

The Bulletin



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The Bulletin

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For general inquiries,
or *Bulletin* submissions,
contact us at
bulletin@erausa.org
or on our website at
erausa.org/contact

Editorial Staff:

Jeff Erlitz
Editor-in-Chief

Ron Yee
Tri-State News and
Commuter Rail Editor

Alexander Ivanoff
North American and
World News Editor

David Ross
Production Manager

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This Month's Cover Photo:

Public Service of New Jersey double-truck motor cars 2282 and 2235 on Main Avenue & Glendale Street in Nutley, New Jersey on February 11, 1936.
Unknown photographer

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2020...Page 18

IN MEMORIAM: WILLIAM J. MADDEN, 1947-2020

by Jeff Erlitz



William J (Bill) Madden during a station stop on the Canadian at Thunder Bay, Ontario, July 24, 1977.
Jeff Erlitz photograph

With deep sadness, I must pass along the news that William Madden passed away on Wednesday, August 12, at the age of 73 due to complications from COVID-19.

Bill, as everyone knew him, joined the Electric Railroaders' Association on February 21, 1964 and was member number 3062. He probably started volunteering at headquarters on Greenwich Street in lower Manhattan

around 1970, initially on Saturday mornings and then on Monday evenings. Like most of us, he could be found collating, stamping envelopes, and bagging sacks of mail for both the New York Division **Bulletin** and National's **Headlights**. When the ERA began offering Life memberships, Bill was one of the few members who took up that offer.

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In Memoriam: William J. Madden, 1947-2020

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I joined the ERA in September, 1970 and met Bill sometime after that at one of the monthly meetings at the old District 65 building on Astor Place. I recall asking Hugh Dunne a question I had about the PATH system and he directed me to Bill. I may not remember what I had for breakfast yesterday, but I distinctly remember my first words to Bill, literally, "Do you know anything about PATH?" He chuckled and promptly answered my question, the exact nature of which I do not recall.

That was kind of the beginning of a friendship that lasted fifty years! Starting around 1975, Bill and I would pick a section of railroad line in the New York metro area and hike a few miles of it, taking pictures of whatever trains came our way, as well as station buildings and other railroad infrastructure. This was, of course, way before "security concerns" became an issue with railroads.

In addition to rail photography, another of Bill's passions, like several of us, was collecting "rail mileage." Whenever there was a rail excursion advertised on some line that had long ago lost its passenger service, Bill could be counted upon to be in attendance.

Also, like many of us, Bill's interest in transportation was quite "multi-modal." Aviation, marine, and motor vehicle modes were all included in his extensive slide collection. Soon after airline deregulation in 1979, Bill and I (and others, including Bruce Lane and the late Jim Mattina, for example) would take advantage of extremely inexpensive air fares to fly places solely to ride on aircraft we had not been on before. One of the most memorable of those was when a few of us took the Eastern Air Shuttle up to Boston. There, we rode a Boston-Provincetown Airline DC-3A to, where else, Provincetown and back. On the outbound flight, Bill happened to be seated next to a young girl who was a bit "disturbed" about being on such an ancient aircraft. She asked Bill if "this plane was safe." Smiling and without missing a beat, Bill told her "how do you think it got to be so old?" Our little group, however, was thrilled to be able to actually ride on a DC-3!

After graduating from Bayside High School in June 1964, Bill enlisted with the United States Army and started training at Fort Dix, New Jersey in September of

that year. Though the war in Vietnam was already underway, Bill was stationed in West Germany throughout his three-year deployment. Initially, he was located at Zweibrücken, a mere five miles from the French border. Soon thereafter, though, he was deployed, with the Third Armored Division, to Ayers Kaserne, just outside of Kirch-Göns, about 27 miles due north of Frankfurt am Main. As this was during the Cold War, Bill's unit was often deployed on maneuvers to the Fulda Gap on the border of East Germany.

Bill had already been a railfan for many years and appreciated the fact that most (all?) of the troop trains his unit rode were hauled by steam locomotives! Unfortunately, when Bill shipped his film back home from Germany, the ship sank! Just about all of his slides of steam trains in Germany and pre-war trams in Frankfurt "went down with the ship!"

Shortly after leaving the army in September, 1967, Bill saw an ad from the Port Authority Trans-Hudson (PATH) Corporation for Signal Helpers. Bill got the job and spent the next 32 years working in PATH's Signal Department (later, Signal & Communications Department), working his way up to Signal Maintainer, Signal Testman (of various levels), and, finally, Signal Circuit Designer.

In April, 1999, Bill retired from PATH and went to work for several consulting companies including Stone and Webster, HNTB, and DMJM-Harris. At least one of those jobs included signal design work for the Second Avenue Subway. Bill's last occupation was as an independent consultant for Arinc (formerly Aeronautical Radio, Incorporated). Arinc was based in Annapolis, Maryland and this was where he and his wife lived at the time. For Arinc, Bill worked on a signal project with the Washington Metropolitan Area Transit Authority (WMATA) and, later, Positive Train Control (PTC) with a couple of railroads, including CSX Transportation and Kansas City Southern. Bill retired a second time from his consulting work in January, 2017.

Bill leaves behind his beloved wife of 35 years, Carol, stepdaughter Tracey, grandson Griffen, and many, many friends. Full of good cheer, he brought laughter and smiles to any gathering he attended. Bill was an absolute gentleman who would give you the shirt off his back. A truer friend would be very hard to find. He will be sorely missed.



Commuter and Transit News

by Ron Yee and Jeff Erlitz

METROPOLITAN TRANSPORTATION AUTHORITY

The Metropolitan Transportation Authority (MTA) announced the first cuts to address a massive budget deficit created by the COVID-19 pandemic, with more drastic cuts, including service reductions, yet to come. Moves under review include service reductions, job cuts, postponement of infrastructure projects, and toll increases at the bridges and tunnels run by the agency. Facing deficits now projected at \$16.2 billion through 2024, MTA Chairman Patrick J. Foye said the size of the shortfall is “why these unpalatable, unacceptable alternatives have to be considered. We’re going to have to make hard choices no matter what happens here.” Additional emergency federal assistance currently under consideration in Congress could help prevent some of these draconian cuts, but even with more federal aid, there will still be a large unsustainable deficit. On July 22, the MTA Board is expected to review the first series of cuts that will save \$1 billion in 2021, including the elimination of consulting contracts and a reduction of overtime. (*Editor’s Note by Ron Yee: as this issue goes to press, an emergency MTA Board meeting is scheduled for August 26 to discuss how the MTA will go forward with addressing the tremendous financial crisis confronting all divisions of the agency.*) (**New York Times**, July 21)

The MTA provided a progress report on the efforts to implement full Positive Train Control (PTC) systemwide on the Long Island Rail Road (LIRR) and Metro-North Railroad (MNR). Both commuter railroads are apparently in a good position to meet the December 31 deadline to fully implement PTC on all lines and all equipment. On the LIRR, all train cars have been equipped with PTC hardware and software and are on track to complete the process for certification of the entire fleet by the deadline. Full PTC functionality has been achieved on 94% of all track miles. The remaining 6% involve trackage in and around the Jamaica switching complexes (Jay Interlocking to the west and Hall Interlocking to the east), and at Harold Interlocking, where the LIRR mainline joins in with Amtrak’s Northeast Corridor leading to Penn Station New York and, eventually, the tracks leading to and from the LIRR’s East Side Access (ESA) terminal underneath Grand Central Terminal. The LIRR fully expects that these remaining track miles will meet the end of year deadline. On MNR, all three east-of-Hudson lines under its control have operational PTC, the entire Hudson, Harlem and New Haven Lines, including the New Canaan and Danbury Branches. The most recent portion to activate full PTC operability was the portion of the New Haven Line between Greenwich and New Haven in August. (*Editor’s Note by Ron Yee: No mention was made of the Waterbury Branch although an almost full-time replacement of train service with buses is probably enabling that branch to meet the deadline as well.*) (MTA press release, August 19)

MTA NEW YORK CITY TRANSIT

Citing high costs amid a historic fiscal crisis, the MTA announced on August 21 that its temporary overnight For Hire Vehicle (FHV) program would cease operations, effective August 30 at 5 AM. The premium program was launched as an alternative to overnight subway service, which officials suspended so that subway cars and stations could be disinfected and cleaned more thoroughly during the pandemic. It served a limited number of customers who faced excessively lengthy trips as a result of closing the subway overnight.

To assist those customers impacted by the cessation of the program, the MTA has added a trio of bus routes that largely mirror some of the more frequented trips that overnight FHV program users have been taking since the program launched in May. Metro-North Railroad and the Long Island Rail Road will also cross-honor fares from stations in NYC during overnight hours when the subway is closed.

Since the program began, roughly 1,500 customers have been using the service per night. The program has cost the MTA over \$6 million, with the average cost per trip being \$49. The vast majority of those who previously took the subway during the overnight hours have adapted by taking a range of different MTA buses. In addition to running its standard round-the-clock bus routes, the MTA added three new interborough express options, the B99, the M99, and the Bx99. Those routes were designed based on data that riders from the program voluntarily provided when using the service.

The B99 connects Midwood in Brooklyn to Midtown West and follows a similar route to the **2** train. The Bx99 connects the Woodlawn section of the Bronx with Manhattan’s West Village. The route travels on Jerome Avenue and down the east side of Manhattan much like the **4** train does. It then crosses west on 57th Street and travels south to the West Village. The new M99 route runs between East New York, Brooklyn and Hell’s Kitchen, via 14th Street in Manhattan. (MTA press release, August 21).

