

BULLETIN

Volume 66, Number 5 | May 2023

MTA Fiscal Cliff Averted?

On April 27, Governor Kathy Hochul, State Assembly Speaker Carl Heastie and State Senate Majority Leader Andrea Stewart-Cousins announced that they had an agreement to address key priorities in the Fiscal Year 2024 New York State Budget.

The following week, the Legislature started voting on the bills on Monday and finished passing them on Tuesday. The following day the MTA announced details of the budget that would affect riders here in the New York City area.

In light of the MTA's impending \$3 billion budget deficit, lawmakers called for a one-time payment from Albany of \$300 million and \$165 million annually from New York City. It also included money from an increase in payroll taxes on large businesses based in New York City, which is expected to yield \$1.1 billion, and from tax revenue from casinos that will open in the near future.

The agreement will help to stave off one proposed fare hike, though others are on the horizon.

Riders are likely to hail the inclusion of a new pilot

program that would offer five free bus routes, one for each borough. The lines will be chosen based on a set of factors including ridership and if the area serves a commercial hub.

In an effort to make service more efficient, buses will be equipped with cameras with the ability to issue tickets for traffic violations. This is the New York City Automatic Bus Lane Enforcement (ABLE) program.

The transit highlights of the FY 2024 Budget includes: • Implementing over \$400 million in MTA operating

- efficiencies to reduce expenses and improve service;
- Increasing the top rate of the Payroll Mobility Tax for the largest businesses in New York City, generating an additional \$1.1 billion annually;
- Increasing New York City's share of funding for paratransit services through 2025, generating nearly \$165 million annually;
- \$300 million in one-time State aid to address the extraordinary impact of the pandemic on MTA operating revenues;
- Continued on page 3



Electric Railroaders Association

Founded August 15, 1934 by E.J. Quinby P.O. Box 3323, New York, NY 10163 https://erausa.org

Editorial Staff

Editor-in-Chief Jeff Erlitz

Associate Editor Subutay Musluoglu

Circulation Managers

Robert Colorafi (Electronic) David Ross (Print)

Contact

erausa.org/contact

Subscriptions

The *Bulletin* is published monthly and sent free to all ERA members.

Back Issues

PDFs of previous issues can be downloaded at erausa.org/bulletin

In This Issue

Worldwide Electric Railway, Metro and Tramway Openings	3
Rail News in Review	3
Book Review	21
Travels with Jack May	23

Trip Notices

May 21: Friends of Philadelphia Trolleys-East Penn Traction Meet are sponsoring a SEPTA Kawasaki LRV tour of Philadelphia's subway-surface lines. Trip departs from Elmwood Depot at 10:00 AM and will finish up around 2:00 PM. For info, contact Harry Donahue at had2709@aol.com or Bill Monaghan at trolleydriver@comcast.net.

July 6-11: Annual Convention, Portland and Seattle For details, point your browser to <u>https://erausa.org/</u> <u>conventions/2023/</u> July 29: Staten Island Railway Clifton Shop Tour. For details, point your browser to <u>https://erausa.org/</u>regional-trips/2023/07/.

Donations

The ERA Board of Directors express their deepest appreciation for these member donations in March 2023.

\$100 to \$199

Henry Posner

Up to \$49

Walter Weart

ERA is a 501(c)(3) tax exempt corporation. Your donations are fully tax deductible and can be made either with your membership renewal or using our donation form on our website: www.erausa.org/donate. Your donation helps to maintain ERA's 88-year long tradition of traction education and entertainment!

.....

Monthly Zoom Meeting

Friday, May 19, 2023 at 7:30 PM.

Presenting This Month: Ray DeGroote

Our May program, Interurban Railways of Canada, will be presented by Ray DeGroote (ERA #1009). A native Chicagoan, Ray joined the ERA in 1946 at the age of 16 and is a board member of the Central Electric Railfans Association (CERA).

Ray will show a collection of rarely seen views, many in color, of seven Canadian interurban systems which continued service well into the 1950s, long after most comparable American operations had ceased operation. Favorites such as the London & Port Stanley with its former Milwaukee Electric cars, and the Montreal & Southern Counties Railway, will be covered. What little remains of these magnificent Canadian systems reside in transit museums, which we will also visit.

You will not want to miss this presentation!

How to Join Our Zoom Meeting

A Zoom registration button will be posted on www.erausa. org about five days before Ray's presentation. You can sign in at 7:15 PM. The show begins at 7:30 PM. If you have any problems, email Bob Newhouser at bnnyc1955@aol.com, or on the night of the meeting, text or call Bob at 917-482-4235.

Cover Photo

Public Service Coordinated Transport double-truck motor #2628 (Public Service Shops, 1917) is operating eastbound on the 21-Orange route in East Orange. He has just come out from underneath the Delaware, Lackawanna and Western Railroad's bridge over Main Street. The railroad's East Orange station is on the right in this scene on February 27, 1951. A little over one year later, this car route was converted to bus operation, on March 29, 1952. Photographer unknown

2024 Benelux Trip

ERA is planning a tour next year to Belgium, the Netherlands and Luxembourg. The tour will begin in Amsterdam on May 10 and end in Brussels on May 25. Pre and post tour days will be available. The tour will be based in Amsterdam and Brussels and we are planning to visit many tram operations and tram and railway museums in Amsterdam, Den Haag, Rotterdam, Arnhem, Utrecht, Brussels, Antwerp, the Oostende-Knokke Coastal Tram, Brugge, Gent, Charleroi, Thuin and Luxembourg. Group and optional sightseeing will be available. Included travel will be by rail and day passes will be provided for local transit. Baggage handling between our two hotels is included with a coach transfer. The dates are firm and booking will begin later this year in August or September.



PCC 7148 (La Brugeoise et Nivelles, 1975) of Flemish transport company De Lijn is arriving at Centraal Station in Antwerpen on route 12 on a wet May 2, 2019. Jeff Erlitz photo

- \$35 million in investment to improve subway service on weekday middays, weekends and weeknights;
- \$65 million to reduce the proposed fare increase on the MTA from 5.5 percent to 4 percent;
- \$35 million in safety investments to protect riders;
- Dedicating \$1.5 billion in licensing fees if three downstate casino licenses are awarded, and a share of an estimated

\$231 to \$413 million in incremental annual tax revenue from the casinos for MTA operations;

• \$15 million to fund a pilot program providing five fare-free bus routes in New York City;

• \$1.3 billion for continuing improvements at Penn Station. THE NEW YORK TIMES, May 2

MTA PRESS RELEASE, May 3

Worldwide Suburban Electric Railway, Metro and Tramway Openings in April 2023

Date	Country	City	Segment	Distance (miles)	Rail/ Metro/ Tram
4/7	China	Jinhua	Sports Center – Ming & Qing Dynasty Palaces	~7.5	R
4/8	Turkey	Istanbul	M3 Basaksehir MetroKent to Kayasehir Merkez	3.9	М
4/11	Spain	Vitoria-Gasteiz	Florida to Salburua	1.5	Т
4/12	Turkey	Ankara	M4: Atatürk Kültür Merkezi to Kizilay	2.1	М
4/20	"	Izmit	Plajyolu to Kurucesme	0.4	Т
4/25	Uzbekistan	Toshkent			М
4/29	France	Bordeaux	Ligne A: Quatre Chemins to Mérignac Aéroport	2.9	Т

URBAN RAIL NEWS, APRIL 30

Rail News in Review

New York Metropolitan Area

NEW YORK CITY TRANSIT (NYCT)

Brooklyn Bridge Yard Reduced in Size

The two stub-ended tracks that extend south of Brooklyn Bridge station on the IRT Lexington Avenue **456** Line are referred to as Brooklyn Bridge Yard. Track 1 (originally the southbound local track) is the western of the two while Track S is the one between it and the southbound express, Track 2. Nine years ago, on April 17, 2014, Track S was removed from service due to a track condition on the switch between it and Track 1 (Switch 23). Year after year, the General Order that removed Track S from service was extended into the new year. Track S finally went back into service on January 1 this year.

On Thursday, April 6, Maintenance of Way (Track) forces removed Switch 23 and straight-railed Track 1 into Track S, permanently taking Track 1 out service.

Both Tracks 1 and S used to continue south and merge into Track 2 immediately north of the Fulton Street station. After arriving at Brooklyn Bridge on the local track, Lexington



Avenue local trains were able to continue straight south of Brooklyn Bridge to continue on to South Ferry, for example on the midnights. Those two switches, and all of the associated interlocking signals, were removed on June 4 and 14, 1963.



Track diagram showing the now out of service Track 1 south of Brooklyn Bridge station.

IRT Flushing 7 Line Service Adjustments

Starting on April 7 (weekday afternoons) and April 10 (weekday evenings), service was adjusted to accommodate the earlier completion of Mets games at Citifield. This was due to the new rules expediting baseball games.

On weekday afternoons, additional southbound service operates from Willets Point at the conclusion of games. On weekday evenings, northbound express () service is suspended beginning with the 2100 (9 PM) 34th Street to Main Street trip. This will allow selected southbound extra service to operate express from Willets Point after a game.

Re-NEW-vation Program Continues

Crews completed a renovation of the Grand Street **D** subway station in Chinatown under NYCT's Re-NEW-vation campaign that brings targeted resources to rebuild station components within a 55-hour window, a typical weekend shutdown. At Grand Street over the weekend of April 15-16, crews rebuilt stairwell walls and staircases, repainted the ceilings over platforms and tracks, cleaned, replaced and upgraded lighting, refinished benches and power-washed all areas of the station.

Over the weekend of April 22-23 Atlantic Avenue-Barclays Center (**B**) was completed. The following weekend, April 29-30, 21st Street-Queensbridge (**F**) station was completed.

With a round of 13 station re-NEW-vations announced last month, NYCT will be on track to complete 34 stations by the end of June in pursuit of its goal to complete 50 stations by the end of 2023.

Stations are selected based on planned weekend outages to minimize impact to riders, and following initial deep cleanings and repairs, it is intended that routine and specialized cleaning will maintain this level of cleanliness.

The program was initiated with a soft launch over the summer of 2022 on the IND Concourse **D** line in the Bronx, deep cleaning and renovating components of nine stations along the Grand Concourse line while the stations



Grand Street station during the Re-NEW-vation work over the weekend of 15-16. Aaron Donovan/MTA photo

were closed for state of good repair work. MTA PRESS RELEASE, April 17

Long Term Track Outage

Starting on April 25, and running through to at least June 2, Tracks 11 and 12 in Westchester Avenue Yard are out of service for track class training and track maintenance work on Switch 229 leading to both of those tracks.

