

**Public Transportation Advisory Committee (PTAC)  
Monday, September 13, 2010, 1:00pm to 4:00pm  
ODOT Region 2 Building B, Mt. Jefferson Room (100)  
Meeting Notes**

**Meeting Called to Order 1:05 pm**

**Members Present:**

Bill Hall, Lincoln County Board of Commissioners  
Sally Lawson, Oregon State Area Agencies on Aging and Disabilities, Northwest Senior and Disability Services (NWSDS)  
Heather Ornelas, Bend Area Transit District, City of Bend  
Ernie Palmer, Basin Transit District  
Allan Pollock, Salem Area Mass Transit District (SAMTD), Salem-Keizer Transit  
Roxanne Rolls (Daniel), Salem-Keizer Transit, Transportation Options Group of Oregon  
John Wenzholz, Morrow County STF Committee, Ex Officio

**Members Present Via Telephone:**

Mary Jo Carpenter, Community Connection of Northeast Oregon, Baker County

**Members/Attendees Absent:**

Michael Ward, Administrator, ODOT Public Transit  
Julie Brown, Rogue Valley Transportation District  
Dennis Dick, Valley Retriever Bus Line  
Angel Hale, Oregon Commission for the Blind  
Bob Lowry, Oregon Passenger Rail Advisory Council (OPRAC)  
Tim McQueary, Governor's Commission on Senior Services  
Claire Potter, TriMet  
David Ritacco, Office of Vocational Rehabilitation  
Frank Synground, Statewide Independent Living Council

**ODOT Public Transit Staff to the Committee:**

Dinah Van Der Hyde, Senior Policy Analyst  
Joni Bramlett, PTD Capital Program Manager  
Moses Drake, ARRA Data Analyst  
PJ Pippin, Executive Support  
Jenny Erickson, Office Specialist

**Presentors/Visitors:**

Galen McGill, ODOT IT  
Jim Peters, Renee Hurtado, and Jen Bachman, DKS Associates  
Chris Bach, CEO, and Craig Petrie, Rogue Energy  
Rick Haley, and Dave Webb, TriMet Maintenance

**Public:**

Annette Clothier, FTA, Seattle, WA (Telephone)  
Rand Stamm, LTD (Telephone)  
Karen Friend, COIC, Redmond, OR  
Tim Wilson, Interested Citizen

**A) Welcome, Introductions, Items of Interest; Approval of Meeting Notes of July 2010; Handout A**

Dinah asked for corrections to the minutes. Sally Lawson noted that "State" should appear in "Oregon State Area Agencies on Aging and Disabilities." Allan Pollock noted that his name should be spelled Pollock and his agency should be "Salem Area Mass Transit District." Dinah said those changes will be made. Heather moved to adopt and Dinah announced the minutes are adopted with the suggested corrections.

Dinah asked for public comment at 1:10. None was offered. Dinah introduced the first presentation.

**1:15 p.m. C) Statewide ITS Architecture and Operational Concept Plan:**

**Galen McGill, ODOT ITS, and Jim Peters, Renee Hurtado, and Jen Bachman, DKS Associates.  
(Refer to handouts C1 and C2 in packet.)**

Galen McGill defined ITS as Intelligent Transportation Systems. There is a Federal rule published requiring spending on technical projects to comply with regional IT architecture, which came up in the last round of ARRA funding. FTA is following up on compliance now, so they talked with Michael Ward and agreed to update the statewide ITS architecture from the old 2006 plan, which didn't include public transit. Now it includes the intent to address grants and other public transit issues and they hope it will address 90% of the things that are likely to arise. Other things that come up must be addressed at project level. Items like Bus Dispatch and other technology may need special consideration. Some transit agencies are within agencies that are already represented, such as the case of MPOs. Today's goal is a visionary exercise – to discuss how technology is changing, how agencies relate to each other, etc. This is a small, short project that does a lot in a short time. Today will provide background and information and we'll have one more meeting later. Please ask any questions that come up, especially if you don't understand terms or acronyms.

Jim, Renee, and Jen are on the consultant team (DKS Associates). They presented the current plan. (Refer to Powerpoint handouts in packet.) Jim defined ITS and how it relates to public transit. They want the committee to discuss the next 10 years' needs for system projects to add to the new system architecture. ITS includes ways agencies communicate with each other and electronic tools used to achieve those communications. Examples include emergency information management, TripCheck, data servers, electronic communications with travelers, etc. Asset items, such as vehicles, maintenance facilities, accessibility devices, etc., are not part of the architecture plan, except in ways the asset contains equipment that is part of the plan (like a shelter that contains a sign announcing the next vehicle's arrival to travelers.)