At the July 22 MTA Board meeting, two separate locomotive purchases were approved. Contract R-34257 was awarded to Cad Railway Industries, Limited in the amount of \$27,957,413 to convert and upgrade the Transit Authority’s ten R-77E electric locomotives to diesel-electric capability. The R-77E locomotives were originally built by General Electric between November and December, 1983. They were GE model SL50E, otherwise known as 50 Tonners, and were numbered 0EL01 through 0EL10. They were, apparently, not as reliable as all of the other GE diesel-electrics and most have been inactive in recent years. The rebuilt diesels will undoubtedly be more familiarly known as R-257s.

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There were two other bidders for this contract, Knoxville Locomotive Works, Incorporated and Brookville Equipment Corporation.



Seen in Coney Island Yard on June 23, 2005, R-77E (Model SL50E or 50 Ton) E09 (General Electric, 12/1983, s/n 44340). These will be rebuilt into standard diesel-electric locomotives under the R-257 contract.

Jeff Erlitz photograph

Contract R-34255 (or, R-255) was awarded to Motive Power, Incorporated in the amount of \$233,000,000. This is for the purchase of 25 diesel-battery hybrid locomotives with an option for 45 additional hybrid locomotives. The other non-winning bidders on this contract were CRRC Times Electric USA LLC, Knoxville Locomotive Works, Incorporated and Clayton Equipment Limited. This contract will replace all of the R-37, R-41, R-43, R-47, R-52, and R-77 locomotives built between 1965 and 1983.



One of the locomotives to be replaced under the R-255 and R-257 contracts, R-37 (45 Ton) 52 (General Electric, 10-11/1965, s/n 35771) at 38th Street Yard on May 27, 2002.

Jeff Erlitz photograph

NYC Transit has completed its roll-out of OMNY, its "Tap and Go" replacement for the MetroCard, throughout all stations in the Bronx. 60% of all stations have now been equipped with the new fare collection system. Riders will only be able to utilize OMNY by using a credit or debit card with the special tap and go chip or a smartphone outfitted with contactless payments. The OMNY system will eventually include farecard vending machines capable of selling an RFID (Radio Frequency ID) chip farecard refillable with credit/debit cards or cash. (*New York Daily News*, July 15)

NYC Transit began the process of rehabilitating the Rutgers Street Tunnel carrying the **F** line between Manhattan and Brooklyn. This tunnel is the last of the 11 river tubes requiring repair work from flooding during Hurricane Sandy in 2012. Combining the experience already gained during the rehabilitation work for the ten previous repair projects with the lower extent of damage to those tunnels, NYCT expects this project to be the quickest of them all. NYCT will utilize similar techniques and knowledge that were applied to the 14th Street (Canarsie) Tunnel rebuilding project, allowing the work to be done during overnight hours and on weekends, eliminating the need to fully close the tubes.

Preparatory work began in August, with the major work scheduled to begin in mid-September with completion in the Spring of 2021. This work schedule will minimize the effects of the project for the 35,000 riders and coordinate with the ongoing overnight subway shutdowns for cleaning during the COVID-19 pandemic. This project will replace track, signal equipment, power and communication cables, fan plant equipment, tunnel lighting, and pumps with pump controls located outside of the flood zone with a back-up generator connection.

Concurrent with this tunnel work, the East Broadway **F** station will undergo major work needed for structural repairs and providing for accessibility between platform and mezzanine and eventually to street level as well as install hardware to enable cellular communications within the rebuilt tunnel. To accommodate the rerouted **F** trains over the Eighth Avenue Line, **E** trains will be rerouted during select overnights and weekends over the **F** line between 36th Street in Queens and a temporary terminal at Delancey Street in Manhattan. The East Broadway and York Street stations will be closed select weekday evenings after 10 PM, as well as select weekends, when this work is underway.

On August 3, NYC Transit placed in service the newly rebuilt elevators at the 181st Street **A** station, restoring convenient access between the station's lower mezzanine near platform level and its upper mezzanine at Fort Washington Avenue. The three rebuilt high-capacity elevators replace those that had been in service since the early 1930s and have wider doors to allow for faster entry and exit of passengers.

Elevator replacement work began exactly a year ago, on August 3, 2019, and was completed on time despite the global COVID-19 pandemic.

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Station entrances at Overlook Terrace and W. 184th Street, and at W. 181st Street and Fort Washington Avenue, have remained open throughout the reconstruction.

The elevators travel a vertical distance of 106 feet. (MTA press release, August 3)

MTA LONG ISLAND RAIL ROAD



Opened to vehicular and pedestrian traffic only minutes before, this is the new underpass taking New Hyde Park Road under the LIRR's Main Line, just east of the New Hyde Park station. The railroad tracks are the border between the villages of New Hyde Park and Garden City so the photographer is actually standing in the village of Garden City here. View north on August 24.

Jeff Erlitz photograph

On Monday, August 24, New Hyde Park Road was reopened to vehicular and pedestrian traffic where it crosses the Main Line, just east of the New Hyde Park station. This is located in the villages of New Hyde Park (to the north of the tracks) and Garden City (to the south of the tracks). A ribbon cutting ceremony was held with various village, county, and state dignitaries in attendance. Also in attendance were personnel from the joint venture of 3rd Track Constructors (Picone, Dragados USA, CCA Civil, and Halmar).



The view south from Plaza Avenue of the new underpass on August 24.

Jeff Erlitz photograph

Also noted on August 24, the very first section of new Main Line third track is now being installed within the confines of the Merillon Avenue station.



Looking east from the new and as-yet-unopened eastbound platform at the Merillon Avenue station (which is actually in the village of Garden City), we see C-3 5007 (Kawasaki Rail Car, 12/1999) leading Train #651 from Port Jefferson to Jamaica. It is being pushed by DE-30AC 404 (EMD, 8/1998, s/n 936423-5). Most notable, this is the very first section of "third track" to be installed as part of the Main Line Third Track project (not including the extension of the North Siding west of Hicksville station, done under a previous, separate project). Jeff Erlitz photograph

On Monday, August 17, the temporary access from Carle Road, to the east of the Carle Place station, was closed and the previous access point to the eastbound platform was restored from Garden Avenue, at about the midpoint of the eastbound platform.



View north of the new access ramp to the eastbound platform at the Carle Place station from Garden Avenue passes through the structure of the new overpass to the westbound platform. This is about at the midpoint of what will be a 12-car platform.

Jeff Erlitz photograph

As of early August, there were only about 52 M-9 cars available for passenger service, far behind schedule. Now the MTA is saying that the completion of the 92 base order cars will be another seven months late, with the completion of the base order cars slipping from May, 2020 to December, 2020. The additional M-9 contract

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option cars are also delayed. The MTA's initial M-9 order consisted of a 92-car base order at \$4.2 million per car, plus additional options that the MTA could exercise at a fixed price. The initial 92 cars were funded out of the 2010-2014 Capital Program with plans to fund two options for the LIRR: an M-3 replacement option of 88 cars plus a GCT East Side Access fleet expansion option of 76 cars, both to be funded out of the 2015-2019 Capital Program at about \$3 million per car, totaling an additional 163 cars.

The original M-9 contract had also included options for Metro-North for between 140 and 170 cars at about \$3.4 million each, but that order was cancelled as Metro-North elected to allocate the M-9A funds toward replacement of the aging P32AC-DM Genesis dual-mode locomotive fleet. The LIRR's two options were reorganized into a 110-car option, which the LIRR exercised in January, 2019 and will bring the firm total of M-9 cars ordered to 202 cars, with a second 54-car option. During September, 2019, as the first M-9 cars entered service, the MTA stated that the entire 202-car order would be in passenger service by March, 2021. Now, the MTA only confirms that these option cars will not be expected to be in service until April, 2022, an additional 13 months late. As of press time, the second 54-car option has not been exercised and the MTA and LIRR have stopped all mention of this second option, giving all indications that the M-9 order would be stopping at 202 cars. The remaining 2015-2019 Capital Program funds would be put towards the purchase of M-9A cars. With the negative impact of COVID-19 on ridership numbers and the potential for ridership to never return to pre-pandemic levels, the MTA may be placing the M-9A on the back burner of priorities. Ultimately, the MTA may consider the exercise of that 54-car option onto an existing contract funded from a prior Capital Program as being more politically and financially palatable than going ahead with a troubled M-9A procurement process involving an entirely new contract. (*The LIRR Today*, August, 2020)

MTA METRO-NORTH RAILROAD

After Tropical Storm Isaias, regular train service resumed at 4 AM on Saturday, August 22 on the upper Harlem Line between the Goldens Bridge and Southeast stations. Crews completed repairs to utility poles, tracks, and other infrastructure following damage sustained during the storm.

Out of the entire MTA network, the Harlem Line had been the hardest hit by the effects of the storm, with 75 downed trees on that one line alone. Trees and branches on the line are often ensnared in utility wires that run alongside the tracks. Clearing the trees and restoring the utility poles and wiring requires coordinated, concentrated, multidisciplinary team efforts. The most concentrated damage in Connecticut was along the six-mile New Canaan Branch, where crews cleared 15 downed trees, or one downed tree every four-tenths of a mile.

