The Trolleyville Times

April 2017

Have you discovered a little known product that some other modelers would like

IN THIS ISSUE:

CURRENT EVENTS.....

Urban Commuter / Light Rail / Modern Streetcar News!

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by Edward Havens

Detroit television station WDIV reported on March 10 that the Q Line (M-1 Rail) modern streetcar system in Detroit released a safety video for pedestrians and motorists in advance of the public service debut now set for May 12. Q Line (branded after one of the sponsors, Quicken Loans, a national mortgage firm headquartered in Detroit) began construction in July 2014 and made its first test run over the track in December 2016. The 3.3-mile, $142 million car line will use Brookville Equipment Corp. of Pennsylvania "Liberty" dual mode battery and pantograph equipped cars. Six were ordered. Incidentally, the first of the new cars is numbered 287 since the last PCC car was numbered 286. This practice was also followed in Cincinnati and Kansas City.

Car 289, the third QLine car, under tow in Detroit!

April 8 will be the first public open house for the initial LRV shipped to Waterloo regional government in southern Ontario for its 11.8-mile light rail line now under construction between the Canadian cities of Kitchener and Waterloo, CBC News reported March 8. The four-hour open house will be held at the LRV maintenance and storage facility (car house) at Waterloo. The starter LRT is being branded as "Ion" for marketing. Its LRVs are being built by Montreal-based Bombardier Transportation with service expected to launch in 2018. Each vehicle costs about $6.6 million, seats 56 but can transport as many as 280 passengers. This is the same manufacturer which is behind on delivery dates for 204 Flexity streetcars ordered by Toronto Transit Commission for its legacy broad-gauge lines in Toronto's urban core.

The First of 14 vehicles for "Ion" Service arrives in February 2017!

Sacramento Bee reports that Regional Transit District light rail service to the historic Folsom district east of California's state capital city resumed March 8 following a lengthy suspension. Service was disrupted Dec. 12, 2016 when a highway truck carrying an oversized load ran into a crossing gate. The semi truck crash at the Natoma Street intersection pulled the gate into contact with the overhead wire and sending a surge of electricity through the signal and grade crossing protection systems. The damage was described as some of the worst the LRT system has ever experienced.

Car 234 and Mate, two of the 40 CAF built cars in 2002-2003 currently in service, at Folsom!

Triangle Business Journal reported March 10 that two North Carolina counties, Durham and Orange, agreed to speed up their light rail local funding commitments to meet an April 30 deadline set by the Federal Transit Administration. The two counties have earmarked about $456 million toward a 17.7-mile LRT route that will link Durham and Chapel Hill in the "Triangle" metro area which also includes the state capital at Raleigh. The capital may use diesel multiple-unit cars over rail freight tracks to link with Durham. The federal commitment to the LRT project is expected to total about $1 billion. The Durham and Orange County commissions planned to meet April 28 to formalize LRT funding to satisfy FTA. The route will have university and hospital generators for its rider ship and is being called "visionary." It may wind up looking like North Carolina's only current LRT system at Charlotte, the state's largest city.

Charlotte (CATS) two-car LRV train!

Some Milwaukee County supervisors want the local bus system in Wisconsin's biggest city to operate the downtown modern streetcar line that will begin construction this month, the "biz times dot com" website reported on March 8. If selected as management contract operator, Milwaukee County Transit System, which runs 411 buses, would be in charge of the city-owned $124 million streetcar. Supervisor Marina Dimitrijevic said allowing the bus agency to run the streetcar would "provide our riders with an enhanced experience and will attract new riders." A request for proposals for a streetcar operator had an April 4 deadline but this now has been reset to June 5. One potential problem: the county is prohibited by state law from spending any county funds on rail transit.

Artists concept of Milwaukee Streetcar!

Monday, March 20, 2017 was the first day of spring in the Northern Hemisphere and in anticipation of spring flower planting season, Philadelphia opened its international Flower Show March 11-19 at Pennsylvania Convention Center, 12th & Arch, in Center City near the Jefferson Regional Rail station of Southeastern Pennsylvania Transportation Authority. But SEPTA had some trouble getting visitors to the show March 11, KYW reported. Power problems slowed Silverliner electric multiple-unit service. The CBS affiliate reported that many trains were cancelled and it took several hours to correct the power glitch. SEPTA spokeswoman Carla Showell-Lee said, "We had some switching problems around Wayne Junction, which caused some low voltage issues. Essentially, what that means is that when things come out of sync, that can cause power outage."


SEPTA Silverliners at Work!

Seattle Department of Transportation suspended operation of its First Hill modern streetcar line on March 1 after an Inekon-built streetcar lost power and slid downhill for 2-1/2 city blocks before stopping without brakes. No one was injured in the incident and there was no property damage, the "capitol hill seattle blog" reported March 4. A city spokesman said the problem was traced to an "electromagnetic malfunction" in a circuit-breaker type device that shut down power to car's operating system. All First Hill streetcars were taken out of service for inspection and shuttle buses were deployed until rail service could resume. The rail service was restored March 20 following repairs to the Inekon cars.

The Delmar Loop heritage streetcar line at the St. Louis inner ring suburb of University City conducted its first track test March 26 of a Gomaco-built replica Brill semiconvertible (shown below left) towed by a highway truck over the 2.2-mile line to check clearances and trolley wire, KPVI television reports. The early Sunday morning testing lasted several hours. The streetcar line could begin public service this summer.

The "patch dot com" site reported March 24 that faux rubber-tired "trolleys" will be deployed this summer at the island city of Galveston in south Texas to fill the gap until rail service streetcars, like those shown above right, operated with on-board diesel power can return in 2018. Three streetcars will be rehabilitated for service. The 6.6-mile system was suspended in September 2008 because of damage from Hurricane Ike.

Beijing, the capital city of the People's Republic of China, plans to build two new light rail lines, the "china dot com dot cn" web site reported March 10. They will be linked with two rapid transit subway lines. Beijing has air pollution smog problems related to auto use and LRT could help with that and cut energy costs. The story said the energy consumption of a streetcar is only one-third of a bus. LRT route T1 will run from Beijing Garden Expo Park North to the subway and streetcar line T2 will run from T1 to Qinglong Lake.

China LRV!

More Urban Rail Happenings!

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BOSTON, MA. - According to a Progressive Railroading report on March 21, 2017, the Massachusetts Bay Transportation Authority (MBTA) in mid-March 2017 released a request for proposal (RFP) to three design-build teams selected to be considered for the Green Line light-rail extension project.