IND Queens Boulevard Line 🕒 🕞 😯 Service Changes Continue

The service changes mentioned in last month's *Bulletin* regarding the relocation of weeknight and weekend layups on Queens Boulevard have been extended two months from April 30 to June 30.

This was to enable E-J Electric Installation Company, the contractor working on contract S-48010 (Queens Boulevard Line East Communication-Based Train Control Installation), to install signal cable and other equipment between the Briarwood and Jamaica-179th Street stations.

South Brooklyn Railway Happenings

With work beginning on April 11 and continuing to, possibly, the end of this year, the South Brooklyn's Third Avenue Yard is out of service. This will allow MLJ Contracting Corporation, under contract C-33942, to build a railcar acceptance and testing facility.

The Third Avenue Yard is located immediately south of 38th Street between Third and Fourth Avenues.

The work includes design-build services for the following:

- Demolition, removal and disposal of existing tracks and site systems (including fencing and lighting);
- · Relocation and/or removal of utilities as necessary;
- Construction of a new Railcar Acceptance and Testing Shop consisting of a 350' x 50' pre-engineered structure, outdoor tugger track for siding, delivery track(s), outdoor tracks, pitted/floor tracks inside the shop, foundation slab and footings to support the installation of concrete and/or CMU



10'-0 NYS	DOT	EARANCE FOR MAINTENANCE -	GOWANUS EXIT RAMP (ABOVE)	38TH STREET		TRACK SIDING FOR TUGGERS –	
				GOWANUS EXIT RAMP RETAINI	NG WALL	>	
			FRACK	· Đ'Þ · - · - · - · - · - · - · - · - · - ·		TRACK	
			A D D D D D D D D D D D D D D D D D D D			TRACK DLL	
			· · · · · · · · · · · · · · · · · · ·	F			

Drawing of the Railcar Acceptance and Testing Facility in South Brooklyn Railway's Third Avenue Yard. Contract C-33942 Solicitation Notice

exterior walls, two-ton overhead bridge crane(s) serving the full length of both tracks, DC stinger system, material handling and other shop equipment, furniture, sprinkler and standpipe systems including new water services, HVAC systems, entrance roadways and walkways;

- Construction of an adjacent L-shaped masonry-structure annex building for ancillary administrative support services, consisting of two sections, approximately 311' x 16' and 44' x 30';
- Installation of perimeter fencing, site lighting, storm drainage, communications systems, and all necessary utility services and connections;
- Installation of new tracks, rails and ties and signal equipment that will connect to the BMT West End Line (*Editor's note: At 5th Avenue Interlocking*).

LONG ISLAND RAIL ROAD (LIRR)

Continuing Schedule Adjustments

Last month's *Bulletin* listed all of the post-Grand Central Madison schedule adjustments up to and including April 3. The following changes took place later in April:

Monday, April 10

Douglaston and Little Neck sto	ops moved from 360 to 1464

Remove Hicksville: 656

Added running time Hicksville to Huntington: 660

Add Babylon: 1129

Add New Hyde Park: 1617

Remove Woodside: 2716

Adjusted running time west of Jamaica: 2019, 2723

Added running time at Speonk or Southampton on multiple trains

for crew changes and meets

Monday, April 17

Remove Hicksville: 35, 76

Add Seaford: 1264

1913 (nee 2013) canceled and replaced (for now) with

non-revenue 4913 in the same slot

Thursday, April 27

Remove Forest Hills: 2019

Add Forest Hills: 2823

Van Wyck Expressway Bridge Work

Over the weekend of April 15–16, the LIRR performed yet another bridge roll-in. This time it was the west half of the Van Wyck Expressway, under the Main Line's westbound Tracks 3 and 1. This bridge was originally built in 1913, as part of the Jamaica grade crossing elimination project. In 1913, of course, there was no "expressway," it was simply Van Wyck Boulevard. The bridge was widened, apparently, when the expressway was constructed in 1949–1950.



View north of the old Main Line bridge carrying Tracks 3 and 1 over the Van Wyck Expressway as seen on April 16. Jeff Erlitz photo

Over this and the previous weekend (for preparation work) Tracks 3 and 1 were out of service from Jamaica station all the way to Harold Interlocking in Sunnyside. In addition to





The new bridges were assembled between the Van Wyck's northbound main and service roads, two blocks north of the railroad, just south of 90th Avenue. This is looking north from the sidewalk of the northbound service road on April 19. Jeff Erlitz photo

the bridge work, several other maintenance projects were performed on Main Line Tracks 3 and 1.

There are actually six separate bridges across the Van Wyck, according to the railroad. Two of the bridges separate in mid-span, so they appear to be one bridge on the east end but two on the west.

Not all of the bridges are being replaced. The one carrying the Atlantic Branch and the westbound Montauk Branch, for example, is being rehabilitated in place.



An unusual view from the parking garage of Jamaica Hospital of the new bridges. In the distance, M7 7167 (Bombardier Transportation, 7/2003) and train #2911 has just left Jamaica station and is beginning its shuttle trip into Brooklyn. Jeff Erlitz photo

The single-track bridge on the south side of the rightof-way, carrying the eastbound "Brooklyn Freight Track" and used by the Brooklyn shuttle trains, was completely replaced a couple of years ago, in preparation for the thenfuture shuttle service.

The east side of the bridge carrying Main Line Tracks 3 and 1 is scheduled to be replaced this October.



Looking north on Cherry Valley Avenue in Garden City on April 7 with the new bridge now in place. The old bridge was dragged off to the right of this image to the location where this new bridge had been assembled. Jeff Erlitz photo

Garden City Bridge Work Completed

The replacement of the Cherry Valley Avenue bridge in Garden City was completed, as scheduled, over the weekend of April 1–2.

Service to Mets-Willets Point Increased

Starting on Monday, April 24, Port Washington Branch trains began stopping at Mets-Willets Point station all day long, seven days per week. This is the first time this station has regular daily service since the close of the 1964–1965 World's Fair on October 17, 1965.

Between the time that the World's Fair closed and today, this station was open only for special events in Flushing Meadows Corona Park or sporting events at Shea Stadium/ Citi Field or the National Tennis Center.

Recently, the station was open all day and night, for riders to get to a COVID-19 vaccination center at Citi Field. This was in effect between January 25, 2021 and February 26 of this year.

Northport Station Renovation Progresses

Renovation of the west 510 feet of the platform at Northport station was completed so beginning on Tuesday, May 2, work began on the east 510 feet of the platform.

As was mentioned in the November 2022 *Bulletin*, LoSardo General Contractors Inc. was awarded the contract to replace the high-level platform. This new platform, like most of the recent rebuilds, will be radiantly heated. Part of the reconstruction here was to build a boiler room for the hot water system for the platform.

METRO-NORTH RAILROAD (MNR)

Hudson Line Service Restored

MNR restored full, normal Hudson Line weekday service on April 10 following repairs to tracks north of Beacon that were damaged by a CSX freight train on March 31.



Crews worked around the clock to restore 11 miles of double track between Beacon and Poughkeepsie, along with repairs to switches near Beacon. MTA PRESS RELEASE, April 6

Ridership Continues to Recover

MNR reached record pandemic-era ridership on April 18, with 194,549 riders, or 74 percent of the pre-pandemic average.

The milestone comes as the LIRR has exceeded 200,000 riders on 16 days since February 27, a threshold the railroad had only crossed twice during the first 57 days of 2023. During the seven days between April 9 and April 15, the LIRR carried an average of 168,726 daily passengers, the best seven-day average since March 2020.

MNR and the LIRR rolled out fare offerings including a 10 percent discount for monthly passes, and a 20-trip ticket tailored for the hybrid work schedule. The 20-trip ticket saves riders 20 percent on regular peak one-way fares. For rail riders traveling within the five boroughs, the City Ticket offers a reduced, flat fare of \$5.00 for rail travel within New York City during off-peak hours on weekdays and on weekends. The new joint MNR/LIRR Combo Ticket encourages regional travel between Metro-North and Long Island stations via Grand Central for only \$8 more than the ticket to New York City. MTA PRESS RELEASE, April 19

PORT AUTHORITY TRANS-HUDSON (PATH)

New PA5 Cars Enter Service

The first of 72 new PATH rail cars have been deployed for service, part of the Port Authority's \$1 billion PATH Improvement Plan to reduce delays and enhance the overall passenger experience. The new high-performance rail cars will supplement the current fleet of 350 and will be gradually integrated into the system throughout 2023 and into 2024, marking an increase of more than 20 percent in rolling stock.

The addition of the 72 new cars will also supplement the implementation of PATH's new nine-car trains in service on the Newark to World Trade Center line, and by the beginning of 2024, nearly all trains on this line will be nine-car trains at peak times. The addition of a ninth rail car to trains during peak hours is part of an ambitious program to increase capacity and provide a safer, more convenient commuting experience for passengers on PATH's busiest line.

Expanding capacity is one of three components of the PATH Improvement Plan, in addition to reducing delays and enhancing rider experience through new technology and additional personnel. Part of the plan, which was introduced in 2019, called for capacity increase through the acquisition of additional rail cars, expansion of station platforms to accommodate nine-car trains on the Newark-World Trade Center line versus today's eight-car trains, and utilization of a new signal system to run trains more frequently, particularly during morning and evening rush hours.

The plan was cited by the American Public Transportation

Association (APTA) in its selection of PATH for the 2022 Outstanding Public Transportation System Achievement award for North American railroads with more than 20 million riders annually.

Built by Kawasaki, the new rail cars were transported to a Kawasaki facility in Yonkers, N.Y. where they were outfitted and tested before being delivered to PATH.



PA5 5300 (Kawasaki Rail Car, 2022) on delivery sometime last year. Port Authority photo

PATH is rebuilding its ridership steadily and expects to achieve at least 60 percent of its overall average daily ridership by the end of 2023. Comprising 13 stations in New York City and New Jersey, PATH handled nearly 82 million commuter trips in 2019, a record number of passengers in one year, before the onset of the COVID-19 pandemic that significantly lowered ridership.

PORT AUTHORITY PRESS RELEASE, April 13

AMTRAK

East River Tunnel Rehab Project

Amtrak has issued a Request for Qualifications for construction services associated with the East River Tunnel Rehabilitation Project. The project will see the renewal of two of the four tubes in the tunnel, which were opened in 1910 and experienced damage from Superstorm Sandy.

