



BULLETIN

Volume 66, Number 4 | April 2023

R-211 Begins Revenue Service

The first train of new R-211 cars went into revenue passenger service on the **A** line on Friday, March 10.

Let's take a look, though, at the sequence of events that led up to this historic occurrence.

First, it must be explained that each R-211 car is delivered via flatbed truck from Lincoln, Nebraska, to the South Brooklyn Railway (SBK). The cars are unloaded onto SBK tracks in the vicinity of Second Avenue and 39th Street. Once a five-car set is assembled on the SBK, Transit Authority diesel locomotives are dispatched from 38th Street Yard to pick the cars up and transport them to Coney Island Yard.

After some preliminary work is performed in Coney Island Barn, the cars are then transferred to Pitkin Yard.

The first five-car R-211A set consisting of car numbers 4060-4064 were transported from the SBK to Coney Island Yard on July 1, 2021. Before being transported on that day, a ceremony, which was extensively covered by the press, took place on SBK property with the cars in

the background. The second set, cars 4065-4069, were transported from the SBK on July 16, 2021.

For the next 20 months, these first 10 cars were extensively tested. This included clearance testing throughout the B Division (BMT and IND) and any necessary modifications were completed. Starting in August 2021, crew training slowly began, but that ramped up rapidly in the month prior to the first train entering revenue service.

The R-211A cars are different in many ways as compared to the R-160s and R-179s. There are eight CCTV cameras located in the passenger compartment of each car in addition to three additional CCTV cameras located in each operating cab.

To quicken passenger entry and exiting, the doors are much wider. Due to the larger door pockets, the picture windows between the sets of doors are much narrower than on the R-160s and R-179s. Also, when the doors are open, green lights are lit along the edges of the doorways. When the doors are closing, red lights blink along the
(continued on page 3)



Electric Railroaders Association

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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 <https://erausa.org-conventions-2023->.

July 29: Save the date! Staten Island Railway Clifton Shop Tour. Details will be announced soon.

Donations

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

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Monthly Zoom Meeting

Friday, April 21, 2023 at 7:30 PM.

Presenting This Month: Clark Frazier

Clark will be showing some of his most favorite slides, starting in 1956, of electric streetcars and interurbans. Locations all over the U.S., Canada and Mexico will be seen as well as Costa Rica and, in Europe, the Czech Republic, Portugal and Yugoslavia.

A native of central California, Clark graduated from the Massachusetts Institute of Technology with a master of science degree in transportation but spent most of his career in the field of information technology. He started taking color slides in 1956 and continued to do so until 2000. He has traveled extensively in Central and South America as well as Europe and Asia.

How to Join Our Zoom Meeting

A Zoom registration button will be posted on www.erausa.org about five days before Clark’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

The first revenue passenger trip with new R-211A subway cars rolls into Canal Street station at about 2:30 PM on Friday, March 10 on its way to Far Rockaway, Queens. Alex Martinez photo

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

Date	Country	City	Segment	Distance (miles)	Rail-Metro-Tram
3-1	Russia	Moscow	Line 11: Savyolovskaya to Elektrozavodskaya and Nizhegorodskaya to Kakhovskaya	11.7	M
3-2	Turkey	Kayseri	T3: Anafartalar to Kumsmall AVM	4.0	T
3-4	Poland	Gdansk	Ujescisko to Przemyska	1.1	T
"	Austria	Innsbruck	Line 5: Schützenstraße to Rum Bahnhof	0.8	T
3-16	Malaysia	Kuala Lumpur	Putrajaya Line: Kampung Batu to Putrajaya Sentral	24.0	M
3-17	China	Dalian	Line 5: Houguan to Hutun Xinqu	15.2	M
3-18	Japan	Yokohama	Sagami and Tokyu Railways: Hiyoshi to Hazawa Yokohama-kokudai	6.2	R
"	Iran	Tehran	Line 6: Tarbiat Modares University to Emam Hossein Line 7: Meydan-e San'at to Shahid Dadman	5.9 0.9	M
3-26	India	Bengaluru	Purple Line: Krishnarajapura to Whitefield (Kadugodi)	8.0	M
3-27	Japan	Fukuoka	Nanakuma Line: Tenjin-minami to Hakata	1.0	M
"	Spain	Málaga	L1: El Perchel to Atarazanas L2: El Perchel to Guadalmedina	0.7 0.4	T
3-31	Netherlands	Rotterdam	Hoek van Holland Haven to Hoek van Holland Strand	1.3	T

URBAN RAIL NEWS, MARCH 31

edges of the doorways. On the outside of the car, an LED destination sign is situated above the storm door at either end of the train. Also, large color-coded LED route signs are included in the same area where the route roll signs appear on the current SMEE fleet.

The initial order of R-211As will be numbered 4060–4499. These cars will be assigned to the **A** and **C** lines, displacing the R-46 cars. The logic to this assignment is that Communication-Based Train Control (CBTC) is currently being installed between High Street and 59th Street–Columbus Circle on the IND Eighth Avenue Line. As the R-211As are equipped for CBTC operation and the R-46s are not, the R-46s will eventually be retired.

In addition to the R-211As, 20 R-211Ts are also being built. The R-211Ts are equipped with open gangways. This variant is also built as five-car sets and were ordered with two styles of open gangways. Cars 4040–4049 have one style and cars 4050–4059 have an alternate style. Cars 4040–4044 were transferred from the SBK on November 2, 2022 followed by 4045–4049 on November 16, 2022. The first set of the alternate style open gangway cars, numbered 4050–4054, were transferred on January 26, 2023. As of March 17, cars 4055–4059 have not been delivered. The open gangway cars are going through the same testing process as the R-211As.

All of this activity led up to the historic events that took place on March 10. At 1:53 PM, the first R-211A entered passenger service. Before the train departed, there was a ceremony attended by many dignitaries at the 207th Street **A** station, which was well covered by the press. The train then departed 207th Street for Far Rockaway. Needless to say, the train was crowded with rail enthusiasts and many others. It was quite an event. The consist of the train was S-4065–4066–4067–4068–4069+4064–4063–4062–4061–4060–N.

Since that day, five more R-211A cars arrived. Cars 4070–4074 were transferred from the SBK to Coney Island Yard on March 16. It should be noted that the Staten Island Railway will be receiving 75 R-211S cars which will replace their fleet of R-44s. The Staten Island cars will be numbered 100–174 and will also be comprised of five-car sets.

As of press time, the R-211A is operating well.

(Editor’s note: The actual contract number for these subway cars in the MTA’s Capital Program is R-34211, and that applies to all three “variants” described in this article. Having said that, R-211A, R-211S and R-211T are officially used).



On March 17, at about 1:50 in the afternoon, the train of R-211s that is operating on the **A** line was diverted to the World Trade Center station of the **E** line due to a delay south of Chambers Street.

Jeff Kessler photo



Rail News in Review

New York Metropolitan Area

NEW YORK CITY TRANSIT (NYCT)

IND Queens Boulevard Line Service Changes

Starting Friday evening, March 17, and continuing through to Sunday, April 30, service was changed on the **E** **F** **M** and **R** lines in Queens during late evenings and nights. This was due to the need to relocate the trains that normally are laid up on the express tracks (D3 and D4) between Forest Hills-71st Avenue and Jamaica-179th Street. Those trains are now being laid up on the express tracks south of Forest Hills.

This was done 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.

These are the service changes:

- Northbound **E** operates local from Queens Plaza to Forest Hills-71st Avenue starting at 9:58 PM nightly
- Northbound **F** operates local from Queens Plaza to Forest Hills-71st Avenue starting at 9:51 PM weeknights and 10:00 PM weekends
- Southbound **F** operates local from Forest Hills-71st Avenue to Queens Plaza starting at 10:45 PM weeknights and 10:51 PM weekends
- The last northbound **R** trains each evening terminate at Queens Plaza and then lay up for the night.

Southbound **E** trains weren't mentioned above because they normally begin operating local a little before 11:00 PM anyway.

Operationally, the first train to lay up operates in normal Automatic Train Protection Manual (ATPM) mode to its lay-up position. (*Editor's note: The IND Queens Boulevard Line has not yet begun operating under Automatic Train Operation (ATO) mode.*) After that first train is in place on the express track for the overnight, each following train must operate in Restricted Manual (RM) mode to close up to the train in front. RM mode enforces a 10 mph maximum speed.

Ridership Notes

The subway set a post-COVID ridership record on Thursday, March 16, with 3,946,310 paid rides.

OMNY, the contactless fare payment system, reached a major milestone as well. On March 16, subways registered a new high with 1.638 million OMNY taps, surpassing the previous high set the day before when 1.61 million subway riders tapped at the turnstiles. The March 16 record, combined with the OMNY taps registered on buses, surpassed the two-million mark on a single day for the first time ever.

[MTA PRESS RELEASE](#), March 17

IND Concourse Line Work

From Monday, March 27 continuously to Friday, April 28, Tracks C3, C4 and C3-4 (the middle express tracks) from the south end of 182-183 Street to south of Bedford Park Boulevard are out of service. During this period, rush hour **D** trains that normally would be express in the peak direction are operating local.

The joint venture of Judlau-TC Electric are repairing concrete spalling, restoring electrical equipment junction boxes, installing and testing new antenna cable and performing lead abatement work. This is all being done under contract C-48704.

Station Re-NEW-ation Program

Another 13 subway stations will receive cosmetic upgrades and repairs as part of the Station Re-NEW-ation program, beginning with the Cortelyou Rd **C** station in Brooklyn over the weekend of April 1-2. With this next round of renovations, NYCT will be on track to complete 34 station renovations by the end of June. The goal is to complete a total of 50 stations by the end of 2023.

To achieve a visibly refreshed station, crews will make a variety of upgrades such as concrete repairs, tile replacement, water mitigation enhancements, grouting, repainting, and deep cleaning the entire station from the staircase to the track. So far, 21 stations have been completed. Stations are selected based on planned weekend outages to minimize impact to riders, and following initial deep cleanings and repairs, routine and specialized cleaning will maintain this level of cleanliness.

The stations included in this next round include:

- Cortelyou Rd **C**
- Broadway **G**
- Grand St **B** **D**
- Atlantic-Barclays **B** **C**
- 21 St-Queensbridge **F**
- Sutphin Blvd-Archer **J** **Z**
- Zerega Ave **6**
- Far Rockaway-Mott Av **A**
- Pelham Bay Park **6**
- Myrtle Wyckoff Avs **M**
- Kings Hwy **F**
- Jamaica Ctr-Parsons-Archer **J** **Z**
- 121 St **J**

[MTA PRESS RELEASE](#), March 29

Museum Trains to Yankee Stadium

Once again, the New York Transit Museum operated two of their vintage trains to the Yankees season opening game, on Thursday, March 30.