FHWA has the final rule on ITS architecture conformance. Statewide architecture looks globally at all the ways to plan for communication to occur and builds a framework for agreements, technical integration, consensus regarding information sharing, activity coordination, etc. This requires work with providers who coordinate information in diverse ways to ensure all possible methods are included (Portland, Salem-Keizer, Central Willamette Valley, Eugene/Springfield, Rogue Valley, etc. See slides for details.) The idea is to discover how the system should operate from the traveler perspective. Public Transit management is one core service area of many. The term "Market Packages" refers to grouping of physical architecture pieces that are used to implement service. (See Handout C2 in packet.) If it is your vision 10 years from now to have vehicle tracking, that's a Market Package. The architecture is independent of the size of the system or the number of devices in the field. All information and pieces, large and small, are captured in the statewide vision.

Heather identified that not all systems are listed here and wondered if the planners intend to go beyond PTAC to capture other statewide systems. Jim indicated that they capture information from all regions on the map. Galen says the goal is to get a representative of what systems are like statewide. He commented that knowing the grant types agencies ask for is relevant. Jim also wondered about what systems providers want but can't get results to

create them. The group discussed the fact that projects not included in the architecture must be submitted project by project and that understanding terminology is the most difficult part of the process. Galen identified that there should be copies of the plan in the packets.

Heather pointed out that the group stated they are about to finalize the architecture for the Bend MPO and she hasn't seen the list before and doesn't even know about it. Jim regrouped and asked the committee to identify the sorts of systems they are aware of and what they want to see in the next 10 years. As the group began to read over the list, it became clear that all items are both in planning and needed depending on the region.

Jim brought up fixed- and flex-routes, scheduling, trip performance based on schedules, exchanging data with other travel information providers, and integrating data. Joni brought up that Matt Barnes can't be here today and wants to know if the Google transit feeds spec data would be in this spot on the chart. Jim said he wouldn't put fixed-route to Google transit but that they are aware of it. He brought up demand-response and the scheduling, facilitation of data processing, and using information to optimize fleet use. Galen asked committee members to review the list for anything that no one intends to do. Heather asked about emergence of personal computer applications that match up with ITS architecture, such as using iPhone for transit tracking (like how long you can sleep on the bus before your stop.) Galen said that the plan is intended for federal investment items and that private investments may not be captured.

Dinah asked about other information like emergency response, etc., and what archive data means in this context. Jim identified maintenance and construction scheduling information. The group discussed sharing information among regional entities and tracking that activity to the traveler, including interfacing with traffic information/highway management, integrated mapping (GIS), etc.

Ernie identified that operating dollar needs are a major barrier to many of these developments, especially for small providers. Also, some items, like vehicle tracking, aren't relevant in a small town. The group identified that it is important to build architecture to allow for it down the road in case it is needed later. Annette with FTA/Seattle talked about Region 10 Seattle and how they process all FTA grants and FHWA flex transfer funds like STP and CMAP on their side. They require grantees to self-certify that they follow ITS architecture. They separately track funds that go to ITS projects. If these things aren't in the architecture, it causes a problem processing FTA grants. For this reason, Annette agreed that any items should be included if any entity wants to use them. For example, ARRA funded 100% on projects. When the systems to be funded aren't in the architecture, it causes a holdup. If there is a funding time-crunch to get the grant out, the project may not make it in time if it is not already part of the approved ITS architecture. If it's at least in there, it's helpful, because FTA can contact someone like Galen for statewide architecture, find out where the project is included, quickly get the required text into the grant, and track the funding.

Dinah added that there may be a need if we get electric vehicle funding later, so we may want to get that in the plan. These could become public transit vehicles if we have recharging stations, specifically in smaller communities. Jim sees that in transit vehicle tracking and also perhaps a transit fleet management project, tracking maintenance of vehicles, etc. Tim asked about incident management and wondered about whether that refers to managing incidents as they occur, coordination with safety programs, feeds to other elements, etc. Jim says the idea is to identify the information flow at a higher level.

Renee added in some ideas and Dinah agreed that there will be more to share later. Roxanne mentioned Rideshare Online as in King County Metro and that we could talk more later about that. She also noted that not all TO programs across the state are affiliated with the local transit district and we may want to include them. Dinah mentioned that Matt will have information to add about Intercity buses. Allan added that MPOs should be captured.

