



Reminder to members: Please be sure your dues are up to date. 2015 dues were due Jan 1, 2015. If it has been longer than one year since you renewed, go to our website: oerhs.org and download an application by clicking: *Become a Member*

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A New Streetcar Era

By Roy Bonn

About 60 years ago I made a prediction at a meeting of PNERA (Pacific Northwest Electric Railroad Assn.) members that streetcar and interurban lines would be reconstituted with government money and ownership but, the cost would be 1000 times greater than the cost of retaining and rebuilding of the lines still in operation. How true that prediction is turning out to be. The abandonment of the streetcar and interurban systems was one of the major causes of the decline of the city centers in the majority of the American cities. I am calling this the new streetcar era which includes both streetcar and light rail vehicles because the differences are not that great.



Light Rail Transit in Edmonton, Alberta, Canada, was the first modern LRT line in North America. The ETS 13-mile Capital Line began operations in 1978 using Siemens-Duewag U2 cars as shown here at the Health Sciences LRT Station. In 2005 ETS added 57 Siemens SD-160 cars and the new Metro Line is scheduled to open this year.

The term light rail vehicle (LRV) replaced the term of streetcar as it was thought that it meant an old-fashioned car. But that has changed since we have the new modern streetcar which has changed the view that streetcars are old-fashioned. Light rail led the resurgence with Edmonton Canada opening the first line on April 27, 1978. This was followed by Calgary on May 26, 1981 and San Diego on July 26, 1981. Portland followed with operations beginning on September 5, 1986 and Los Angeles in 1990. Currently cities in 37 states and Washington D.C. either have lines built or have construction underway or are planning light rail or streetcar lines.

See this issue in color on line at oerhs.org/transfer



CALGARY TRANSIT 2000/01 Siemens SD-160 2206 is shown photographed as it heads westbound on 7th Ave at Centre Street South as a Dalhousie bound train.

Ken Baker photo 2006

Also during the 1970's, the federal government pushed the idea of a domestic builder of LRV's. A total of 275 LRV's were built by Boeing between 1976 and 1984 to replace PCC cars in Boston and San Francisco. Unfortunately the cars were rushed into manufacture did not undergo adequate testing and



A Siemens Duewag U2A on Sacramento Regional Transit's light rail system in downtown Sacramento. The Siemens-Düwag Type U2A is an upgraded version of the U2 that shares similar characteristics of the newer SD-100s and SD-160s, yet it still uses the mechanical equipment of the U2.

Continued on page 3...

Oregon Electric Railway Historical Society

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If you have overlooked paying your dues for 2015 or did not realize that dues are based on a calendar year, this is your reminder that your dues are due. Memberships should be renewed

on January 1st each year. New members joining after July 1st should renew on December 31st of the following year. The OERHS is a non-profit 501-C-3 corporation, the benefits of a donation should be discussed with your tax advisor.

Active	\$ 30	Sustaining	\$ 250
Family	\$ 40	Life	\$ 500
Contributing	\$ 50	Benefactor	\$1000
Supporting	\$100		

Mission Statement

The mission of the Oregon Electric Railway Historical Society, Inc. is to preserve the regional heritage of electric railway transportation as a living resource for the benefit of the present and future generations.

To fulfil this mission the Society will promote:

- The study of electric railways, their physical equipment, properties and operations, devoting special attention to the electric railways of western Oregon.
- The procurement and preservation of historic electric railway equipment, materials and property.
- The display, interpretation and operation of surviving historic equipment, materials and properties.

By Laws, Article II, 9/14/93

Official Notice

The Transfer is published quarterly as the official publication of the OERHS, a state and federally recognized not-for-profit institution. Operator of the *Willamette Shore Trolley* line between Lake Oswego and Portland and a demonstration

trolley line at the railway museum in Brooks.

The views expressed herein are solely those of the individual writers identified and of the editor only, and may not necessarily represent the views or policies of the Society, its Board of Trustees, Officers or Members.

Articles, photos and letters for publication are always welcome. Please email to transfer@oerhs.org or postal mail to the museum address following.