The tunnel is used by Amtrak, NJT and LIRR trains. Amtrak says the work will modernize the tunnel infrastructure, improving safety, service capacity, reliability and security and bring the systems to a state of good repair. Preparatory work is already underway in Sunnyside Yard, with major construction starting in early 2024 and continuing through 2027.

The East River Tunnel provides a vital regional rail connection and, pre-pandemic, served approximately 300,000 passengers every day. In addition to the tunnel's age, Superstorm Sandy's flood waters left corrosive minerals behind.

The project will rehabilitate Lines 1 and 2, which are each 13,000 feet long, by demolishing the tubes down to their concrete liners. New bench walls will be built, along with



communication systems and modern electrical and signaling conduit. Additionally, the work will improve the safety and security of the tubes.

The Federal Railroad Administration awarded Amtrak a grant of up to \$10.7 million from the FY 2021 Federal-State Partnership for State of Good Repair Program for the East River Tunnel Rehabilitation Enabling Components Project. Amtrak says the funding will ensure traction power is maintained in each of the tunnel lines while rehabilitation activities are underway. The project is eligible for the FY 2022-2023 Federal-State Partnership for Intercity Passenger Rail Program (FSP-NEC Program), and Amtrak says an application has been submitted. A decision on this round of grants is expected in the fall of 2023.



The interior of one of the tubes of Amtrak's East River Tunnel, which was originally opened in 1910 and sustained damage during Superstorm Sandy in October 2012. Amtrak photo

Also related to funding was an agreement brokered by U.S. Senator Charles Schumer (D-NY) in December 2021 between the MTA and Amtrak. The agreement called for Amtrak to commit \$500 million to MTA's Penn Station Access program while MTA committed \$432 million to the East River Tunnel Rehabilitation Project. If Amtrak is successful in securing a grant that could cover 80 percent of the project costs through the FSP-NEC Program, MTA and NJ Transit would cover the 20 percent local share.

MASS TRANSIT, April 17

Other U.S. Systems

BOSTON

Blue Line Work

The MBTA announced a revision to the upcoming evening weekday shuttle bus diversions on the entirety of the Blue Line. Work will happen April 24-27 and May 1-4 beginning at 8 PM.

Blue Line evening weekday train service will be replaced with accessible shuttle buses between Government Center and Wonderland Stations beginning at approximately 8 PM on April 24-27 and May 1-4. Shuttle buses will not serve Bowdoin station. Shuttles bus schedules will work to match previous train frequency.

This service change will allow crews to continue track work on the Blue Line that will alleviate speed restrictions. Crews will be replacing close to 2,000 feet of rail, over 450 ties, and perform more than 3,000 feet of tamping.

The MBTA is prioritizing this area to maximize the Blue Line's capacity to carry riders during the two-month closure of the Sumner Tunnel this summer. To capitalize on these two service diversions, the MBTA will be scheduling additional work at other locations along the Blue Line, including during non-revenue hours. Work will occur in multiple areas on the Blue Line with both MBTA and contractor crews. Any additional work impacting riders will be announced as the schedule is finalized.

Previously, work was scheduled to begin at 7 PM on the dates above. Since the announcement of the start time of this work, the MBTA received feedback from public stakeholder groups who advocated for the MBTA to amend the start time to 8 PM and the MBTA shifted its work schedule to best serve its riders.

Based on progress made during the upcoming evening Blue Line diversions, the MBTA is exploring the opportunity for additional select evenings for "early access" (work beginning at 8 PM) service diversions during the month of June. The MBTA will share more information as plans are finalized.

Signage will be in place during all scheduled changes in service to direct riders to shuttle bus stops. Extra MBTA personnel and Transit Ambassadors will also be on-hand to assist riders. Riders are encouraged to subscribe to T-Alerts or to follow the MBTA on Twitter @MBTA for up-to-date service information.

The MBTA will announce additional service changes in advance as they are confirmed and scheduled. MBTA PRESS RELEASE, April 21

Red and Green Line Work

May service changes on the Red Line will continue to focus on track work:

- Accessible shuttle buses will replace regular train service between Park Street and JFK/UMass Stations during the weekend of May 6-7. This service change will allow crews to continue to perform critical rail and tie replacement work to alleviate speed restrictions in this area. Crews will be replacing approximately 1,000 feet of rail.
- Accessible shuttle bus service will replace evening weekday train service between JFK/UMass and Braintree Stations beginning at approximately 8:45 PM on May 8-12, May 15-19, May 22-25, and May 30-31. This service change will allow crews to perform critical rail and tie replacement work on the Braintree Branch that will alleviate speed restrictions. Crews will be replacing approximately 5,000 feet of rail, close to 2,000 ties, and perform more than 11,000 feet of tamping.
- Accessible shuttle buses will replace regular weekend Ashmont and Braintree branch train service between Broadway and Ashmont and Broadway and Braintree



Stations during the weekends of May 13–14 and May 20–21. This service change will allow crews to perform work on the Savin Hill Bridge on the Ashmont branch as well as continued rail and tie replacement work on the Braintree branch. Crews will be replacing more than 2,300 feet of rail, approximately 840 ties, and perform approximately 3,000 feet of tamping.

Green Line service will be altered during the weekend of May 27-28. On the B Branch, trains will bypass Kenmore Station with riders instead asked to exit at Blandford Street or Hynes Convention Center and travel back to the Kenmore area, which is less than a half mile (or about an eight- to 10-minute walk). On the C Branch, accessible shuttle buses will replace regular trolley service between Cleveland Circle and Copley Stations. On the D Branch, accessible shuttle bus service will replace regular trolley service between Fenway and Copley Stations. These service changes will allow crews to perform track work in various locations along the Green Line. Crews will be replacing more than 450 feet of rail, more than 150 ties, and perform approximately 350 feet of tamping. MBTA PRESS RELEASE, April 24

CHICAGO

Brown Line Station Work

The Chicago Transit Board approved the awarding of a contract for the first stage of work outlined as part of a new, progressive design-build contract that will provide up to \$19 million in repairs and improvements for the Western station on the Brown Line.

The Board action marks the first major upgrade of the facility in more than 40 years and is the latest initiative by the Chicago Transit Authority (CTA) as part of its ongoing "Meeting the Moment" Action Plan — a multifaceted investment plan to strengthen the rider experience — more consistent and reliable service, safe rides, clean facilities, modern amenities, dynamic customer engagement tools, and a strong CTA workforce.

Improvements planned as part of this project, include the replacement of concrete aprons, elevators, and other major building and operational components to help make the rail station and bus turnaround meet current ADA requirements. Other enhancements will include upgraded security cameras and public address system for improved station security, as well as enhanced station access with new curb ramps, sidewalks, and improvements to the walkway to Lincoln Avenue.

Under this new, progressive design-build contract, work associated with the Western Brown Line Rehabilitation project will be split into two stages: pre-construction services then final design and construction.

Following a competitive procurement process, F.H. Paschen, S.N. Nielsen & Associates LLC was selected for the first stage of work, or pre-construction services. Per the terms of the agreement, the contractor will be allocated approximately \$2 million to coordinate the pre-construction services (i.e., surveying, structural engineering and design, etc.). The remaining project funds will be used to cover costs associated with the second phase of the contract, which calls for final design and construction work, and will be put out to bid at a future date.

By splitting up the project work into two phases, CTA can minimize cost over runs and delays by ensuring all project participants, such as engineers, architects, and contractors, collaborate early in the project planning phase before project plans are finalized.

The Western Brown Line station provided nearly 600,000 annual rides in 2022, and also offers connections to the following five bus routes: 11-Lincoln, 49-Western, 49B-North Western, X49-Western Express and 81-Lawrence.

Although project details are not yet finalized, CTA estimates design work beginning as early as summer 2023, and construction beginning in 2024.

Established as part of the original construction of the Ravenswood branch in the early 1900s, the current Western Brown Line station was rebuilt in 1920 and underwent a major renovation in 1979–1981 to be made fully compliant with the Americans with Disabilities Act (ADA). Since this station was already fully accessible to those who use mobility devices, this was the only Brown Line station to receive modest upgrades and repairs under the Brown Line Capacity Expansion project (2004–2009).

CTA PRESS RELEASE, April 12

Elevated Line Rehabilitation Continues

The CTA is making a major, new enhancement to the transformational Red and Purple Modernization (RPM) Phase One Project that will create more than one mile of new, open space underneath Red and Purple Line tracks in the Uptown and Edgewater neighborhoods. The new community space will be created between West Lawrence and West Ardmore Avenues by removing nearly all of the century-old embankment structure and walls starting in 2023 which could be developed into parking and community spaces.

The embankment wall removal is a significant change and enhancement to the CTA's historic, ongoing RPM Phase One Project. To begin the conversation of how to develop the space following completion of the project, CTA will hold community meetings for a block-by-block look at the new space that will be available with the elimination of the wall.

The CTA will actively work with the community through soon-to-be announced public meetings to create a vision for future open spaces under CTA tracks:

- CTA will ask for ideas from local residents via public meetings and online surveys;
- Some options could potentially include parking and open-air community spaces;
- CTA plans to install lighting under the new structure to increase safety for residents;
- Any future activation of space would take into consideration the ability of CTA to access its infrastructure for regular inspection and maintenance and other work as needed;

- Future development would be in the form of partnerships with local stakeholders;
- CTA will provide funding to support the community renovation and base programming.

CTA's contractor, Walsh-Fluor Design Build Team, has already removed some of the existing wall to make room for new, fully accessible Red Line stations and other project elements.

Walsh-Fluor Design Build Team is expected to begin additional wall removal in 2023 and continue through 2024, working simultaneously with new Red and Purple Line track structure reconstruction now under way.



Rendering of elevated structure after embankment and wall are removed. CTA photo

The CTA made the decision to remove nearly all of the wall, rather than a partial demolition, after determining during RPM work the 100-year-old embankment wall is more deteriorated than anticipated. Its condition prevents the aesthetic improvements to the walls planned in RPM Phase One from having either the appearance or lifespan that were intended.

CTA continues to make significant progress in "Stage A" of the Lawrence to Bryn Mawr portion of RPM. Stage A, which will be completed later in 2023, is rebuilding the northbound Red and Purple line track structures between Lawrence and Bryn Mawr. CTA has completed construction of the new elevated track bridge and is installing new rail and other components in advance of putting the new tracks into service at the completion of Stage A.