Discussion occurred about the MPO role and the flow of information between MPOs and transit systems. They are funding gatekeepers and have a key role, but are not part of it from a technology standpoint. The architecture considers cities/counties as local management.

Ernie pointed out that, from a priority perspective, travelers (#7) on the list should be moved to #1 because they are the owners of the needs. Dinah and Sally discussed how the need to interface with other providers like medical transport, veterans' administration services, etc. should be included. Heather added DMAP brokerages. Dinah mentioned the newer goals around livability, the environment, air quality, etc. as added considerations. Tim added the passenger needs based on events – for example, if there is a large event, passengers may benefit from arriving at a time that is relevant to the event, even if that is not the typical service time on other days. Joni discussed integration of resources for evacuation and similar events. Dinah discussed integration with commercial providers, such as taxi services. Renee says those are included.

Jim reminded the group of the Table 3 diagram showing four groupings – centers, vehicles, travelers, and devices – and drew parallels. He agreed to review this list of Market Packages on the table, take it back and tailor it for Oregon. For the next meeting, he and his team will bring it back and review the details. He also agreed to bring back some graphics that show these elements and the flows between them.

(Annette left the meeting at this time.)

**2:15 p.m. D) Innovation Results Presentation: Battery Improvement Project:**

**Rick Haley/Dave Webb, TriMet, and Chris Bach/Craig Petrie, Rogue Energy (Handout D)  
Brief: OSU, Study of Midsize Vehicle Dynamics: Dinah Van Der Hyde, Handout D2)**

Dinah introduced this as a PTAC recommended innovation project. Discussion started in 2007 and we hope to write a short report for the commission this fall. (See slides in packet.)

Rick explained how there has always been a problem with short battery life in large buses. Providers need a solution that will also scale to future requirements. The problem impacts customers and also cost per mile. The installation of the parasitic draw stops interfered with other communications and had to stop. The constant draw from onboard diagnostics, signs, lights, route downloading, etc. contributes to the battery life problem. Improvement will better serve customers, reallocate labor, and reduce costs and waste. The Advance battery pack did all this and more.

Chris told about how TriMet began working with Rogue Energy in 12/2007 and realized quickly that this is an innovation beyond batteries. This encompasses a software hardware solution, and no one had looked at it that way before. They developed partnerships with local vendors and applied it to a wide range of vehicles.

Battery systems on buses have been about the same since 1920. TriMet helped previously helped to pioneer the EMP cooling system, and they again wanted something very simple. Their first Advance battery prototype was installed on New Flyer in the same box they used before (four Group 31 truck batteries, some with 12 and some with 24 volt starters – some air start, but the pack works for crank and non-crank – and this is the same system as Gillig, etc.) It also has the same attachments (12V, 24V, ground, data collection serial port, etc.) There are no changes in normal maintenance.

The first prototype is the LiX Smart Pack (Lithium). Conventional battery packs cost around \$400. The new pack costs more like \$10.5K to \$11.5K, so it is important to justify cost. Looking back at the 24/7 study, they

realized how inefficiently alternators are used and wanted to recharge this pack more efficiently. They saw that in the future there will be a need for electronics to move away from hydraulics, so we will need a more robust battery pack, and it needs to make business sense. They asked, if we can charge the batteries only when the system is turned off, how much fuel can we save? They chose a 3% target based on estimates that figured if they can hit 3% they would have a combined Return on Investment (ROI) of under 5 years.

In the Phase II prototype stage they monitored a more focused list of items. (See slides in packet for statistics.) The pre-trial average mpg was 4.45 @ 12.2 mph, with a projected target of 3%, 4.59 mpg @ 12.4 mph. They consistently hit 5.26-5.54 mpg using an engine processing unit and analog odometer. This was a 17.98-24.2% improvement. They discovered how inefficient alternators are and how inefficient lead is at taking a charge. They don't include the emissions reduction in the ROI because they can't put a dollar amount on it, but there is a demonstrated reduction in carbon emissions. They came out at breakeven roughly at year 2 using the 17.98% improvement numbers, showing both fuel savings and labor savings. The total savings is almost \$29K in 5 years.