Please send any change of address, your dues and donations to Susan Jones, Treasurer

Oregon Electrical Railway Historical Society
3995 Brooklake Rd. NE
Brooks, OR 97303
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www.oregonelectricrailway.org

Do you want to be a Motorman?

Volunteers are needed at the museum in Brooks to be trained as Motormen, Conductors, Ticket sellers and Car Barn Tour guides. Saturdays from 10am to 4pm, motorman training on Sydney 1187 and later, other cars. The Museum will again be open to the public in early May 2015 on Saturdays and Sundays. For the weekday projects, contact Bill Binns or Charlie Philpot.

Please come out to the museum and lend a hand. For more information, contact Bob Terkelsen at 503.399.1882.

If you wish to volunteer for the *Willamette Shore Trolley*, call Rod Cox or Hal Rosene at 503.697.7436 for information about the many volunteer positions that may interest you.

Milan Car Update

John Nagy

After a navigating an amazing series of obstacles in arranging transportation, the move of historic Milan, Italy car #96 from the Issaquah Valley Trolley to Brooks is on track for this summer. The City is currently refurbishing a trestle that will allow for moving the car down the track to a more suitable (and affordable) loading site.



How we deliver *The Transfer*

The Transfer is delivered both electronically and by postal mail. With the electronic copy, you can see all the pictures in full high-resolution color, a big improvement over the black and white appearance in the printed version.

We have established a web site where you can view and download copies of The Transfer. We have set it up so it is also easy to print on your color or black & white printer if you prefer hard copy.

If you wish, we will send you notification when the next issue is available and a link to the web site where you can view the issue or download and print a copy. Please send an email to: transfer@waynejones.net with your name (as shown on the OERHS membership list) and the email address you would like us to send the notification to. Of course, we will respect your privacy and we will only use your email address to send a

single notification that a new The Transfer is ready and a link where you can get it. We will never send promotional material or give or sell your email address to any other person or organization. You can see this issue and the previous issues by going to this web site: oerhs.org/transfer.

We also mail black & white copies of the newsletter to all members of record. Not as clear as the color version available at the web site but some members have stated that they prefer physical copies.

The electronic copy that you can get on the web site can be printed in full color (or black and white of course) on your printer at home if you prefer to read The Transfer the traditional way. We are also archiving back issues on the OERHS web site so in the future you will always be able to refer back to previous issues. We believe you will appreciate the higher quality pictures that this process will provide to all the interesting photos that accompany our articles.

A New Streetcar Era *continued from page one*



Boeing Vertol LRV leaving the East Portal of the Sunset Tunnel on the San Francisco Municipal Railway (Muni) in San Francisco on the N-Judah line. This is one of an original 80 cars (later expanded to 100). The first regular runs on the San Francisco Muni system began in 1979. Muni began retiring its LRVs in 1995, after the first of their replacements arrived, and its last Boeing LRVs left service at the end of 2001.



San Francisco Muni LRV 1243, built in 1979 by Boeing, is eastbound on Duboce Avenue at Church Street, on the N-Judah line, on March 24, 1980. As its rollsign shows, it was en route to Embarcadero Station, through the then-new "Muni Metro" light-rail subway, the portal to which (for routes J and N) is located just behind the photographer. At the time of the photo, the Muni Metro had opened for passenger service only five weeks earlier (on February 18, 1980), and the N-line was the only line using it (and using it on weekdays only). All four other streetcar/tram routes were still using PCC cars at all times and running on the surface of Market Street through downtown. Although the Muni Metro did not open until 1980, the Boeing LRVs had first run in service in April 1979, on a K-line shuttle service operating only on the outer portion of that line. The tracks in the foreground were for the J-Church line, and car 1243 was also crossing trolleybus wires for route 22-Fillmore.



Boeing Vertol LRV car, one of an original 50 cars (later expanded to 175) built for Massachusetts Bay Transportation Authority (MBTA) in Boston. The articulated light rail vehicles entered revenue service on Dec. 30, 1976, on Boston's MBTA Green Line "D" Branch. By March 1, 1982, 114 LRVs were in Boston's MBTA active service fleet and Boeing Vertol delivered the last LRV in 1983. The MBTA's last revenue run of a Boeing LRVs was March 16, 2007. However, the MBTA continued to operate three LRV work cars. Shown here is Boeing Vertol USSLRV #3523 in service for the MBTA on the Green Line "C" Branch, bound for Cleveland Circle, in 2005. This view shows the roof-mounted air-conditioning units and bi-fold doors added by MBTA in place of the original equipment.

proved to be maintenance prone and unreliable.