Stage B, which is scheduled to begin later in 2023, will rebuild the southbound Red and Purple Line track structures and build four new, fully accessible Red Line stations at Lawrence, Argyle, Berwyn and Bryn Mawr. CTA will provide an updated construction schedule and host town halls to discuss the work and impacts to CTA service this spring. MASS TRANSIT, April 19

CLEVELAND

New Railcar Fleet

The Greater Cleveland Regional Transit Authority (RTA) unveiled on April 4 the likely manufacturer of its new rail fleet — a big step toward replacing its aging rail cars after four years of delays and setbacks.

But the transit agency still doesn't know if it will have enough money to buy the first batch of railcars.

RTA's Board of Trustees, in committee of the whole on April 4, voted to advance a nearly \$164 million contract with vendor Siemens Mobility, Inc., to build up to 24 new railcars to replace the existing Red Line fleet within the next four years. RTA has most of the money it needs for those cars, but is still about \$7 million short.

And that contract represents only a portion of the \$393 million needed to eventually replace all of RTA's railcars, on the Blue, Green and Waterfront lines.

The project will be discussed again in committee on April 10 before moving to the full board for final approval on April 18.

The new cars are expected to feature a sleeker design, plastic seats for easy cleaning, bike racks, heated windshields, ice cutting technology and other improvements, including easier access for riders using wheelchairs, a presentation on potential designs showed. The actual design for the railcar will be finalized over a 15-month period, starting once the contract is signed, officials said.

There will be fewer places to sit in the new railcars — a drop from 84 seats to 52 — but officials say there will be more standing room.

RTA already has \$157 million funded through internal savings and other state and federal grants. Another \$67 million has been committed to the project but will be released slowly over the next several years.

RTA needs cash in hand now to cover at least the current contract amount to complete the Red Line replacement, otherwise it will have to reduce its order and delay full replacement until funding comes through.

To fill that gap and keep the project moving, the agency is betting on a \$130 million federal grant as part of the newly passed Infrastructure Investment and Jobs Act, which is meant to help improve public transportation. Award announcements are expected sometime this month.

If the funding comes through, however, RTA could have a new Red Line fleet in place in four years, he said. The contract also comes with an option to buy another 36 rail cars within the next seven years, as additional funding comes in, which would be used to replace the Blue and Green rail lines, updating one of the oldest fleets in the nation.

One of the benefits of the new cars, officials said, will be that they can run on all of RTA's existing lines. The Red Line is a heavy-rail line, while the others are light-rail. RTA currently operates different fleets on each type of line. By designing one type of car that can operate on all the lines, RTA expects lower maintenance and training costs. It also expects the uniform fleet will give it more flexibility to expand its services and create new trips.

RTA currently accommodates four routes — Red, Blue, Green and Waterfront lines — but they envisioned adding four more to better connect Shaker Heights stations to the airport and the Stokes-Windermere station in Euclid to the South Harbor station near the Cleveland Municipal lot.



About 24 percent of the current contract amount will go toward one-time expenses to adjust facilities and platforms to the new style of railcars, buy spare parts and test the fleet before it goes into service.

The board is also considering a separate \$1 million bid to rehabilitate the Waterfront Line platform, crossing and track, which has fallen into significant disrepair during the time it has been shutdown, so that it can be ready for the railcar replacement. That contract is recommended to Railworks Track Services, LLC.



Cleveland vehicle concept. Siemens

RTA's selection of a railcar manufacturer has been four years in the making, after previous bid requests went unanswered or did not receive qualified applicants. RTA rebid the project in 2021, after it received only one proposal that did not meet its need.

Siemens was also the only bidder this time, but officials said it is a leader in the industry, designing cars for transit authorities in four major U.S. cities, as well as in Canada. CLEVELAND.COM, April 4

The RTA Board Members unanimously voted to approve the Rail Car Replacement Team's recommendation of Siemens Mobility Incorporated as the preferred vendor to replace their aging rail fleet during the April 18 RTA Board meeting.

The approval initiates the process of awarding a contract to Siemens Mobility Incorporated for the purchase of 24 Siemens Model S200 rail cars, with the option to purchase up to a total of 60 cars in the future. The new rail cars are modeled after a fleet currently used by Calgary Transit, located in Calgary, Alberta, Canada. RTA PRESS RELEASE, April 18

PHILADELPHIA

Fare Payment System Upgrade

SEPTA is seeking proposals from experienced vendors to develop, implement, and maintain its fare payment system as part of "SEPTA Key 2.0".

SEPTA Key 2.0 is a next-generation, multimodal fare payment system intended to improve passenger's experience. SEPTA Key propelled SEPTA from an era of tokens and paper tickets to a reloadable, contactless chip card that offers a host of options for seamless travel and self-service flexibility. Now, more than a decade after its design, the current SEPTA Key data-processing software is due for an upgrade to meet the expectations of today, and tomorrow.

SEPTA Key 2.0 upgrades include:

- New and better options to pay: Using a smartphone, contactless debit or credit card, or wearable device;
- Convenience of paying for multiple riders at the same time with the same fare media;
- Expanding the retail network to provide riders with more locations to purchase fares;
- Automatic, real-time updates to customer accounts and fare media;
- Integration with regional partners and third party-issued fare media;
- Flexible fare structure to make it easier for customers to obtain the best fare possible;
- Modernizing the website, mobile app, and communication channels.

Interested parties must submit their proposals by July 14. For more information, please visit: <u>https://www5.septa.org/business/procurement/bids/key-2-0-fare-payment-system/</u>. SEPTA PRESS RELEASE, April 20

Broad Street Line Improvement Project

SEPTA awarded a contract to advance accessibility improvements at three subway stations. Michael Baker International, Inc. will do architectural, design and construction-related services for the Logan, Wyoming, and Hunting Park Stations on the Broad Street Line.

These stations were built decades before the enactment of the Americans with Disabilities Act (ADA) and are currently only accessible via stairs. Thanks to federal infrastructure funding, SEPTA is committed to making all stations on the Broad Street Line and Market-Frankford Line accessible.

The \$6,542,831 contract with Michael Baker will progress the design of Logan, Wyoming, and Hunting Park Stations to 100 percent. Once design is completed, SEPTA can advance on the construction phase. Improvements that will make these stations fully ADA accessible and in a state of good repair include elevator installation; platform renovation; new signage, lighting, and security cameras; and waterproofing.

SEPTA has prioritized accessibility on the Broad Street Line in its 12-Year Capital Program. In addition to the three Broad Street Line stations that will advance with this Board approval, SEPTA is nearly finished with an ADA improvement project at Susquehanna-Dauphin Station, and construction is underway at Tasker-Morris Station. SEPTA PRESS RELEASE, April 27

PORTLAND, OREGON

Additional Streetcars Arrive

Brookville Equipment Corporation delivered the first of three



new Liberty NXT Streetcars to Portland Streetcar, expanding their fleet and allowing for more frequent and reliable service.

The 66-foot-long vehicles are part of a \$13.6 million contract for the design and build of the streetcars as part of a joint procurement with Sound Transit.



New Liberty NXT streetcar for Portland. Brookville photo

The Portland Streetcars will include an eight-foot-wide car body with seating for up to 26 passengers, including four accessibility seats for passengers with bikes, wheelchairs, and the ability to comfortably transport more than 100 passengers. The new fleet will be ADA compliant with deployable bridge plates for easy boarding and nearly 70 percent low-floor available standing area.

Brookville will be delivering the remaining two vehicles in the coming months.

BROOKVILLE PRESS RELEASE, April 3

WASHINGTON, D.C.

Yellow Line to Reopen

The Washington Metropolitan Area Transit Authority (WMATA) is reopening its Yellow Line on May 7, beginning with the start of rail service at 7 AM. The reopening will mark the completion of extensive rehabilitation work on the Yellow Line tunnel and bridge between Pentagon and L'Enfant Plaza stations.

Following eight months of construction for safety critical repairs, riders will once again have a reliable and convenient connection across the Potomac River between Virginia and Washington, D.C., instead of only using the Blue Line. This will reduce travel times by as much as 15 minutes and give customers back valuable time.

Initially, trains will run every eight minutes weekdays and every 12 minutes after 9:30 PM and on weekends between Huntington and Mount Vernon Square. Blue+ service that has been operating between Huntington and New Carrollton will be discontinued once the Yellow Line reopens. Construction crews have worked around the clock since September to mitigate water intrusion in the decades-old, steel-lined tunnel and replace aging bridge bearings and expansion joints. The work included replacing over 1,000 individual steel plates held together by more than 12,000 bolts in the tunnel and replacing 88 bearings on the bridge. The project also upgraded the fire suppression system on the 3,000-foot bridge and removed and replaced miles of critical communications cables used by multiple regional partners.

WMATA's Fiscal Year (FY) 2024 budget includes a proposal to increase service in the downtown core service area by improving frequency on the Green and Yellow lines. To do so, WMATA would turn back Yellow Line trains at Mount Vernon Square, meaning Yellow Line trains would operate between Huntington and Mount Vernon Square with service every six minutes. Green Line service would also improve from every eight to six minutes. Service from Mount Vernon Square to Greenbelt would continue to be provided by the Green Line.

Under this proposal, 75 percent of Green and Yellow line customers would see more frequent service all day. Riders at the busiest stations in the downtown core service area could catch a train every three minutes, reducing wait times by up to 50 percent. Green Line frequency improvements would also benefit customers who use the southern part of the Green Line or access events and games at Navy Yard and Waterfront stations. If approved by WMATA's Board of Directors, the improved service frequencies and other fare and service changes would begin later in 2023 as part of WMATA's FY 2024.

Over the course of the eight-month shutdown, WMATA's shuttles have provided more than 821,000 trips for riders impacted by the Yellow Line closure. Shuttle routes that have operated between Crystal City and L'Enfant Plaza and Pentagon and Archives will be discontinued with the start of Yellow Line service on May 7. Bus service between Mount Vernon and Potomac Park will continue using the existing schedule until new Route 11Y service begins on June 26. MASS TRANSIT, April 5

7000-Series Cars Update

Metro announced concurrence from the Washington Metrorail Safety Commission (WMSC) that allows Metro to move to the final phase of its 7000-series Return to Service Plan. Under the new plan details, the operations team will implement a 15-day manual measurement interval with a path to progress to a longer measurement period in the future.

The new 15-day process comes as a result of data analysis combined with operational considerations that will make more trains available to meet the May 7 service schedule, which coincides with the return of the Yellow Line and allows for the training of additional rail operators.

Metro continues to work collaboratively with the WMSC to advance use of the Automated Wayside (Drive-Thru) Inspection System and increase the wheelset interference fit and press tonnage plan, both of which will require Safety Certification and separate concurrence from the WMSC. WMATA PRESS RELEASE, April 12

Potomac Yard Station Opening Soon

Sticking to a timeline announced in December 2022, WMATA will open the Potomac Yard station on May 19.