Metro-North had been restoring service incrementally since August 4, when 285 trees were blown down across Metro-North's tracks and catenary systems. By Thursday, August 6, service was operating as far as Poughkeepsie, Pleasantville, and Stamford. On Friday, August 7, Metro-North extended New Haven Line service to New Haven and Harlem Line service to Mount Kisco. Danbury Branch train service resumed on Saturday, August 8 and on Monday, August 10, Metro-North restored service on the New Haven Line's New Canaan Branch, and on the mid-Harlem Line to three stations – Bedford Hills, Katonah, and Goldens Bridge. (MTA press release, August 21)

When Tropical Storm Isaias blew through on Tuesday, August 4, service was suspended around 2 PM as the winds exceeded the 39-mph limit stated by the MTA as the threshold at which all services on a particular line or system would be suspended for safety reasons. The Hudson Line was the first to be restored to full service the next day, all the way to Poughkeepsie. The Harlem Line was also restored the next day, but only between Grand Central Terminal (GCT) and North White Plains. All service was suspended between Valhalla and Wassaic as over 75 trees with an average spacing of 0.4 miles had fallen due to the storm. Service was restored in stages only as far north as Goldens Bridge with a "bus bridge" connecting the two truncated portions of the line. Weekday service was finally restored between Southeast and Wassaic before service was finally restored between Goldens Bridge and Southeast on Saturday morning, August 22, 18 days after the storm had struck.

The New Haven Line was restored between GCT and Stamford, but fallen trees prevented the restoration of service between Stamford and New Haven until Friday, August 7. As of press time, MNR had restored service between Southeast and Wassaic and between North White Plains and Goldens Bridge with a "bus bridge" connecting the two truncated portions of the line, and projected full restoration of service by Monday, August 23, almost three weeks after the storm struck the region.

The Harlem Line was particularly hard hit as its power transmission and signal communications lines are all mounted on poles adjacent to the tracks that had been toppled by the countless tress that were fallen by the storm. The process of replacing these poles and remounting the downed lines has been hampered by the inaccessibility of some portions of the line between Croton Falls and Brewster. (*Editor's Note by Ron Yee: Oddly enough, this contributor was out along the Northeast Corridor on Thursday, August 6, photographing the CTrail Hartford Line, as well as Shore Line East, and observed Amtrak's Acela and Regional trains operating at speed under electric power to and from New York City and Boston. Further, this is not the first time this section of the line has been crippled by severe windstorms. Hurricane Sandy inflicted similar damage on this same section of the line in October, 2012. Perhaps it is time for a project to move these vulnerable lines permanently*)

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into specialized “track-troughs” which offer far greater resilience to such storm damage. The Hudson Line was equipped in this manner after Hurricane Sandy and played a large role in why the Hudson Line services were restored so quickly.) (Metro-North press releases, August 4-18, 2020)

NJ TRANSIT

The NJ Transit Board of Directors approved the purchase of eight new ALP-45A dual powered locomotives for \$70.5 million. These units are being added onto the existing 2017 order of 17 ALP-45As with Bombardier Transportation. These eight units will begin the process of replacing the oldest of the PL42-AC diesel locomotives, whose EMD 710 prime mover engines cannot be upgraded to meet the current Environmental Protection Agency (EPA) Tier IV emissions requirements. These 25 ALP-45As will supplement an existing fleet of 35 ALP-45 locomotives for an eventual total of 60 units. The ALP-45As will also enable NJ Transit to reduce diesel fuel consumption by utilizing electric power from catenary whenever available. The ALP-45As also have an increased degree of redundancy by having two engines aboard, advanced diagnostics, and ability to switch modes if one should fail and catenary is available. Maximum speed for the ALP-45 is 125 mph in electric mode and 100 mph in diesel mode. The first ALP-45As are expected to be delivered in the first quarter of 2022. (*Editor's Note by Ron Yee: The full amount of expected diesel fuel savings may not be realized by NJ Transit. Amtrak, which owns the Northeast Corridor, is known to charge exorbitant rates for traction power electricity from its catenary. The electric rates are so high that MARC in Maryland opted to replace its HHP-8 and aging AEM-7 electric locomotives with Motive Power Industries' MP-36 diesel locomotives on its Penn Corridor between Washington, D.C. and Perryville, Maryland as it is cheaper on a cost per train mile to operate a push-pull consist with a diesel locomotive versus a pure electric locomotive.*) (NJ Transit press release, July 17)

Riders on two of NJ Transit's three light rail lines are finally able to buy tickets with a smartphone app instead of relying on paper tickets. The sale of single- and round-trip light rail tickets was quietly rolled out at the end of July with an upgrade of the NJ Transit app, ending five years of waiting. Smartphone ticket sales are available on two of NJ Transit's three light rail lines, Hudson-Bergen and Newark Light Rail, to users whose apps are registered to a northern New Jersey postal zip code. The River Line is available for app users registered in southern New Jersey. By Labor Day, the app is expected to be upgraded to allow all three lines to be available for all app users, regardless of location in New Jersey. This upgrade gives light rail riders the same convenience bus riders have enjoyed since early 2017, the ability to purchase a single ride ticket with a few taps on a smartphone, replacing the need to fumble around with coins and dollar bills or use a credit-debit card at a ticket vending machine at a station and then validate it at a separate machine. Light rail smartphone

tickets become valid for travel starting three minutes after activation. Tickets have a different lifespan depending on which line passengers are riding. They expire 60 minutes after activation on the Hudson-Bergen and Newark Light Rail, and after 75 minutes on the River Line. NJ Transit is beginning to test aboard some of its buses, its version of a “tap and ride” system where riders can use their credit or debit cards on a special reader, similar to the OMNY readers on the New York City subway. (*Mass Transit*, NJ.com, July 28)

NJ Transit's Board entered into an agreement with Amtrak to begin work on replacing the Portal Bridge in Spring, 2021. NJ Transit and Amtrak will issue a request for bids from construction companies interested in the project later this year or early next year. Long a source of delays, the 110-year old swing span has become mechanically unreliable whenever it is opened for river traffic and has long been a source of delays between New York Penn Station and Newark. The agreement sets a framework by which Amtrak and NJ Transit will own, operate, maintain, and dispatch operations over the bridge. (*Progressive Railroading*, July 28)

AMTRAK

Amtrak will phase in triweekly operation of its long-distance trains over a three-week period beginning October 5, according to an internal company message to its employees. Trains moving to triweekly schedules are the *California Zephyr*, *Capitol Limited*, *City of New Orleans*, and *Crescent*. The *Coast Starlight*, *Lake Shore Limited*, *Southwest Chief*, and *Texas Eagle* will become triweekly on October 12, with the *Empire Builder* and *Palmetto* triweekly as of October 19. *Auto Train* will remain daily, while the *Cardinal* and *Sunset Limited* will continue their current triweekly operation, and frequency reductions have already occurred for the *Silver Star* and *Silver Meteor*. (Al Holtz, August 14)

Amtrak has been operating just one round trip per day between Eugene and Seattle (no service north of Seattle) on its *Cascades Corridor* due to COVID-19. Pre-pandemic, this corridor was served by four daily round trips Portland-Seattle and two daily round trips on the Portland-Eugene and Seattle-Vancouver sections of the corridor. This minimal service schedule will remain in effect until passenger demand warrants additional service restorations. During this downtime, Washington State DOT (WSDOT) withdrew all of its Talgo-6 class of trainsets assigned to this corridor from service in June and put all 27 remaining cars up for sale with the bidding window closing on August 3. No word at press time if any operator expressed an interest in this car fleet. This action came after the NTSB issued its findings in 2019 on the structural and crashworthiness shortcomings of that type and model of passenger railcar resulting from post-accident investigations of the 2017 wreck which occurred on the opening day of the Point Defiance bypass route near Tacoma that killed three and injured several others. That bypass route has remained out of service since the accident and WSDOT has not yet set a date when that bypass, saving over ten

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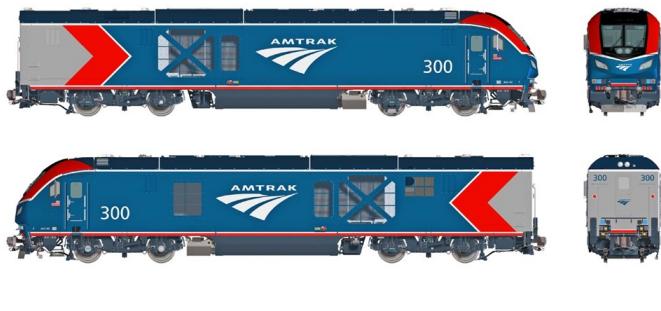
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minutes of travel time, will reopen. The two Talgo-8 trainsets owned by Oregon DOT meet NTSB recommendations and remain in service, generally on the Portland-Eugene run. To replace the Talgo-6 fleet, a number of Horizon cars were transferred from Chicago and relocated to Seattle. Insurance from the 2017 crash has already funded a replacement Siemens Charger locomotive for the one owned by WSDOT that was wrecked in that crash. It is expected to arrive later this year. (*The Urbanist*, July 15)

Amtrak began operating four round trips on its Downeaster service between Boston North Station and Brunswick, Maine on Monday, July 20. It had been operating just one round trip until then. (Amtrak, July 20)

Amtrak Long Distance Charger Locomotive (ALC-42), PHASE VI LIVERY



Siemens ALC-42 Locomotive Rendering
Amtrak is a registered service mark of the National Railroad Passenger Corporation.