The group discussed how the figures may need to be adjusted for actual diesel cost changes, since estimates were used for forecasting when the numbers were originally presented. Chris agreed to check those numbers and recalculate. Still, if they use the 24% scale, the breakeven point is at 20 months. Other considerations – They were able to achieve nearly double the bus “off time” without battery damage – though this is anecdotal so it can't be listed as a statistic. One test bus sat for four days and still had battery life. Each time you run a lead acid battery down, you reduce its life. With a lithium pack, there is no damage to the pack when voltage is turned off. Chris cited 20% charging efficiency for lead acid and 93% for lithium. The new pack also weighs 50 pounds less than lead pack.

Greg reminded the committee that they can't endorse a product, only results. They would like more funding to continue testing. They need \$100K match for TriMet funds to expand their tests, and now they need to use the battery packs in operation and verify results. It would be even better to find another transit system to cooperate. They expressed gratitude for the money granted so far. Their overall goal is to take this to bus manufacturers.

Joni asked about relevance to smaller vehicles, and Chris said it might work very well, though they will need to test separately for statistics. They even see future applications in utility, marine, auxiliary power and power backup items. Any vehicles that stop frequently could benefit from this, and smaller packs will be less expensive. Joni explained that 90% of ODOT vehicle funding is for 12-16 passenger buses. Mary Jo says that for 12-20 passenger vehicles they usually order 200amp alternators or better because when the vehicle is running and using A/C with frequent stops they have battery problems. Chris explained that the new system tells the alternator to stay off when the charge is sufficient and it could work well in her application. Rick identified that they re-checked all of their data because they were surprised at how good the results were when they put the information together. They even did testing with real operations without telling operators or dispatchers they were using the test packs to ensure the data matched.

(End of Webinar.)

**2:50 p.m. Break**

**3:10 p.m. E) Continue Preparation for September PTAC Presentation to the OTC:  
(Dinah Van Der Hyde, Policy Manager) Handout E, Video and discussion**

The group watched Lane Transit District's training department video, "Just Like You", which is available on the website in an iTunes version. Two of their drivers were instrumental in making the video, which includes LTD employees and regular riders.

Dinah indicated that last meeting the group decided this might be a good intro video for the special needs part of the presentation to the commission. The group also included "The Rider's Voice" booklet in their packet. The group agreed it is important to demonstrate professionalism in our work. The booklet and video are professional indicators of the special needs work we are doing. It is important for the commission to understand that state investment in special transportation helps people with mobility impairments ride fixed routes, which is the best way to make the system efficient for those who must use complementary paratransit rides.

There is significant concern about maintaining sustainability of the Special Transportation Fund. It is important to emphasize that the money is well-spent on the special needs side, that we are grateful, and that we need that funding to continue. The ongoing STP transfer dollars and support is created in the TOF. That was the first piece in the commission packet. The second piece in packet shows them the rural accomplishments. See the handout with photos titled "2009-2010 Examples of Oregon's Rural Transit Improvements" to show progress in statewide infrastructure improvements and improvements in rural transportation. Providers added stops, signage, and coordination, and the commission needs to know about that. See the example of how Hood River transit's driver breakroom was a van with a tarp and a portable restroom. That was also their customer service center for some time. Now they have a fully functional facility thanks to these funds.

In rural Oregon, we really don't have many amenities. As Ernie reminded the committee, 100% match is the reason you have a security camera, sidewalk and fencing for your bus area, etc. These goals are tough to achieve in rural Oregon. It is important to communicate that this is not just for special needs, but that everything we do for rural and special needs people coordinates everyone. Terry wants to speak as chair and mention important things we think are coming. I've copied the notes we synthesized from last discussion in July. Please share any thoughts about what lasting comments you want us to make at the commission presentation. The possible PTAC direction to OTC is to comment on emphasizing support for a balanced transportation system, livable communities, and the importance of balance of our funding to both urban and rural systems who use it in the most strategic ways we can, and to ask them to continue to help us to do that. Operations are essential right now, and their contributions, Capital included, supports our operating needs. (See email to Dinah in packet).

Tim asked if the presentation includes particular projects or grants showing Capital money improving efficiency to lower Operating costs. Dinah says Claire or another person from Ride Connection will speak to that. She gave some data for that -- Lift Cost goes up significantly from regular riders, and Lift travel training drops that number. This is a clear example of urban funding saving overall money. Providers want to be strategic with funds and to continue that trend forward with funds received. There is a 10-year partnership with STP transfer funds. Providers have been able to double the number of demand response rides (see Dinah's notes). Many ARRA rural transit facility projects are documented with photos -- providers have been able to add passenger shelters, etc. It is also important to include a TO presentation like we did last year and mention the statewide rideshare database and the readiness initiative. Five capital transit projects can be constructed that wouldn't have been done otherwise.