The name 'Light Rail Car' was deemed modern while "Streetcar" was deemed old fashioned. The LRV's have a much greater passenger capacity than a streetcar. The lines between the two are blurred; both operate on street rails but are a bit shorter. The difference between a Siemens LRV and a Siemens streetcar in Salt Lake City is that the streetcar is shorter, has lower H.P. motors and different gear ratios. Streetcar top speed is usually 35 MPH while LRV's are geared from 55 to a high of 65 MPH. Portland was the first city in the U.S. to purchase the modern smaller streetcars specifically designed for inner city movement of large numbers of passengers. The modern streetcars have proven to be popular; the ride is smoother and quieter than the busses they replaced. The first new streetcars in operation in the U.S. were built in the Czech Republic. Now there are domestic builders, United Streetcar in Clackamas and Brookville Equipment in Pennsylvania. United Streetcar has shipped 17 cars to 3 cities and Brookville sold 4 cars to Atlanta,

The LRV's and streetcars in Portland operate so quietly that it is almost unbelievable. I remember riding the old wooden streetcars built in 1912 that rattled and banged over the streets in downtown Portland. Those cars were worn out, the tracks had not been maintained and crossing other tracks which seemed to be at every intersection. However the Brills (Broadway cars) operated over better tracks so were quieter and more comfortable with leather seats rather than the wicker seats.

A New Streetcar Era *continued from page three...*



A two-car train of 100-series Bombardier FLEXTY Swift vehicles in downtown Minneapolis on the METRO Blue Line Hiawatha Line at Government Plaza - Metro Transit station, part of a fleet of 27 cars that began operation in June of 2004. In 2010, the Metropolitan Council contracted with Siemens Industry Incorporated to build up to 109 S70/Avanto light rail vehicles, with the first vehicle arriving in September 2012. Most are intended for the Green Line which opened in 2014, and is to be expanded from Minneapolis to Eden Prairie along the Southwest Corridor in 2018, though the initial vehicles were used on the Blue Line as part of that route's three-car expansion project.



Los Angeles Metro. On tracks once travelled by Pacific Electric and Southern Pacific on the right-of-way of the old Santa Monica Airline, an LA bound set of Siemens P2000 LRV light rail cars climbs towards to grade separated La Cienega station.



Los Angeles Blue Line Washington Station. A three-LRV train of Nippon Sharyo P850 cars led by #106 curves onto Washington Street leaving the station. The Los Angeles Metro Rail Blue Line was the first rail line to open in Los Angeles on July 14, 1990. The line followed the former Pacific Electric Interurban Red Car service 29 years after it was suspended in 1961. The majority of the line is along the same section of track opened by the red cars in 1902. Today this interurban light rail line, along an historically vital route is the busiest modern light rail line in the country. Washington Station is the first, most northern stop located on the right-of-way that constitutes most of the length of the Blue Line shared with freight. The same ROW was previously used by the Red Cars of the Pacific Electric Railway until 1961.



Metro Transit's New Siemens S70 LRV; Minneapolis, MN Returning from the official unveiling event at Target Field Station, Metro Transit's new Siemens S70 LRV passes the Guthrie near the Metrodome in Minneapolis. Metro Transit will end up with at least 59 of these, 99 if they exercise their option for the Southwest Corridor.



Metropolitan Transit System Siemens-Duewag S70 Avanto and SD100 LRVs Nos. 3005+2002 at San Diego Old Town station on the Green Line in December 2008.



TriMet's Type 4 cars, Siemens S70 LRVs, part of a total order of cars from Siemens of 119 vehicles.