Artist's rendition of Amtrak Long-distance Charger (ALC-42) locomotive.

Amtrak rendering

Amtrak had announced the initial order of 75 new locomotives from Siemens in December, 2018, with deliveries expected through 2024. Amtrak also has a provision to order additional ALC-42 (Amtrak Long-distance Charger) locomotives developed by Amtrak with Siemens Mobility and will arrive equipped with positive train control and crash energy management systems. They will have alternating current propulsion for a maximum speed of 125 mph. The 16-cylinder Cummins QSK95 engine has Tier 4 emissions technology to reduce nitrogen oxide by more than 89 percent and particulate matter by 95 percent, while providing a savings in diesel fuel consumption. An artist's rendition of these new locomotives was released by Amtrak in August on the external appearance of at least part of this new locomotive fleet.

Five of the first six locomotives will be painted in Amtrak's current Phase VI scheme and one will be painted to recognize the 50th anniversary next year of Amtrak's service launch in 1971. The red chevron at the rear of the ALC-42 is an homage to Amtrak's original Phase 1 livery, which also had a red chevron on the side. A final livery for the balance of the 75-unit initial order will be unveiled later when the locomotives are

officially introduced. These new diesel-electric locomotives will replace the current fleet of General Electric built P42DCs on its national network, including all long distance and many state-sponsored routes. (Amtrak, August)

Amtrak and NJ TRANSIT have completed the first phase of the upgraded Ticketed Waiting Area at New York's Penn Station and opened the space on Friday, July 24. The rehabilitation includes new furniture and fixtures, including seats with electrical and USB outlets to charge personal electronic devices, a modernized ceiling with new LED lighting, a new information desk, and a second entrance towards Seventh Avenue offering more convenient access to the NJ Transit concourse. The rebuilt lounge has features that facilitate Amtrak's new enhanced cleaning procedures, with floor markings indicating safe distancing in high-traffic areas and protective plastic barriers installed at customer counters. The second phase of this \$7.2 million joint Amtrak-NJ Transit project has already begun with a planned completion date of early Autumn, 2020. Until then, a temporary space to accommodate waiting passengers is provided near Tracks 13 and 14. (Amtrak, July 24)

OTHER TRANSIT/COMMUTER RAIL SYSTEMS

BOSTON, MASSACHUSETTS

Boston returned to collecting fares on its buses, Green and Mattapan-Ashmont trolley lines, and its commuter rail lines on Monday, July 20. While riders are encouraged to pay with *Charlie Cards* or *Charlie Tickets*, cash is also accepted. Commuter rail passengers are also encouraged to use the m-ticket smartphone app to pay individual fares or the Five-Day FlexPass, valid for five rides within a 30 day period. The MBTA had suspended fare collection on these modes as part of its efforts to curb the spread of the Coronavirus in March. Going forward, MBTA bus drivers will still have the authority to bypass overcrowded stops when boarding them would place their vehicles over the maximum capacity during the pandemic. (Masslive.com, July 17)

PHILADELPHIA, PENNSYLVANIA

Effective Friday, October 2, the sale of paper tickets, single-trip, and 10-trip strips will end. Paper tickets issued prior to that date will remain valid until the date stamped on the back of the ticket. The SEPTA Key Card will replace these fare media and Travel Wallet funds on the card never expire and automatically select the lowest fare option whenever you travel. SEPTA Key Cards are available for purchase at all SEPTA Sales Offices including Ticket Offices at outlying stations. (SEPTA.org website, August 10)

MIAMI, FLORIDA

Florida-based private rail operator Brightline, which has operated as Virgin Trains USA since 2019, has announced that it will revert to its former name and end its partnership with Virgin Enterprises, following a termination notice delivered on July 29.

The operator, which currently runs a 70-mile service

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between Miami and West Palm Beach, stated in its monthly operations report that it will “change its name to Brightline Trains LLC following the expiration of the applicable notice period for name changes under the senior loan agreement.”

Brightline also states that Virgin has no remaining equity ownership or affiliation with the company following a termination notice delivered on July 29. It adds that Virgin plans to dispute the notice.

The operator rebranded as Virgin Trains USA as part of a 20-year licensing agreement with the conglomerate, agreed to in November, 2018, which also saw the operator rename its main station as Virgin Miami Central.

The deal was made in advance of a planned initial public offering (IPO) intended to finance a 169-mile extension to Orlando. The IPO was later scrapped on pricing day in February, 2019 following approval to raise \$950 million in loans as part of a strategy to retain private control of the company.

Brightline has currently suspended all service due to the coronavirus pandemic. Work on an extension to Orlando began on June 24, 2019. Right-of-way lease negotiations on a further extension between Orlando and Tampa were put on hold in March due to the pandemic.

The operator also intends to expand its operations to include a \$4.8 billion, 170-mile high-speed rail connection between Las Vegas and the town of Apple Valley, 89 miles northeast of Los Angeles. Construction on the project is scheduled to begin later this year with services planned to launch in 2023.

The news follows significant turbulence for the Virgin brand in the past year, which included the loss of its British West Coast rail franchise in December, 2019. Virgin Atlantic, the conglomerate’s airline, filed for bankruptcy on August 4 following disruption caused by coronavirus pandemic. (*International Railway Journal*, August 10)

MINNEAPOLIS, MINNESOTA

Following what they described as “years of unsuccessful discussions with BNSF Railway,” the promoters of the Minneapolis Metro Blue Line Extension project have abandoned plans for the colocation of light rail and freight services.

The Metro Blue Line Extension, also known as Bottineau Light Rail Transit, would start at the existing Target Field stop in Minneapolis and run 13 miles northwest through Golden Valley, Robbinsdale, Crystal, and Brooklyn Park to Oak Grove Parkway, serving 11 new stops.

Hennepin County and the Metropolitan Council said there had been “a long history of cooperation with BNSF Railway on this project,” but “over the last four years, this cooperation stopped, and the railway is unwilling to find solutions to move the project forward together.” As BNSF remained unwilling to allow the light rail line to be built on its property, they would now ex-

plore other options. (*Metro Report International*, August 24)

DENVER, COLORADO

After six years in construction and 14 years since being approved as part of Regional Transportation District’s Fastracks plan, the RTD N Line is almost ready to commence operations on September 21. The N Line will link Denver Union Station with the communities of Commerce City, Northglenn, Thornton, and eventually north Adams County. Pre-pandemic ridership projections predicted that average weekly ridership be up to 9,500 riders in its first year of operation, growing to nearly 22,000 by 2040. Unlike other commuter rail lines, the N Line will be the first that RTD will run directly. For the first week after the grand opening, no fares will be charged; however, COVID-related capacity restrictions will be in place and fares will be charged beginning September 28. A six-month Promotional Fare Pilot Program will be in effect from September 28 through March 28, 2021, offering a local fare for one-way travel over on the entire line as a means of attracting ridership and to let people give the line a try. (*Colorado Politics*, August 14)

SALT LAKE CITY, UTAH

The Utah Transit Authority may be faring better than other transit agencies. While bus and train ridership are still down by 68% compared with pre-COVID-19 levels, it has risen by 32% compared to the lowest ridership dip reached on April 7 with 50,510 people now riding UTA trains and buses on an average weekday. Ridership recovery varies by mode. Bus ridership is down by 64% compared to pre-COVID levels but is up by 34% compared to the lowest day. TRAX light rail is down by 70% compared to pre-COVID numbers, but up 19% since the worst numbers during the pandemic, and FrontRunner commuter rail is down by 78% compared to before the pandemic but is up 75% compared to April 7. With increasing ridership levels, UTA restored its service to 91% of pre-COVID offerings. However, while some popular routes will see the frequency increases, others will be suspended entirely. UTA officials told the State Bonding Commission in July that they expect that ridership and revenue from fares will be significantly smaller, down perhaps 15%, and may take several years to return to this “new normal” in mass transit ridership. (*Salt Lake Tribune*, August 6)

SEATTLE, WASHINGTON

Contractors have substantially completed the civil construction of the tunnel that will connect Sound Transit’s East Main and Bellevue Downtown stations when East Link begins operating in 2023.

Excavation of the one-third of a mile-long tunnel began in 2017. Using a process known as the sequential excavation method (SEM), crews employed conventional equipment including track-mounted excavators and cutting equipment to remove soil in small sections and support excavated areas with spray-applied concrete.

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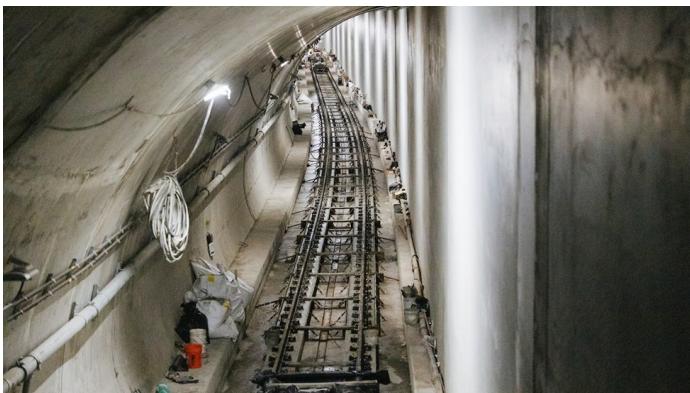
Crews then applied waterproofing and constructed the center wall and final concrete lining.