One of Boston's (MBTA) 95 AnsaldoBreda Type 8 low floor vehicles in the Subway portion of their Green Line!

One of Boston's (MBTA) 120 KinkiSharyo Type 7/7.5 low floor vehicles on The Boston College or "B"line!

The draft RFP includes an "affordability limit" of $1.3 billion and outlines the base scope of work, MBTA officials said in a press release. The request also details "additive options" if the firms can complete them within the project schedule and budget. Those options include platform canopies, additional elevators at certain stations, public art and an enhanced vehicle maintenance facility in Somerville, MA.
Price proposals for the completing design-build firms are due in September. A final RFP will be issued in May after the MBTA receives feedback from the firms on the draft request.
The estimated cost to build the extension is $2.3 billion. The project involves extending the MBTA's Green Line into Somerville and Medford, Mass.
During February, the MBTA picked the three firms to compete for the project. The three teams are:
• GLX Constructors (Fluor Enterprises Inc., The Middlesex Corp., Herzog Contracting Corp., and Balfour Beatty Infrastructure Inc.);
• Green Line Partners (The Lane Construction Corp., Salini Impregilo S.p.A., Judlau Contracting Inc., and the LMH-C.M.C di Ravenna joint venture); and
• Walsh Barletta Granite JV (Walsh Construction Co. II LLC, Barletta Heavy Division Inc., and Granite Construction Inc.).

The Boston MBTA currently operates three types of Light Rail Vehicles:

• Type 7 vehicles, fabricated by KinkiSharyo in 1986-1988, series 3600-3699;
• Type 7 vehicles, sometimes called Type 7.5, fabricated by KinkiSharyo in 1997, series 3700-3719; and
• Type 8 vehicles, fabricated by AnsaldoBreda between 1998-2007, series 3800-3894.

MBTA Boeing USSLRV on the Cleveland Circle or "C' line in 2005 near the end of its service!

The original Light Rail Vehicles in Boston that replaced the PCC cars were the Boeing United States Standard Light Rail Vehicles (USSLRV) shown above which were almost universally accepted as a less than optimum vehicle. 275 of these vehicles were built for Boston and San Francisco. They operated from 1976 to 2007.

CHARLOTTE, N.C. - The Charlotte, Area Transit System (CATS) has pushed the opening date if the LYNX Blue line Light Rail Extension to March 31, 2018. The Extension was initially slated to open in August of this year. According to a report from Progressive Railroading on March 2nd, the delay is due to construction coordination challenges, remaining testing of system integration and signalization, and safety reviews, as reported by CATS officials in a press release.
The project remains under budget, and any costs incurred due to the new schedule won't increase the original $12.6 billion budget, according to the agency. Further, CATS pledged to work with contractors to find ways to open the extension earlier than March 2018. Under the project's Full Funding Grant Agreement with the Federal Transit Administration, the line must open in March 2018. CATS leaders have pursued "every available option of schedule compression" to deliver the project by August 2017, agency officials said. Ninety-one percent of construction for the project has already been completed.
The 9.3 mile Blue Line extension will run from 7th Street in Charlotte's Center City to the University of North Carolina-Charlotte campus.

CHICAGO, IL - China Railway Rolling Stock Corp. (CRRC) Sifang America will break ground Thursday on a $100 million rail-car manufacturing facility in southeast Chicago, the company announced on March 14th as reported by Progressive Railroading. The assembly plant will be the first of its kind to be built in Chicago in **35** years, according to a CRRC press release. Slated for completion in 2018, the plant will employ 170 skilled workers to assemble new 7000-series rail cars for the Chicago Transit Authority (CTA).

Artists Rendering of new 7000 series CTA cars to be built by CRRC in new Chicago Facility!

The units will be the latest generation of CTA cars. In March 2016, CTA's board awarded a $1.3 billion contract to the company to build more than 840 rail cars. As part of its proposal, CRRC committed to build the rail cars in Chicago and engage in "innovative workforce development partnerships" to train residents for jobs in the new plant, according to the release. The facility will produce the 7000-series cars over 10 years. Headquartered in Beijing, People's Republic of China, CRRC Corporation Limited has 46 wholly-owned subsidiaries and majority-owned subsidiaries and over 180,000 employees with revenues of 27.8 billion USD in 2015.

FORT LAUDERDALE, FL - Brightline, **a new private passenger-rail service** in Southern Florida, will begin introductory express service between West Palm Beach and Fort Lauderdale in late July, followed by service to Miami in late August, the company announced late last week.

Brightline's BrightPink first train, shown in Indio, CA, during its 3,000 mile initial trip from Siemens, Sacramento, CA to West Palm Beach, FL.

Company officials anticipate hosting a grand-opening ceremony and official launch of the train service in September, according to a Brightline press release. Additionally, Brightline officials will welcome "BrightPink," the second of five custom-built train sets manufactured by Siemens at its plant in Sacramento, California. The rail service's 60,000-square-foot stations in West Palm Beach and Fort Lauderdale are nearing completion, while the Miami Central station that includes elevated track is expected to be ready for the introductory Miami train service. Rail infrastructure improvements on the corridor between West Palm Beach are 80 percent completed.

The ticket prices, frequent rider passes and Brightline's new mobile application will be announced closer to the service launch, officials said.

Brightline's second phase will extend train service to Orlando. The company is finalizing permitting and will have a better of idea of timing for that route after the introductory service begins this summer, they said.

LOS ANGELES (Palmdale), CA - KinkiSharyo employees rolled out a milestone rail car early in the morning on March 21st Palmdale. This is the 78th one produced by workers in Palmdale. The shells were made in Japan where the company is headquartered but everything else was done here in the Antelope Valley.

Soon-To-Be Metro cars 1079 (left) and 1078 (right) at Palmdale on March 21, 2017!

"We assembled it, tested it, done all the inspections on it. It's now ready for delivery to Metro," said Steve Huckabay, senior manager, KinkiSharyo. Huckabay says workers do all the testing and fabrication. They also install the seats, doors and windows. But starting with the next rail car — the 79th one — it will be built entirely in Palmdale. "What this means for KinkiSharyo and the employees here is a strong workforce, a trained workforce and we're no longer building the car shells in Japan. They're all manufactured from the ground up here in Palm dale," said Huckaby. A process that can take 10 to 12 weeks. Metro initially purchased 78 light rail vehicles and then opted to buy 157 more which requires KinkiSharyo to expand its Palmdale facility to manufacture them.