From old to new, the return of Streetcars to Tucson, Arizona

By Mark Kavanagh

Tucson, Arizona is a city that has roots in the Old West with Stagecoach robberies and Wyatt Earp. It is surrounded by the Sonoran Desert with the famous Saguaro (Cactus). Today it is a thriving city, the second largest in Arizona. It is about 100 miles south of the Phoenix Metropolis and is home to the University of Arizona Wildcats. In 2014, Tucson joined the ranks of many modern cities with a brand new Streetcar System. But let's turn the clock back, not to the Old West Days but to the first Streetcar system in Tucson.



United Streetcar #108 in downtown Tucson

As with many cities, the first rail based transit system started with a horse car. On June 1st in 1906, the first Electric Streetcars started running in the city. They linked downtown to the University district and other neighborhoods. Unfortunately on December 31, 1930, the last streetcar operated.

In 1983 the Old Pueblo Trolley was founded with the idea to re-establish the electric Streetcar from the 4th Ave Business District to the main gate of UofA.

On August 20th, 2009, the original line was extended from the 4th Ave District, under the UP mainline into downtown Tucson. This was the start of extending the streetcar line even further. The plan was to cross the Santa Cruz River to the Mercado District, and extend the other end into the University District towards Speedway Blvd. Sadly the city decided it wanted modern streetcars.



Streetcar in the Mercado district

I have visited Tucson in various incarnations of the streetcar. I visited the Old Pueblo Trolley a couple of times during the season they didn't run (summer because is it super-hot) back in the early 2000's. In 2009 I got to ride the line for the first time, soon after the original downtown loop opened. That day I rode the Brussel's single-truck tram and the Osaka Tram. The Brussel's tram ran around the downtown loop, but it bucked and reared when going under the Union Pacific Railroad (former SP Sunset Route) underpass. The Osaka car was not allowed to run on the downtown loop due to clearance issues. I preferred the larger Osaka car. It got pretty busy on a Friday night linking the UofA with the 4th Ave business district.

My most recent visit was in October 2014, this time with the modern streetcar. The right-of-way was much longer and different then the OPT. The line now goes through the entire downtown district and crosses the Santa Cruz River into the Mercado district on west, and further along the UoA campus in the east. The original OPT loop in downtown still exists, but the loop track is not typically used. The line along 4th Ave and University Ave is double-track through-out. The only single/bi-directional track is at the University end when the line ducks under Speedway Blvd to the outer terminus.



Streetcar entering the Union Pacific Overpass on 4th Avenue from the downtown side.

Continued Page 6...

From old to new, the return of Streetcars to Tucson, Arizona. *continued from page 5...*

For the 2014 trip, I parked in a gravel lot in the Mercado district to board the modern Oregon built (United Streetcar) car to have lunch at a downtown Tucson Brewpub. I bought a fare ticket from a ticket machine on the platform. Unless you have a Sunlink card, the fare for the streetcar is \$4, which is good for all day, there is no one-way fare, unless you have a pre-paid Sunlink card. So the line is rather expensive for the occasional/tourist rider. You must tap your farecard on the readers located inside the streetcar. They do have random fare inspectors.

After lunch I rode to the end of the line past UofA, but sadly I had to drive back to PHX to fly back to Portland, so I re-boarded the same car to go straight away back to my car. I did not have a chance to explore much more like I wanted. I did check out the OPT “barn”, which is now disconnected from the streetcar

line. There is talk of moving the OPT cars to the modern Streetcar facility (Which is a mere block away). In a recent internet posting, OPT is refurbishing an Oporto Brill car, and converting it to pantograph operation such that it could run on the new streetcar line (trolley poles were designed out of the new overhead). Hopefully the older streetcar will run again. There is also talk of a streetcar extension, more of a branch to continue from downtown to the east along Broadway.

The modern line is nice and is definitely causing redevelopment of Downtown and a huge opportunity for the Mercado district. I hope that the OPT classic streetcars do return to the line. The line has proven popular, particularly in the evenings and weekends. So if you ever are in Phoenix, it is worth the drive on I-10 to Arizona's second city...