Atkinson Construction excavated and constructed the finished tunnel. By adapting to different ground conditions, it was able to complete excavation five months earlier than expected, which helped keep the project on schedule despite delays due to COVID-19. Stacy and Witbeck/Atkinson, the stations contractor for the segment of East Link that runs from downtown Bellevue to the Spring District, is continuing to install track inside the tunnel.

When East Link light-rail service begins, eastbound trains will enter the tunnel north of the East Main station at 112th Avenue Southeast and Main Street and travel approximately one-third of a mile under 110th Avenue Northeast and turning east near Northeast Sixth Street to emerge at the future Bellevue Downtown Station.

"East Link's opening in 2023 will be preceded in 2021 by Northgate Link and in 2022 by the Tacoma Link Hilltop Extension. One year later, in 2024, we will extend Link to downtown Redmond, Lynnwood, and Federal Way," said Sound Transit CEO Peter Rogoff. "These historic investments will finally give us the true mass transit network the Puget Sound region has sought for more than a half century. They will more than double our current reach and simultaneously help fuel our region's economic recovery."

East Link will extend light rail 14 miles from downtown Seattle to downtown Bellevue and the Overlake area of Redmond via I-90, with 10 stations. Following the 2023 opening of the project, in 2024 Link light rail will extend another 3.4 miles east to new stations in Southeast Redmond and downtown Redmond. (**Mass Transit**, August 21)



Atkinson Construction excavated and constructed the finished tunnel.

Sound Transit photograph

PORTLAND, OREGON

Portland State University's Center for Public Interest Design will select the winners of a design competition to re-envision the use of Tri-County Metropolitan Transportation District of Oregon's (TriMet) oldest MAX light-rail

vehicles, which will begin to be retired in a few years.

Contestants of the competition were encouraged to find new uses for legacy trains that could help address homelessness, climate change, racial inequality, or other social, environmental or public health crises, including the COVID-19 pandemic, TriMet officials said in a press release.

The competition grew out of an idea from TriMet General Manager Doug Kelsey to find a way to repurpose the agency's 26 Type 1 light-rail vehicles and keep them from becoming scrap.

The Type 1s were the original equipment on the MAX system and have been in service for nearly 34 years. The agency will begin to retire the vehicles in 2022.

Designers in the contest also had the option to base their designs on TriMet's Type 2 vehicles, which have been in service since 1997. The Type 2 trains are being renovated over the next five years and their retirement date is undetermined, agency officials said. (**Progressive Railroading**, August 24)



Type 1 120 (Bombardier Transportation, 1986) + SD660 250 (Siemens, 1997) are just pulling out of the Hillsboro-Hatfield Government Center stop on a MAX Blue Line trip to Gresham on June 23, 2017. Jeff Erlitz photograph

SACRAMENTO, CALIFORNIA

The California Department of Transportation awarded the Sacramento Regional Transit District (SacRT) \$3.75 million in Low Carbon Transit Operations Program (LCTOP) funding to assist with mobility improvement projects, including light rail modernization.

The funding will help support the purchase of additional low-floor light rail vehicles, and the continued operations of expanded evening light rail service along the Gold Line in Folsom. Funding will also support SacRT bus operation improvements.

The LCTOP provides operating and capital assistance for transit agencies to reduce greenhouse gas emissions and improve mobility, with a priority on serving disadvantaged communities. LCTOP is funded by the Cap-and-Trade Program from the Greenhouse Gas Reduction Fund. (**Progressive Railroading**, August 3)

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OTTAWA, ONTARIO, CANADA

For the first time since opening in September, 2019, the full complement of 15 trains operated on Ottawa's \$2.1 billion Confederation Line light rail transit (LRT) on 3 minute 20 second headways. The original operating plan was to have 15 trains on the line during the morning and afternoon peaks, with two trains as spares but shortly before the commencement of service, it was decided that 13 trains would be sufficient. Recently, there has been an on-going investigation by the Transportation Safety Board of Canada into cracks that have developed on three of the new railcars. The more intensive inspection procedures implemented had resulted in just seven trains being available at one point this summer. (CTV News, August 7)

VANCOUVER, BRITISH VICTORIA, CANADA



Map of the Broadway subway extension.

Broadway Subway Project website

The province of British Columbia named a preferred proponent for the planned extension of Metro Vancouver's Millennium Line, which will provide frequent SkyTrain service from the VCC-Clark station to Broadway and Arbutus.

The preferred proponent team is Acciona-Ghella Joint Venture that will enter into final contract negotiations with the province to design, build and partially finance the 5.7-kilometer (3.5-mile) Broadway Subway Project. The province says the extension will provide fast, frequent, and convenient SkyTrain service to B.C.'s second-largest jobs center, health services and an emerging innovation and research hub and growing residential communities.

The Acciona-Ghella Joint Venture team consists of:

- Proponent: Acciona Infrastructure Canada Inc./Ghella Canada Limited
- Design-build contractor: Acciona Infrastructure Canada Inc./Ghella Canada Limited
- Design contractor: IBI Group Professional Services (Canada) Inc./Dialog BC Architecture Engineering Interior Design Planning Inc./Mott MacDonald Canada Ltd./Ingenieria Especializada Obra Civil e Industrial, S.A.
- Systems integration contractor: Acciona Infrastructure Canada Inc./Ghella Canada Limited/Parsons Incorporated
- Tunnel contractor: Acciona Infrastructure Canada Inc./Ghella Canada Limited

The request for qualifications was posted through BC

Bid on February 15, 2019. The shortlisted proponents were invited to respond to the request for proposals (RFP). A thorough RFP process and subsequent evaluation of technical and financial submissions was undertaken. The project is being delivered through a design-build-finance model to ensure the best value for the people of British Columbia.

Transportation Investment Corporation (TI Corp) is leading the delivery of the Broadway Subway Project on behalf of the Ministry of Transportation and Infrastructure. TI Corp will provide the controls, practices and other oversight that are essential for this complex project.

The project will be delivered under the province's Community Benefits Agreement (CBA). Through the CBA, the project will increase training and apprenticeship opportunities and prioritize hiring locals, Indigenous peoples, women, people with disabilities and other traditionally under-represented groups, including youth, who want to build a career in the skilled trades. BC Infrastructure Benefits is responsible for implementing the CBA for the project and will be the employer for the majority of the skilled workforce on the project.

Once opened, the commute from VCC-Clark Station to Arbutus Station will take about 11 minutes. This will save the average transit commuter almost 30 minutes a day, while also relieving traffic congestion along Broadway. Construction is scheduled to start later in 2020, with the line going into service in 2025.

The project budget is C\$2.83 billion (US\$2.11 billion), funded and delivered by the government of B.C., with contributions from the government of Canada and the city of Vancouver. The Broadway Subway project is a key part of the rapid transit program in the Metro Vancouver Mayors' Council's 10-Year Vision, funded by the governments of B.C. and Canada, TransLink, and local municipalities. (*Mass Transit*, July 23)

VIA RAIL CANADA

VIA Rail Canada Incorporated on September 1 will increase service between Quebec and Ontario due to an increase in demand for intercity travel during the COVID-19 pandemic, the agency announced last week.

Service in the Quebec-Windsor Corridor will be restored to 50 percent of pre-pandemic levels, VIA Rail officials said in a press release.

"This represents our biggest addition of frequencies in the corridor since the start of the pandemic," said VIA Rail President and Chief Executive Officer Cynthia Garneau.

Meanwhile, *The Ocean* service between Montreal and Halifax, and *The Canadian* service between Toronto and Vancouver will remain cancelled until November 1. (*Progressive Railroading*, August 24)

LONDON, ENGLAND

Crossrail Limited has announced that the 21-kilometer (13-mile) central underground section of the new Elizabeth Line in central London between Paddington, Stratford, and Abbey Wood will not be ready to open until the first half of 2022 and could cost an additional £450 mil-

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lion to complete, a further blow to the project, which was originally scheduled to open in December, 2018.

The latest cost estimate is £1.1 billion more than the financing package agreed for the project in December, 2018 and £450 million above the upper end of the range announced in November, 2019, taking the total cost to more than £18 billion. The project was estimated to cost £15.9 billion in 2007 and cut to £14.8 billion in 2010 as part of the government's spending review.

The revised opening date was announced on August 21 following a Board meeting on August 20. Crossrail announced after its July Board meeting that the project would not meet its then Summer, 2021 target opening with no revised date offered at that time.

Crossrail cites three main factors for the schedule delay:

- Tunnels: Lower than planned productivity in the final completion and handover of the shafts and portals. Eight of the 10 shafts and portals have been handed over to Transport for London (TfL) and the remaining two are set to follow this autumn. Crossrail says the shafts and portals contain many of the complex operating systems for the line
- Stations: As more detailed plans for the completion and handover of the ten central section stations have developed, the company revised the schedule assumptions about the pace at which these large and complex stations can be handed over to TfL
- COVID-19: A pause of physical activity on sites during lockdown and significant constraints on work and productivity due to the reduced contractor numbers on site — around 2,000 at present, 50% less than before — has further exacerbated schedule pressures

Despite the challenges posed by COVID-19, Crossrail reports good progress with completing the remaining construction work. It says that much of this work is coming to an end along with software testing for the signaling and train systems. All central section stations apart from Bond Street are now certified as ready to support trial running, with Custom House the first to be handed over to TfL.

The company says it is also engaging in "intensive construction activity in August and September" to complete the remaining construction work on the tunnels ahead of the start of trial running.