Ernie suggested that the group ensure that the presentation materials were created for sensitivity training within organizations, not just for presentation to the public, to avoid giving the impression that we're spending too much on presentation materials. The group discussed the importance of this angle. Rand Stamm from LTD explained how the fact that this was pioneered and primarily created by two bus operators created a much higher buy-in during training from their operators.

Dinah identified that it is important to emphasize the struggle for operations because the commission will be looking at this new flex program right away. Their minds will be on new different better things, which is important, but it is also important to remember the basics and how our systems are trying desperately just to hold on. PTD heard a story today about a small LTD area town. LTD plans to stop service there unless the town can give local dollars. The town representative called to ask if they are allowed to use Gas Tax revenues because it's all they have. That's the first of communities saying they don't want to lose services and can they somehow use other local funds to match. This is a very serious problem and it is already starting. It is important to be direct with the commission that we want to move into the future, but we also need help with funds now.

Dinah asked who is attending the commission meeting September 22, 2010. It is in Salem from 11:00am-12:00pm at the Public Utility Commission meeting room on the Capitol Mall. Dinah has a draft agenda.

Affirmative responses: Tim Wilson, Roxanne, Lorna, Mary Jo (and Dinah, Michael, and Terry per Dinah)  
Possible attendance: Allan, Heather or a colleague, Karen

Dinah will round up a phone conference call within a few days (because so many people are gone) and announce that time so folks can listen in.

Dinah also mentioned the OSU study on mid-size vehicles with the National Center for Accessible Transportation at OSU. There will be a presentation on it later. It was sent to the Transportation Research Board (TRB) for review but should not be published yet. The study shows that, for mid-size vehicles for demand response or small bus, front securements are definitely safer and more comfortable for those who need to be secured. (See packet.) Many hope manufacturers will pick it up and start improving vehicles. The study will be published on our website when peer review is complete.

**3:40 p.m. F) Administrator Report: Michael Ward, Administrator (Handout F)**

- **Streetcar Jobs Report (Handout F1)**
- **Transportation Coordination Study**
- **Veterans Transportation**
- **ConnectOregon III results**  
<http://www.oregon.gov/ODOT/COMM/CO/index.shtml>
- **Multi Modal Flex Funds Criteria and Next Steps (Handout F2)**  
<http://www.oregon.gov/ODOT/TD/TP/FlexFunds.shtml>

STF Formula - Dinah spoke of this busy time and how there was another small reduction to the estimate for STF, from \$161K reduction to a \$233K reduction. These are estimated to be reduced in the last 3 payments of fiscal cycle to give us an opportunity to make sure we don't need to make other adjustments.

Portland Streetcar -- We are responsible for a grant to the City of Portland to build up to 7 streetcars from legislation that was passed. Some jobs were created, starting last fiscal cycle with 15 employees (8 engineers and 7 clerical/admin) and more to come next year. There isn't a lot of activity on building the streetcars because they are still doing the drawing up of their plant, engineering, documentation, and prototypes.

Coordination Study - The coordination study is on hold because other priorities. We are working on the scope of work.

ConnectOregon III – no news. They gaveled down on the projects. If anyone has one of those grants and needs to get them amended or has issues, please tell Dinah right away.

Multimodal Flex Funds criteria and next steps are in motion. The handout in your packet went to the commission. This will become a grant program very soon. Dinah is working with Bob Sherman and several others to come up with the application, the process, and the timeframe, with a goal to get it to the commission in January. Be ready early if you have a project that might fit into this very general framework, because you will have to submit your application very fast.

SAFETEA- Lu - The federal reauthorization will be on the November agenda. Dinah and Joni are talking about the transit safety bill and many changes are happening. PTD is sensitive to the difficulty it would pose for providers to have to do even more data collection and reporting and is working to minimize that. Heather suggested discussing it with OTA lobbyists. Others suggested TriMet liaisons and Travis.

Sally requested that the bottom line on state funding be on the November agenda. Dinah added the legislative session. The committee discussed the ODOT PTD restructuring, the new positions and purposes for them. They also discussed the STF forums and Joni agreed to provide notes when they are available.

**MEETING ADJOURNED 3:50pm.**