At about 9:00 AM that day, the two trains, a four-car set of Lo-Vs and a six-car set of R-33-36s, left East 180th Street

and 239th Street Yards and headed south to Loop Track A at South Ferry. At about 10:45 AM, with the Lo-V train in the lead, they proceeded via Track 3 to Grand Central. At about 11:00 AM, after passengers boarded, the special trains operated non-stop to 161st Street-Yankee Stadium.



The Lo-V train is returning to 161st Street-Yankee Stadium after relaying at 167th Street. It will stage there, with the R-33-36s, until the game begins. Jack May photo



After the game started, the trains returned to their respective yards. The R-33-36 set has left 161st Street-Yankee Stadium on the middle track and is seen returning to the yard. Alex Martinez photo

After discharging the passengers, the Lo-V relayed north of Burnside Avenue while the R-33-36 train relayed north of 167th Street. The trains were then staged on Track M at 161st Street until the game began. After that, they returned to East 180th Street and 239th Street Yards.

LONG ISLAND RAIL ROAD (LIRR)

Post-Grand Central Service Adjustments

As mentioned in last month's *Bulletin*, after the new timetable with full service to Grand Central went into service on Monday, February 27, the reaction from the traveling

public was quick and fairly vociferous. Some folks loved the new service but many others, not so much.

To the railroad's credit, they responded very quickly, making service changes starting the very next week. To be fair, one must be aware that all of the forecasts to predict the ridership split between Grand Central and Penn Station were done pre-pandemic.

So far, the following schedule changes have been implemented. For brevity, only the numbers of the affected trains are listed here. If all of the timetables are not handy for you, the reader, please refer to the table of new train numbers provided on pages 21 and 22 of last month's *Bulletin*:

Monday, March 6

Remove Kew Gardens: 217

Add Kew Gardens: 1509

Remove Woodside: 137, 2011

Brooklyn peak service increased from 12- to 10-minute headway

Tuesday, March 7

Brooklyn peak service increased to 8-minute headway

Thursday, March 9

725 adds Elmont, Queens Village, Hollis

1921 skips Elmont, Queens Village, Hollis

Remove Kew Gardens: 1121, 1613

Remove Forest Hills: 1625

Add Kew Gardens: 2017

Add Forest Hills: 2731

Monday, March 13

Remove Woodside: 178, 770, 862, 876, 1254, 1658, 2756

Add Forest Hills: 758

Add Kew Gardens: 1902

Remove Mineola: 2011, 503

Remove Lynbrook: 1254

Add Central Islip: 2019

Add Central Islip and Ronkonkoma: 1013, 1017, 1019, 1031, 1056, 1062, 1072

Rerouted to Penn Station: 268 (renumbered 198), 714, 827, 2013 (renumbered 1913)

903, 1919 three minutes earlier

1919 add Deer Park and Wyandanch

4604 (Hillside-Huntington equipment) canceled, replaced with equipment 9003 Hillside-Jamaica and revenue 1604

Jamaica-Huntington

Minor time changes for OTP-conflict avoidance: 560, 766, 1510

1663

Monday, March 20

Remove Lynbrook: 1266, 1280, 1284

Add Lynbrook: 868, 876, 878

Add Mineola: 1515

Remove Hillside: 1917

Runtime adjustment: 725

Monday, April 3

Remove Mineola: 505, 566

Add Woodside: 1711, 2067, 2729

Add Hillside: 1905

873: 18 minutes later for congestion mitigation at Long Beach

Adjusted running time into Penn: 619, 827, 1323, 1921

Garden City Bridge Work Progress

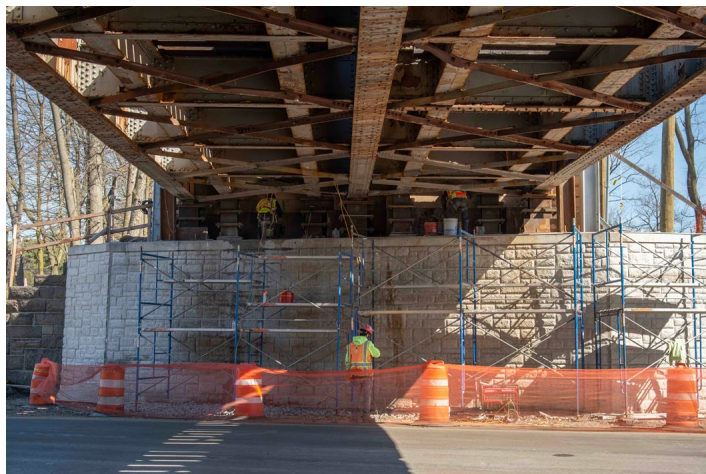
A slight correction must be made to this news item in last month’s Bulletin. The Cherry Valley Avenue bridge was raised one foot each weekend for the first three weeks, not four weeks. The fourth weekend shutdown was to enable the replacement of the Cathedral Avenue grade crossing. This street is located at the west end of the Garden City station.

The fifth weekend, April 1-2, is when the new bridge is scheduled to be rolled into place.



Compare this view, taken after the third weekend “lift,” on March 21, with that on page 5 in last month’s Bulletin. You can see how the bridge has been raised above the tops of the abutments on each side.

Jeff Erlitz photo



In this view under the existing bridge, also on March 21, we’re looking at the east abutment and you can clearly see how it had been raised.

Jeff Erlitz photo

M9 Deliveries Continue

Since the November, 2022 issue of the Bulletin, additional M9 cars have been delivered to the LIRR, as follows:

Date	Cars	Date	Cars
11-11-2022	9119-9120	1-27-2023	9163-9164
1-13-2023	9157-9158	2-10-2023	9121-9122

With these eight, 182 of the 202-car order have now been delivered. There are 20 cars left to be delivered.



Just a few minutes until departure time on March 6, M3 9797 (Budd-GE, 9-1985) is on the head end of train #2883 (Jamaica-Atlantic Terminal) at Jamaica station in Queens. This is looking east on Platform F, the platform on the south side of the station complex that is used solely for the Brooklyn shuttle trains. Jeff Erlitz photo

METRO-NORTH RAILROAD (MNR)

New Canaan Branch Track Work

Due to track improvements on the New Canaan Branch this summer, substitute bus service will replace all train service. This work is part of the tie replacement and track upgrades program. When completed, an existing speed restriction in the Stamford area will be eliminated. Train speeds through this section will increase from 30 to 50 mph. The track improvements, and bus substitution, will begin Tuesday, May 30 and is estimated to run through August.

The construction program includes the replacement of approximately 8,000 ties with a Pandrol fastening system, 1,600 feet of rail, insulated rail joints and bridge timbers over the Noroton River Bridge; remediation of mud spots at several locations; reinstatement of drainage along portions of the branch where needed; reinstallation new rail anchors as needed; and surfacing the entire branch.

The work on Track 5 in Stamford to lift the speed restriction includes the replacement of 830 ties, 1,200 feet of rail and bridge timbers over the Canal Street Bridge, Elm Street Bridge, and East Main Street Bridge; surfacing the entire stretch; and maintenance of a turnout by Elm Street.

[CTDOT PRESS RELEASE](#), March 15



Schedule Changes

New schedule went into effect on Sunday, March 26, and will continue until Saturday, June 10. The minor adjustments on the schedule will support ongoing infrastructure improvements happening on all three of the railroad’s East of Hudson lines.

Weekday service on all three lines and weekend service on the Harlem and New Haven Lines will see minor changes for some trains at select stations. Weekend service on the Hudson Line has significant adjustments.

Hudson Line

Weekday service on the Hudson Line will see only minor adjustments.

Track switches near Morris Heights and Marble Hill are being replaced, in the most capacity-constrained segments of the Bronx. This work requires that weekend Hudson Line service be temporarily reduced to one local train and one express train hourly in each direction. Weekend schedules also accommodate projects including the Park Avenue Viaduct Replacement Project work happening near the Harlem River Lift Bridge, the Hudson Express Cable Project between Cortlandt and Manitou, and additional signal work and other state of good repair work occurring along the line.

Harlem Line

There are minor adjustments to train times during the evening rush hour to select Upper Harlem trains to minimize station congestion at Southeast. There is an ongoing platform-renewal project at North White Plains and grade-crossing replacement work occurring further north near the Valhalla station.

New Haven Line



Train #6537 (New Haven-Grand Central), with M8 9394 (Kawasaki Rail Car, 2009) leading the way, slows to a stop at Green’s Farms station in Westport, Connecticut on October 29, 2022. Track 3 was out of service at this point in time, hence the need for bridge plates for passengers to access the train on Track 1. Jeff Erlitz photo

There are ongoing infrastructure improvements along the New Haven Line, both in New York and Connecticut. On the

New York side of the line, crews are working on the replacement of overhead bridges in Mount Vernon, an electrical substation replacement in Pelham, and switch work in New Rochelle.

In partnership with the Connecticut Department of Transportation, there is elevator and escalator replacement work at Stamford station that requires one platform to be taken out of service. To accommodate this project and minimize crowding and train congestion, four Grand Central-bound morning rush hour trains will continue to bypass Stamford. Eastbound, nine trains in the morning and evening rush hour will continue to bypass the station.

Other work happening in Connecticut includes rail replacement between Stamford and South Norwalk, catenary work associated with the Walk Bridge Replacement Project, and the continuation of Metro-North’s SmartTrack state of good repair work between Milford and New Haven.

Return of Metro-North’s Yankee Clippers

The schedule update also includes the return of game-day service to Yankee Stadium. For Opening Day on March 30, Metro-North operated shuttle trains between Grand Central Terminal (GCT), Harlem-125th Street and Yankees-E 153rd Street stations and also made a stop at the stadium on several additional Hudson Line trains. Riders from the Harlem and New Haven lines can connect at Harlem-125th Street station for the short ride to the stadium.

For evening games on weekdays and all games on weekends, Yankee Clippers are special game-day trains which provide a direct one-seat ride from the railroad’s East of Hudson lines to Yankees-E 153rd St station.

In addition to the Yankee Clipper trains, for every game Metro-North will operate shuttle trains between GCT, Harlem-125th Street and Yankees-E 153rd Street stations for fans coming from Manhattan or who are transferring at Harlem-125th Street station from Harlem and New Haven Line trains, and several regularly scheduled Hudson Line trains will make an extra stop at the stadium.

[MTA PRESS RELEASE](#), March 21

NJ TRANSIT (NJT)

Gateway Tunnel Funding

NJT’s board of directors voted to begin sending \$19 million payments to the Gateway Development Commission (GDC), which is overseeing design and construction of two new Hudson River rail tunnels between New Jersey and New York.

The board unanimously approved the funding agreement on March 13 that would send funding from the New Jersey Turnpike Authority to the GDC under an agreement approved by that authority last December. Technically, NJT is conveying the \$19.39 million in Turnpike funds to the GDC from the state Department of the Treasury.