All photos Mark Kavanagh



Originally a Kyoto Streetcar, later operated in Osaka. It last ran in Japan in 1992. It came to the Tucson in 1992 and was restored to its former Kyoto configuration and paint scheme by Old Pueblo Trolley. Here it was in service on 4th Ave in Tucson at night. This track is now gone replaced by double-track for the streetcar



Old Pueblo Trolley car from Belgium in service on University Blvd from 2009, University now had double-track right-of-way



Former Brussels single truck car unloading on 4th Avenue



Interior of the former Japanese streetcar. The strap hangers are very authentic to Japan.

Bill Binns' 90th Birthday Celebration

Sunday April 12th, 2015 was the surprise 90th birthday celebration for long-time OERHS member Bill Binns. The gathering took place at the Lake Oswego depot of the Willamette Shore Trolley where Bill has spent many hours operating the Vintage Trolley. The excellent weather complimented the large turn out of Bill's many friends and admirers.



Group photo of just a few of the many folks who came to celebrate with Bill.



Members John and Joyce Nagy with Bill



Motorman Neal Berlin with Bill



Interior shot on the outbound trip

Museum Directors Report

By Greg Bonn

Bill and Peter have been making use of the cooler weather to fire up the heat guns and scrapers and continue to remove the multiple layers of paint from the floor of the open car. This has been a difficult process as there are so many layers of paint with the bottom layer resembling black tar. During some of the warmer days in the last few weeks they have been able to apply primer to areas that were sanded and ready.

Restoration work has resumed on the snow sweeper, the interior parts and pieces are being sorted to determine which pieces go where. All the parts were marked when removed but the orientation of the car has been changed several times since the start of the project. Once all the pieces are identified and repaired, we will be able to distinguish on which end of the car they belong .

Window frame restoration and repair continues on the Oporto Car. Two windows are removed at one time, the glass removed, broken or rotted frame members are replaced or repaired and then stripped, sanded, primed and painted before the glass is re-installed and the windows returned to their proper position in the car. Member Pete Manuele has been performing this work.

Work continues on the new interpretive center and we are nearly to the end of our final inspections for occupancy. As soon as the dust settled after steamup, the volunteers were busy installing the sewer system and putting the finishing touches on the fixtures in the restrooms and kitchen. Within a few weeks we had full functioning plumbing in the building as a number of members experienced during our annual banquet and elections held in the display area of the building now dubbed "Hopmere Station". Included with the wiring to the sewer pump, wire was also run for outdoor lighting with a fixture installed to light the area between the truck museum and the public restroom when night time functions are

scheduled. It also fulfills an agreement with the truck museum made when we negotiated the location of two of the steel poles to support the overhead trolley wire. Cabinet doors and drawers have been installed with brass hinges and handles and handicap bars placed in the restroom. After the installation of the ventilation system which draws in fresh air into the building based on CO2 levels, inspections were scheduled to cover the mechanical, electrical and plumbing certification for occupancy. All three passed easily with a few minor details to be addressed. The final inspection to cover fire and safety and building are just a week or two away upon completion of the alarm and communications (telephone & internet) system. The mild weather has enabled the removal of the rose garden and installing fabric and gravel as a first step to building the road and sidewalk to access the front of the building. The light poles were removed and are being stored until it is time to install them in the new street setting. The roses were given to members who were able to find space in their own gardens (31 bushes) and the irrigation system was staked to prevent damage. The weather cooperated in removing the excess soil from the garden down to the original grade without the area becoming a mud pit. Additional soil was removed to drop the level of the area that will become the new street before the fabric and gravel was spread.

The Museum hosted a radio auction on February 28th. in the new interpretive center. The event was posted on the front page of the Salem Statesman Journal and was dubbed the largest radio auction in the state. Over 140 radios were on auction from the collections of Mike Parker and Greg Bonn. The event started at 8am. With a preview of the radios and speakers that were on display. Members of the Northwest Vintage Radio Society were on hand not only to get a chance to bid but also to answer many of the questions by members of the public who came to view the collections. The auction started at 10am. and ran until nearly 3pm. with all but one set being sold. There were over 100 buyers registered to bid. Special thanks to all the members who participated in setting up and operating this event. Big thanks too, to the Caterpillar Museum for the use of the 120 chairs, to APMA for the use of the tables, the Model Railroad Club for the popcorn machine and to Pam for getting us on the front page of the Salem newspaper.



