

TransPort / draft summary

TransPort, Subcommittee of Transportation Policy Alternatives Committee (TPAC)
Thursday September 14, 2023, 1 to 2:30 pm online

Attendees:

AJ O'Connor, Vice Chair	TriMet
Adrien Pearman	DKS
Alison Tanaka	City of Portland
Angela Giacchetti	Open Mobility Foundation
Basem Elazzabi	PSU/TREC
Bikram Raghubansh	City of Portland
Blaine Van Dyke	ODOT
Caleb Winter	Metro
Carl Olson	Clackamas County
Dennis Mitchell	DKS
Dustin Ross	Washington County
Iona Cosmas	Clackamas County
Jabra Khasho	City of Beaverton
Jacob Sherman	City of Portland
Jason Spencer	Western Systems
Jason Shaddix	ODOT
Jim Gelhar	City of Gresham
Jim Peters	Citizen Engineers
Joe Kirkland	City of Hillsboro
John Fasana	Washington County
Joseph Marek	Clackamas County
Kara Hall	Fehr & Peers
Kevin Martin	City of Portland
Kiel Ova	Traffic Technology Services, Inc
Maggie Lin	DKS
Matt Egeler	City of Hillsboro
Michaela Barton	Metro
Mike Burkhart	ODOT
Summer Blackhorse	Metro
Tammy Lee	PSU/TREC
Ted Bailey	
Ted Leybold	Metro
Tina Nguyen	City of Beaverton

Introductions and Announcements

Vice Chair AJ O'Connor with TriMet called the meeting to order at 1:02 p.m. He asked if there were any announcements. Caleb Winter with Metro announced that they would not hold a Round table during this meeting. He gave a brief update on the 2023 Annual Traffic Incident Management (TIM) Conference on September 20 and noted that the deadline to register was Friday, September 15.

Caleb also announced the Transportation Policy Alternative Committee's (TPAC) recommended projects as investments for the Carbon Reduction Program:

- Tualatin Valley Highway Bus Rapid Transit (planning)
- 82nd Avenue Bus Rapid Transit (planning)
- Line 33 McLoughlin Transit Signal Priority
- Climate Smart Implementation Program
- Transportation System Management & Operations

He also covered the Oregon Department of Transportation (ODOT) Portland Metro-area Projects on Statewide Final List, which consists of:

- I-205 Buss on Shoulder
- Signal Synchronization on 5 corridors:
 - Tualatin Valley Hwy between 20th Ave and 26th Ave
 - SW 72nd Ave at OR217 interchange
 - Tualatin Valley Hwy downtown Hillsboro
 - Beaverton-Tualatin Hwy between SW Hunziker Rd and SW Satler St
 - Pacific Hwy between SW 64th Ave and SW Fischer Rd., and
- Zero Emissions busses to support regional travel options and diversion mitigation

Zero Emission Delivery Zone

Jacob Sherman with the Portland Bureau of Transportation (PBOT) discussed Portland's Zero Emission Delivery Zone, Strengthening Mobility and Revolutionizing Transportation (SMART) Grants Program. He noted that freight decarbonization and reduction in greenhouse gas emission was a city priority and covered how carbon impacted the health of BIPOC and low-income community neighborhoods due diesel fumes. Jacob also stated that this zero-emission pilot program might address other key issues that negatively impact climate and public safety, such as increased transportation and freight GHG and serious or fatal truck crashes.

Jacob called out that many cars, vans, and box trucks can be electrified and that 92% of deliveries occur downtown using these vehicle types. Additionally, he noted that there are federal resources available to help delivery fleets transition to low or zero emission vehicles, such as SMART grants. This discretionary grant program has \$100 million available from 2022-2026 that offers two award types – one for planning and prototyping, and one for implementation.

Jacob gave an overview of their grant application for a small area of downtown zero-emission pilot program that will use trial sensors, curb data and digital permits to test the ability to measure loading space performance. They are partnering with businesses, building owners, shippers, and zero-emission logistics companies to test project delivery and strategies. Jacob noted that stakeholders, eco-logistic companies, data collection, testing, preliminary research, and evaluation of the pilot project are also covered by the grant, which will run from Summer 2023 through Spring of 2025.

Angela Giacchetti with Open Mobility Foundation (OMF) gave an introductory presentation on Curb Data Specification (CDS). She discussed their vision on how digital infrastructure helps cities manage public space, data standards and free open-source tools for public and private collaboration. These elements encourage responsible growth of new mobility service and cross-sector relationships for a shared vision of mobility.

Angela noted that OMF's approach for CDS was through technology built by public and private sector collaboration, working groups and GitHub repositories open to all, as well as competitive markets for mobility services, software, and collaboration with other open projects. Further, she briefly covered how CDS allows cities to digitally represent and communicate about to improve their curb services by digitizing curb regulations, monitoring events and evaluating curb metrics. Finally, Angela encouraged committee members and attendees to get involved with CDS by participating in a working group or joining OMF.

Caleb noted that they need to think about CDS in context for the next Intelligent Transportation Systems ITS architecture update and asked how curb cameras worked. Jacob noted that the cameras digitally code all the curbs in a specific area and provided this information as a common language shared across cities. Further, he noted that they are also focusing on specific loading zones to test their computer vision center. Jacob also stated that they can differentiate between a bike and box truck and the amount of time spent at the curb.