[NJ.COM](#), March 14

Mahwah Station Improvements

NJT is moving forward with plans to revitalize Mahwah train station. Phase One of this project will include critical state of good repair work to the station's roof, replacement of retaining walls and electrical and lighting upgrades. These improvements will preserve the building's historic aesthetic while also enhancing a central piece of Mahwah Township's downtown.

As part of the procurement process, NJT has released an Invitation For Bid for critical state of good repair work that includes:

- Roof repairs to include new framing, gutters, downspouts, roof sheathing replacement and rafter repair and replacement;
- Retaining wall and site work to include replacement of a retaining wall including north stairs, concrete work and associated landscaping;
- Electrical work to include re-location of the ticket vending machine and electrical equipment and lighting upgrades below the roof ceiling over the arcade columns.

[NJ TRANSIT PRESS RELEASE](#), March 23

PORT AUTHORITY TRANS-HUDSON (PATH)

Trains Lengthened

The Port Authority of New York and New Jersey took the first step on March 23 in a planned major expansion of PATH service along the Newark-World Trade Center (NWK-WTC) line. On that day PATH operated nine-car trains for the first time in its 100-year history.

Gradually over the next 12 months, PATH will place increasing numbers of nine-car trains in service and, by the beginning of 2024, nearly all trains on the NWK-WTC line at peak times will be nine-car trains. The addition of a ninth rail car to trains during peak hours is part of a program to increase capacity.

The start of nine-car trains follows the completion of platform and infrastructure expansion projects along the NWK-WTC line to accommodate longer trains. The project has undergone rigorous independent inspection and testing as part of the preparation for Thursday's initial introduction of the nine-car service.

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. 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.

[PORT AUTHORITY PRESS RELEASE](#), March 22

AirTrain Newark Replacement

The Port Authority announced it has selected three automated-people-mover (APM) system technology firms to advance to the next phase of a multi-phase procurement process

to replace the existing AirTrain Newark system at Newark Liberty International Airport with a new 2.5-mile automated train system.

The three shortlisted firms are:

- Alstom Transport USA Inc.;
- DCCA1 Inc. (Doppelmayr);
- Mitsubishi Heavy Industries America Inc.

The shortlisted firms were selected as a result of a publicly advertised Request for Qualifications that was published on December 8, 2022.

As part of the Port Authority's ongoing commitment to modernizing Newark Liberty International Airport, AirTrain Newark will be replaced through a multi-phase procurement process including the design and construction of the new AirTrain's APM system technology, and the operations and maintenance of the components necessary for a new fully functional AirTrain. Also included in this first phase are the procurement processes for the furnishing, delivery, installation, testing and commissioning of the system technology.

Additional procurement phases in the AirTrain Newark Replacement program may include, but are not limited to, the following separate contract packages:

- Early works packages;
- Design package;
- 2.5-mile elevated guideway structure and three stations including back-of-house areas;
- Maintenance and control facility for the system equipment;
- Pedestrian connections from stations to existing airport facilities.

Debuted in 1996, the existing AirTrain Newark system has become outmoded and unreliable. The current system carries an average of 26,000 passengers per day or nearly 10 million passengers per year. It provides access to the co-located Newark International Airport station on NJ Transit and Amtrak's Northeast Corridor lines and provides passengers and employees with the ability to transfer among airport terminals, parking lots and rental car facilities. The Federal Aviation Administration granted final environmental approval for a replacement of AirTrain Newark on August 13, 2021.

[PORT AUTHORITY PRESS RELEASE](#), March 23

Other U.S. Systems

AUSTIN

Light Rail in Austin?

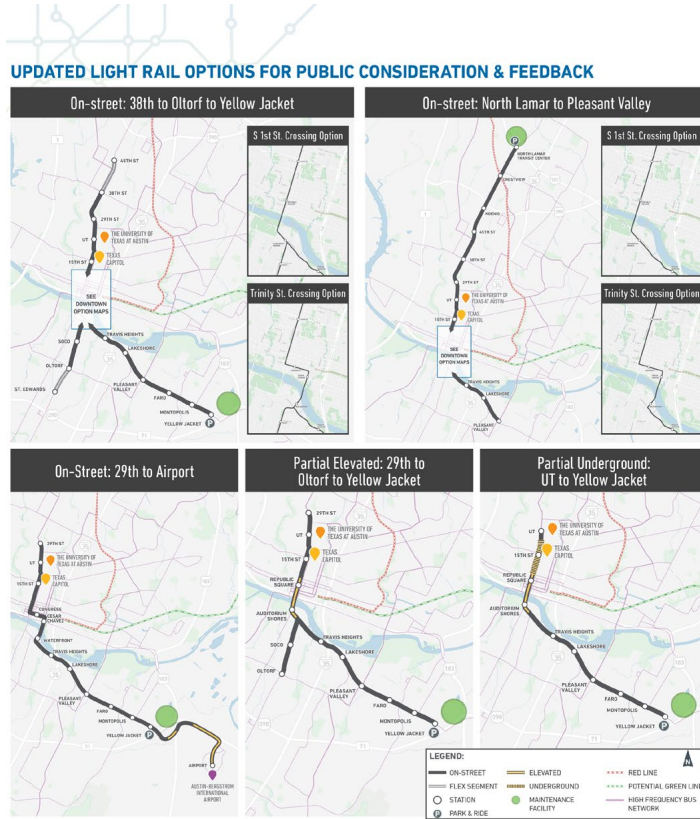
Austin Transit Partnership (ATP) outlined five options that will bring light-rail to Austin as part of the region's Project Connect plan to expand transit options to one of the fastest growing metropolitan areas in the U.S.

The five options being explored represent what ATP calls a core system. When Austin area voters approved a November 2020 proposition to increase property taxes and dedicate a portion to the transit system, they were promised a bold



expansion plan that included more than 28 miles of light rail. The five options ATP is considering range from 6.6 miles to 10.1 miles.

The reduced size of the light-rail options will still meet the needs of the community to increase capacity of the city’s transportation network, improve transit access to affordable housing and jobs and support growth and connectivity to regional activity centers while remaining financially viable and technically feasible.



Don't forget to share your thoughts on these light rail options by visiting projectconnect.com/GetInvolved or scanning the QR code



Maps of the five current alignment options. Project Connect website

Three of the options — On-street: 38th to Oltorf to Yellow Jacket, On-street: North Lamar to Pleasant Valley and On-street: 29th to Airport — would allow for future expansion, including platforms, while the Partial underground: UT to Yellow Jacket option would make future underground expansions possible.

On-street: North Lamar to Pleasant Valley would serve the most average daily riders. The North Lamar to Pleasant Valley and 38th to Oltorf to Yellow Jacket option would serve the most affordable housing.

ATP is asking for community feedback on the five options, which can be viewed more fully at atptx.org. A staff recommendation will be developed with community input, and a final

option will be selected by the ATP Board of Directors in June. [MASS TRANSIT](#), March 24
[PROJECT CONNECT](#)

BOSTON

Green Line Speed Restriction Eased

The speed restriction that encompassed the entire length of the Green Line has been lifted and replaced with more targeted block speed restrictions. These block speed restrictions that are now in place represent about 18% of track.

MBTA test trains have confirmed that all speed signs on the Green Line are in place to safely implement these block speed restrictions.

A block speed restriction is a length of track that may include multiple defects that need to be investigated or mitigated. As each defect is validated and corrected as needed, the length of the block speed restriction will be reduced until the block is fully removed.

System-wide speed restrictions were previously replaced with block restrictions on the Orange, Blue, Red, and Mattapan lines. [MBTA PRESS RELEASE](#), March 20

New General Manager

Phillip Eng was appointed as the next General Manager of the Massachusetts Bay Transportation Authority (MBTA). Eng is an engineer with nearly 40 years of experience in transportation, including as President of the Metropolitan Transportation Authority’s (MTA) Long Island Rail Road and Interim President of New York City Transit.

Eng worked his way through the ranks of the New York State Department of Transportation beginning in the ‘80s, ultimately serving as Executive Deputy Commissioner and Chief Engineer from 2013–2017. He then served as Chief Operating Officer of the MTA. He led the procurement and awarding of a \$540 million contract to modernize the MTA’s mobile ticketing system and improved the MTA’s contracting methods to better ensure that projects would be completed on time, with reduce costs and with improved quality and durability.

Eng was then tapped to serve as Interim President of NYCT, where he was integral to initiating and implementing the \$836 million Subway Action Plan to fix aging infrastructure and improve performance across the system.

From 2018–2022, Eng served as President of the LIRR, where he oversaw the implementation of new technology that improved the accuracy of train arrival time estimates on platforms and led to the release of the new and improved LIRR TrainTime app, which provides the public with up-to-date service information. He also focused on improving relationships with riders, workers, labor, elected officials, local businesses and community leaders through consistent communication, including the launch of “Customer Conversation” forums and “Meet the Manager” station settings.

Since last June, Eng has served as Executive Vice President of the LiRo Group, where he advises public and private sector clients on engineering, transportation and infrastructure projects. He has worked with a number of public transportation clients across the Northeast, including the MBTA, on construction management and quality design, assurance and control inspections.

He lives in Smithtown, New York with his wife Carole and will be relocating to Massachusetts to begin his new role on April 10.

Interim General Manager Jeff Gonnevillle will remain with the MBTA and assist with the transition to new management. [MBTA PRESS RELEASE](#), March 27

CHICAGO

Blue Line Service Improvement

On Sunday, March 26, additional “short-turned” trips started operating on the Blue Line between the O’Hare and UIC-Halsted stations—the busiest section of the line. Those short-turn trips formerly occurred during the AM and PM rush hours, when ridership is highest, but was expanded to run throughout the day, on a daily basis. This service adjustment was designed to provide added capacity and improve service reliability, by adding more trains to carry more riders.

The extra trains provide more service and help address crowding, as riders return to the office and other daily activities and events.

The change will also help the Blue Line absorb extra ridership that may occur as a result of the Illinois Department of Transportation’s (IDOT) reconstruction of the Kennedy Expressway. The Blue Line is an alternative to the Kennedy, with Park and Ride lots at Cumberland and Rosemont offering ample parking capacity.

The change is the latest effort the CTA has undertaken to improve the commuting experience along the Blue Line O’Hare Branch, one of the system’s busiest. In February, the CTA began providing live video feeds of O’Hare Branch stations from Logan Square to Chicago, a tool to provide riders with real-time information on platform crowding conditions to help them make decisions on the best times to commute.

In addition, two extra trains were added to the Blue Line during the AM rush, deploying them from Jefferson Park when there have been larger gaps between trains. More personnel were assigned to closely monitor rush-hour service, and the agency made frequent platform announcements to let riders waiting on platforms know real-time system status, the location of next trains, and when extra trains have been deployed.

