TransPort / Meeting Summary

Thursday, March 22, 2018, 9:00 to 11:00 a.m.

Oregon Department of Transportation - Region 1, Rooms A/B
123 NW Flanders, Portland, OR

Meeting Attendees:

A.J. O'Connor – Vice Chair	TriMet
Adrian Pearmine	DKS
Alison Tanaka	Kittelson & Associates
Andrew Dick	Oregon Department of Transportation
Anjum Bawa	Fehr & Peers
Anne Hill	City of Portland
Bob Hart	RTC
Caleb Winter	Metro
Carl Olson	Clackamas County
Damian Casados	Coral Sales
Dennis Mitchell	DKS
Dwayne Johnson	Innovate Oregon
Jabra Khasho	City of Beaverton
Jason Spencer	BlueMac
Jennifer Bachman	DKS
Kate Freitag- Chair	Oregon Department of Transportation
Kevin Martin	City of Portland
Lisa Patterson	TREC, PSU
Mike Burkart	Oregon Department of Transportation
Pat Marnell	Kittelson & Associates, Inc.
Paul Zebell	Kittelson & Associates, Inc.
Scott Turnoy	Oregon Department of Transportation
Shaun Quayle	Washington County
Stacy Shetler	Washington County
Ted Leybold	Metro, Interim Co-Chair
Willie Rotich	City of Portland

Introductions and Announcements

Interim Co-Chair Ted Leybold from Metro brought the meeting to order at 9:00 a.m. and asked for round table introductions and updates. He briefly reviewed the agenda an asked if there were any comments. There were none.

Election of Chair and Vice Chair (Action Item)

Mr. Leybold stated that the Chair of the Transportation Policy Alternatives Committee (TPAC) had approved of the nominations for the new TransPort Chair and Vice Chair for TransPort. He reminded that committee of the rules and roles of the Chair going forward. Mr. Leybold pointed out that this would be a three year term starting March, 2018, with no term limits and no delegation of Chair title

going forward. He stated that the Vice Chair would have a one year term with the same rules applying for delegation and term limits going forward.

Mr. Leybold stated that nominations for Chair were Kate Freitag, Oregon Department of Transportation (ODOT) with Vice Chair nominations going to Andrew Dick, ODOT and A.J. O'Conner, TriMet. He asked for additional nominations. As there were none, he asked the nominees if they accepted their nominations; which they did. Mr. Leybold closed the nominations and asked the committee to take action on the nomination selections by silent ballot, allowing one vote per agency.

Mr. Leybold counted the votes resulting in the election of Kate Freitag as Chair and A.J. O'Conner as Vice Chair of TransPort.

Round Table Updates:

Chair Freitag called for roundtable updates.

- Mr. Rotich with the City of Portland stated that they had two Intelligent Transportation Systems (ITS) related projects - North Going to Swan Island, which was awarded to Kittelson & Associates, and Swan Island, North/Northeast Columbia Boulevard is in negotiations to be awarded to DKS.

- Mr. Khasho with the City of Beaverton stated that they had a project running fiber on Hall Blvd, extending from Allen Blvd to Hartwood and eventually to Highway 217 to eventually create another loop.

- Mr. Quayle of Washington County mentioned that they had just put out their first ATC controller with Intelight, stating that they were on a learning curve. He stated that MaxAdapt slated for Cities of Tualatin and Sherwood, Phase II project and the Durham project. Additionally, he stated that the TIGER project was testing fiber now, which would eventually include programming for truck and transit priority.

- Mr. Shetler of Washington County provided updates for PORTAL, stating that Tammy Lee had been hired to work on PORTAL data availability, travel Time and vehicle length web pages. Further he mentioned that there was a new map for the freight and vehicle page on the live site. http://new.portal.its.pdx.edu:8080/freight/

- Mr. Hart of RTC mentioned that Clark County Signal Phasing and Timing (SPaT) data and C-Tran fare payment would like to run on the ITS Network. He and Adrian Pearmine encouraged holding an ITS Network Management Team meeting soon. Mr. O'Connor stated that they would follow-up with Matt Fouts and Daniel Miller.

- Mr. Pearmine mentioned that there would be an Institute of Transportation Engineers (ITE) Quad conference, and that they would hold a "technology Tuesday" on May 8th and cover information on ITS and Smart Mobility.

- Ms. Patterson stated they would hold a TREC pooled research fund webinar

- Mr. Olson with Clackamas County stated that they had approximately five new signals being built this year. Additionally, he pointed that that their SynchroGreen Adaptive project is going well and will have some before and after data with direct comparisons using high resolution data. He also anticipates a lot of fiber and network updates in the expanding Clackamas Town Center area within the next few years.