Following completion of this work in September, Crossrail will commence testing of the next evolution of the signaling software, helping to further build operational reliability. Once completed later this year, Crossrail says it will then begin an enabling phase for trial operation with testing in the tunnels undertaken with an increased number of trains. This will take place as the extensive safety case to the Office of Rail and Road to commence trial running is finalized.

"As work to complete the railway progresses, there may be an opportunity to review and bring forward the

opening of the central section, subject to progress during the intensive operational stage," Crossrail said in a statement.

The announcement was reported as being met with deep disappointment by the office of the Mayor of London, Sadiq Khan. TfL's new commissioner, Andy Byford (formerly of MTA New York City Transit), has been asked by City Hall to review Crossrail's latest plans, including the estimated additional costs.

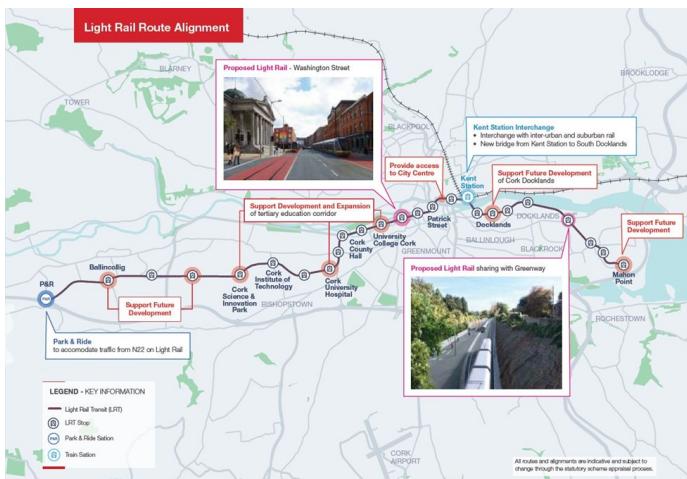
The Transport Committee of the London Assembly also expressed its extreme disappointment at the delay. (*International Railway Journal*, August 21)



A new 345 Class train, built by Bombardier Transportation and which will be the stock used for Crossrail, is shown at the Hayes & Harlington stop, west of central London.

Crossrail photograph

CORK, IRELAND



Map of Cork's light rail alignment.

National Transport Authority

Transport Infrastructure Ireland (TII) and the National Transport Authority (NTA) have awarded Jacobs Engineering Ireland a contract to undertake a route option analysis and develop initial designs for the proposed €1 billion Luas Light Rail Transit (LRT) line from Ballincollig to Mahon Point in Cork.

The scheme will provide a high-capacity, high-frequency public transport link between the eastern and

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western suburbs of Cork and will serve a large number of significant destinations, including Ballincollig, the proposed Cork Science and Innovation Park (CSIP), Cork Institute of Technology (CIT), Cork University Hospital (CUH), University College Cork (UCC), Cork City Centre, Kent station/Cork North Docklands, Cork South Docklands, and Mahon.

The project is a key element in the Cork Metropolitan Area Transport Strategy (CMATS) 2040, published by NTA earlier this year. It is also a long-term objective in the Cork Metropolitan Area under a number of local authority statutory development plans.

Both Project Ireland 2040 and the National Development Plan (NDP) 2018-2027 make commitments to progressing the scheme to support the ambitious growth projections for Cork city.

Approximately 25 stations will be required along the route, which will have an estimated total journey time of 47 minutes. These stations will serve a catchment area of all existing and proposed key adjoining development areas and provide an interchange with InterCity and suburban rail services at Kent station plus proposed BusConnects services.

A total of 27 LRVs will be required to provide the initial five-minute frequency, which will offer an hourly capacity of 4,600 passengers per direction.

The light rail scheme is planned for delivery in the latter part of CMATS. However, the plan says the line should be delivered earlier if it becomes apparent that the appropriate development densities are being achieved sooner than anticipated. The LRT line will be preceded by a high-frequency bus service between Mahon and Ballincollig.

"When the NTA met with the elected members of Cork City Council recently, it was clear to us that there was overwhelming support for the measures contained in the Transport Strategy," says NTA chief executive, Ms. Anne Graham. "It was also clear to us that if the strategy is to remain a credible document in the eyes of people in Cork, it is essential that progress is made on the delivery of the key elements, sooner rather than later. That is why today's announcement is significant, and we believe that it is a clear signal that implementation of the Strategy is now underway." (*International Railway Journal*, August 14)

DÜSSELDORF, GERMANY

Rheinbahn, which operates light rail service in the Düsseldorf metropolitan area, has stopped accepting new Flexity HF6 LRVs from Bombardier until further notice following the discovery of manufacturing defects.

The problems were identified during welding of the underframes of the high-floor vehicles. Bombardier has appointed an independent technical supervisory authority to provide a second opinion of the steel samples, which will determine the safety and longevity of the vehicles. The results of this process will decide if any modifications to the vehicles are required.

Rheinbahn received authorization to operate the vehicles with passengers in June. Tests with operators have been taking place since the start of the year. So far seven vehicles have been delivered. However, the plan to deliver a further nine to enable Rheinbahn to increase the frequency of U75 service to 7½-minute headways from October are now on hold along with accelerated delivery of the remaining 26 LRVs from the €167 million framework 2015 order.

In a separate incident, tests of the vehicle found that the vehicle's automatic step, which is able to adjust to the varying platform heights on the Düsseldorf network, was not performing as expected. Bombardier believes it is a software error, which it is confident of correcting quickly once the cause is identified.

The HF6 LRVs were ordered by Rheinbahn as part of a joint order with Köln (Cologne) Public Transport (KVB) which ordered 20 sets. The Rheinbahn vehicles are replacing GT8SU trams and were initially due to be delivered in 2017-2020. They were assembled at Bombardier's Bautzen plant in eastern Germany with trucks coming from the company's Siegen facility.

Rheinbahn is currently tendering for the delivery of 91 LRVs in cooperation with Duisburg Transport Company (DVG), which will receive 18 vehicles. The contract includes options for 42 vehicles for Rheinbahn and two for DVG. The new vehicles will replace the Rheinbahn's fleet of Stadtbahn-B fleet delivered between 1985 and 1993, which operate on all U-lines apart from the Wehrhahn Line. (*International Railway Journal*, August 17)



Rheinbahn's Bombardier Flexity.
Rheinbahn photograph

KARLSRUHE, GERMANY

Bombardier Transportation has delivered the first two of 20 Flexity tram-trains which Karlsruhe area operator Albtal-Verkehrs-Gesellschaft (AVG) ordered in December, 2018. The €87 million order was the second option that AVG had exercised within a framework agreement signed in 2009 covering the supply of up to 75 vehicles, with an initial firm order for 30 being followed in 2016 by an order for 12 more.

"Since the new vehicles differ only slightly in technical terms from the proven trams already in service, I expect the authorization process to be completed quickly," said

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Dirk Wunderlich, the supplier's Head of Business Unit for German Cities, when the tram arrived from Bombardier Transportation's Wien factory on August 7.

The 37-meter-long LRVs have a capacity of 244 passengers, including 93 seated, and up to three can be coupled together to increase capacity at peak times. (*Metro Report International*, August 7)



New Bombardier Flexity tram for Karlsruhe's AVG.
Metro Report International photograph

OŁSZTYN, POLAND



Tramino S111o 3002 (Solaris, 2015) operating in Olsztyn.
Metro Report International photograph

Kraków-based ZUE SA has been named preferred bidder for a contract to build an extension of the Olsztyn tramway.

The six-kilometer (three-mile) double-track extension would run through the southeastern Pieczewo district to a four-track terminus at a 50-space park-and-ride site. The route would include a 270 meter flyover.

ZUE's 382 million złoty bid was significantly less than

the offers from two other bidders and also the budget of 480 million złoty, of which 355 million złoty is to come from EU sources.

Construction is expected to take just over two years. (*Metro Report International*, August 21)

LIEPĀJA, LATVIA



Artist's impression of new Končar LRV for Liepāja.
Metro Report International photograph

Croatian manufacturer Končar Električnih Vozila has been awarded a €8.8 million firm order to supply a further six trams to Liepāja.

The order signed on August 18 has been placed using an option on a November, 2018 contract for an initial six trams.

Work is currently underway to rebuild the depot and modernize the stops on the port city's 7.9 kilometer (four mile) meter-gauge line ahead of the delivery of the first of the new vehicles later this year.

The initial tram from the second batch is to be delivered by August, 2022.

The two orders have been partly financed by the EU. Liepāja is planning to purchase a further two vehicles, but funding has not yet been secured. (*Metro Report International*, August 20)

OMSK, RUSSIA

The city of Omsk has ordered 24 trams from Uraltransmash for use on its six-route network, with deliveries planned to start within just three weeks.

The 688 million rouble order placed on August 6 includes 20 Type 71-407 trams 15.9 meters long and 39% low-floor with a capacity of 190 passengers including 28 seated, and four Type 71-412 trams which are 15.8 meters long with a capacity of 178 passengers including 29 seated.