Buyers listening to the auctioneer's instructions at the vintage radio auction.

Pacific Northwest Transit Updates

By Roy Bonn

Puget Sound Region

Puget Sound public transit extends far beyond Seattle itself, to King, Snohomish and Pierce counties. The topography is ideal for mass transit as the city is squeezed between the Sound and Lake Washington. There is one major freeway on each side of Lake Washington and two across floating bridges on Lake Washington. Public transit was focused solely on buses and ferries for many years while the area grew rapidly resulting in major traffic problems with gridlock occurring frequently.

Seattle had a slow and difficult path to alleviate the problem. A light rail system was selected to be built in the region. The first attempt for funding was a bond issue in 1968 which required a 60% approval by the voters. It failed to pass. More attempts were made through the years until the fall of 1999 when voters approved "Sound Move". Funding was now available to move forward with light rail and commuter trains .

It was a rocky start which lasted until July 18, 2009 when the first segment of the *Central Link* line opened between downtown Seattle and the Tukwila station, 13.9 miles operating with 35 Kinkisharyo LRV's in two-car trains. Work on the 1.7 mile extension to SeaTac from Tukwila was completed July 18, 2009 bringing the Central Link line to a total of 15.6 miles.

Now with a dedicated source of funds, planning and engineering continues on the planned extensions to meet the need for improved area transit. Anticipating the need for four-car trains to serve the *University Extension*, 27 Kinkisharyo LRV's were ordered and deliveries began August 2010 at the rate of one car a month. The current plan is for a fleet of 180 units by 2030. Nearly all of the light rail lines are located overhead, in tunnels or on dedicated travel lanes. The Kinkisharyo LRV's operate on 1,500 VDC, the only system in the US to do so, while all others are at 750 VDC. A second shop and yard will be built on the east side on a portion of the ex-NP Overlake yard.

The light rail extensions currently underway are:

- North--University 3.15 miles opening 2016
- Northgate 4.3 miles opening 2021
- Lynnwood 8.5 miles opening 2023
- South--Angle Lake 1.6 miles opening 2020
- Federal Way 7.6 miles opening 2023
- East --East Link 14.0 miles opening 2023

Long range plans include an extension to Everett from Lynnwood. Extension from Federal Way to Tacoma and a

line to West Seattle. The ex-NP line from Renton to Snohomish was purchased and will eventually be rebuilt to handle transit service.

Seattle Streetcar

The first of the streetcars ordered from Inekon in the Czech Republic have been received and testing has been completed at the factory. The first car was delivered to Tacoma on Feb 1, 2015 but the longshoreman's work slow down delayed unloading until Feb 15th with the remainder to arrive later in 2015. After set up, reassembly, and inspection of the cars, testing began. Unfortunately, on first trip with dignitaries aboard, the car broke down. Testing is on going as cars are delivered during the remainder of 2015

Hiring of new operators and testing will begin soon after arrival. The three cars being assembled in Seattle have been delayed waiting for the braking assemblies to arrive from the manufacturer and the cars will be delivered shortly thereafter. The Broadway streetcar line has been completed and awaits the startup procedures which are mandated for all new cars. A one-half mile north extension is undergoing design engineering and is anticipated to be completed in 2016.

An interesting sidelight: trolley coaches run using 600VDC, streetcars at 750VDC, and light rail at 1500 VDC so locations where lines cross required a special design. The streetcars are equipped with lithium-ion batteries that can power the vehicle for up to 30 minutes. This allows them to go through the crossings with pantographs down. When the streetcars travel downhill, the motors are switched to regenerative operation to charge the batteries.

Sound Transit

Central Link- Ridership continues to increase with numbers above 31,000 average daily. This is still below the numbers that were originally forecast. The highest ridership occurs on game days of the Seattle Mariners and the Seattle Seahawks with standing room only. Sound Transit also operate their commuter trains for Seahawk games

University Link Extension

Construction on the extension is wrapping up on most areas as of April 15, 2015. With work remaining only on the stations, UW is 100% completed and Capitol Hill station at 85% completion. Work on the installation of the power system was at 68%. Track work is nearly completed. Construction remains ahead of schedule and under budget at

Pacific Northwest Transit Updates *continued...*

this time. expected to open early 2016.