- Mr. O'Connor with TriMet was working on next generation Transit Signal Priority (TSP) with regional partners. They are talking with major vendors today about what they are currently

doing in New York City and Montreal. Further he mentioned that the City of Portland, had hired TriMet's excellent procurement person.

- Mr. Dick with ODOT mentioned that Kittelson and Associates, Shaun Quayle, Intel and Metro were putting together a project list for an Advanced Transportation and Congestion Management Technologies (ATCMTD) grant application. They had received good feedback from the U.S. Department of Transportation (DOT) and will figure out what will get us across the finish line, while also working to identify local match.

- Mr. Winter of Metro stated that they are making progress on the I-84 Multimodal Integrated Corridor Management (ICM) plan and have narrowed down the six operations alternatives for the corridor with agency partners. They are excited to put more specifics in the corridor across several agencies. Mr. Winter thanked the agencies involved and DKS for their help during the process.

- Mr. Olson with Clackamas County said he is coordinating with ITS Washington and ITE Oregon ITS Subcommittee to put some additional events around the Global City Teams Challenge Tech Jam, June 20 to 21.

- Mr. Leybold with Metro gave an update on the Regional Transportation Plan (RTP) projects. He stated that they will be giving direction to member agencies concerning policy aspirations including safety, equity and congestion relief and climate. There may be an opportunity for member agencies to make improvements of additional scope elements. He encouraged committee members to take a look at the ITS elements in the scopes, particularly projects in high crash corridors. Mr. Leybold stated that few of the projects in high crash corridors included safety, pursuing objectives toward zero deaths. Considering equity, the RTP projects proposed have a good match to project locations that could benefit underserved communities but they don't currently articulate or have equity-related elements. Caleb added that there were equity maps that can help look at the criteria and areas.

<u>TransPort Work Ahead</u>

Mr. Winter handed out a sheet to help them prioritize projects for the next two years. Mr. Winter asked committee member to rate their availability to participate as high, medium and low; which will help them formulate the work plan going forward.

The committee asked Mr. Winter if they had a master list of the other committees that were related to TransPort and ITS and TransPort committee members that may be involved in them. Mr. Winter stated that he did have a list and would bring that in as part of the workplan.

<u>Smart City Portland Pilot with CityIQ</u>

Chair Freitag introduced Kevin Martin, Willie Rotich, and Anne Hill from the City of Portland. Mr. Martin stated that he was involved with the Portland Urban Data Lake (PUDL) and that they were currently starting a sensor pilot with AT&T, General Electric (GE) and Intel called CityIQ. The project was related to the Smart Cities challenge and allowed them to better assess how infrastructure is being used in right of way (ROW) and how vehicles are using ROW and how fewer counts are done to know how bikes and pedestrians are using on the infrastructure.

Mr. Martin stated that they were looking into units that attached to street lights that would capture near-real time counts within a 175 foot square area for all types of vehicles. The units would provide 200 new real-time data nodes along SE 122nd Avenue, Hawthorne and Division in Portland. This pilot uses a combination of environment sensors and data derived from images to record traffic, parking and pedestrian activity. The pilot begins in April, 2018 and will run for 18 months.

Mr. Martin advised that GE was handling the technology involved with the pilot project and that AT&T was involved with the backhaul of moving data. Additionally, the algorithms were developed in partnership between GE and Intel. The technology will be manufactured on the east coast, but were already in Portland and would be installed soon. Portland is one of the first cities to use this platform. He pointed out that there are other sensor platforms, such as Argon Array and others. The City of San Diego, California has ordered 3,000 sensors that would count parking ins and outs, on street parking, and shot spotters for law enforcement purposes.

The City of Portland had originally considered the addition of enforcement technology. However they considered resident sensitivities and did not want the pilot to be overwhelmed by a conversation to be about police. The data they will capture would cover parking data, and also contribute to understanding the high rate of pedestrian fatalities and bike crashes, and inform them on how to address high risk areas.

Currently, the City can only set one "trip wire" per mode for counts in CityIQ. Access to the information will be from an Application Programming Interface (API) with a pull down from JavaScript Object Notation (JSON) data that comes through at 3 times per minute. How they manage the data will be part of PUDL.

The committee asked if AT&T were providing internet services as well. Mr. Martin responded that this was not a conversation about 5G, small cell or any franchise of small cell equipment. Additionally the committee asked if the information from the trip wires was being process in the device. Mr. Martin replied yes and stated that CityIQ refers to it as metadata. These are single nodes with non-public wi-fi capability. There would be no video going through to the City of Portland or to AT&T per American Civil Liberties Union (ACLU) recommendations. Again he stated the conversation needed to be about how do we provide better services and make our roads safer and not about surveillance.