In June Omsk bought 10 second-hand Type 71-619A trams from Moscow. (*Metro Report International*, August 11)

NEW YORK CITY SUBWAY CAR UPDATE

Forty-two more Phase I R-32s were restored on the **J** and **Z** through July 30: 3384-3385, 3404-3405, 3424-3427, 3430-3431, 3471/3658, 3472-3473, 3586-3587, 3624-3625, 3628/3669, 3650/3767, 3682-3683, 3688-3689, 3730-3733, 3782-3783, 3806-3807, 3822-3823, 3828-3829, 3872-3873, and 3876-3877 to create a standing fleet of 134 cars. Two remain held aside for work service while two others are being withheld for "other reasons" and will not be restored for passenger service. As of August 15, there was no further action to return additional Phase Is to service. These remaining 84 total Phase I R-32s have thus been permanently retired: 3354-3355, 3383/3890, 3406-3407, 3410-3411, 3416-3417, 3428-3429, 3440-3443, 3445-3468, 3446-3449, 3452-3453, 3476-3477, 3484-3485, 3496-3497, 3518-3519, 3550-3551, 3578-3579, 3606-3607, 3610-

3611, 3618-3619, 3621/3644, 3654-3655, 3660-3661, 3664-3665, 3672-3673, 3698-3699, 3708-3709, 3718-3719, 3726-3729, 3736-3739, 3770-3771, 3818-3821, 3856-3857, 3864-3865, 3870-3871, 3878-3879, and 3900-3901. All have been withdrawn from service since at least March 26.

The following additional Jamaica-assigned R-160s have operated on the **A** from July 13 through August 16: Alstom R-160A-2s 8678-8682, 8703-8707; Alstom R-160Bs 8718-8722, 8748-8752, 8773-8777 (Cuomo), 8783-8792, 8803-8812; Siemens R-160Bs 8853-8857, 8873-8877, 8923-8927, 8938-8947; Alstom R-160Bs 9103-9107, 9133-9137, 9148-9152, and 9178-9182 (Cuomo); Alstom R-160A-2s 9213-9217, 9233-9237, 9273-9277, 9288-9292, 9313-9322, 9353-9362, 9373-

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SOUTHWEST UNITED STATES by Jack May (Continued from August, 2020 issue) (Photographs by the author)

The last segment ended with Clare and I meeting up at the 44th Street light rail station on Monday afternoon at about 5 PM. We then proceeded to the Sky Train and rode to its end (Terminal 3), where we transferred to a free rental car shuttle bus. The bus ride took a good five minutes and then we followed signs to Fox Rent-A-Car, which was the provider we selected, based on its quote for a 24-hour rental being an amount below \$25, less than half of what the big boys were charging. Our choice was hardly unique, as there was a very long queue at their nook, while the Hertzes and Avises had hardly anybody waiting. Fortunately the line moved quickly and we soon had the keys to our car, a Kia Soul Plus.

We then drove from the Airport to the Hampton and after picking up Sig and Cathy, had a nice dinner at a Chinese restaurant before retiring for the evening.

Tuesday, April 18

As mentioned in the previous issue, Clare and I planned to drive south to Tucson today, while Sig and Cathy would visit relatives in the Phoenix suburb of Chandler. The two of us also had disparate agendas, as I would immerse myself in Tucson's new streetcar system, while Clare planned to see an old childhood friend, a former resident of Highland Park, Illinois with whom she grew up from kindergarten through high school. Nan lives in a suburb called Eagle Crest, about 24 miles north of the center of Tucson. But it turned out that the retirement village is not on the direct path from Phoenix (also north of Tucson), as there must be a mountain between I-10, the freeway that runs between the two cities, and state highway 77, near where she lives. So it was a coin toss whether I should drop Clare at Nan's home and pick her up there later in day, or whether

Clare should let me off downtown and then head up to Eagle Crest. We decided on the latter, as Clare indicated a 4+-hour visit with her friend would be sufficient, and that would give me about 5½ hours to cover the streetcar line (the opposite choice would have reversed those numbers).

The distance between our hotel and the corner of Granada Avenue and Congress Street at the edge of downtown Tucson, an intersection where the city's streetcars make a 90-degree turn, is 110 miles, over a route almost entirely on the I-10. It took us "only" 1 hour 50 minutes (from 8:10 AM to 10 AM) to get to that intersection which is where Clare deposited me. Why so long, when the speed limit on the open road varied between 65 and 75 mph? It turned out that traffic in the Phoenix area was bumper to bumper for a while (outbound; inbound was moving well) and we also made a brief rest stop. Upon my arrival I was a happy camper, as the sky was blue, I had plenty of film, and I saw a streetcar approaching in the distance. The temperature was moderate, although by the afternoon it would reach 93 degrees. However I felt quite comfortable, especially in the shade, as there was virtually no humidity.

I was looking forward to this visit, as I had not yet ridden this new electric traction operation. I had come previously to the city to ride the Old Pueblo Trolley, a one-mile-long heritage line whose route through Tucson's streets was incorporated into its modern replacement. Unfortunately I had missed out on being able to ride former Pacific Electric Birney car 332 (see the July, 2020 portion of this report), and instead was carried aboard the museum's ex-Osaka/Kyoto car, 869. I returned a few years later, this time to ride their Brussels

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Southwest United States

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four-wheeler, but it turned out that on that day 869 was again on the road. But at least one thing had been different — on my first visit the car employed a pantograph to collect current, while on the second a trolley pole had taken over. [I have not scanned my slides from those trips, so I refer you to <https://www.nycsubway.org/perl/show?98020> for a Peter Ehrlich photo of the car.]

The implementation of today's streetcar line resulted in the track leading into the museum to be disconnected. During the afternoon I walked over there to take a look, and found the fenced-in facility was shut tight. However I was able to see and photograph some of the equipment. Interestingly enough, the track alignment to the old site is now partly being used to access the modern streetcar's [new] carhouse.

Tucson is Arizona's second largest city, with a population of 530,000, and is home to the University of Arizona, one of several major traffic generators along the new streetcar line. It was opened on July 25, 2014, slightly less than three years after public operation of the Old Pueblo Trolley was shut down. The 3.9-mile, 17-stop line is officially called Sun Link, and is operated by the local bus company, Sun Trans. Its roster consists of a fleet of eight 70-percent low-floor three-section double-ended articulated cars constructed by United Streetcar (Oregon Iron Works) using technology supplied by Czech carbuilder, Skoda. Headways are excellent: on weekdays, service operates every 10 minutes from about 9 in the morning to 6 in the evening, with 15-minute frequencies before and after. Base frequency on Saturdays is every 15 minutes, and 20-minute headways are operated on Sundays. Running time from end to end is about 30 minutes.

Sun Link uses a proof-of-payment fare system, with ticket vending machines located at each stop that issue a 24-hour SunGO pass for the payment of \$4, by credit card or cash (bills and/or coins, no change is returned). This is a smart card whose validity begins when it is first tapped on a reader aboard a streetcar or bus. Sun Tran also has single ride full fares and senior fares, which also involve the use of smart cards, but it is difficult for visitors to obtain them (see <http://suntran.com/PDF/smart%20card/SunGO%20FAQ.pdf>). Single rides aboard buses also can be paid by depositing cash into fareboxes, but streetcars have only electronic validators.

It took me a few minutes to get my pass, as the screens of both machines at my stop were facing into the sun, making it difficult to read the instructions. But once accomplished I took a photo of the next car and then boarded the one that followed (see <http://www.urbanrail.net/am/tucson/tucson.htm> for a map). The mostly double-track line runs southeast to northwest and has lots of 90-degree turns, as the city has few, if any, diagonal streets. The southeast terminal at Congress Street and Avenida del Convento in West Tucson is located on a clockwise loop, while the end-

point in the northwest, at Helen Street and Warren Avenue just beyond the University's campus, is a single-track stub. The route is paired on two parallel one-way streets through downtown, where turnback loops in both directions are available. It also crosses the Santa Cruz River (at most times dry), using the new (2012) Gutierrez Bridge, whose construction was part of the streetcar project and also provides additional access to a growing neighborhood through the extension of Cushing Avenue.

Tucson's downtown area seemed quiet, and actually looked a little depressed, with not too many people on the street and a dearth of fashionable stores. Nevertheless it is clean and I felt welcome. Southbound cars stop at the Ronstadt Transit Center, where many of Sun Trans bus lines converge and some terminate. The large transfer point has many bays, but is unmanned, with vending machines selling SunGo cards and passes, and permitting value to be added to existing ones. The facility is named after singer Linda Ronstadt's ancestors, who first came to the Tucson area when it was still part of Mexico, prior to the Gadsden Purchase of 1854. Her great grandfather, Friedrich, emigrated from Germany to Sonora in 1840 and her grandfather Frederico was a prominent businessman in the city. It is said his company constructed mule cars for the Tucson Street Railway in the early 1900s. The transit center is on the site where her father and uncle sold machinery and industrial supplies until 1984. (My favorite Ronstadt recording is Blue Bayou, especially the Spanish version: <https://www.ouvirmusica.com.br/linda-ronstadt/blue-bayou-spanish/>.)

The university area is much busier, both on and off campus. I enjoyed riding the line, as there were always passengers boarding and alighting. I observed that if none of the passengers aboard a car signals for a stop, and nobody is waiting on the platform, cars do not stop, which definitely speeds up the operation. And even when cars do stop, dwell time is very short, much like trolley lines of old. I found the rolling stock's dark blue livery to be attractive, although there is too much advertising plastered on the carbodies. A good number of cars have different ads on each of their sides, which because of the loop/stub track layout, allows all the ads to be seen from all vantage points as the cars make round trips. Fortunately some of the ads are aesthetically tasteful and some are located only on the equipment's center section.