[CTA PRESS RELEASE](#), March 24

LOS ANGELES

Foothill Gold Line Progress

The Foothill Gold Line Construction Authority has completed

all grade crossing reconstruction work that required long-term street closures for the project’s 21 at-grade (street level) crossings from Glendora to Pomona. The milestone is a major achievement for the 9.1-mile, four-station Foothill Gold Line light-rail project, which is more than two-thirds complete overall with construction.



View south of the Garey Avenue crossing in Pomona on the Foothill Gold Line extension, the last crossing to be rebuilt.

Foothill Gold Line Construction Authority photo

Since major construction began in July 2020, each of the project’s grade crossings has undergone one or more long-term closure to allow crews time to relocate and protect underground utilities, install new safety equipment, relocate the freight track that initially sat in the middle of the now-shared rail corridor, install new light rail tracks and build new medians, sidewalks, curbs-gutters and roadway. At the grade crossings with new light-rail bridges, each underwent similar reconstruction activities underground and above but only included installation of the relocated freight track at-grade (the light-rail tracks will be built on top of the newly finished bridge structures that are grade-separated at these locations for safety, as required by the California Public Utilities Commission).

Each grade crossing reconstruction was a significant undertaking, beginning with months of careful planning, design and coordination to ensure the multiple entities involved were ready to go to work once the street was closed, often requiring multiple crews working alongside each other or scheduled one right after the other to reduce the closure timeline as much as possible. Additionally, each street closure also required extensive outreach to notify affected neighbors and area stakeholders. Before each street closure, a specific outreach plan was developed to ensure all affected stakeholders would be aware of the upcoming closure well in advance, so they could make alternative plans.

The Glendora to Pomona project is now 68 percent complete. The construction authority and KPJV anticipate completing the majority of all major construction activities needed for the project in 2023, with testing of the system to start by the end of the year. In June, the agency expects to finish the light rail track

installation and will hold a milestone ceremony to celebrate that achievement on June 24, 2023, in the city of La Verne.

[MASS TRANSIT](#), March 30

PHILADELPHIA

King of Prussia Extension Canceled

SEPTA's much-debated King of Prussia (KOP) rail project is off the table. With inflation and high interest rates pushing costs higher and higher, the transit agency is halting work on the Norristown High-Speed Line extension to King of Prussia.

The cost of the project has been growing by \$100 million a year, too fast for available resources to keep up.

A SEPTA spokesman stated that the latest estimate is topping \$3 billion.

A federal grant would have covered 60% of the cost, but the spokesman says the Federal Transit Administration expressed concerns that SEPTA would have enough state and local funding in time to pay for its share of the \$3 billion project.

He also stated that they decided to pause the project. That will mean that all work related to the King of Prussia rail is going to stop.

That means the \$125 million design contract the SEPTA board approved just last month is not being executed.

As the transit agency draws up its capital budget for next year, the \$340 million that would have been devoted to the KOP rail line over the next several years will now go toward other infrastructure projects.

[KYW NEWSRADIO](#), March 17

New Fare Control Arrays To Be Tested

SEPTA is developing a pilot program that would install high-tech, full-height vertical gates to deter fare jumpers.

The transit agency would add 16 full-length fare gates at 13th Street Station along the Market-Frankford Line and six at 34th Street Station. Turnstiles would be replaced with full-height barriers that glide open.



Rendering of the new fare gate array. Conduent Transport Solutions

The gates, from Conduent Transport Solutions, include a 3D imaging system that can sound an alarm if someone tries to piggyback their way past the gate without paying. The sensors

can also recognize wheelchairs, strollers and luggage.

The SEPTA board was set to approve a \$925,000 contract for the 3D gates on March 23, with delivery expected late this year.

Nearly 2,800 fare evasion cases were reported on SEPTA last year, an increase of more than 800 from 2021. Busch said the new gates would more accurately track the number of fare evaders on the system.

The fare gates do not capture video or images, but SEPTA has existing surveillance cameras with live feeds near the fare line areas.

[KYW NEWSRADIO](#), March 22

Broad Street Line ADA Improvement Project

SEPTA awarded a contract to advance accessibility improvements on three subway stations. Jacobs Engineering Group, Inc. will do architectural, design and construction-related services for the Lombard-South and Ellsworth-Federal Stations on the Broad Street Line, and the Chinatown Station on the Broad-Ridge Spur.

The \$5,793,063 contract with Jacobs will progress the design of Lombard-South, Ellsworth-Federal, and Chinatown Stations to 100%. 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.

Accessibility on both the Market-Frankford and Broad Street Lines were prioritized in SEPTA's 12-Year Capital Program. In addition to the three Broad Street Line stations that will advance, SEPTA is nearly finished with an ADA improvement project at Susquehanna-Dauphin Station and construction is underway at Tasker-Morris Station. The timelines will be updated for work at other stations on the Broad Street and Market-Frankford Lines with the release of the new capital budget and program in April.

[SEPTA PRESS RELEASE](#), March 23

SEATTLE

Ballard Link Extension

The Sound Transit Board has identified a preferred alternative for the Ballard Link Extension on March 23, about eight months after the board requested further study and community engagement of the project's alternatives. The board explained community priorities, regional needs, city of Seattle and agency input all weighed into its decision on the preferred alternative. A final decision on the alignment will be made following conclusion of the Final Environmental Impact Statement (EIS); the Draft EIS was released in July 2022.

The proposed downtown Seattle to Ballard 7.1-mile extension includes nine new stations and a new rail-only tunnel through downtown Seattle. The tunnel is a key component of the proposed extension but would serve Sound Transit's entire light-rail system.

The preferred alternative includes stations south and north

of the Chinatown-International District (CID) and shifts the Midtown Station to the location north of CID. The board also directed the CID 4th Avenue Shallower option be carried forward for additional environmental review.

The board did not modify the previously identified preferred alternative for the Denny Station located on Westlake in the Draft EIS alternative. However, the board directed staff to also carry forward the Denny Station on Terry (i.e., South Lake Union Mix and Match) alternative as part of ongoing environmental review and to further clarify the technical, financial, schedule and risk implications of both alternatives.

Stations at Westlake, South Lake Union, Seattle Center, Smith Cove, Interbay and Ballard were confirmed based on recommendations forwarded from the System Expansion Committee on March 9.

Acknowledging that south downtown would benefit from Union Station activation and Jackson Hub improvements regardless of the location of the CID station, the board directed staff to work with the Seattle, King County and other potential partners to clarify the potential scope and schedule of such improvements, as well as funding and partnership opportunities, and to conduct further community engagement. The board specified the scope of the improvements should extend beyond the CID to the abutting stations and transfer points to improve accessibility.

[MASS TRANSIT](#), March 27

ST. LOUIS

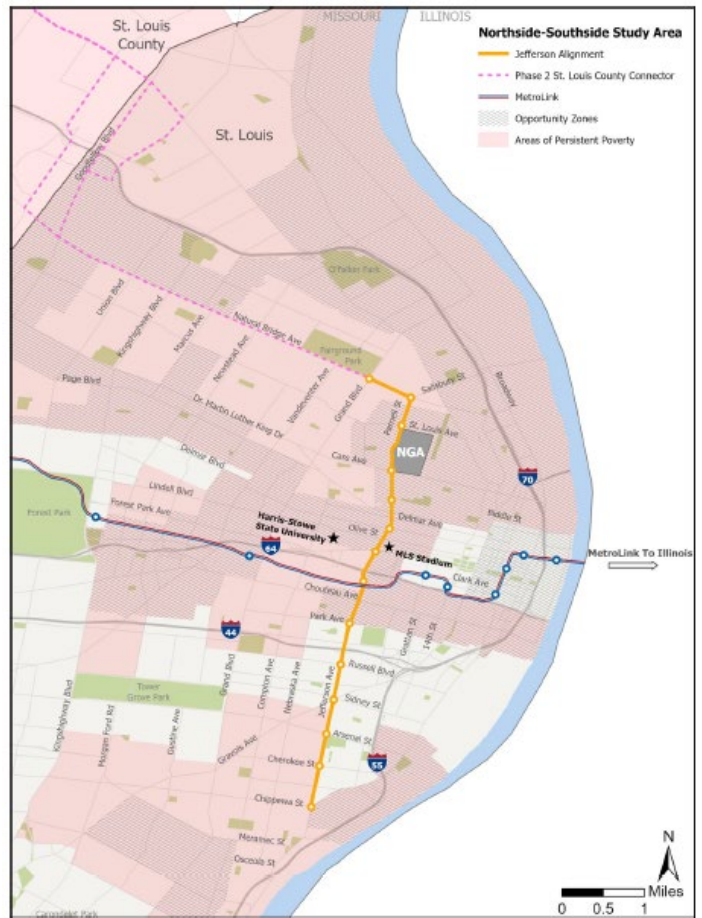
North-South MetroLink Expansion

The Bi-State Development Board of Commissioners approved a resolution and Memorandum of Understanding authorizing the Bi-State Development team to plan, design, and develop the Jefferson Alignment MetroLink Expansion project with the City of St. Louis. This newly modified proposed MetroLink line was previously discussed as the Northside-Southside MetroLink expansion. The approval was given during a special board meeting that was held in a virtual format on March 24.

The agreement gives Bi-State Development authorization to select and fund the Program Management Consultant phase of the Jefferson Alignment MetroLink Expansion project. The Bi-State Development team will oversee and manage the Program Management phase of the St. Louis City expansion segment. Approximately \$7.4 million in funding for Bi-State Development oversight and management services, and outside consultant services, will be paid through City MetroLink Capital Trust from the Missouri allocated COVID-19 funds.

Program Management for the Jefferson Alignment expansion project includes preliminary planning for this initial phase of the project along with procuring and contracting with a selected consultant, and providing all supervision and complete oversight during this phase of the project. Responses to the Request for Proposals for the

program management consultant are due on April 17, with anticipated approval by the Bi-State Development Board of Commissioners after a Board vote in late May 2023. The agreement is valid through December 31, 2024.



Map of the Jefferson Alignment in the Northside-Southside study area.
Bi-State Development

The preliminary planning during this phase of the project will allow Bi-State Development to submit an application this summer or next summer in 2024 for the federal government's New Starts program, which provides up to \$4.6 billion a year to fund major capital transit projects like the proposed Jefferson Alignment MetroLink Expansion. Once an application is approved, recipients of New Starts funds enter a project development phase where they have two years to complete engineering and design of the project, which is then immediately followed with the start of project construction. The New Starts program provides federal funds in the amount of 60 percent of the project cost, with the remaining 40 percent supported by local funding. The cost to build the first phase of the new Jefferson Alignment Expansion is estimated at \$850 million.