The infill station, WMATA's second ever, is in Alexandria, Va., between Washington National Airport and Braddock Road stations and will be served by Metrorail's Blue and Yellow lines.

Alexandria initiated the project and funded it through tax revenues and developer contributions generated by planned new development in the Potomac Yard neighborhood, as well as state grants, loans and regional sources. The Potomac Yard Station sits in Alexandria's fastest growing area and its opening will provide the city with enhanced transit connectivity.

The project is opening following two high profile delays. The first occurred in the summer of 2021 when WMATA said the Automatic Train Control (ATC) systems required a redesign to ensure safe operations of trains. A second delay occurred during tie-in work in the fall of 2022 when soil issues were found to affect the structural stability of the ground beneath the tracks. The fix to reinforce the ground included excavating additional soil beneath 1,400 feet of track and installing new subgrade materials to provide the required stability.

Trains are currently operating through the station without stopping. WMATA continues working collaboratively with the city of Alexandria and the contractor to complete station construction. In addition, WMATA and its safety partners will complete critical safety reviews and provide staff training prior to opening for passenger service on May 19. MASS TRANSIT, April 20

International

ANKARA

Metro Line M4 Extension Opens

The Ankara metro network has grown by 3.3 kilometers (2.1 miles) with the opening of an extension to line M4 that runs from Atatürk Cultural Center (AKM) to Kizilay in the center of the Turkish capital.

The extension has two intermediate stations at Gar and Adliye. Gar is close to Maltepe station on the Ankaray light metro, and to Ankara's main railway station on the Başkentray commuter rail line from Sincan to Kayaş.

At Kizilay there is interchange with metro line M1 as well as the Ankaray line. It is expected that the extension will serve 600,000 passengers a day, with trains operating at up to 80 kph (50 mph). The project has included the construction of a 22,000 sq. meter (72,178 sq. foot) car park at AKM station with space for 335 vehicles.

The line M4 extension brings the total length of Ankara's metro network to 44.5 kilometers (27.7 miles). INTERNATIONAL RAILWAY JOURNAL, April 20

BESANÇON/BREST/TOULOUSE

Joint Order for 22 Alstom LRVs

THE transport authorities of Toulouse, Brest and Besançon have awarded Alstom a contract for the manufacture of a new generation of LRVs for the three French cities.

The framework agreement has a term of eight years and comprises a minimum order for 22 LRVs, which will be based on the low-floor Citadis platform but will incorporate technology that will reduce energy consumption by at least 25 percent compared with the current vehicles in service.

The joint order will comprise nine vehicles for Toulouse, eight for Brest and five for Besançon, and includes an option for further vehicles to be ordered. The first deliveries are expected to arrive in Besançon in March 2025, with entry into service scheduled for September 2025.

The first deliveries of LRVs for Brest will be in July 2025, with commissioning due to take place in January 2026. The new LRVs for Toulouse are expected to be delivered in January 2026, and enter service in September of the same year.

The reduction in energy consumption will be achieved thanks to new traction motors, efficient management of heating and air-conditioning and use of LED lighting throughout. The new LRVs will also be equipped with features reducing maintenance requirements by 18 percent during their estimated 30 years in service, and are designed to be 95 percent recyclable and 99 percent reusable at the end of their working life.

The reduction in maintenance requirements will be achieved by requiring a smaller number of individual spare parts, improved accessibility of components, and sensors distributed throughout the vehicles to allow remote diagnostics and helping to reduce the time LRVs are out of service.



Rendering of Alstom's Citadis in Brest's livery. Alstom

The three cities have joined forces in making the joint order for LRVs to optimize costs and the same objective has led to Alstom proposing variants on its Citadis LRVs which have already been delivered to 70 cities in 20 countries. In France, 25 cities have ordered Citadis LRVs, including Besançon.

With a length of 32.5 meters (107 feet) and a width of 2.4 meters (eight feet), the new LRVs have four 1.3 meter ($4\frac{1}{4}$



feet)-wide double doors together with two single doors per side. Each LRV will provide capacity for 201 passengers.

In compliance with EU accessibility regulations, the LRVs will be equipped with door-opening buttons at the correct height, wider seats and areas reserved for wheelchair users and pushchairs. The interiors will be equipped with CCTV and passenger information screens.

Nine Alstom sites in France will be involved in delivering the joint order: La Rochelle will undertake design and LRV assembly; Le Creusot will produce the bogies; Ornans will manufacture the traction motors; Villeurbanne will supply onboard electronics and cyber security systems; Aix-en-Provence will supply tachometer units; Sens, Gennevilliers and Saint-Florentin will supply brake discs and linings; and Saint-Ouen will undertake design work.

INTERNATIONAL RAILWAY JOURNAL, April 28

BIRMINGHAM

Testing Underway on Wolverhampton Line Extension

Midland Metro Alliance has commenced vehicle testing on the Wolverhampton City Centre Metro extension tram line.

With testing and commissioning now underway on the newly laid track, a tram traveled along Pipers Row and Railway Drive for the first time on April 3.

As testing continues, additional trams will operate on the route over the next few weeks in preparation for the launch of passenger services in June. RAILWAY-NEWS, April 6



Flanked by a team of engineers, the tram made its way from The Royal tram stop on the current network, through Pipers Row to the end of the new line at Wolverhampton's revitalized railway station. Midland Metro Alliance photo

CRAIOVA

Twist Tram Enters Service

The first of 17 Twist trams being supplied by Pesa Bydgoszcz has entered service in Craiova.

The three-section trams are 27 meters (88 feet) long with a capacity of 218 passengers, including 58 seated, and have a maximum speed of 75 kph (47 mph). Tatra-Yug was initially named as winner of the tender, but after an appeal from Pesa the firm was disqualified from the competition and the contract was awarded to the Polish company in July 2021.



Brand-new Twist 145N 1008 (PESA, 2023) is seen on Bulevardul Nicolae Titulescu on April 14. Andrei Rosu photo

Deliveries began in December 2022 and are scheduled to be completed by June. A total of 10 trams had arrived by the time the first entered service on March 16 following 500 kilometers (311 miles) of test running. METRO REPORT INTERNATIONAL, April 6

CZECH REPUBLIC

First BEMUs Ordered

České dráhy (Czech National Railway) signed a contract with Škoda Transportation for the delivery of four battery electric multiple units (BEMUs). An annex to a Škoda Group framework contract for electric units, published by the operator, states that the vehicles will be delivered for trial operation in the Moravian–Silesian Region by the end of November 2024.

These are the first BEMUs for both České dráhy and Škoda Transportation; they will be used on the S8 line Bohumín-Ostrava-Studénka-Štramberk-Veřovice, as required by the Moravian-Silesian Region.



Rendering of Škoda battery electric multiple unit. Škoda Transportation



There was no competition for the purchase. České dráhy used an existing contract for the purchase of EMU 160 electric units. Some manufacturers had indicated that they would object to such a change in the subject of the contract, but in the end, according to ČD, this did not happen.

A BEMU 160 will cost €6.5 million, i.e. €1.5 million more than the price of an EMU. In other words, converting four EMUs to BEMUs will cost the operator more than one electric unit. A higher price per kilometer paid by the Moravian–Silesian Region will cover the difference. The region can buy these units from the operator before the contract with the operator expires. CEE TRANSPORT, April 20

INDUSTRY

CAF Secures First Coradia Polyvalent Order

CAF has confirmed orders worth €161 million from the French region of Nouvelle-Aquitaine and from Senegal for Coradia Polyvalent regional trains, the first since the Spanish firm acquired the train platform, its backlog of orders and the associated manufacturing plant at Reichshoffen in France from Alstom.

The French region has acquired 11 four-car trains and Senegal's Agency for the Promotion of Investment and Major Works (APIX) has ordered seven four-car trains. Construction will be carried out in consortium with Alstom, which will supply equipment for the trains with CAF performing design and assembly.



Rendering of Coradia Polyvalent for Senegal. CAF

Alstom provided 15 160kph (99 mph) bi-mode diesel and 25kV ac electric multiple units for the 57 kilometer (35 mile) Dakar RER line in Senegal, while the manufacturer supplied more than 300 Coradia Polyvalent trains to the French regions.

CAF says the orders, both of which are options under existing contracts, are the first in a series of upcoming Coradia Polyvalent projects.

The company adds that the deals have increased its order backlog in France to ≤ 2.4 billion, an all-time high, which is equivalent to 18 percent of the group's total backlog.

Among the orders for Coradia Polyvalent trains in France are 146 trains for Paris RER Line B, and 28 inter-city trains for French National Railways to operate on the Paris-Clermont-Ferrand and Paris-Limoges-Toulouse lines. CAF is also supplying LRVs to Montpellier and Marseille.

CAF agreed to purchase the Coradia Polyvalent platform and the production site in Reichshoffen as well as the Talent 3 platform and associated manufacturing facilities in Heningsdorf, Germany, in 2021. The deal was confirmed last year. Alstom was required to undertake the divestment as a condition of its deal to acquire Bombardier Transportation. INTERNATIONAL RAILWAY JOURNAL, April 3

LISBOA

Orbital Metro Link

Metropolitano de Lisboa has awarded a €70 million contract to a joint venture of Comsa Corporación and Zagope Construction & Engineering on April 13 to build Lot 4 of the connecting link between the capital's Green (C) and Yellow (B) metro lines.

Lot 4 covers railway system works on the 1.9-kilometer (1.2-mile) link which will connect Cais do Sodré on the Green Line with Rato on the Yellow. This will allow the two lines to be run as a circular route.



Map of Lisboa's Metro showing the connection to form a loop, in dashed light green. Urban Rail News

The contract covers the supply of railway equipment, trackwork, electrical equipment, signaling, telecommunications, ticketing equipment and construction of two ventilation shafts. Construction and fit-out of two intermediate stations at Estrela and Santos is also in the scope, as is a new concourse at Cais de Sodré.

Lots 1 and 2 of the orbital line program were awarded in May 2020 to Zagope. These packages covered civil works on the Rato to Santos and Santos to Cais do Sodré sections of the future ring line. A third contract covered work to rebuild the elevated Campo Grande interchange station to allow through running on the northern section of the loop as well.

Metropolitano de Lisboa expects the connecting link to open next year. After completion, trains will run in a loop in both directions through Cais do Sodré and Campo Grande,



before continuing off the circle to serve the two lines' current termini of Odivelas and Telheiras.