Additionally, Angela noted that they are seeing more success in smaller downtown areas with specific goals in mind. For example, UPS is motivated by scale and can handle the technical data to help develop a standard. Jacob also pointed out that sensors were not always 100% accurate, but noted that they were more accurate at 80%, 365 days in a year, then as a single snapshot of data from one day on the year.

Vice Chair AJ O'Connor asked there would be a second stage for the grant. Jacob stated that they need to figure out if they want to advance their findings to a stage two grant and offered to come back and present again within the next nine months.

Connected Vehicle Ecosystem Update

Blaine Van Dyke with ODOT gave an update and presentation on the Connected Vehicle Ecosystem (CVE). He pointed out that connected vehicles are becoming mobile sensor platforms, are important to digital infrastructure that can support safety, mobility, and road usage charging. As such, CVE supports data fusion and modeling, visualization for planning, operations, incident management, and reporting and analytics. Blaine Briefly covered network and direct communication, partnerships between their development team (Cintra) and subcontractors, and communication between Ecosystem partners.

Blaine pointed out that they are in a 12-month design phase and have \$10 million in grant funds with \$2 million dedicated to Intelligent Transportation Systems (ITS). He covered Safety and Mobility use cases and noted the benefits as reduction in roadside infrastructure, highway information analysis, and active traffic management to help create SMART corridors. This would make cars a variable message sign that can communicate information about what is taking place in a specific corridor and offer data on variable speed limits, warnings, incidents, weather, congestion, detour information, travel time, work zone, and lane and shoulder use. Additionally, ride usage charging (RUC) would potentially charge by the mile for road usage through the OReGO program. Finally, CVE would increase network-based communication but still leave some roadside assistance units.

The committee asked if there were any public outreach on this project and for clarification on road user charges and technical options. Blaine responded that they would be having their first workshop next week that will involve local agencies. He also noted that they had the ITS side as well as the road usage and charging side to consider. Further, he mentioned that they have been testing to determine if they could use existing architecture for dynamic pricing.

Ted Leybold with Metro asked if they were coordinating with the roadside unit (RSU) technology and local facilities. Blaine said, yes, and that they hope to get other agencies involved. He also stated that ODOT is limited on resources and will only use RSUs as a software-based option in limited areas. Finally, Caleb, asked if there was something TransPort should be paying attention to in terms of ITS architecture. Blaine agreed that there was, but that it would come down to how willing OEMs are to communicate.

FX2 Division Signal Priority Test Results

Vice Chair A.J. O'Connor with TriMet gave an update on the evaluation of the FX2 Division Signal Priority test results. He gave a brief overview of the Division Transit Project, noting that ODOT had applied for a Federal Highway Administration (FHWA) grant for next generation signal priority, which also coincided with the FX2 transit signal project. Working together, they implemented the first next generation signal priority corridor.

Among the project requirements were, a before and after study through Kittelson, an opportunity to make physical infrastructure changes, and the option to use next generation transit signal priority to add data to the cloud for times of arrival at intersections. The study shows the impacts these changes made within the corridor (including an on/off period of May 16-20 and May 25-June 2, respectively) and where PBOT implemented traffic controller logic to help buses move through the corridor. Key findings from the study found that over the course of a peak period, round-trip FX2 riders saved just over 8 minutes, or 9%, of travel time. Additionally, transit rider time was more reliable in terms of on-time and headway adherence, which showed close to 10% improvements with TSP.

Vice Chair O'Connor stated that things are still in legal review with PBOT and TriMet, but that they hope to have a formal intergovernmental agreement (IGA) signed with ODOT and PBOT soon. He also mentioned that they will implement transit signal priority options for corridors in Clackamas, as well.

Adrian Pearman with DKS called out how well the numbers turned out, considering that none of the schedules were changed to make better use of this technology. He noted that if TriMet could tighten up FX bus schedules then they should see better trip travel time along the corridor. Further it was noted that TriMet was recognized by the Institute of Transportation Engineers (ITE) as a Transportation Systems Management and Operations (TSMO) project award winner and that their success noted by King County, who will be implementing the same TSP system in Seattle.

Carl Olson with Clackamas County asked how many signals belonged to ODOT, Gresham, and PBOT. Vice Chair O'Connor stated that ODOT had two, Gresham 11, and PBOT has the remaining bulk of signals. Carl asked if there were issues with the signal crossing boundaries between agencies. Vice Chair O'Connor responded no, and that any difference with how signals were performing between each partner was adjusted through ETA and machine learning. He also noted that they will continue to improve the controller's functions going forward with the help of Q-free, sans the specific logic written by each agency. Vice Chair O'Connor also thanked Alison Tanaka with the City of Portland for the tremendous amount of work she did on the project.

Additionally, Ted Leybold asked about prep work on Halsey and Stark for readiness for TSP and what that work would or would not include. Bikram responded that he was referring to the Burnside and Stark Transit Signal Priority Readiness project and stated that there was still a lot of work to do to get the intersection ready before they can implement TSP. Vice Chair O'Connor also noted that they are interested in Barbur Blvd for this upgrade, as well as other high-frequency corridors within the region.

Further, the committee discussed how travel times differed or improved between round trip and one way and how to improve that through LITE, as well as how TSP might work with emergency vehicles. Bikram responded that they currently do not have funding to expand this for emergency use and that the LITE system would require a separate system package. Vice Chair O'Connor noted that it was the same system and would only require a separate license.

Adjourn

There being no further business, Vice Chair AJ O'Connor adjourned the meeting at 2:28 p.m. The next online meeting will be October 11, 2023.