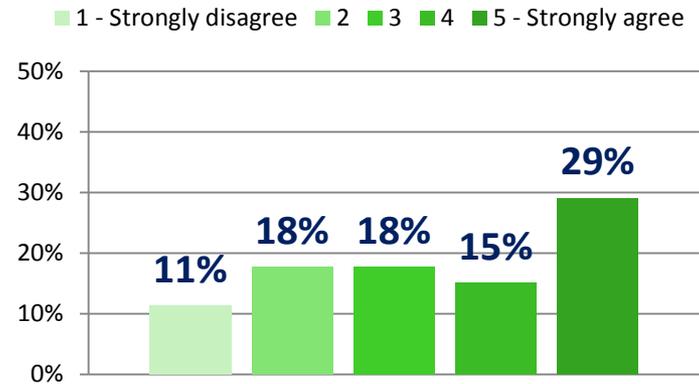
## What groups of people, if any, do you think Road Usage Charge could be unfair to?

Base: respondents who indicated RUC could be unfair to certain groups (n = 8)



## The Road Usage Charge Program impacts people in all regions of the state equally

Base: all respondents (n = 78)





- Improve Roadway Ownership Data
- Address OBD II Port Competition
- Include Multiple Fuel Types
- Examine Operations
  - Revenue Collection
  - Administrative Costs
- Identify Barriers to Public Acceptance
  - Urban/Rural Equity Perceptions
  - Data Privacy Concerns



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## Continue to Progress Research

- Pilot with Farm Bureau for Agricultural Community
- Coordination with Other State Agencies on Next Level
  - Department of Revenue
  - Office of Information Technology
- Public and Stakeholder Focus Groups and Education
- White Papers on Issues
- Leverage RUC West on Regional or Industry Issues



**COLORADO**

Department of  
Transportation

# Transportation Planning Toolkit

*June 23, 2017*



# Agenda

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- Statewide Plan Lessons Learned
- Transportation Planning Toolkit Overview
- Core Modules
- Elective Modules
- Schedule



# Statewide Plan Lessons Learned

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- Feedback from Lessons Learned Exercise included the need to:
  - Engage TPR and MPO members earlier in the process to establish the framework and requirements for the Statewide Plan and the Regional Transportation Plans
  - Increase opportunities for collaboration and input on technical areas
  - ***Provide additional educational outreach that can be tailored to the needs of various technical and planning groups.***



# Transportation Planning Toolkit Overview

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- Transportation Planning Toolkit
  - Targeted informational topics surrounding key elements of planning process and essential CDOT business.
  - **GOAL:** Create a baseline of knowledge for planning stakeholders around critical planning topics in preparation for plan development.
  - The core and elective content may be delivered through various mediums
  - These materials will be made available through CDOT's website as an information repository.



# Transportation Planning Toolkit Overview

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- Idea to Project Concept
  - During the Together We Go listening tour we heard:
    - TPR members are interested in how their transportation idea becomes a project.
    - RTPs should be geared toward grant writing and contain key pieces of data.
  - The Transportation Planning Toolkit will take users through the Idea-to-Project journey.
    - Explain the process and allow for quicker and more informed decision-making



# Transportation Planning Toolkit Overview

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- Benefits

- Creates a baseline of understanding throughout Colorado's 10 TPRs and 5 MPOs
- Tailors educational outreach efforts to meet specific needs of planning partners
- Provides on-demand access to a variety of planning information to enrich and support the overall planning process
- Allows for more efficient and informed decision-making



# Core Modules

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- In order to establish a unified baseline of understanding throughout Colorado, we are recommending that TPRs adopt the following:
    - Core Module #1: Idea
      - Asset Management\*
      - Project Development\*
      - Stakeholder Involvement
    - Core Module #2: Planning
      - Governance
      - Public Engagement
      - Regional & SW Transportation Plans
      - Multi-modal plans (Transit, Rail, Bike/Ped, etc.)
      - Plan Integration
    - Core Module #3: Funding
      - Formula Funding Sources\*
      - Discretionary Grants\*
      - Funding Challenges
      - Investment Priorities\*
    - Core Module #4: Selection
      - Performance Based
      - Development Program\* (project based)
      - STIP
      - PD14
    - Core Module #5: Improvements
      - Design
      - Implementation
      - Construction
      - Operations/Maintenance
- \*includes a Transit-specific element*
- ***Recommendation: Adopt these core modules as presented.***



# Elective Modules

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- During the Statewide Plan Lessons Learned TPR members told CDOT that they wanted to individualize their Regional Transportation Plans
- ***Please prioritize the following elective modules:***
  - Elective Modules: Technology
    - Scenario Planning
    - Statewide Travel Model
    - RUC
    - Connected/Autonomous Vehicles
    - Alternative Fuels
  - Elective Modules: Environmental
    - Resiliency Planning
    - Environmental Processes (NEPA, PEL)
    - Air Quality
    - Climate Change
    - Land Use Integration
  - Elective Modules: Economic Vitality
    - Economic Cost of Congestion
    - Land Use Patterns (urban/rural)
  - Elective Modules: Bicycle and Pedestrian
    - High Priority Bicycle Corridors
    - Specific Bike/Ped Funding Opportunities
    - Safe Routes to School
  - Elective Modules: Planning Tools
    - C-Plan
    - Transportation Matters Website
    - CDOT Project Locator
    - Your CDOT Dollar
  - Elective Modules: Freight
    - Freight Advisory Council
    - Multimodal Freight Plan
    - Rest Area Guidance/Truck Parking
    - FAST Act Grant Opportunities
  - Elective Modules: Transit
    - Transit Programs
    - Investment Goals (Access, Mobility, Economic Vitality, etc.)
    - Rail Planning
    - Competitive Awards Processes



# Schedule

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## 2017

- **Q2** – Introduction and Topic Selection
- **Q3** – Core Module #1: Idea
- **Q4** – Core Module #2: Planning

## 2018

- **Q1** – Core Module #3: Funding
- **Q2** – Core Module #4: Selection
- **M5/6** – Core Module #5: Improvement
- **M7/8** – Elective Topic #1:
- **M9/10** – Elective Topic #2:
- **M11/12** – Elective Topic #3:

## 2018 Webinar Schedule

- Elective Topic
- Elective Topic
- Elective Topic



# Questions / Discussion

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