The project has a total cost of €210 million, of which €127 million is being funded through the national government's environmental budget and €83 million is provided by the EU Cohesion Fund.

METRO REPORT INTERNATIONAL, April 19

LONDON

Future Rail Operating Contracts

Transport for London is seeking industry feedback to inform its plans for the future procurement of operators for Docklands Light Railway, Elizabeth Line and London Overground services.

TfL is seeking to understand the current supply market and help it structure its tendering requirements. An industry briefing day could be held in late May or early June.

Operation of the automated light metro would be procured through TfL subsidiary Docklands Light Railway Ltd under the Utilities Contracts Regulations 2016.

The two suburban rail operating packages would be procured through TfL's Rail for London Ltd subsidiary under regulation 1370/2007, which forms part of retained EU law.

Current operating contracts

Service	Operator	End Date	
Elizabeth Line	MTR Elizabeth Line	May 25, 2025	
Docklands Light Railway	KeolisAmey Docklands (70:30 joint venture)	March 31, 2025	
London Overground	Arriva Rail London	April 28, 2024	

RAIL BUSINESS UK, April 11

PARIS

Grand Paris Express Line 17 Phase 2 Progress

Project manager Société du Grand Paris (SGP) has awarded a contract to a consortium of Colas Rail and Alstom to supply track and overhead catenary systems and equipment for Phase 2 of Grand Paris Express Metro's Line 17.

The 26.5-kilometer (16.5-mile), nine-station Line 17 will cross 13 municipalities, serving an estimated 565,000 passengers and providing an estimated end-to-end journey time of less than 25 minutes. The line is expected to open in stages between 2026 and 2030.

The Colas Rail and Alstom consortium will be responsible for supplying and laying a total of 10 kilometers (6.2 miles) of track, constructing the rigid overhead catenary system and installing linear equipment over the section of line between Le Bourget Airport and Parc des Expositions, near Roissy. The project will involve working on a three-kilometer (1.9-mile) section of line in a tunnel, on embankments and on viaducts. The Phase 2 project will involve up to 200 employees and work is expected to begin by mid-2024 and be completed in 2028. Colas Rail and Alstom have previously worked together on Grand Paris Express when in 2018 they won the first systems contract for the Line 15 Southeast section, with responsibility for supply, installation and commissioning of track, overhead line and linear equipment.

Colas Rail, the consortium leader, says Line 15 was used as an opportunity to test different processes and working methods to find the optimum solutions for future contracts. This included building a full-scale model of the Line 15 tunnel, enabling its teams to better visualize the layout of the tunneling equipment required.



Map showing the Grand Paris Express Lines 15 (red) and 17 (green). Setec Opency

Other innovations the consortium has introduced include an ECTR gantry for spacing and squaring operations on ties to increase productivity, allowing construction teams to complete 250 meters (820 feet) of tracklaying a day compared to 150 meters (492 feet) with traditional equipment. The partners have also developed a works train to install rigid catenary equipment over long distances in tunnels.

Colas Rail is also the leader of a 50:50 consortium with Eiffage Énergie Systèmes that won a €26 million SGP traction equipment and works contract for power systems on Grand Paris Express Line 18.

INTERNATIONAL RAILWAY JOURNAL, April 4

Additional RER NG Trains Ordered

French National Railways' (SNCF) passenger business, SNCF Voyageurs, has signed a €1 billion contract with Alstom for the supply of 60 additional RER New Generation (NG) EMUs under an existing framework contract to replace 40-year-old trains in use on lines RER lines D and E of the Paris commuter network.

Financed 100 percent by transport authority Île-de-France Mobilités, this order represents the first option under a framework contract signed in 2017 between SNCF Voyageurs and Alstom for an estimated total order of 255 trains for the



two RER lines. The first part of the order was confirmed in 2018 and comprised 56 112-meter-long (367-foot) and 15 130-meter-long (427-foot) trains, giving a total of 71 trains with an estimated value of €1.55 billion. This new order has brought that total up to 131 trains.

The RER NG EMUs have been designed to optimize capacity and passenger flows on services in the Île-de-France region. The longer seven-car trains have capacity for up to 1,860 passengers. Features helping to ease passenger flow include open gangways and wide doors to aid accessibility.

The train interiors comprise zoned areas for passengers to stand if only traveling on short journeys, areas of mixed seating and standing areas for journeys of less than 20 minutes, and upper-deck areas with comfortable seating for longer journeys. In addition, the end cars of each train have dedicated areas and ramps for passengers in wheelchairs.



The RER NG trainset at the Centre d'Essais Ferroviaires (Railway testing center) in Valenciennes. Samuel Dhote/Alstom photo

Other features include air-conditioning, LED lighting which can be adapted to the time of day or when stabled at stations, USB charging ports and passenger information screens.

Trials of the first of the RER NG trains to be delivered are currently taking place on the Île-de-France network, enabling SNCF Voyageurs to carry out the first integration tests on RER Line E. Alstom says testing on RER Line D will start soon.

It was in November 2016 when it was announced that a consortium of Alstom and Bombardier was the only bidder in the running for a contract to supply up to 371 new trains for the Paris RER network after CAF was eliminated from the competition. The contract for the consortium to supply the RER NG fleet at that time had an estimated value of around €3.7 billion.

In June 2018 Île-de-France Mobilités unveiled the design for the RER NG trains, and testing of the first set began in October 2019, with an official unveiling taking place in September 2020. INTERNATIONAL RAILWAY JOURNAL, April 26

QUÉBEC

LRV Supply and Maintenance Contract Awarded

Québec City has confirmed that it has awarded a contract to Alstom for the supply of 34 low-floor Citadis LRVs for the city's light rail project, with the vehicles specially adapted to the eastern Canadian region's climate and topography.

The contract, with a total value of around CA\$1.34 billion, includes the design and supply of the rolling stock together with 30 years' maintenance and includes an option for a maximum of five LRVs including maintenance.

In March Québec City announced that it had selected Alstom as its preferred bidder to design, build and maintain the fleet of low-floor LRVs for the city's CA\$3.96 billion (\$2.9 billion) light rail project.

During the tendering process the authority specified that it required 43-meter-long (141-foot) bi-directional LRVs. Alstom was the only manufacturer to progress to the final stage of the tendering process after Siemens withdrew in 2022.

Alstom says the vehicles will be developed by engineers at its St-Bruno-de-Montarville site on Montreal's south shore. The vehicles will then be assembled at its La Pocatière site formerly a Bombardier plant — also in Québec.

The contract will include maintaining the LRVs for 30 years under the supervision of Quebec City public transport authority, Capital Transport Network. The climate control system installed on the new fleet will be adapted to operate in the Québec region's extreme winter cold and its high humidity in summer.



View northwest of Québec's Rue de la Couronne at Rue Saint-Joseph Est with trams. Alstom rendering

The 19-kilometer (11.8-mile) light rail line will run from east to west across the city with 29 stops. A 1.8-kilometer (1.1-mile) section of the line will run under the city center in tunnel and opening of the complete line is expected to take place in 2028. INTERNATIONAL RAILWAY JOURNAL, April 25

ROTTERDAM

Line B Metro Extension Opens

The final 2.1-kilometer (1.3-mile) section of Rotterdamse Electrische Tram metro Line B to the seaside station at Hoek van Holland Strand has opened, enabling people to reach the beach from the center of Rotterdam in around 40 minutes.

The terminus has two tracks with a center platform. There is an initial service of three trains per hour on weekdays and



Saturday afternoons and half-hourly on Sundays and holidays.

The opening on a rainy March 31 completes the project to replace passenger trains with metro services on the Hoek van Holland line, which was once an important international rail route with connections to ferries.



Rotterdam Metro Line B at the new Hoek van Holland Strand station. Maurits van den Toorn photo

The previous Nederlandse Spoorwegen main line passenger services stopped at the end of March 2017 for what was initially planned as a six-month rebuilding. But metro services to Hoek van Holland Haven did not launch until September 2019.

Rebuilding the section from Hoek van Holland Haven to Strand and extending the line closer to the beach formed the next phase of the project. This took longer than expected, with the start of revenue services put back from the previously planned opening in summer 2022. METRO REPORT INTERNATIONAL, April 3

SPAIN

New High-Speed Services

Spanish high-speed open-access operator Iryo added Seville, Córdoba and Málaga to its network on March 31 with the launch of services from Madrid Atocha.

Trains are initially operating twice a day in each direction on both the Madrid-Seville and Madrid-Málaga routes, all calling at Córdoba, where the routes to Seville and Málaga diverge.

Iryo says that the service frequency will gradually be increased until June 2, when there will be six trains in each direction on the Madrid-Seville route and five in each direction on the Madrid-Málaga route.

From June 2 two trains a day will also call at Antequera Santa Ana, between Córdoba and Málaga.

Iryo says that its services to these new destinations in Andalucía will carry around 2.5 million passengers a year over the coming years, generating tourist income of around €350 million a year.

Iryo started operation on November 25 2022 from Madrid to Zaragoza and Barcelona, followed on December 16, 2022

with services from Madrid to Valencia and Cuenca.

From June 2 it will operate from Madrid to Albacete and Alicante, and from June 15 Iryo services will also call at Camp de Tarragona on the Madrid-Barcelona route.

National operator Renfe has announced it will be introducing low-cost Avlo services on the Madrid-Seville and Madrid-Málaga lines on June 1.

There will be one service in each direction per day on both routes, leaving Seville and Málaga early in the morning and returning from Madrid in the afternoon.

The Avlo services will call at all intermediate stations, namely Antequera Santa Ana and Puente Genil between Málaga and Córdoba, as well as Villanueva de Córdoba, Puertollano and Ciudad Real between Córdoba and Madrid.

Each Avlo train has a total of 436 seats plus two spaces for passengers with reduced mobility. Bookings will open on April 12 for travel in Avlo's single class, Basic. INTERNATIONAL RAILWAY JOURNAL, April 5

STRASBOURG

New LRVs Ordered

Strasbourg city council and Strasbourg Transport (CTS) have awarded Alstom an eight-year, €250 million framework contract for the supply of a minimum of 22 Citadis LRVs. The first order is for 12 vehicles, with 10 to follow in a second phase. Additional LRVs may be ordered during the life of the framework agreement to meet demand.



Citadis 403NG 3036, one of Strasbourg's newest trams, built at the end of 2021, is seen operating on Route A in the Rue de la Division Leclerc on June 5, 2022. František Vaňásek photo

Delivery of the first batch of LRVs will start in March 2025 and the vehicles will enter service at the end of that year.