Sources tell us that now that the 78th KinkiSharyo vehicle has been delivered, some of the oldest Light Rail Vehicles in Los Angeles, *(the NipponSharyo 1989-1990 P865 vehicles that opened the Blue Line to Long Beach in 1990)* are going to be slated for retirement with car 105 being the first to enter that category. It will be a source of spare parts for awhile but space considerations will force LACMTA to remove it from the active rails eventually. It is expected that about one car will enter this category each month. Most of them will be cars due major service and that have not been overhauled and are still in the white with gold stripes paint scheme shown in the next photo.

P865 car 121 with two others in 2012 on the Expo Line when the western terminal was La Cienega Blvd. (Note TransTech pantograph on car 121!)

MIAMI, FL - During the week of March 26-31, Hitachi Rail Italy delivered the first of 68 trains to Miami-Dade Transit (MDT), as reported by Progressive Railroading. The two-car train, consisting of a married pair with cabs only on the ends, left the company's Medley, Fla., plant to reach the agency's Lehman Center on March 27, Hitachi officials said in a press release.

Before it left the Medley plant, the train went through a series of tests, including the verification of proper assembly and functionality of subsystems. Hitachi also tested the train's heating, ventilation and air conditioning, lighting, and propulsion.

Following the first phase of operator training, the company will initiate a dynamic test phase with the train running first on test track and then on the main line during night shifts and weekends. That phase of testing will demonstrate the train's performance running and braking at maximum speed and in different weight conditions.

The second and third coupled trains are undergoing pre-qualification tests at the Medley plant. They're expected to arrive at the Lehman Center between June and July to complete dynamic testing. The 68-train order is worth about $300 million. See photo of new car, below right!

Current 1982-1986 Budd-built MDT Metrorail Car!

New Hitachi MDT Metrorail Car!

For those of you unfamilar with this system, MDT Metrorail currently uses 136 heavy-rail (68 married pairs) cars built by the Budd Company under the name "Transit America" (see photo above left). They were identical to those used on the Baltimore Metro Subway (until modifications were made to Baltimore's cars during their refurbishment in 2005). The two systems were built at the same time, and the two agencies were able to save money by sharing a single order. The Batimore-Miami order was among the last orders Budd filled before shuttering its railcar manufacturing business. These cars were manufactured in Budd's Red Lion plant in Northeast Philadelphia in 1983. The cars are 75 feet (23 m) long, 10 feet (3.0 m) wide and have a top design speed of over 70 mph (110 km/h). They are semi-permanently attached in married pairs, and joined up to form 4-car trains, which is the normal train length. Each car can hold up to 166 passengers (76 seated, 90 standing), and draw power from an electric 700 volt third rail.

Miami-Dade County Government was working with the Citizens Independent Transportation Trust (CITT) to receive money from the half-penny surtax approved by voters in 2002 in order to purchase new Metrorail cars. MDT had originally planned to refurbish the existing Metrorail cars with the money instead of replacing them as promised. However, it was found that the fleet had never been maintained properly, and in 2008, a cost-benefit analysis found that, based on the current fleet's condition, a refurbishment would cost just as much as it would to buy new cars, if not more so.

So in 2009, Miami-Dade issued an RFP for new cars to replace their existing fleet, at a cost no greater than $2.419 million per car. Proposals from three railcar manufacturers were reviewed, with only two of which meeting the price requirements, these being from Italy-based AnsaldoBreda and Elmira Heights, New York-based CAF USA, an American branch of the Spain-based Construcciones y Auxiliar de Ferrocarriles. In November 2012, MDT approved a $313 million purchase of 136 new Metrorail cars from the company. But by the time the custom rail-car building facility in Medley was completed in early 2016, AnsaldoBreda had been purchased by Hitachi Rail and the full rollout was delayed to 2017.

PHILADELPHIA, PA - The Southeastern Pennsylvania Transportation Authority (SEPTA) in mid-March 2017 approved a $137 million contract with CRRC MA Corp. for 45 multilevel commuter-rail coaches. The contract includes an option to buy 10 additional coaches, according to a SEPTA press release. CRRC MA Corp. is a subsidiary of China Railway Rolling Stock Corp. (CRRC). The new units will be built primarily at the company's main U.S. manufacturing plant in Springfield, Mass. These coaches will also meet "Buy America" requirements, with 60 percent or more of the parts, labor and fabrication originating in the United States, according to SEPTA.

The units will be paired with SEPTA's new electric locomotives, which are being built by Siemens. The agency evaluated proposals from CRRC, Bombardier and Hyundai Rotem; CRRC's bid was the lowest of the three.

Bi-level commuter coach built by Bombardier for NJ Transit!
(Models cuurently available from Atlas Model Railroad Co in HO scale!)

The fleet upgrades play a key role in advancing SEPTA's Regional Rail service improvement program, said SEPTA General Manager Jeffrey Knueppel. "SEPTA's Regional Rail ridership has grown by more than 50 percent over the last 15 years," Knueppel said. "The addition of new multilevel coaches and electric locomotives are critical for expanding capacity and meeting the needs of our riders." CRRC also is building rail cars for the Massachusetts Bay Transportation Authority, the Chicago Transit Authority and the Los Angeles County Metropolitan Transportation Authority (see earlier article).

WASHINGTON, D.C. - President Donald Trump's proposed federal budget blueprint would cut the U.S. Department of Transportation's budget by $2.4 billion, or 13 percent, to $16.2 billion, according to the document.

Regarding rail, the budget calls for terminating federal support for Amtrak's long-distance service; eliminating the Transportation Investment Generating Economic Recovery (TIGER) discretionary grant program; and limiting funding for the Federal Transit Administration's Capital Investment Program (New Starts) to projects with existing full funding grant agreements only.

The budget request streamlines the department to focus on "vital federal safety oversight functions and investing in nationally and regionally significant transportation infrastructure projects," the document states.

"The budget reduces or eliminates programs that are either inefficient, duplicative of other federal efforts, or that involve activities that are better delivered by states, localities or the private sector," it says.

For Amtrak, the budget would restructure and reduce federal subsidies to the national intercity passenger railroad to focus on services within regions. It eliminates federal support for long-distance Amtrak services, "which long have been inefficient and incur the vast majority of Amtrak's operating losses," according to the document. "This would allow Amtrak to focus on better managing its state-supported and Northeast Corridor train services," it states.