[BI-STATE DEVELOPMENT NEWS](#), March 24



TACOMA

Hilltop Link Extension Almost Finished

Sound Transit officials have given the Tacoma City Council good and bad news regarding two light-rail extension projects.

At the March 21 City Council study session the project director of Hilltop Tacoma Link Extension said the project to lengthen Tacoma Link to Stadium District and Hilltop is 99 percent complete.

The director told the council the remaining work includes station finishes, such as installing handrails, erecting signage reminding drivers they are sharing the roadway with trains, and completing side-street pavement. System-integration testing is ongoing to validate functionality, operation and performance, she said.

The extension will open sometime between late July and early September but they don't have a more exact date. The project doubles the length of Tacoma Link, relocates the Theater District station and adds six stations. The 2.4-mile extension connects downtown with the Stadium District, Wright Park, hospitals and Hilltop.

The Hilltop Tacoma Link Extension has been delayed several times since construction began in November 2018. It was planned to be completed May 2022 but was pushed back by supply problems, additional work and pricier parts. The last delay was announced in December. Sound Transit CEO Julie Timm said at the time that delay was caused by construction issues and the link extension would open by fall of 2023.

The project was expected to cost \$217 million, but the price increased to at least \$282 million, which is funded by a partnership with South Transit, city of Tacoma, federal transit money and other grants.

Sound Transit is approaching its 20-year anniversary of the Tacoma Link, which will be marked by the opening of the Hilltop extension.

Tacoma Dome Link Extension Delays

In February, Sound Transit announced another setback for the light-rail project to connect Tacoma to Seattle. The project is going to take longer than anticipated as it addresses issues with floodplains and cultural resources.

The Tacoma Dome Link Extension is now planned to open in 2035, a delay of 2½ years.

Due to floodplain issues in Fife, two new station options will be proposed, on 54th Avenue West and 54th Avenue East. Sound Transit said the station options are near where the City of Fife plans to build a new city center.

Sound Transit has proposed to move the route in south Federal Way to avoid adverse effects to cultural resources and construction challenges along the planned route along Interstate 5 to state Route 99, also known as Pacific Highway.

Tacoma City Council and Pierce County Council sent a letter earlier this month to Sound Transit pressing Sound Transit to provide transportation to South Sound residents following the delay announcement.

Sound Transit will look at higher frequencies on the Sounder commuter rail and how it can support the region with ST Express bus service.

The Sound Transit Board approved the two alternatives for the project's draft environmental impact statement at its March 23 meeting.

The Pierce County Executive said the alternatives are necessary, but he wanted to challenge Sound Transit not to delay the completion of the Tacoma Dome Link Extension. Both, [MASS TRANSIT](#), March 29

WASHINGTON, D.C.

Train Service Increased

The Washington Metropolitan Area Transit Authority (WMATA) is increasing train service across the rail system.

The improvements correspond to growing ridership, with new post-pandemic records being set almost daily. During the week of March 13, Metrorail saw its highest ridership since the pandemic, with more than 337,000 paid trips on March 15, followed by the second highest day on March 16 with more than 335,000 trips. Cherry blossom season, tourism, sporting events, entertainment and increased commuters are driving the trend.

Service will ramp up across the system through March 25, providing riders with more frequent, reliable service that makes transfers easier and wait times shorter. Starting first, as of March 20, riders on the Silver, Blue, Orange, and Blue+ lines will see trains every 12 minutes through March 24 during rush hours (6 AM to 9 AM and 3 PM to 6 PM). Between Rosslyn and Stadium-Armory, the central part of the rail system where multiple lines overlap, trains will arrive in stations on average every three minutes during rush hours.

On March 25, service will improve on the Red Line, increasing service to every eight minutes through 9:30 PM, seven days a week, instead of just rush hours and midweek. The change aligns with service on the Green Line, which already operates every eight minutes on weekdays and weekends.

Additional service improvements are expected over the coming months as WMATA hires more train operators, mechanics and maintenance workers and increases the availability of 7000-series railcars.

[MASS TRANSIT](#), March 21

International

AUSTRIA

More Siemens Desiro ML EMUs Ordered

ÖBB (Austrian Federal Railways) has ordered 27 Desiro ML electric multiple units (EMU) from Siemens Mobility for use on regional routes in Austria from 2025.

A total of 246 vehicles of this type have now been ordered

2024 Benelux Trip

ERA is planning a tour next year to Belgium, the Netherlands and Luxemburg. 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 will visit many tram operations and tram and railway museums in Amsterdam, Den Haag, Rotterdam, Arnhem, Utrecht, Brussels, Antwerp, the Oostende-Knokke

by ÖBB, with more than 200 already operating successfully throughout Austria.



ÖBB Desiro ML 4746 511+7046 011+4746 011 (Siemens, 2016) is an example of the EMUs that are now on order. In this view west, the train is approaching the Wien Hauptbahnhof on September 18, 2022.

Jeff Erlitz photo

This latest order will provide passengers with more space and comfort on inner-Alpine routes to make switching from car to train a more attractive choice.

The passenger compartments will be equipped with automatic climate control, charging sockets, free Wi-Fi and real-time passenger information screens.

At 246 feet long, each train will have capacity for 220 seated passengers and up to 24 bicycles.

[RAILWAY-NEWS](#), March 10

BUDAPEST

Nyugati Station Renovation Canceled

Hungary had already won HUF 1.1 billion (€2.8 million) in a tender to renovate the Nyugati Railway Station this spring. The upgrading of the station was cut out of the European Union grant contract for several reasons. It was published in the Hungarian Gazette (*Magyar Közlöny*) that the government had canceled the contract.

Ákos Krakkó, press officer at the Ministry of Construction and Transport, told Index.hu that the funds would be called up again under a new tendering procedure. The project will therefore be completed. The changes are being made on the proposal

Coastal Tram, Brugge, Gent, Charleroi, Thuin and Luxemburg. 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.

of the Minister of Construction and Transport, János Lázár.

The grant agreement was a contract for the further development of the Nyugati Railway Station. It is both one of Hungary's most important railway monuments and its busiest transport hub.

Some journalists misunderstand the issue of the planning resources related to the renovation of the Nyugati Square. The so-called European Instrument for the Financing of the Network was on the project list for the design of the Nyugati Railway Station, said Ákos Krakkó to Index.hu.

He added that the new list of projects includes developments that all have a beneficial impact on the economy, such as those that have a positive influence on the capital, the Southern Circular Railway (*Déli Körvasút*), the development of the Debrecen-Nyíregyháza railway line and capacity increases in the Hungarian-Ukrainian border traffic.

(Editor's note: The April 2022 Bulletin contained the news of this station's planned reconstruction, complete with rendering.)

[DAILY NEWS HUNGARY](#), January 22

Additional Trams Ordered

CAF has been awarded two contracts to supply Urbos trams in Budapest, Hungary and Alcalá de Guadaíra in Seville, Spain. These contracts have a combined value of over €100 million.



Two Urbos 3 trams, 2256 and 2238 (CAF, 2021 and 2020 respectively), are operating on route 17 at Széll Kálmán tér on August 17, 2022.

David Šteiner photo

CAF will supply 31 units to Budapesti Közlekedési Központ (BKK) for use in the Hungarian capital. With this order, BKK

is exercising an option to further extend the number of units ordered in an initial 2014 contract.

CAF's first contract with BKK consisted of 37 units, with the option of possible future extensions. Since then, BKK has already received an additional 36 units and has a further 20 units on order.

Under this latest extension, CAF will supply 26 five-module trams and five nine-module units. The manufacturer will also provide additional equipment and services to support their operation. These low-floor vehicles are designed to operate at 50 kph (31 mph). The five-section trams will have capacity for up to 326 passengers, while the nine-section units will each be able to transport 526 passengers. At 56 meters (184 feet) long, these will be some of the longest trams in the world.

Meanwhile, the Regional Government of Andalusia has contracted CAF to manufacture six Urbos trams for the Alcalá de Guadaíra tram line in Seville. This contract also includes two years of maintenance work on the units, as well as the supply of spare parts.

[RAILWAY-NEWS](#), March 21

CLUJ-NAPOCA, ROMANIA

First Metro Line

A consortium of Gülermak, Alstom and Arcada has been selected as the winner of a 9 billion lei contract to build Cluj-Napoca's first light metro line. The 13-mile line with 19 stations is to run fully underground, with the depot on the surface.

Cluj-Napoca city council commissioned studies for the metro and a suburban rail network in April 2020. The project is being jointly funded by the government, the EU's Recovery and Resilience Fund and the municipality.

Phase one will start at Sfânta Maria in the densely populated Mănăştur district in the west of the city and run 4.7 miles through the city center, Gheorgheni and Sopor to Europa Unită, with 10 stations. The depot connection will take the first phase to 5.7 miles. The EU funding contribution requires completion by August 2026.

The second phase would run 5.5 miles west from Sfânta Maria to Țara Moșilor with seven stations, serving the new Florești residential area, a future hospital and planned development areas, with a 1.9-mile three-station branch running northeast from Piața Mărăști to the Bulevardul Muncii industrial area.

This is to be completed by February 2031. The light metro line is designed to have a capacity of 15,200 to 21,600 passengers-direction-hour, with trains running every 90 seconds.

[METRO REPORT INTERNATIONAL](#), March 7

DUBLIN

DART+ South West Electrification Agreed

The cabinet has approved the DART+ South West project to

provide "fast, high-frequency and electrified" suburban train services from Hazelhatch and Celbridge station to Dublin Heuston.

An application for a Railway Order granting planning permission for the project is to be submitted to planning body An Bord Pleanála by the end of March. Subject to approval and final funding arrangements, construction could start in 2025 for completion by the end of the decade.



DART+ South West Route Map. DART+ Programme

Services along the route would at least double in frequency, with up to 11 trains-direction-hour at peak times, raising capacity from 5,000 to 20,000 passengers-direction-hour.

The project will include 12.4 route-miles of electrification, quadrupling the tracks between Park West and Heuston and the construction of a Heuston West station at Islandbridge. It also includes electrification of the Phoenix Park Tunnel route, which will enable DART trains to run to Dublin Connolly station and beyond as an alternative to the Heuston terminus.

DART+ South West forms part of the wider DART+ program to treble the current DART network from 32.9 miles to 93.2 miles, extending to Drogheda to the north, Maynooth and M3 Parkway to the west and Hazelhatch and Celbridge to the southwest. This will increase the number of people living within two-thirds of a mile of a DART station from about 250,000 to 600,000 in future.

[RAILWAY GAZETTE INTERNATIONAL](#), March 10

GDAŃSK

New EMUs Ordered

Pomorskie voivodeship (province) has confirmed orders for Newag to supply 20 electric multiple-units for use on SKM suburban services from Gdańsk to Wejherowo via Gdynia, and a further 11 EMUs for use on regional routes.

The EMUs from the manufacturer's Impuls 2 family will replace aging EN57 units.