The Citadis LRVs will be 45 meters (148 feet) long, 2.4 meters (seven feet 10½ inches) wide and accommodate up to 286 passengers. They will have eight 1.3-meter-wide (4¼ foot) double doors per side and areas reserved for wheelchair users and pushchairs. The air-conditioned LRVs will be fitted with a dynamic passenger information system and CCTV.



The LRVs will be approved in accordance with German BOStrab regulations for cross-border operation into Germany.

Alstom says the new LRVs will reduce energy consumption by at least 20 percent compared with the existing CTS fleet, thanks to a new design of traction system, better management of air-conditioning and heating and 100 percent LED lighting.

The new Citadis LRVs are designed to require 30 percent less maintenance and will need fewer spare parts. Access to components has been improved and sensors will be fitted throughout the vehicles to facilitate remote diagnosis of equipment failures. INTERNATIONAL RAILWAY JOURNAL, April 19

TORONTO

Ontario Line Progress

Infrastructure Ontario (IO) and Metrolinx have issued Requests for Proposals (RFP) for two major works packages for the Ontario Line: Pape Tunnel and Underground Stations and the Elevated Guideway and Stations contracts.

Six teams have been shortlisted and invited to bid on the packages, which are being delivered using a progressive design-build delivery model. Shortlisted teams were selected based on criteria identified in the Request for Qualifications process that began in November 2022, which included their design and construction experience.

Teams will begin preparing proposals that detail how they will deliver these projects. Proposals will be evaluated by IO and Metrolinx, and the top-ranked team for each project will work collaboratively with Metrolinx during a development phase, expected to start in 2024. Once the development phase is completed, Metrolinx will have the option to sign a contract with the successful team.

The Ontario Line will be a 15.6-kilometer (9.7-mile) new rapid transit line in Toronto running between the Ontario Science Center and Exhibition/Ontario Place, with 15 stations along the way. The new line will provide more than 40 connections to other subway, bus, streetcar, light-rail transit and regional rail services.

The Ontario Line project is being delivered through various public-private-partnership, progressive design-build and traditional procurement contracts, which are all being staged accordingly for their successful delivery. This segment of the project is being delivered through four packages of work, two major works contracts as noted above and two smaller early works contracts.

MASS TRANSIT, April 6

Finch West Progress

Metrolinx has made substantial progress on the Finch West LRT project, including on the guideway, at the two terminus stations and at the maintenance and storage facility.

Structural work wrapped up in late 2022 at the line's two underground stations, Finch West and Humber College, marking the start of the interior fit-out. Inside Finch West Station progress has been made on tiling, HVAC installation and drywalling. Outside, the team is in the final stages on the portal that will guide light-rail vehicles (LRVs) in and out of the station.

At Humber College Station, a series of tarps have kept out the winter cold to allow drywalling, fireproofing and painting to take place. In early March, installation of 153 glass panes began that will line interior and exterior facades.

Outside of Humber College Station, foundation work has begun for a 200-meter (0.12-mile) covered walkway that will connect the station to Humber College.

Progress continues to be made on the LRV fleet, as 15 of 18 LRVs have now been delivered, with the final three slated for delivery by mid-2023.

In the maintenance and storage facility yard and on the test track between York Gate Boulevard and Sentinel Road, vehicle testing has been happening regularly.

At the end of March, here is the progress that has been made on the 11-kilometer (6.83-mile) guideway:

- Guideway base slab: 92 percent poured;
- · Guideway track slab: 74 percent poured;
- · Duct banks: 87 percent installed;
- Overhead catenary poles: 75 percent installed;
- Rail installation: 50 percent installed (not including MSF);
- Stop Canopies: 56 of 116 installed;
- Manhole refurbishment: 100 percent complete (41 total). In addition, some major upgrades are coming to the Finch West community through the project's guideway works.

With the completion of manhole refurbishment, brand new fiber-optic cabling (commonly used for internet service) was installed that can be used by utility providers along the Finch West corridor.

At Highway 400, the first new permanent traffic lights were also installed, replacing the temporary ones used during construction. This is the first of dozens of traffic light installations that are scheduled to take place over the spring and summer.

Metrolinx installed a unique water management system to help deal with surges from local waterways. At Finch Avenue West and Tobermory Road, the team buried a StormBrixx water management system underground. This innovative system captures excess water during heavy rainfall and snowmelt and automatically releases it into the nearby culvert, helping to regulate water flow and prevent flooding nearby. MASS TRANSIT, April 18

TUNIS

First New Electrified Suburban Railway

Tunisia's first new electrified suburban railway line, the Tunis Rapid Rail Network (RFR) Line E, has welcomed its first passengers, marking an important step in a 13-year project to improve public transport in the Tunisian capital.

The new line's 6.3-kilometer (3.9-mile) long Phase 1 was officially inaugurated on March 20. The line serves the capital's southwestern districts, initially linking the main Tunis station, in the city center's Place de Barcelone, to the



suburban Bougatfa station, with intermediate stations at Saida Manoubia, Annajah, Etayaran, Ezzouhour and Hrairia. A future phase will extend Line E from Bougatfa to Sijoumi with six additional stations.

Planning of the new line began in 2007 with Systra leading a project management consortium formed with Studi under the supervision of Tunisian National Railways (SNCFT) with financing from the World Bank, the European Investment Bank (EIB) and the French Development Agency (AFD).



Hyundai Rotem EMUs are used on the new Tunis RFR Line E. Pinterest

Construction of the new line was undertaken by Société Générale d'Entreprise de Matériel et de Travaux (Somatra-Get), which received the contract in November 2011 and began the construction work the following month. The elevated section of line was built with two pre-stressed U-shaped viaducts of more than one kilometer (0.6 miles) in length, reducing the amount of concrete used. Other major structures include a 280 meter (918 foot) tunnel at Saida Manoubia, a rolling stock maintenance depot at Sidi Fathallah and a traction power supply substation at Gobaa, Manouba.

Siemens, as a member of a consortium with Colas Rail and the local Somatra construction company, has equipped the line with ETCS Level 1, 25kV traction power supply system and a centralized control station. The line is also equipped with GSM-R. The consortium will also equip the 12.2-kilometer (7.6-mile) Line D, which will follow the route of an existing SNCFT line.

Inauguration of Line E was repeatedly delayed by the effects of the COVID-19 pandemic, an official launch of the first train was held in July 2021, but the start of public services was held back until March 2023.

Trains on Line E operate at an average speed of 35 kph (21.7 mph) at seven-minute intervals, with a capacity per train of 2,408 passengers.

SNCFT awarded Hyundai Rotem a Dinars 416 million (\$147 million) contract to supply 28 four-car trains for the RFR in October 2018, with the first two EMUs completed in Korea in August 2019.

It is envisaged that the Tunis RFR will eventually have five lines totaling 85 kilometers (53 miles).

INTERNATIONAL RAILWAY JOURNAL, April 14

TURKEY

Ankara-Sivas High-Speed Line Opens

Official inauguration ceremonies have taken place to mark the opening of the Ankara-Sivas high-speed line.

After the departure of the first train from Ankara High Speed Railway Station, a series of opening ceremonies was held at Kirikkale, Yozgat and Sivas stations.

Travel on the new line will be free for all citizens until the end of May.

Trains on the Ankara-Silvas high-speed line are able to operate at up to 250 kph (155 mph), and the line has reduced the distance by rail between the two cities from 603 kilometers (375 miles) to 405 kilometers (252 miles), with the total journey time cut to two hours, and that from Ankara to Yozgat to one hour. There are eight stations at Elmadağ, Kırıkkale, Yerköy, Yozgat, Sorgun, Akdağmadeni, Yıldızeli and Sivas and the line will serve an estimated 1.4 million people living in the provinces of Kırıkkale, Yozgat and Sivas.



Siemens Velaro TR HT 80004 at the Ankara Tren Garı (ATG) terminal in Ankara. Wikimedia Commons

Civil engineering for the project, which passes through difficult terrain, has included the construction of 49 tunnels with a total length of 66 kilometers (41 miles), the longest being a 5.12 kilometer (3.2 miles) tunnel at Akdağmadeni. The high-speed line also has 49 viaducts with a total length of 27.2 kilometers (16.9 miles). The longest viaduct at Çerikli-Kırıkkale is 2.22 kilometers (1.4 miles) long, while the highest at Elmadağ has piers which are 89 meters (292 feet) high, making it the highest such structure in Turkey.

The Ankara-Sivas project has seen the first use of domestically-produced rail on a high-speed line in Turkey, with a total of 1,676 kilometers (1,041 miles) of rail installed.

The line has also seen the country's first use of ballastless, concrete slab track over 138 kilometers (85.7 miles) of the route, especially in tunnels. Also as part of the project, an ice prevention and defrosting facility was built in Sivas. INTERNATIONAL RAILWAY JOURNAL, April 27

Book Review

By Bob Wright

Frankford's Elevated Railway and its Predecessors

by Harry Garforth, published in 2022, softcover, 167 pages, with maps and photos

November 5, 2022 marked the 100th anniversary of the Frankford El, a transit line which transformed both the eponymous community that it immediately served as well as the northeastern reaches of the City of Philadelphia beyond the El's terminus at Bridge Street. While the completion and opening of the El appears to be the "jumping off" point of this chronicling of its history, Mr. Garforth starts the story city streets caused its terminal to be located two miles short of its intended goal, in Kensington. This spawned the development of horse-drawn coach routes to take passengers for the last part of their journeys into the City proper, and several competing companies began operating on different north-south streets to provide this service. By the 1850s rails were laid to avoid the issues with uneven and missing pavement, and the coach routes morphed into horsecar lines. The P&T would later come under the Pennsylvania Railroad (PRR) umbrella and it, with the new Connecting Railroad being built by PRR, was able to offer a single-seat ride directly

by taking the reader nearly 100 years before the El began service to fully explain the unique character of the Frankford neighborhood and the many and diverse solutions put forth for its transportation needs.

Frankford was one of many outposts and settlements scattered throughout what was originally Philadelphia County since its founding in the late 1600s. Frankford's location on the King's Highway, the major connection to Trenton and New York City to the north, gave it particular significance. Over time the segment of the King's Highway in the neighborhood became known as Frankford Avenue and became the main street of the community. Its alignment to the south took it on a somewhat direct route to the City of Philadelphia proper roughly seven



into the City and PRR's Broad Street Station. (The P&T and the Connecting Railroad now form part of Amtrak's Northeast Corridor through North and Northeast Philadelphia.) In the late 1900s the first elevated was constructed by PRR to take the railroad alignment headed to the Kensington terminal out of Trenton Avenue for its last two miles and avoid grade crossings, following the City's program of grade crossing removal.