Amtrak's 15 long-distance trains offer the only Amtrak service in 23 of the 46 states the railroad serves. Eliminating funding for long-distance routes could impact many of the 500 communities served by Amtrak, the railroad's President and Chief Executive Officer Wick Moorman said in a prepared statement. "These trains connect our major regions, provide vital transportation to residents in rural communities and generate connecting passengers and revenue for our Northeast Corridor and state-supported services," said Moorman. "Amtrak is very focused on running efficiently — we covered 94 percent of our total network operating costs through ticket sales and other revenues in FY16 — but these services all require federal investment." Moorman said Amtrak officials look forward to ensuring that Trump, U.S. Transportation Secretary Elaine Chao and Congress "understand the value of Amtrak's long-distance trains and what these proposed cuts would mean to this important part of the nation's transportation system."

TEHACHAPI, CA - It was revealed by the Tehachapi News(dbaker@tehachapinews.com) on March 24 (with an update on March 26) that Linda and Ed Gordon will be closing their model train store, Trains Etc., at 114 West Tehachapi Boulvard, Tehachapi, CA 93561 on April 30, 2017. There goes another model train store!. Trolleyville decided to report this due to the suddenness of the announcement and the desire of so many railfans to go up to Tehachapi. The store will close as the end of THIS MONTH so this may be the time to do so!

So it appears another hidden gem in Tehachapi is about to leave the station for the last time as the owners say they have all but given up their search for a new owner. The Gordons say they will shutter the iconic model train store on April 30 and embrace a life of retirement.

The Gordons purchased the store in January 2006 from Doug and Sheryl Pickard, the original owners. The model train, toy and souvenir shop has been a popular stop for tourists from around the world for 18 years. Although the Gordons say they are still willing to sell their business, should a buyer step forward, the deal would not include the property where it currently operates. The building is owned by Kathy Bassler of Kelcy's Cafe, who announced last month her desire to also retire and sell the property which includes the restaurant along with two smaller store spaces located on either side currently rented out to Sheridan's Boutique and Trains Etc.

Linda said she and Ed have been trying to sell Trains Etc. for five years, but the market for model trains is not what it once was. Building model trains is not as popular of a hobby as it was in the past.

What many consider to be a 3D form of art is not only time-consuming, but also expensive. That means the majority of customers are adults. Said Linda, "A lot of people don't want to take it over because sometimes they feel like the train industry like this is going downhill with the internet, as you can get it on the internet a lot cheaper." With the closure of Trains Etc., Ed said train buffs will have to travel to Burbank as it will be the closest full-line model train store to Tehachapi. Said Ed, "A lot of the problem is that people will come in, and they will *'showroom.'* They come in, and they look at stuff, and they stand there, right in front of you, with their phone, and they look it up on the internet. If they can get in 10 cents cheaper on the internet, they walk out the door and buy it on the internet. That doesn't help any." Even though the internet has put a damper on things, Ed said the store is not losing money.

Ed told the local reporter that "This town really needs a train store, because there is the train club, and of course, the nature of Tehachapi is that it was built around the trains." Added Linda, "That's what made me so sad. It was bittersweet because where else could you get a better location for a train store, right across from The Depot and the railroad track?"

The Gordons have been married for 54 years. Now that they are both in their 70s, they say they are itching to retire. Said Linda, "I love my customers, but it's time before it gets too late that we can't go places." The Gordons say they rarely get to spend time together. Said Ed, "If she has the day off, I have to work. If I have they day off, she has to work. So we can't do anything together." Linda said their two children and five grandchildren have been asking her and Ed to join them on trips for at least the past four years; however, the couple has not taken a vacation in the past 11. Said Linda, "They want grandma and grandpa to come down and watch their ballgames, and so forth." Sad news to everyone Local patrons say they are sad to hear the town will be losing a familiar and favorite store. "I just found out," said Susan Miller of Tehachapi. "When you lose things that are integral to what is Tehachapi, it's sad. A lot of things are shifting here, and you never know what the winds of change are bringing. We have had a lot of restaurants closing, and a lot of it is people are saying the same thing — that it's time to pack it up and go do something else. It's a shame to lose something like this."

The Gordons encourage anyone interested in purchasing the business name and stock to call them at Trains Etc. at (661) 822-7777 through the end of May until such time they vacate, or via their Facebook page.

Glasgow Subway Celebrates 120 years with a Major Upgrade!

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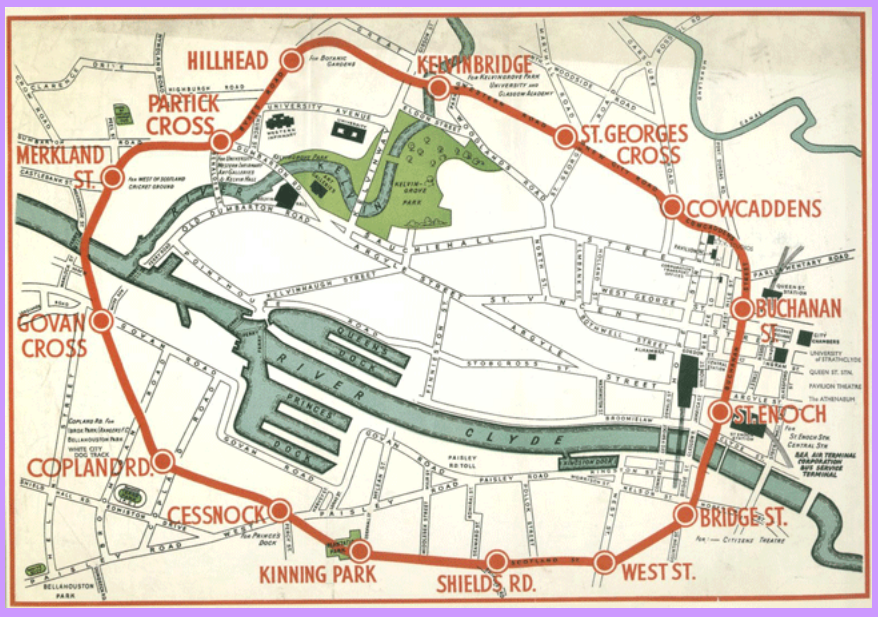
by AJ Staley

Scotland is a small country. Its total area is approximately the same as the State of California, however, its total of five million population is less than the total of Los Angeles and Orange Counties combined. Most of the

population is situated in a corridor, often referred to as, “The Borders”, from Glasgow through Edinburgh to Saint Andrews.