The contract was signed on March 27 by the voivodeship, Newag and operator PKP SKM Trójmiasto, using an August 2022 framework agreement which included a firm order for one suburban and one regional unit with options for 29 more.

The first eight EMUs are scheduled to be delivered by the end of 2023, and from 2026 the Gdańsk to Wejherowo service will be operated only with new or modernized trains.

The value of the contract is 1.1 billion zloty, of which 690 million zloty is being provided by the EU and 442 million

złoty by the voivodeship, which has long been keen to support the operator in modernizing its fleet.



Rendering of the suburban version. Newag

The 20 EMUs for SKM services will have three cars each with three doors per side to facilitate rapid passenger flows, and a capacity of around 500 passengers.

The regional EMUs will have four cars, with one door on the end cars and two in intermediate cars. They will have a capacity of 440 passengers, including 140 seated, and 16 bicycle spaces.

Both types will feature air-conditioning, CCTV cameras and passenger information screens.

The voivodeship has also called tenders for the supply of four electro-diesel multiple-units, which will enable new through services to be launched and provide continuity of service during electrification works.

[RAILWAY GAZETTE INTERNATIONAL](#), March 31

Tramway Extension Opens

An extension of the Gdańsk tram network has opened, running for 1.1 miles along the newly-built Nowa Warszawska road from Ujescisko to Przemyska to link two existing tram lines in the south of the city.



N8C-MF 01 1131 (Düwag, 1981) is seen on the new extension in Gdańsk along the street known as Warszawska on March 4. This car came from Dortmund, Germany in 2010. There it carried the number 131.

Metro Report International photo

Celebrations on March 4 included a tram parade, family

picnic and rides along an adjacent bicycle route, ahead of the start of regular services the following day.

The extension with three stops was built by a consortium of Firma Budowlano-Drogowa MTM and Rajbud under a contract signed in February 2021. Civil works began in early March 2021 and were finished in December 2022.

The cost of almost 60 million złoty (€12.8 million) has been part-funded by the EU.

[METRO REPORT INTERNATIONAL](#), March 14

INDUSTRY

Alstom Delivers 1,000th Tram

Alstom celebrated its 1,000th tram manufactured in Vienna. Since 1990, Alstom Austria, which acquired Bombardier Transport in 2021, has manufactured 1,000 modern trams in Vienna for global riders from Austria to Australia.



Rendering of Wiener Linien's Type D 345 in its special livery celebrating the 1,000th tram made in Vienna. Alstom

The 1,000th tram is a Flexity Vienna for Wiener Linien and will soon be in daily service for the Viennese with unmistakable signage. The Flexity Vienna will replace the last high-floor tram models in the coming years and thus make the public transport system barrier-free. It is already in use on five lines, and two more will be added in the course of the year with lines 46 and 49 reports Gudrun Senk, managing director of Wiener Linien for the Technical Division, Construction and Facilities Management (CTO).

Alstom is located across the Danube River from "old" Vienna, in the 22nd District (Bezirk, in German), also known as Donaustadt. The site is Alstom's center for trams and light rail vehicles and employs around 800 people who cover the entire value chain, from initial customer contact to development, assembly, component production and post-commissioning support. Worldwide, there are only 10 of 140 Alstom locations that play such a role.

[ALSTOM PRESS RELEASE](#), March 13

LONDON

Depot Expansion Underway

Transport for London has appointed Morgan Sindall Infrastructure as main delivery partner for the expansion of the Docklands Light Railway's Beckton depot to accommodate the new B23 trainsets being supplied by CAF.



Rendering of the expanded Beckton Depot. Metro Report International

This will include the construction of a new maintenance building and additional stabling for the 54 five-car automated light metro trainsets, which are longer than the DLR's current fleet and are expected to enter service in 2024-26. The order includes 33 sets to replace some of the DLR's oldest trains, and 21 to increase capacity.

The maintenance building will include a train-lifting road, cranes, under-train access and pits. It will be used for final assembly of the new trains as well as for long-term maintenance. A test track will also be constructed to enable testing of the Thales signaling system that will be introduced for both the new trains and the existing B2007 fleet that is being retained.

The existing southern sidings will be extended, and additional sidings constructed to the north of the new maintenance building, providing a total of six new sidings accommodating 15 trains. The main depot works at Beckton are expected to be completed in 2024.

[METRO REPORT INTERNATIONAL](#), March 10

OSTRAVA

New Trams on Order

Ostrava has decided to further modernize its tram fleet. The Ostrava Public Transport Company (DPO) announced a tender for the supply and maintenance of 16 high-capacity trams with an option for the supply of nine more. The tender follows last year's preliminary market consultations.

The estimated value of the contract, which will include heavy maintenance, is €95 million. The winner will be determined based on the following criteria: The price of the new tram will account for 30% of the overall evaluation. Another 30% will be based on the level of technical

conditions and 40% on maintenance costs.

Last summer, DPO launched preliminary market consultations to determine the suitability of the technical parameters and other specifications of the upcoming public tender. The new trams will primarily replace KT8D5R.N1 vehicles. Ostrava has sixteen of these in its fleet, delivered in 1989 and added to the fleet in 1990.

The tender documentation stipulates one-way low-floor trams. The required capacity is at least 240 passengers, with a 30% seat minimum. The required maximum speed is 50 mph. The vehicles must be equipped with pivoting bogies and the length of the tram must not exceed 105 feet. The trams will therefore be significantly larger than the 39T Škoda Transportation trams delivered to Ostrava last year.



39T ForCity Smart 1772 (Škoda, 2022) is operating on route 8 at Ulice Nádražní on September 3, 2022. Currently, this is one of the newest trams in Ostrava today. Jan Šlehofer photo

The equipment will include a collision camera and an anti-collision system with automatic braking. The vehicles will be air-conditioned and equipped with an automatic access ramp for wheelchair users, a minimum of 20 USB ports per vehicle, and a camera system with a minimum of 21 cameras per vehicle. The vehicles will be fitted with heated seats.

[CEETRANSPORT.COM](#), March 11

PORTO

First CRRC Metro Train Delivered

CRRC has delivered its first metro train to Trindade metro station for use in the city of Porto, Portugal.

This marks the debut of the first urban rail vehicle to be exported from China to an EU country. The new metro train was designed by CRRC Tangshan and Metro Porto, with a focus on sustainability, comfort and safety.

CRRC says the model is fully compatible with those currently operating in Porto, but offers increased energy efficiency and reduced operational costs.

In addition to operating on existing lines, it has also been designed to run on new metro lines in the future, such as the

Metro do Porto yellow line extension.

The new metro train will now undergo a series of extensive testing prior to entering service in May.

[RAILWAY-NEWS](#), March 7



The first CT tram by CRRC for Porto at the Tangshan plant.
Metro do Porto photo

SPAIN**New Trainsets for Renfe**

Renfe has awarded CAF a contract for 29 electric trains for Cercanías for €192.7 million. This contract is part of Renfe's Fleet Renewal Plan, under which the company will make a global investment in excess of €5.5 billion for the purchase and overhaul of 539 new trains and locomotives.

The decision to award this contract to CAF was approved by Renfe's board of directors on March 27.



Rendering of the CAF train for Renfe. Renfe

As part of the contract CAF will provide maintenance for the trains for 15 years, as well as spare parts. The contract further includes an option for an additional nine electric trains. The trains will be four-car units with a capacity for more than 500 passengers.

The purchase of these 29 Cercanías units complements the acquisition of new Media Distancia trains (awarded to CAF in October 2022) to deliver the best efficiency in operation as well as the lowest long-term cost.

Renfe launched its Fleet Renewal Plan in 2019. It involves the

renewal of around half of the trains dedicated to Public Service Obligations (PSOs). The new trains will increase reliability and reduce the number of incidents causing disruption. They will also be more energy-efficient than their predecessors.

This contract is the third awarded to CAF as part of the Fleet Renewal Plan.

[RAILWAY-NEWS](#), March 31

SWITZERLAND**SBB and Alstom Compensation Agreement**

SBB (Swiss Federal Railways) and Alstom have reached an agreement for Alstom to compensate SBB for the delayed delivery of its long-distance double-decker fleet.

The value of this compensation roughly equates to the cost of six long-distance double-decker trains.

In summer 2022, the last of 62 long-distance double-decker units was delivered to SBB from Alstom, following its acquisition of Bombardier in 2021.

As part of the compensation package, Alstom will work on further optimizing the trains and will deliver maintenance services beyond the agreed period.



SBB's FV-Dosto double-decker trains are now some of the most reliable units in its fleet. SBB photo

The contract to build 59 double-decker trains was originally awarded to Bombardier in 2010. The new double-decker trains were scheduled to be commissioned in phases between 2012 and the end of 2019.

However, in 2014, a new delivery schedule was set and the manufacturer agreed to provide three additional units free of charge as compensation.

As this revised delivery schedule was also not realized, SBB and Alstom have now agreed on an additional compensation package.

SBB and Alstom reached this mutual understanding outside of court. The corresponding agreement was signed by both companies on March 3, 2023.

The two companies have agreed not to disclose any additional details regarding its terms.

[RAILWAY-NEWS](#), March 8

TOULOUSE

Line C Civils Contract Awarded

Toulouse transport authority Tisséo has awarded a 65:35 consortium of Eiffage and NGE a €233 million contract for civil works on the Colomiers to Laporte section of the automated metro Line C project.

Designated Lot 1, this includes 2.4 miles of tunnel, three stations and ancillary structures such as connecting shafts.

The tunnels will be lined with fiber-reinforced concrete tunnel segments requiring 95% less steel than other designs.

In February the consortium was awarded the €589 million Lot 2 contract which covers the 5.2 miles between Laporte and Ramnal.

Construction of Line C was launched in December 2022, with opening planned for 2028. It will run from 16.8 miles from Colomiers railway station in the west of the city to Labège in the southeast, with 21 stations.

[METRO REPORT INTERNATIONAL](#), March 14



Map of Toulouse's Line C. Tisséo

VALENCIA AND ALICANTE

Contract Signed for New Trams

Ferrocarrils de la Generalitat Valenciana (FGV) has contracted Stadler to supply 16 TRAMLINK low-floor trams for use in Alicante and Valencia, Spain.

This order is valued at €84.3 million and also includes an option for up to 12 additional vehicles to be supplied in two batches of six. The new 4500 series trams will be designed and manufactured at Stadler's plant in Albuixech and delivered to FGV within 32 months. They will then be incorporated into the Metrovalencia and TRAM d'Alacant fleets to operate on planned expansion projects within the two cities.

The new fully-accessible trams will provide greater capacity on FGV services while enabling efficient passenger boarding and alighting procedures thanks to their spacious layout. They will also feature modern passenger information and video surveillance systems, as well as an effective air conditioning system.