Not to be outdone, the Philadelphia and Reading Railroad, recognizing the growing patronage and potential of travelers between Frankford and the City, particularly after the consolidation of the City and County of Philadelphia in 1854, established its own Frankford Branch. This had a connection with its Newtown Line and traveled 2½ miles

miles away. With the county seat being in the Old City (later to take on the title of Center City, gaining that designation in the early 1960s), communication and connection between the City and the community was critical.

Mr. Garforth begins the story with the formation of the Philadelphia and Trenton Railroad (P&T) in the 1830s, a line that skirted the eastern edge of Frankford and attempted to reach Old City, although opposition to railroads using directly into the heart of the community with a terminal on Frankford Avenue. Not long before that, the horsecar lines expanded northward from the PRR terminal in Kensington and provided their own services to Frankford, with some service converted to the use of steam dummies in the 1880s. The institution of relatively fast electric streetcars in 1894 spelled the end of the steam dummies. Thus, by the end of the 19th century, Frankford was well-served with two



main-line railroad services and what became three streetcar lines among which one could choose to travel to and from the City.



Short histories are provided on the development of these lines and sets the stage for the formation of the Philadelphia Rapid Transit Company (PRT), which took over the operation of streetcars and began planning a network of high-speed rapid transit lines to serve the City and supplement the lengthy streetcar trips. Although PRT financed and built the Market Street Subway-Elevated line, the City's initial rapid transit service, it looked to City government to help carry out the more ambitious subway and elevated network that would unfortunately never be realized. Among a handful of proposed subway/elevated routes in the early rapid transit plan offered by the City, the Frankford El, which tied into the Market Street line to attain its access into downtown, became only the second rapid transit line to serve the City upon its opening in 1922. Later in the 1920s, another trunk line (the Broad Street Subway, along the north-south "spine" of the City, along with two branches that eventually complemented it) would be the only additional service realized from the original plan, a situation that remains to this day.



Mr. Garforth notes the importance of the El to the community and adds information on connecting trolley routes in the Frankford area, including the Bustleton Surface Line, also built by the City, that opened simultaneously with the El. This trolley line stretched transit service further into the then-sparsely settled and developed spaces of the far reaches of Northeast Philadelphia. The remnants of another streetcar concern extending northward from the Frankford Depot at Bridge Street, the furthest northern extent of PRT's trolley lines into the community, would be merged into the PRT system not long after the El opened. One of its two lines would survive as PRT's Route 66, which became one of its heavier routes over time and remains as an electrically-powered route (trackless trolley) at present.



The book closes out with the 100th anniversary of the El and how transit has evolved and changed over time to continue to serve the heavily-developed northeastern section of the City, much of which became urbanized in the 1950s. Almost all of this is directly attributable to the existence of the El and transit service provided by the PRT and later Southeastern Pennsylvania Transportation Authority. It is a great chronicling of how the El came to be, following on the increasing needs for transportation in the Frankford community, and how this has all combined to result in a cohesive system that continues to provide for the neighborhood's transit needs today. A number of good photos complement the descriptive text.



Mr. Garforth chronicles the stories of the various lines well and ties them together to show the transit history of the Frankford community well beyond the history of the El. This book is a must-read for those who enjoy transit history and it well illustrates the importance of transit in the growth and expansion of Philadelphia. It would certainly be a good addition to any fan's collection.

Travels with Jack May

Britain and the Baltics — Part XV

By Jack May (Photographs by the author)

Sunday, August 20 (continued)

After a quick turnaround at Rochdale Town Center I traveled directly back to Victoria and then transferred to a Bury tram, which I rode for six stops to Bowker Vale, one stop beyond Heaton Park station. I had been told that the walk was shorter from there to the park's tramway, which lays in the northeast quadrant of the grounds of the over 600-acre recreational facility. It was still a good 15-minute hike, almost a mile, but I was rewarded after I arrived, as the drizzle gave way to a sufficient period of sun for me to take some photos.



Blackpool replica open car 619 has taken its passengers about as far as they can go. Until 1934 these tracks continued onto Middleton Road, joining one of Manchester's tram lines. The designation, Thornton Gate, refers to a stop in Blackpool, not the iron fence behind the tram.

The tramway museum in Heaton Park is open only on Sundays, and today it was operating a single car over its line. I found the inner terminal and then, after paying for a roundtrip, rode tram 619 to the outer end, which is flush with a closed gate from the street and just past the museum's visitors center, shops (book and maintenance) and the main carhouse itself.

This end of the Heaton Park Tramway was originally a short section of private right-of-way used as a spur by Manchester Corporation Tramways from 1903 to 1934. Special excursion cars were operated to bring school children and others groups to Heaton Park on Sundays from throughout the city. Paved for bus use for a short period thereafter, in 1979 the founders of the museum were able to scrape off the tarmac and restore the rails, also extending them toward the center of the park so the line is now one kilometer long (see https://hptramway.co.uk/).

I found the museum members at the park to be quite friendly and accommodating. When I saw that double-ended car 96 was spotted in perfect sunlight for a photo, but its pole was facing the wrong way, I went over to the nearest volunteer and asked if it would be OK to reverse the pole. He immediately did so, introducing himself, and then after my photo took me for a tour of the entire operation, including the Lakeside carhouse (also called the "back shed"), located close to the other end of the line, which he opened for my inspection. I saw a large number of historic cars in both barns in various stages of maintenance and restoration. He told me that the organization's collection consists of about 14 trams, but not all are stored at the museum. From the knowledgeable details he provided (his name is Joe Savage), I suspect he is in charge of the mechanical end of the all-volunteer operation.



Hull tram 96 rests a on spur track leading into Heaton Museum's main carhouse and shop. The four-wheeler was built in 1901 by Hurst Nelson as an open-top double-decker. The upper level was removed in 1933 when the car was reconfigured for work service. The Hull streetcar system closed in favor of trolleybuses in 1945 and No. 96 was sold along with a number of passenger cars to the tramway in Leeds, where it was renumbered 6 and continued to serve until the system in that city was abandoned in 1959.

After this wonderful visit I hiked back to Metrolink, paying my respects to the geese, ducks and other birds bathing in ponds along the way, but this time I headed to the Heaton Park station, which I found to be just about equidistant from the inner end of the tram line as Bowker Vale (but much more scenic).

As soon as I got to the shelter of the tram stop, it began to rain again. I felt very fortunate that my itinerary was bestowed with good weather when I needed it. It was a quick ride to Piccadilly station, where I bailed out my



suitcase. Since it was about 4:30 in the afternoon and my train connection for Long Eaton wasn't due out until 5:46, I decided to have an early dinner, which I consumed within the station at a branch of the American chain, TGI Fridays.



Heaton Park's back shed hosts No. 173, a single truck double decker built by Brush for Manchester in 1901. Originally delivered with an open top, the tram's upper deck was later closed in. After being retired in 1931 it was sold and ended up being used as a garden shed for many years. The museum acquired the car and had it restored to its original condition.

Fully refreshed I boarded a very crowded DMU heading for Sheffield and eventually found a seat (my assigned one was already occupied). The train seemed to dawdle and didn't arrive in Sheffield until 6:43, seven minutes late. My connection, a London-bound train scheduled to leave at 6:47 (also East Midlands), was a few platforms away, so I scooted up, over and down, boarding it at 6:46. Of course the train didn't leave a minute later, as it waited for passengers that were not as fleet as I was. So we pulled out at 6:52, now five minutes late. My connection with a Skylink bus for East Midlands Airport via the Pegasus Business Park, where my Holiday Inn Express was located, was tight, so I hoped we could make up the time, but we drifted along and didn't arrive until 7:34, still five minutes late.

I had hoped there would be other passengers alighting and one could tell me where the bus stop was, but no such luck, I was alone. Upon reaching the foot of the stairs I had no idea whether to turn left or right. And the bus was due at 7:34. But there was no point of hurrying or panicking, while considering the situation I witnessed it glide by. I found the stop, 2¹/₂ blocks away, and now would have to wait for almost an hour, because Sunday evening bus service is not very frequent. Fortunately the stop had a shelter as it soon began to rain, but at least my luggage and I were protected. The area was totally quiet, hardly any traffic, road or foot. It was too dark to read, so I just stood there bored, pacing from one end of the shelter to the other. I was glad I ate dinner in Manchester, because there was absolutely nothing around. Finally at 8:36 the bus pulled up, but when I told the driver my destination was the Business Park, he said that this trip doesn't stop there. Fortunately, after arriving at the airport,

he told me to stay aboard and he would take me there. Very nice British hospitality for the three-minute trip. I contemplated writing to commend the driver, but then had second thoughts when I considered it possible that his thoughtful actions could get him into trouble with management, so I scotched that.



No. 619 was the car of the day, shuttling back and forth over the one-kilometer (0.6-mile) line. It was reconstructed from a Blackpool English Electric-built Railcoach (No. 282 from 1935) in 1987 to portray one of the three Vanguard trams built for the Blackpool and Fleetwood Tramroad in 1910. Before its final conversion it had been renumbered 619 (in 1968). Rebuilt for one-man operation in 1973, it ran regularly both before and after its 1987 reconstruction into this replica. Blackpool donated it to the Heaton Park Tramway in 2010.

Fortunately the hotel had not lost my reservation. But what else could go wrong? After I was settled in I went down to the desk and asked about a Business Center where I could print out my boarding pass. Ryanair charges €70 (about \$85!) if you don't bring a boarding pass to the airport, but it will not issue one if you don't select a seat (and I was too cheap to pay extra to do that) until 72 hours before the flight. I had no access to a computer on the Isle of Man, but I thought no problem, an airport hotel surely would provide its clientele with that necessity.

"No, we don't have computers for the public." Uh-oh. But the clerk clearly was using a computer and printer on her side of the counter, so I asked her if I could use that one. "No." "But I'll have to pay a penalty of €70 for nothing tomorrow morning." "Wait a minute, if you can email the boarding pass to the hotel I'll be able to print it out." Now I had to figure out how to do that using my new Samsung Android smartphone. Fortunately I had email and the internet to access the Ryanair site. As a result I was able to click the right buttons to tell its check-in program to email my boarding pass to me. It actually came, in the form of an attachment, and now all I had to do was forward it to the hotel. Thank goodness her printer wasn't broken. Now I could go to sleep without worrying.

To be continued in Part XVI.