The population of Glasgow is nearly 600,000 and is served by an underground metro line, which is the third-oldest underground metro system in the world, after London Underground and the Budapest Metro.



It is one of the few railways in the world with a track running gauge of 4 feet and currently operates bright orange cars called carriages. The system at times is referred to as the Clockwork Orange, however, many local Glaswegians take umbrage at the sobriquet.

The first 33 modernized carriages were built by Metro Cammell at its Washwood Heath Works in Birmingham. They are equipped with GEC Electric motors. The exterior design of the carriages was carried out in partnership with the Glasgow School of Art, which was responsible for their “cute” appearance. Eight additional centre-trailer carriages were added in 1922 (the body shells) by Hunslet Gyro Mining Transport Ltd in Leeds for completion by Hunslet-Barclal Ltd in Kilmarnock. Interestingly, smoking has never been permitted on the modernized system.

With the Celebration of the 120th year of operation it has been decided to up-grade the complete system.

Gordon MacLennan the Chief Executive of Strathclyde Partnership for Transport (SPT) which now owns and runs Glasgow Subway stated “We’re re-running a subway which was last modernized in the late 1970’s and is costing a lot of money to continually repair. The rolling stock and associated equipment is very old and you cannot really get spare parts now. We put a proposal to the Scottish Government which said that we either invest in this or effectively shut it down.”

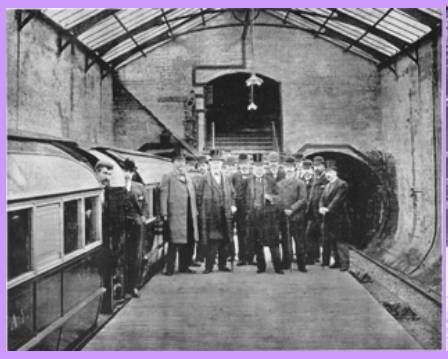
When Mr. MacLennan was asked where SPT was now with the program? He stated: “The tunnel walls, the linings, the rails - all these things have to be fit for purpose. The updating of the stations has been well received. Five have been done so far – those needed quite a lot of major work. The rolling stock was ordered at the beginning of March 2016, but it will be about 2021 before they are in operation. We’re buying Bepoke trains that fit into a certain tunnel diameter and a certain gauge of rail.” The £200 million (approximately $247.980) contract was awarded to a Swiss-Italian Consortium of Stadler Bussnang AG and Ansaldo STS Consortium for the supply of new driverless Glasgow Subway trains, signaling and equipment.

He further stated “if you’re going to shut down for a year or two, people will find other ways of traveling. Building up patronage after a closure is quite difficult. The reason in the 1970’s that they shut for three years was

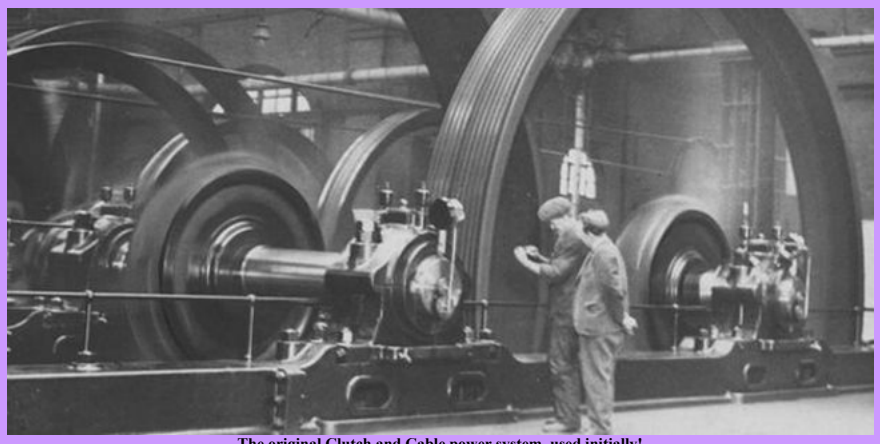
that there was a lot of significant structural work. All the platforms up to then were just single; they decided to give some of the busier stations two platforms.

The first 119 years' history:

The Glasgow subway system began construction in 1891 and was opened on December 14, 1896, and was originally powered by a clutch-and cable. It was later converted to an electric system, similar to that used in the San Francisco Cable cars to this day. .



Above left - Subway opening in 1986; Above right - Original Enoch Station in 1896; Main offices on top of building at right!



The original Clutch and Cable power system, used initially!

Original advertising as "Only Underground Cable Railway in the World"!

The system is described as two lines, the Outer Circle and Inner Circle, but this simply refers to the double track, having trains running clockwise and counter-clockwise respectively around the same route although in separate tunnels. It ran in a Circle connecting the independent burghs of Covan or Patrick and Glasgow City Centre and had 15 stations

As described in an article in "The Glasgow Herald" on opening day the whole system was massively overcrowded with "a great rush of all classes". Many of these passengers were not using the new underground railway to travel speedily between stations, but were going around and around, using it as a novel underground carousel.

The opening day was not without problems and issues. A mechanical failure near Buchanan Street station halted the outer Circle service for an hour mid-afternoon. Hundreds of passengers were left marooned in the tunnels and were forced to make their way through the dark – either exiting via the nearest station or, just as likely, boarding

already busy cars on the Inner Circle to get back to where they had started. Late that evening, after 11 PM, one car with 60 passengers was run into by another under the River Clyde. Four people were injured one of which was taken to the infirmary. Thus, the subway was closed until January 19, 1897, and when it re-opened they had adjusted the prices to detour passengers from using it as a carousel.

Each tunnel diameter is 11 feet (3.35 meters) which is even smaller than that of the deep-level London Underground which is 11 feet 8-1/4 inches.

The twenty-original wooden bodied carriages were built by the Oldbury Railway Carriage and Wagon Company, of Oldbury, Worcestershire. Many continued in service until 1977 in an upgraded form.