I first obtained an overview of the line, starting with a ride to its southern end, where I took a few photos while my car laid over. I rode back to the city center and continued through the University campus to the line's northern terminal, trying to remember the most interesting locations for photographs. I then worked my way back gradually by walking and riding. The photos below are arranged geographically, following the line from south to north.

Photographs of the line north of the UP railroad tracks, through the university's campus, will be shown in next month's issue.

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Southwest United States

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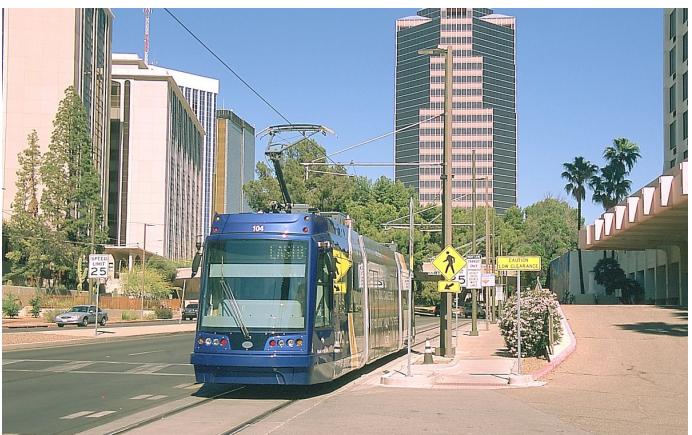


Two scenes from the rear of the Old Pueblo Trolley facility that fronts on 8th Street. The left view shows a former standard Brussels unit, one of the cars that had been used to carry passengers over the 1-mile long heritage streetcar line from April 1993 to October, 2011. To the right of the 1936-built four-wheeler is a deck roofed car, shown closer up in the right photo. Former Lisbon car 524, a Brill-type single-truck built in the Carris workshops in 1924 and acquired from Aspen, Colorado, appears to be the major restoration project taken on by the museum's membership. It was retrucked from 900-millimeter gauge to standard, and the body has been rebuilt to resemble Prescott & Mount Union Railway car 1.



The southwestern end of the Tucson Streetcar consists of a clockwise loop through a mostly barren neighborhood containing prime real estate ready for development by a builder who contributed to the costs of constructing the line. Some of the new structures are shown in the background. United Streetcar 102 is shown running inbound on Linda Avenue toward the city center. Note the scrolling electronic destination sign.

Car 101 heads inbound on the new Luis Gutierrez Bridge that connects the western part of Tucson to the city center. The Santa Cruz River is usually dry, but a high and solid structure is needed to avoid the effects of occasional flooding. Note the energy-saving solar-powered lighting, which is positioned to create unique shadows when the light is right (see <http://www.zocalomagazine.com/solar-art/>).



Two views near the intersection of Granada Avenue, Congress Street, and Broadway Boulevard near the city center. The left photo shows car 105 turning west to south, from Congress to Granada, while the right one features the rear of sister car 104 running in the opposite direction along Broadway. The prominently displayed shiny structure is called One South Church; it is not a place of worship, but rather the address of Tucson's tallest building, which faces Church Avenue.

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Southwest United States

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With its pantograph almost pinched, 102 has just dipped under the Union Pacific (former Southern Pacific) tracks that separate the University district from downtown. The southbound car will eventually cross the Santa Cruz River and terminate in West Tucson.

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ASSORTED TRAVELS FROM THE FIRST HALF OF 2020

by Jack May
(Photographs by the author)

When we turned the corner into July I realized that I had only exposed two rolls of film during the entire first six months of the year 2020. The reasons are obvious, but at least 72 photos are better than none. Here is the first of three transmissions, which covers a selection from winter into spring — the period before the pandemic turned us into virtual prisoners in our own homes.

In January we had an ice storm, and the following bright sunny morning looked like a crystal wonderland. I attempted to photograph the gleaming icicles that had formed on the tree branches along the street, but the result I produced do not sufficiently illustrate the fairy-land sight out our front door and down the street.

Later in the month, I heard that with the delivery of a sufficient number of new cars, the New York subway system would no longer need to operate their last R-42 cars and they would be removed from service. Accom-

panying that memo was an announcement and the Transit Museum would operate one last train of these almost 50 year-old cars to Far Rockaway in regular service on the **A** line (see <https://new.mta.info/r42retirement>). I did not want to miss that event so I got up bright and early on February 12 and took a NJ Transit commuter train to Penn Station, arriving at 9 AM. I quickly walked to the Eighth Avenue subway and rode a regular **A** train to Euclid Avenue. I arrived about 45 minutes before the special's official departure time of 10:30, which gave me a chance to talk to a few friends who were in the crowd (yes, crowd) and also to get ahead of the final train by riding a regular service train. The platform was full of transit enthusiasts who wanted one last ride aboard the R-42s. Most of them were

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Assorted Travels From the First Half of 2020

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strangers to me, and appeared to be youngsters (probably because of my age) and were quite enthused and excited. They came in all shapes, colors and sizes - and I hardly recognized any of them from ERA events. Clearly they have their own sources of transit information and have the ability to exchange photos and videos at electronic sites provided by today's world of advanced technology and communications.

I stationed myself on the inbound side of the Aqueduct-North Conduit Avenue station and waited for the special to come by so I could get a photo. It was a sunny, hazy day, and I was a bit worried that an inbound train might be stopped in the station blocking my view. It turned out to be a close call, but it did allow me to get a photo of the two passing each other. I then continued on the next regular train to Far Rockaway, where the special was laying over prior to its planned return run to Manhattan at 11:30.

Thus on my return I was able to get my last ride aboard a train of R42s. There were a number of subway enthusiasts in my car, including the former head of the transit system, Andy Byford, who had already announced his resignation from MTA New York City Transit. In any case, he was quite accessible and gave his autograph to a number of the folks aboard. The train left a little late with a standing load aboard, which also in-

cluded a number of regular subway riders, some with baby carriages. Unfortunately, we were delayed for about 12 minutes when the line's bridge across Jamaica Bay was raised for marine traffic. I saw photographers at a number of the A train's way stations.

I rode only as far as Penn Station, and then grabbed a slice of pizza at Rose's on the LIRR level before heading home on NJ Transit. The train's last run was scheduled to leave 207th Street for Euclid Avenue at 1:30 PM, but I suspect it ran a little late. Little did I know that would also be my last taste of my favorite pizza until . . . who knows when?

Before we knew we went into lockdown mode prior to the spread of the coronavirus, we had decided to visit our older grandson, who was in his freshman year at Georgetown University. Thus on the last weekend in February we motored down the Parkway, Turnpike, and I-95/295 to the nation's capital, where we settled in at the on-campus hotel that serves Georgetown Hospital. We had some great tours of the campus and some excellent meals, but too soon it was time to drive back to New Jersey, where en route I made a couple of railfan stops.

We drove up Route 295 toward Baltimore and then took a slight detour before entering the Harbor Tunnel so I could take another photo.

By the middle of March we were in lockdown mode, but I still could go outdoors and capture the blossoms on our magnolia tree.



Aqueduct-North Conduit station on the A line. The inbound train to the right of the R-42s in the left view is made up of R-46 cars.



R-42s laying over at Far Rockaway.



Last R-42 interior view taken with my phone. *(Continued on page 20)*

Assorted Travels From the First Half of 2020

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A brief interlude along the route of the D.C. Streetcar resulted in these two photos. Sunday service seemed to be reasonably frequent, with cars running every 15 minutes (much better than every 25 on the Newark City Subway). And it appeared that patronage of the line was quite good, as I noticed a number of passengers aboard every car I saw. The fleet is made up of six cars: 101-103 from Inekon; and 201-203 from United Streetcar. As it turned out all three of the cars on the line were Inekons, but I was only able to photograph 101. The left photo is at the line's eastern terminal, Oklahoma Avenue and Benning Road, while the one at right is at 15th and H Streets, NW. Benning Road, Maryland Avenue and Bladensburg Road also intersect at this location, creating some long traffic light cycles.



A train of 7000-series Washington Metro cars is shown along Benning Road at 34th Street, about a three quarters of a mile east of the streetcar line's terminal at Oklahoma Avenue. Combined Blue and Orange Line track rises through a subway portal after Stadium-Armory station and curves onto an elevated alignment parallel to Benning Road. The Blue Line then turns off to Minnesota Avenue while the Orange sinks through another portal to run further eastward under Benning Road. Kawasaki built a total of 728 of these units, but their deployment was far from smooth. First two years late, and then soon after their 2015 debut, the cars were taken out of service briefly because they would lose contact with the third rail on steep grades. Later complaints arose about their excess noise and vibration and finally the electric wiring on the cars were defective and had to be replaced. They currently number about half of WMATA's fleet, and it seems the kinks have been ironed out.

An ABB-built MTA light rail train approaches the Patapsco Avenue station. This stop is also a major bus interchange and has a Park-and-Ride lot. Baltimore's 53-car fleet is among the widest in North America, at 9.5 feet, and was built in two batches, in 1992 and 1997.

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New York City Subway Car Update

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9377, 9383-9387, 9393-9397, 9428-9432, 9463-9467,

9583-9587, 9618-9622, 9648-9657, 9693-9697, 9703-9707, 9748-9752, and 9773-9777; Kawasaki R-160Bs 9883-9887, 9913-9917, and 9923-9932.