The 27 new Kinkisharyo LRVs have been delivered and going through testing and are entering the operating fleet as testing is completed.

Northgate Extension

The Northgate Extension, which is scheduled to open in 2021, finds work underway at several locations. Construction of the U District station at NE 45 St. and the Roosevelt station at NE 65 St, both underground stations, have their excavation stage completed and foundation and walls poured. The second tunneling machine is midway through digging the second tunnel portal to the Roosevelt station. The first tunnel machine has drilled through and has reached the Roosevelt station. Drilling will shortly resume from the Roosevelt station to the U district station

Angle Lake Extensions

The Angle Lake extension is over 50% complete and plans are underway for a future extension south to Federal Way.

Other planned extensions are north to Lynnwood from Northgate. The cross lake line from downtown to Redmond are in the final stages of the Environmental design review.

On the extension to S 200th from SeaTac, the construction is currently lifting concrete segments into place on the overhead piers. 1,100 concrete segments are needed for the 1.2 mile extension which is identical to the overhead segments leading up to SeaTac on the Central Link portion of the line. They are U shaped and all the feeder lines are housed in this lower section of the U. The Precast concrete deck for the station at S. 200 are being hoisted into position.

MAX Orange Line

Louis Bowerman

Saturday, Sept. 12, 2015 is the target date when the Orange Line MAX Train will come on line providing service from S.W. Portland at Portland State University including the South Waterfront, crossing the Tilikum Crossing bridge arriving at OMSI on the Eastside of the Willamette River eventually ending at Milwaukie OR.

The \$1.5 billion project providing over 12,700 jobs in its construction is the city's sixth light rail line of 7.3-miles including 10 stations expanding the system to 60 miles and 97 stations. Incidentally, the Tilikum Crossing is the first multimodal bridge in the United States carrying streetcars, buses, light-rail, bicyclists and pedestrians, sadly no cars for motorists.

This past Tuesday, November 18th, the last rail was welded in downtown Milwaukie (at Southeast 21st Avenue and Adams Street) being the last piece of rail to be welded on the project. According to The Portland Tribune (November 20, 2014) article "Trimet marks Orange Line milestone", "Flames and smoke rose from the heating pot above the rails as superheated aluminum,

Lynnwood Extension

The final route alignment has been selected and the design and engineering work is underway. The eventual extension to Everett is planned to be built using the Seattle to Everett Interurban line right-of-way, which is currently a bike path.

East Link

Construction is ongoing. The present high occupancy highway lanes are going to be re-purposed for light rail with new east bound lanes on a new floating bridge. And a new light rail maintenance facility is in the planning stages.

Tacoma Link

The Hilltop Link extension has been funded which includes six new streetcars, which will bring the total to nine. The present Tacoma Link will be double-tracked and the line extended out on MLK blvd to south 19th street. This will enable an increase in the frequency of service.

Merger

Oregon Iron Works and Vigor Industries announced a merger last May with Oregon Iron Works operated as a subsidiary. OIW joins a much larger firm that is focused on fabrication of all types of metals. Check their web site to see the wide arrange of projects they completed over the past 70 years. OIW has indicated that they will be aggressive in obtaining orders for their United Streetcar division.

iron oxide, and alloy elements flowed in to the small gap between them, turning to steel for a permanent connection."

More information will follow as we get closer to the MAX Milwaukie launch.



Jack Norton 1920-2014

We spotlight an individual OERHS member in each issue of The Transfer, with a focus on their memory of Oregon Electric and Portland transit. This issue we dedicate to Jack Norton, who sadly passed away in 2014. Bill Binns contributed the following remembrances.

Jack was an early member of OERHS and also a member of the Willamette Valley Electric Railway Association, which merged with OERHS. He also taught members to operate car #813 when we brought this car to Willamette Shore Trolley line after its restoration in 1995. He was very involved in training, teaching and supervising at the earlier Trolley Park at Glenwood and continued on at the new location at Brooks for a number of years.