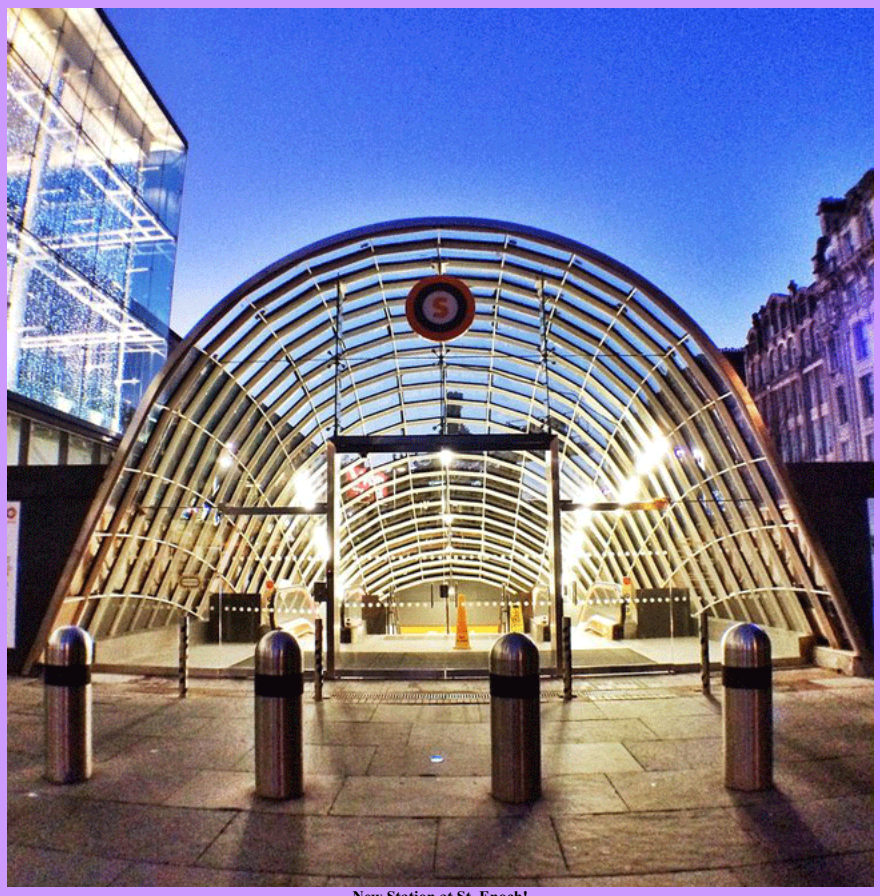
Interior of Original Carriage!

They added additional carriages from time to time between 1897 and 1977. By the 1970s, use of the Subway had declined significantly. This was caused partly by the closure of some of the dockyards and by wide scale demolition of tenements south of the River Clyde. The original carriages, mostly dating back to 1896, were still in use, although they had been adapted for electric traction in 1935. Breakdowns were becoming increasingly frequent. Because trains could only be removed from the tracks to the depot by crane, a single inoperable train could cause major delays. The future of the Subway became a major issue for the Greater Glasgow Passenger Transport Executive, which took over responsibility for the line from Glasgow Corporation in the late 1960s. In March of 1977, cracks were noticed in the roof of Govan Cross station which led to suspension of services until May 2 of that year. They were down to 4 train cars on each circle.

On May 21, 1977, the system was shut down completely for a major refurbishment and modernization, places and things were completely torn down, all redundant fittings were sold at public sale at Broomloan Works. During the 1977-1980 modernization, many things were changed, new carriages, turnstiles, ticketing system, maintenance procedures, stations, lighting and many other things. New track was installed, but the four-foot gauge was kept as well as the original Circle route. The line was formally reopened by Queen Elizabeth II on November 1, 1979. However, rebuilding work was still incomplete, and the line did not reopen to passengers until April 16, 1980.

1977 Reconstruction found the original offices on pylons while work proceeded!

View of tunnels during 1977 reconstruction - the worker on the left shows the small 11' width of each tunnel!



New Station at St. Enoch!

Design and color scheme of new Swiss-Italian subway cars from Stadler Bussnag AG and Ansaldo STS consortium!

The Subway may be physically unable to break out of the tight circle designed to serve Glasgow during its Victorian heyday but, 120 years on, the current significant refurbishment is ensuring that the vision and foresight of the founders is not squandered and that the city's first truly rapid mass transit system will continue to play its role in keeping Glasgow moving.

Los Angeles Metro Subway Rail Car Purchase!

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by AJ Staley

At a meeting on March 23, 2017, the LA Metro board issued a "Notice to Proceed" to China Railway Rolling Stock Corporation (CRRC), for the firm to begin manufacturing heavy rail vehicles for the Red and Purple Lines. The Board approved a $178.4 million contract with CRRC to manufacture 64 new HR4000 subway vehicles for the Red/Purple lines by a vote of 12 to 0. There is an option to buy another 218 subway cars. This would make an addition of 282 subway cars to the existing fleet. The current fleet totals 104 cars.

Artist's Rendering of CRRC HR4000 car for Los Angeles Metro! ***(Progressive Railroading)***

Thirty of the new cars will replace the oldest existing cars, series 501-530, which were built by AnsaldoBreda in 1991-1992. The remaining cars, series 531-604 were also built by AnsaldoBreda but between 1996 and 2000. So on average the current subway fleet is more than 20 years old, and the average life span of the rail cars is 25 years. The other 34 new cars will be used on the Purple Line when the first 3.9-mile extension opens between Wilshire/Western and Wilshire/La Cienega in late 2023. Manufacturing of the exterior shell of the subway cars will take place in CRRC's Changchun, China facility, and final assembly will take place in Springfield, Massachusetts.

A new facility in the Los Angeles area will be used to manufacture major components for the propulsion, heating ventilation, air conditioning and lighting systems. The contract will create approximately 50 local jobs, with 10 percent of the new jobs going to targeted disadvantaged workers.

The contract exceeds the federal government's "Buy America" provisions, which require 60 percent of component parts to be made in the United States. CRRC is currently building 284 rail cars at their Springfield, MA facility for Boston's Massachusetts Bay Transportation Authority (MBTA). Last month, CRRC broke ground on a new manufacturing plant in the Chicago area to build more than 840 rail cars for the Chicago Transit Authority (CTA).

After the first pilot vehicle is delivered in the Spring of 2020, and the entire base order of 64 subway cars are delivered by September 2021, Metro may then choose to exercise up to five options to buy the additional 218 subway cars. The total projected budget of $647 million will be funded by a combination of local and federal sources, and includes a percentage of Measure R sales tax proceeds.

MODELER EFFORTS .....

The section for modelers who have provided us with photos of some of the excellent work that they are doing.

Installing the PECO Catenary System on Tight Radius Track!