Rendering of FGV's TRAMLINK low-floor tram. Stadler

Currently, FGV has 46 tram units in service on Metrovalencia Lines 4, 6, 8 and 10 and 22 vehicles in circulation on lines 2, 3, 4 and 5 of the TRAM d'Alacant.

[RAILWAY-NEWS](#), March 6

VANCOUVER

Second TBM Breaks Through

The Broadway Subway project in Vancouver, B.C., marked another construction milestone during the week of March 12 when Phyllis, the second of two tunnel-boring machines (TBMs) digging the project's twin tunnels, broke through to the future Mount Pleasant Station.

TBM Phyllis began work last fall and excavated 725 meters (0.45 miles) of tunnel and installed 494 concrete liner rings between Great Northern Way and Mount Pleasant along the new section of tunnel.

Elsie, the first TBM, launched October 7, 2022, and broke through at Mount Pleasant Station in January. Both TBMs are approximately 150 meters (492.1 feet) long and were custom-built for the Broadway Subway project.

Elsewhere on the project, crews are installing girders to connect columns along the elevated guideway and excavation and construction of the station foundations are ongoing at the Broadway-City Hall, Oak-VGH, South Granville and Arbutus sites.

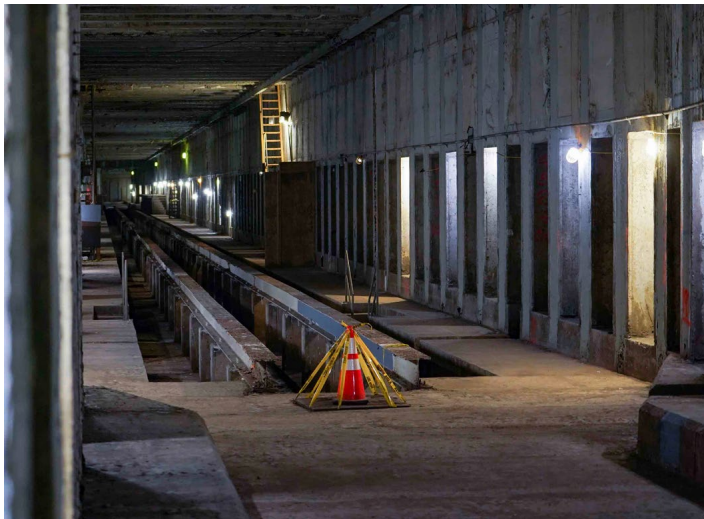
[MASS TRANSIT](#), March 22

Second Avenue Subway Phase 2 Moving Forward...Slowly

By *Subutay Musluoglu*

Since the opening of Phase 1 of New York City's Second Avenue Subway on January 1, 2017, news regarding the Phase 2 extension further north into East Harlem has been somewhat muted. This is due to several factors, not the least of which is the three-year disruption caused by the pandemic and its effects on MTA ridership and financing. Regardless, with the original Environmental Impact Statement (EIS) now close to 20 years old, a legally required updating was necessary to account for changes in the physical, demographic, and social-economic landscape which have occurred along the Phase 2 alignment. This work has been quietly proceeding over the last few years.

Concurrently, and equally as important, some key sites which had been previously identified as ideal locations for future station entrances and ancillary facilities (such as ventilation plants), were no longer available due to residential and commercial development. As such, suitable alternative sites must be found and any related potential adverse impacts identified in the environmental updating process. This includes potential eminent domain takings by the MTA which would be required if mutual agreements cannot be attained with affected property owners.



Taken on November 23, 2021, this is a view of the inspection pit that was included in the original construction of Section 13 from 110th to 120th Streets in the 1970s. This is the approximate location of the future 116th Street station. Marc A. Hermann-MTA photo

More recently, Phase 2 has been making news with signs of progress. First came the announcement on March 9 when the Federal Transit Administration (FTA) announced the list of projects from around the nation which have pre-qualified for the next round of New Starts funding. According to the latest FTA project profile, the MTA has submitted an updated capital cost estimate of just under \$7.7 billion for Second Avenue Subway Phase 2 and is seeking a Capital Investment Grant of \$3.4 billion, which would cover 44.2% of the cost.

The project is currently rated by the FTA as Medium-High which puts it in a very good position to receive a Full Funding Grant Agreement (FFGA). However, there are still several steps remaining which the MTA must fulfill before an FFGA can be awarded. Among them is an approved final design, and a demonstrated ability to commit the "local share" of close to \$4.3 billion. Once these steps are achieved, the FTA will update the project rating.

On the same day as the FTA announcement, President Joseph Biden's Fiscal Year 2024 Budget was released, containing a \$496.8 million line item for Phase 2, which represents the first potential installment of the FFGA.

Then, during an eminent domain hearing held on March 15, the MTA's deputy general counsel Charles Gary outlined the framework of construction contracts which will be required to execute the 1.76-mile-long extension of the line into East Harlem, with new stations at 106th Street, 116th Street, and Lexington Avenue-125th Street, where transfers to the Lexington Avenue Line [4](#) [5](#) [6](#) and Metro-North Railroad will be provided.

At this time, it is anticipated that four contracts will be required:

Contract 1 is for early preparatory works and utility relocation. The process of identifying the myriad of utilities buried under Second Avenue and moving them out of the way of subway construction was a significant challenge in Phase 1, and it will be no different in Phase 2 (more on that later). Contract 1 is scheduled to be advertised sometime in the next few months.

Contract 2 will be a design-build contract covering the segment from 115th Street and Second Avenue to a point on 125th Street just west of Malcolm X Boulevard (Lenox Avenue). It will call for the use of a Tunnel Boring Machine (TBM) to bore the running tunnels along Second Avenue from 120th Street north to 125th Street, and then west along 125th Street. It includes the mining of a cavern for the future Lexington Avenue-125th Street Station, which will have its eastern end directly underneath the IRT Lexington Avenue Line's 125th Street Station.

This last aspect of Contract 2 is anticipated to most likely be the greatest construction challenge of Phase 2, as a complex and delicate mining operation will be required to construct a new island platform station cavern below, and perpendicular to, the lower level of the 125th Street [4](#) [5](#) [6](#) station at an elevation deep enough so as not to disturb it. Significant alterations to the current station will be needed to provide the transfer connections between the two lines. At least two, possibly three, new prominent street entrances will be added to the joint complex. All of this will have to be performed with minimal impact to daily train operations and passenger movements at one of the busiest, non-transfer, single line subway stations in Manhattan.



Contract 2 also includes the restoration and adaptation of a pre-existing tunnel segment built in the 1970s between 110th and 120th Streets, converting a portion of it for the future 116th Street Station. Technically known as Section 13 of Route 132-A, this segment is unique for having provision for a third, center trackway equipped with an inspection pit, originally intended to be used for light running repairs and getting disabled trains out of the way. Since there was no station originally planned in this section, it will be necessary to carry out significant structural modifications to adapt it to accommodate the 116th Street Station.

Contract 2 is scheduled to be advertised before the end of this year. In advance of that the MTA has been in consultations with prospective tunneling contractors to identify the best approaches to the more challenging aspects of Contract 2, including the mining operation for the Lexington Avenue Station, the selection of the most suitable TBM type, and the best site for the TBM launch box.

All in all, Contract 2 will be the one to watch closely as construction progresses. It will most likely be the one with the highest monetary cost and the potential to have the greatest impact to the overall Phase 2 project schedule if things go awry.

Contract 3 will be for the cut and cover construction of the 106th Street Station structure with connections to two existing tunnel sections to the north and south, plus station entrances and connections to two ancillary buildings. To the south, a link will be established with Route 132-A Section 11 between 99th and 105th Streets, also built in the 1970s and later absorbed into Phase 1 to serve as tail tracks beyond the current 96th Street Station. To the north, it will be joined with the aforementioned Section 13 being modified under Contract 2.

Contract 4 covers the construction of five ancillary buildings, station entrances, final fit-out of stations and tunnels, mechanical-electrical-plumbing work, architectural finishes, and the installation of track and signal systems.

Phase 1 was bedeviled by numerous external challenges which threatened to disrupt the project's progress. Chief among them was utility relocation, a complex undertaking for any project under New York City streets. Typically, it becomes an exercise in cat herding, as locating and identifying the assets of all the various utility owners — Con Edison (electricity and gas), Verizon (fiber optic), Empire City Subway (telephone), NYC Department of Environmental Protection (water and sewers), cable TV, and miscellaneous others — and coordinating them with contractors is a slow and protracted process.

The years-long construction was harmful to storefront businesses all along Second Avenue, as sidewalks were replaced by circuitous detours and tall fencing. Several establishments suffered from a loss in foot traffic and eventually closed long before the subway even opened.

There were some occurrences of building damage and settlement in Phase 1, one which was serious enough to prompt the MTA to partially reconstruct the foundation and

basement of a multi-story apartment building.

Costly and time-consuming litigation by property owners forced late design changes to street entrance locations, including one notable lawsuit over the placement of the two entrances on the north side of 86th Street just east of Second Avenue. The case was eventually decided in the MTA's favor, but not before a needless two-year delay endangered the overall construction schedule of the 86th Street Station.

The MTA will be working hard to heed the valuable lessons learned in Phase 1 and minimize their reoccurrence in Phase 2. Strategies to streamline the utility relocation process are being developed now. Efforts are underway to minimize the impact to local businesses and residents in the interest of fostering good will within the community. To that end, as was done for Phase 1, a Second Avenue Subway Community Information Center is open at 69 East 125th Street, between Park and Madison Avenues, just west of the Metro-North Railroad Station.

Eagle-eyed observers will have noticed that the Phase 2 segment extends well beyond the 125th Street Station at Lexington Avenue (see map on page 22). This will provide the tail tracks essential to the future operation of the Second Avenue Subway, especially if Phase 3 of the line is ever built. Phase 3 will take the Second Avenue Subway south to Houston Street and when—if it becomes operational, service will be split between the current Broadway Line service and a second planned service to Houston Street. The tail tracks will be critical to sustain a high level of balanced service between two southern terminals and a single northern terminal.

Furthermore, you will see that the tail tracks pass directly below the Lenox Avenue Line's 125th Street Station, a tantalizing possibility for a future transfer to the . It should be noted that because such an arrangement was not examined in the original Environmental Impact Statement, legally the MTA cannot just add a station there, regardless of the obvious utility such a station could have (which could indeed be very useful).

However, as part of its 2025-2044 20-Year Needs Assessment, the MTA is considering several corridors for future Network Expansion, including a further extension of the Second Avenue Subway west along 125th Street or to the north, with possibly two to four new subway stations. Possible alternatives being considered include terminating at Broadway and 125th Street, turning north under Broadway, turning north under Riverside Drive or turning north under St. Nicholas Avenue and merging with the IND Eighth Avenue Line north of 135th Street.