I met Jack in 1991 at a Vintage Trolley Host meeting. Several weeks later I went to Glenwood to look around. Jack recognized me and a few minutes later he put a motorman's hat on me and had me operating car 1187. He was Superintendent of Operations at Glenwood for many years. He had a trailer that he lived in during the operating season. He did chores like mowing the grass and keeping the depot and Museum section neat and clean and above all supervising trolley operations. He was a very mild, kind man. He didn't yell when I derailed the car, nor did I ever hear him raise his voice. He went to Yakima and worked on the trolleys there for a while. When he saw our ticket office and gift shop, car 911 donated by Spaghetti Factory and placed at Brooks, he returned and resumed his role as Superintendent of Operations. He sold his house and moved to Keizer so he could be close to Antique Powerland.

Jack served in the US Army during World War II



Jack in car 1187 at Brooks Museum



Bill Binns, Dick Shipley, and Jack Norton at Brooks in May of 2004.

and part of the Cold War in an anti-Aircraft battery stationed in Fisher's Park, Philadelphia, about a mile and a half from my house. The trolley route 47 turning loop was block away and the track on fifth St. ran right along the edge of the park. His interest in trolleys was sparked by a friend who got him into the PTC (Philadelphia Transportation Co.) training program and had him operate a PCC car. This seems to have been love at first sight, because Jack was very fond of our PCCs. He did several interesting things during his career, like operating a mobile Pop Corn maker and an old ex-Portland Traction Company 30' bus which he owned. He was a printer by trade and, from all reports, a good one.

Soon after he came to Antique Powerland, Jack's dog Reba, a golden retriever, was killed in an accident. Not long after, a very pleasant black dog showed up and was adopted by Jack. (It was mutual). She was named

Jack Norton, continued

Rocky because she would chase a stone, if you threw it out, and bring it back. She appears in many photos of Jack during this period.

Jack moved to a retirement home in Woodburn about 2009 and remained there until he died. He seemed to just sort of run out of steam--his passing was peaceful.

Bill Binns



Jack, Arthur Cornwell and Rod Cox at Steam Up in 2006



Roger White and Jack Norton working on lawn mower in the shop building, April 2006



Jack Norton and Rocky preparing flower bed at the Brooks Museum site April 2006.

And here are some remembrances from others who knew Jack:

From Schaunene Mannen

Jack was a Wonderful Person!

He had a heart of gold and would do anything you asked him to do. He was a volunteer at Trolley for 50 years. His dog Rocky would follow him everywhere he went. He even would take a short nap with Jack. They were a real pair. Since he passed on, everyone wants to know why nothing gets done on time. They ask why and the answer is always "that was Jack's job". He is very missed by all.

From Julie Cox:

That's Jack's Job

Whose job is this? Why hasn't this been done for a longtime? Where do I begin to learn this job? Countless questions asked and always the same reply: "That's Jack's Job". Jack Norton of course. The man who gave us 50+ years of service to OERHS or the "trolley" boys as we affectionately called them. And now Jack has passed on and left us to carry on in his memory. Did you hear? His estate consisted of two show boxes of photos. What a wealthy man! He gave so graciously of himself that in the end, only two boxes remained! That's a carbon footprint to be coveted by any man.

Now we're a group of dedicate volunteers at Antique Powerland left behind to hopefully pick up where he left off. So don't be surprised if you ask a question one day and someone replies, "That's Jack's job". We won't forget you Jack

From John Nagy:

Jack used to enjoy to have groups of campers out at the old museum. I remember that he and I once picked up a group from the campground in the Aussie car one evening and took them to the museum building to watch a video. While they were doing so he and I swapped cars and then took them back to the campground using the PCC. They loved the chance to ride a different car (especially at night) and Jack loved the opportunity to give them a memorable experience.

During a bit of a dark period in the organization's past, Jack took a short break from the museum. However, he couldn't resist the lure of the overhead wire so joined the Yakima Interurban Lines Association and drove from Portland to Yakima on most weekends in order to volunteer there.

Jack loved all of the museum's collection but in his later years his favorite was definitely the Boeing car. He never missed an opportunity to operate it and was quick to call member Al Fisher (our resident Boeing car genius) if it wasn't working. He would gladly keep Al company while he was working on the car and looked forward to the chance to do a test run after the repairs.