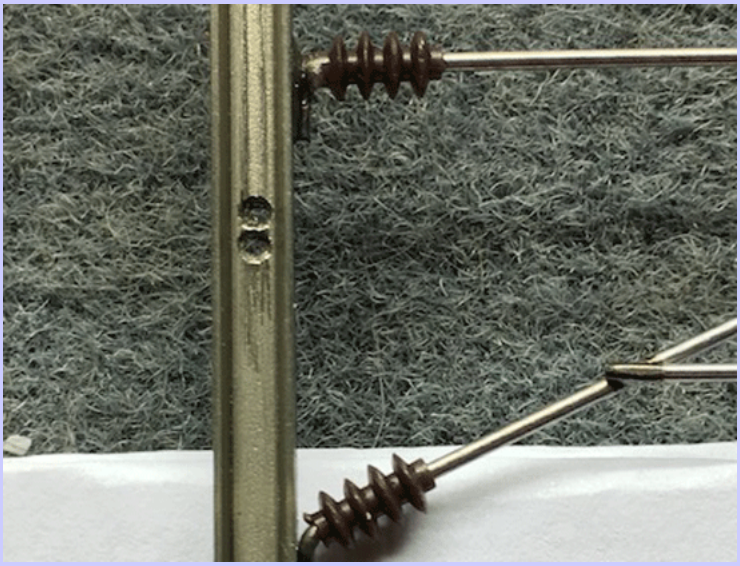
***

by John McWhirter

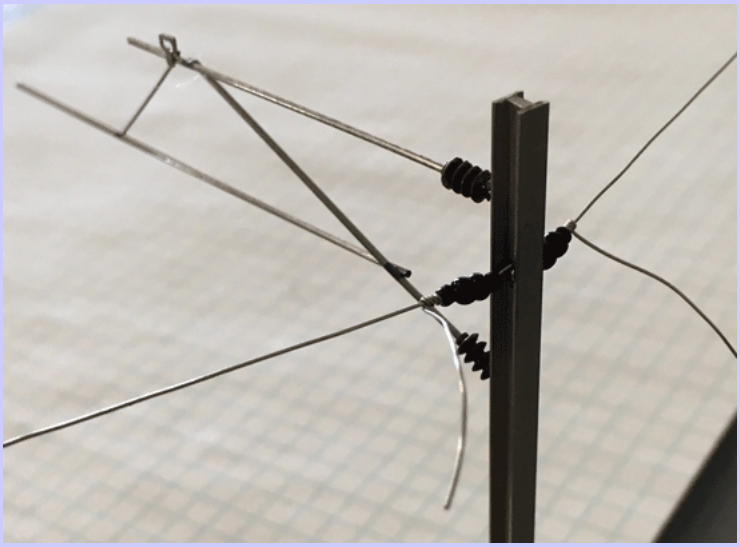
During the past year, members of the Southern California Traction Club (SCTC) have installed two types of overhead catenary system (OCS) on one of their small modular layouts. They call it their LRV Display. On one side they scratch-built the overhead using “double arm boulevard” poles. On the other side, they acquired a starter set from PECO, their newest offering of an OO scale OCS. PECO sent them the 12 mast set with an assortment of pre-made catenary sections to demo. OO is 1/76 scale running on HO gauge track. The masts and wire are made for PECO by Sommerfeldt and simulate British prototype practice. The results have been very satisfactory on the straight portions of trackage on the layout. That being said, when it came to installing the PECO system on my new larger test layout in my own train room, I had to improvise a method to deal with a tighter than optimum track radius.

The instructional literature that comes with the starter set is very well written and illustrated. Based on their method of installation, the minimum track radius for their shortest wire length (200 mm/8 inch) is 803 mm. That would not do as I intended to place this over Marklin K track with a radius of 360 mm or 14 3/16 inches. I knew I would have to employ a system of backbones and pull-offs if I were to achieve a successful installation with these tighter radius curves.

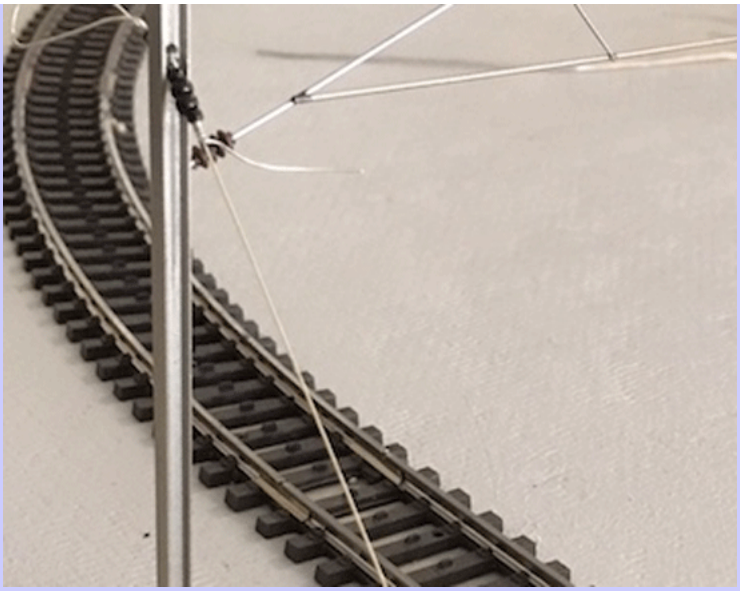
Prior to the installation of the masts, I drilled two small 1 mm holes about half way between the upper and lower horizontal arms. This was to provide a place to attach the backbone wires. I installed the single arm masts using the supplied guides for spacing throughout my layout. I had always planned to put overhead over this track but never actually made complete plans. During the planning process, I found that in one location the position of a mast would put it in the middle of another track.



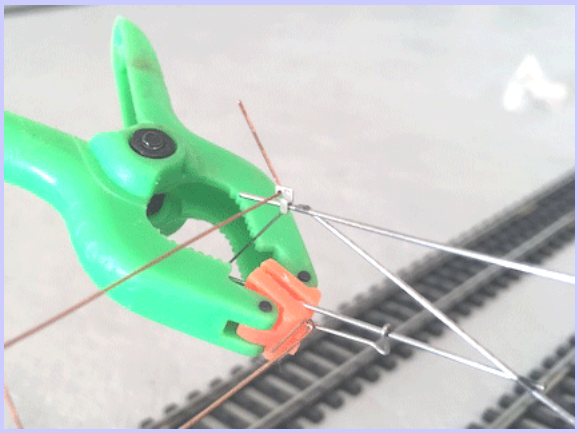
To get around this, I scratch-built a modified mast that would suit the situation. As I began the installation of the wire sections on the curves, it became clear that it was necessary to install the backbone first.