The units will be located in Portland General Electric (PGE) territory only. The units will help with improvements and will be installed in fall 2018 to capture before and after data around I-205.
All poles are LED now and they are will be using them as a resource to hold additional equipment going forward and will therefore need newer, sturdier pole arms.

Additionally, the committee asked if there were air quality (AQ) sensors, asked for wheelchair counts, audio sensors and if the City had a plan to verify data. Mr. Martin stated that there were environmental sensors through AT&T and are different than Portland's testing with other AQ sensors on 122nd. He mentioned that they would eventually be able to identify wheelchairs and had plans to build this out over the pilot as well. Audio sensors will not be included. In terms of verifying data Mr. Martin stated that they were hobbled by not getting video feed but they are setting up a plan.

Further, the committee asked if they were able to calibrate, if they had a data policy for sharing information, and if the units worked in all weather and light conditions. Mr. Martin pointed out that the installer will have a tablet connected to the sensor, which then connects to internet, cloud and does a unit health check, which if passed tells the installer that the unit is working correctly. Then GE steps in for a default commissioning process, called a "node manager" which can see what the node manager is seeing. Mr. Martin has access to node manager as well.

In terms of a data policy and sharing, Mr. Martin stated that the PUDL will take data from the GE cloud and send it to PBOT's cloud (another pilot program which includes Metro and Portland State University (PSU)) where data, security, analytics will be exchanged.

Also, he stated that if something obstructs anyone's view it would also obstruct the camera's view. Ice on the camera and heavy rain would obstruct the view. However, darkness is said to not be an issue and the cameras are as accurate at night as they are during the day.

Finally the committee asked if the pilot program were a success, would the City seek a request for proposals (RFP). Ms. Hill stated that the City would to see how the pilot program progresses. The city has recently received and owns 200 units. The pilot portion states that AT&T is providing free wireless services. But at the end of that the City would need to purchase that service and procure wireless data. Intel and AT&T both contributed resources to the pilot.

Mr. Martin posted information on PUDL, which includes dashboards and platforms like Tableau. They are working on how to make this information accessible to API, for example, but it is difficult to do. Therefore they are partnering with Smart Cities, the Cities of Austin and Denver. They will be doing two day workshop in Denver in April for multi-city collaboration. Further, he stated that Columbus, Ohio's Smart Cities Operating System (SCOS) may budget $10 to $20 million for this and have had 21 responses to their RFP, including responses from Google, Amazon and IBM.

Ms. Hill talked about the Los Angeles Department of Transportation's (LA DOT) Data as a service, infrastructure as a service and mobility as a service, called "Transportation Technology Strategy" and pointed out that these are three ways to serve the public and give potential to monetize the service. This is still being reviewed at PBOT. However the three pieces they are looking at are infrastructure with the Streets 2035 plan addressing how to prioritize in ROW as we program it. Additionally, the Wireless Master Plan takes into consideration that 5G would need to attach 300 pound "small cell" equipment to street lights and signal poles, all owned by the City. The City is also an underground wiring district so they have hired 5bars to create a master agreement plan for lease agreements.

Additionally Ms. Hill discussed the infrastructure lab sensors program, and also a small connected vehicle pilot with PSU and the new University or Arizona (U of A); which puts data collection equipment on street cars and four intersections. Further, she mentioned a test to monitor bridges using equipment through an AT&T partnership.

Ms. Hill mentioned that they needed to do a PUDL internal data inventory, as they had more data from more places with different formats. She also stated that they were focusing on pilots for dashboards. Finally, she mentioned mobility space around shared automated vehicles, electric vehicles and transportation network companies, stating that as all these pieces interconnect, and that the Portland Smart Cities staff will internally track metrics around them.

In closing Mr. Martin mention that he had the commission meeting with talking points to share, as well as the Intelligent Cities API.
Link to the PUDL presentation:
https://www.dropbox.com/s/4lzb3shbtdfjsfc/pudl_city_council_180321.pdf?dl=0
Link to the Intelligent Cities API: https://ie-cities-docs.run.aws-usw02-pr.ice.predix.io/#c_overview_of_intelligent_cities_apis.html
Link to sample data:
https://www.dropbox.com/sh/ms8lbmvtdagfnl8/AABmQNxfUPvAl9J1xAbXnDnOa?dl=0

Adjourn
There being no further discussion, Chair Freitag adjourned the meeting at 11:02 a.m.

Meeting summary respectfully submitted by Caleb Winter and Pamela Blackhorse.