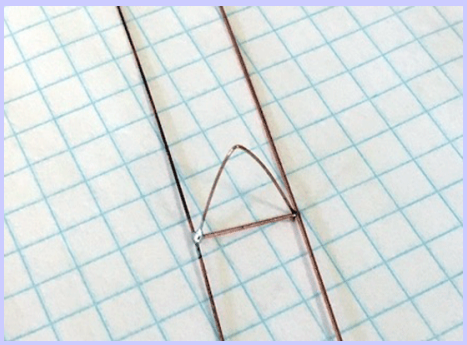
I used 2 15/0 and 2 10/0 black seed beads to simulate insulators. For the backbone wire, I used No. 28 tinned copper. At the ends of each curve, I installed a down guy wire at 45 degrees. See next illustration.



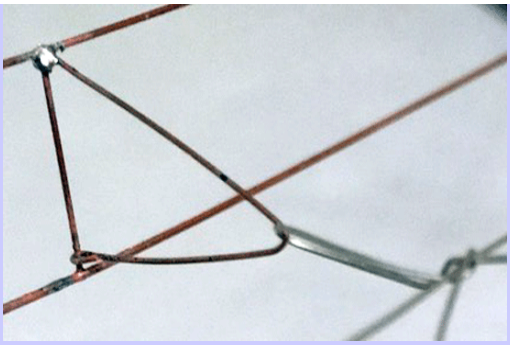
I found that soldering the register arms to the cross-arms prior to installation of the wire sections made the whole process easier. I used a small plastic clamp to hold it in place while I did the soldering.

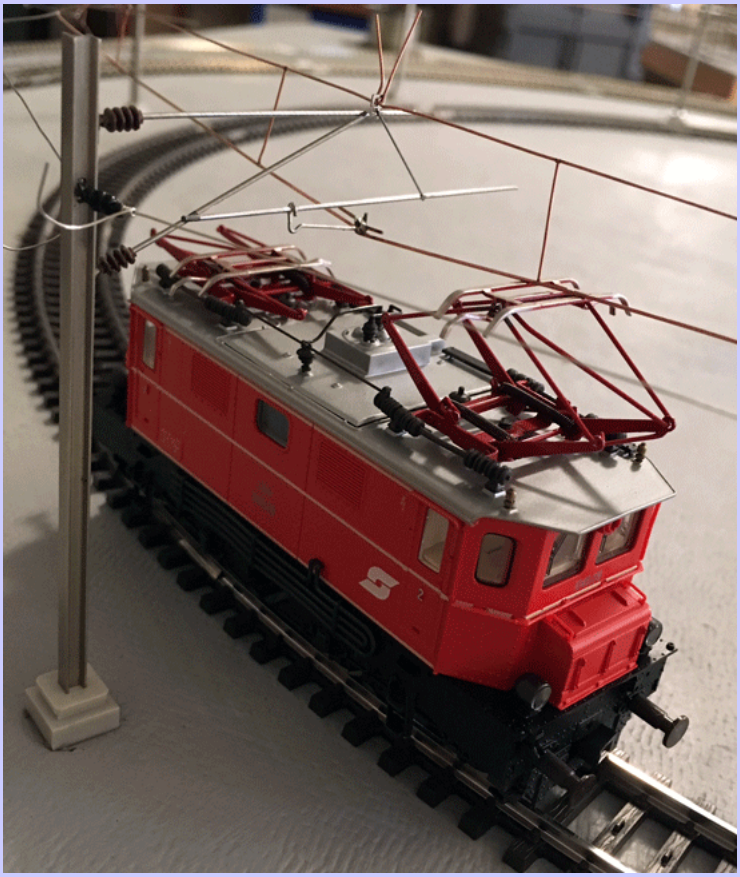


My plan was to attach a “V” shaped wire to the hanger set *(the many vertical wires that connect the contact wire to the messenger wire.)* in the middle of the 8 inch wire sections. This could then be pulled off to the backbone in order to provide the necessary curvature to the contact wire as well as the messenger wire. I found that prefabricating these and soldering to the messenger wire in advance simplified the process.



The following photo shows a temporary pull-off to the backbone. When I have completed all of the overhead wire installation and have made any adjustments, I will be making this a more permanent connection. I will also be trimming any excess wire from the messenger and the support arms.





The above photo shows a model Austrian BR 1045 electric Loco used to position the OCS contact wire.

I found out that soldering the connections between the contact wire sections at the register arms as I went along made the whole process clean and simple. Once I completed installing all of the wire sections and obtaining the necessary tension, I was ready to complete any additional soldering necessary.

Once the top of the layout was completed, it was time to wire the masts for live overhead operation. My test track layout is a small oval of track 84”x30”. There are 20 PECO masts installed. I used (4) 500mm wire sections and (16) 200mm wire sections. I connected each mast underneath and fed my digital control system into the network from three different positions spaced around the layout.

The above photo shows a model San Francisco MUNI Boeing LRV running on the now powered OCS.

Some conclusions:

1. The PECO catenary system is very robust. I began by thinking I would have to rake the masts toward the outside of the curves in order to tension the backbone correctly. This proved unnecessary and each mast was set in a pure vertical manner instead.

2. On the SCTC LRV Display, we maintained trolley pole capability by installing small 0-80 brass washers at each register arm and contact wire interface. I felt this was unnecessary for my operations as I have another test layout that uses plain trolley wire and is also pantograph capable. This system closely matches the prototype catenary overhead that is being installed on some lines around Los Angeles as well as in many other places around the country.

3. For those modelers who have some interest in the current wave of light rail, electrified commuter lines, and modern city street cars, this system may be ideal for moderately simple OCS construction. The masts appear to be nickel silver with welded steel arms. The wire is copper plated steel and the quality of construction is first class. This was a fun endeavor and hopefully will encourage others to take the plunge and put up some live catenary overhead.

Note: John McWhirter is a retired Los Angeles Department of Water and Power (DWP) employee who joined the SCTC in April 2005 and was responsible for illuminating many structures, developing the signature club subway station complete with operating subway trains and the introduction of DCC to the club. He also spearheaded the use of Wi-Fi with DCC using such systems as the Roco/Fleischmann Z21 Command Control System. He is currently slated to become the Club Director on June 1, 2017.