It's way too early at this stage to speculate if any westward-northern extension would take priority over a Phase 3 extension down to Houston Street. The focus right now is to get shovels into the ground on Second Avenue Subway Phase 2.

[FEDERAL TRANSIT ADMINISTRATION](#), March 9

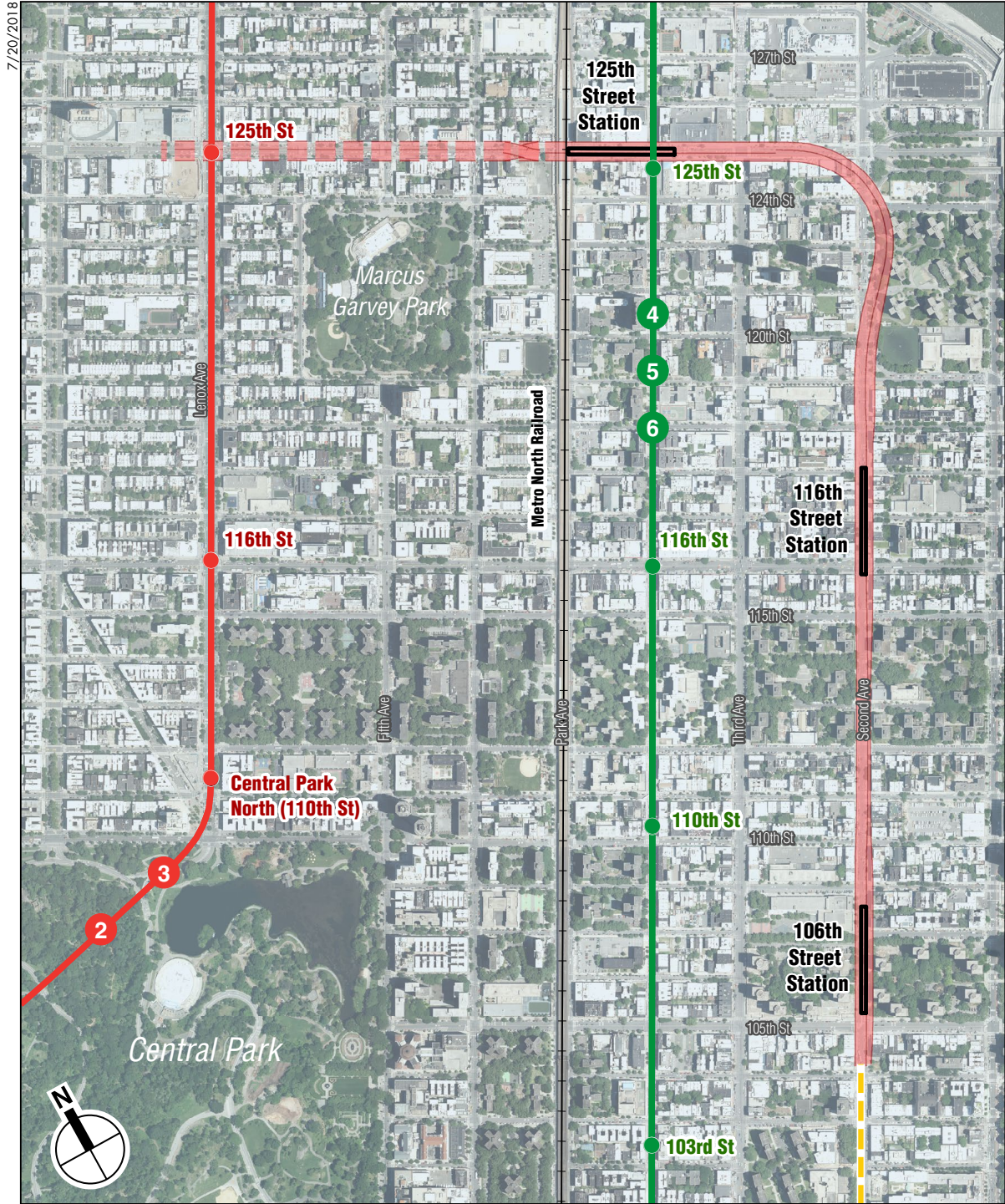
[RAILWAY AGE](#), March 9

[ENGINEERING NEWS RECORD](#), March 16

[RAILWAY TRACK & STRUCTURES](#), March 17

[MTA'S 2025-2044 20-YEAR NEEDS ASSESSMENT](#)

Second Avenue Subway Phase 2 Project Map



- Proposed SAS Phase 2 Alignment
- Existing Stations
- Proposed SAS Phase 2 Tail Tracks
- 2 3 Existing Subway Lines
- 5 6 Existing Subway Lines
- Proposed Station
- SAS Phase 1 Limits

0 1,000 FEET

Proposed Second Avenue Subway - Phase 2

Figure 1

SECOND AVENUE SUBWAY PHASE 2 | New York City, NY

Book Review

By Paul Grether

CONRAIL Under Pennsy Wires

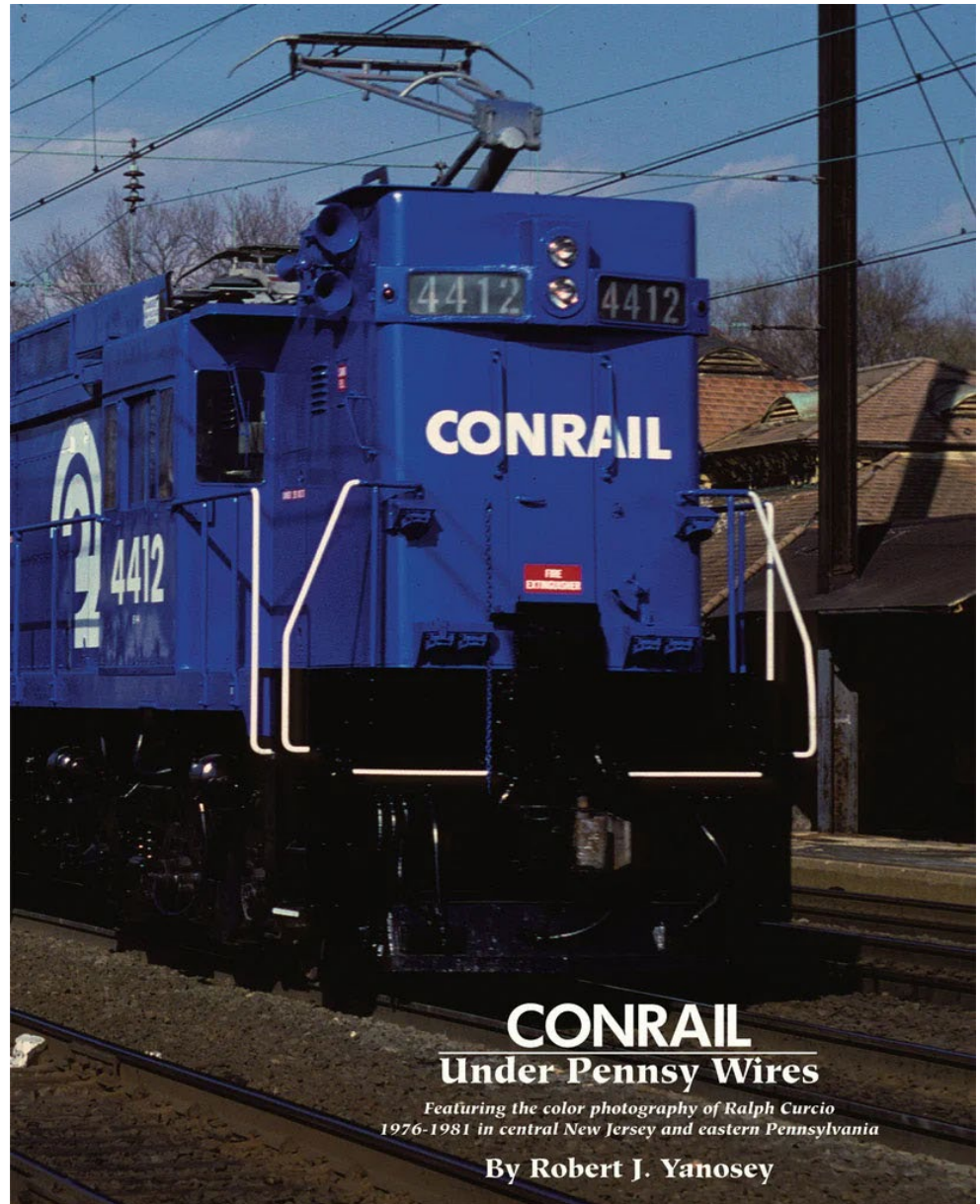
by Robert J. Yanosey, published in 2014 by Morning Sun Books, hardcover, 128 pages, all color including track charts

When Conrail was formed in 1976 it inherited electric operations from predecessor Penn Central, who in turn inherited electric railroad infrastructure from several predecessor roads including the Pennsylvania Railroad. While Conrail operated mostly freight on the former Pennsylvania Railroad electrification there were a handful of contracted electric commuter rail operations. This volume documents the period of Conrail electric operations on the Northeast Corridor, the Harrisburg line and a few other locations in New Jersey and eastern Pennsylvania. The photos mostly show Conrail freight operations but other types of trains are shown as well. Conrail by necessity had a relationship with Amtrak whose ownership of the electrification complicated the functioning and economics of Conrail electric operations. Despite ongoing government studies to extend the electrification from Harrisburg to Pittsburgh, eventually Conrail abandoned both electric operations and most of the operation of any trains on the former Pennsylvania electrified territories as the memory of the 1970s oil embargoes quickly faded.

The normal Morning Sun Books format is followed where high-quality color photography is the dominant feature in the volume. However, the captions are lengthy, detailed and provide an equivalent to a text-primary format. The book includes interesting descriptions of the electric operations and the reasons for the early 1980s wind-down. A track chart, a large table of facts and figures and a brief synopsis on the business case for the abandonment by a former Conrail vice-president are included. This volume, while geographically somewhat limited, is actually organized chronologically with a chapter for each year of Conrail electric operations between 1976-1983. The selection of photographs includes very broad subjects,

including freight, passenger, Amtrak, commuter and other interesting special equipment and-or movements, including many non-Conrail trains. Captions provide the context and background for each.

This volume will appeal to those with an interest in Conrail, the northeast corridor, 1970s and 1980s railroading, Amtrak and especially electric railroading as the last significant electric freight operation came to an end. A subsequent volume 2 covers the earlier transition from Penn Central to Conrail, the southern half of the electrified territory in southeastern Pennsylvania, Delaware and Maryland with a focus on the technical details of electrified operations.



Travels with Jack May

Britain and the Baltics — Part XIV

By Jack May (Photographs by the author)

(Author’s note: Alan Pearce sent a note and some photos correcting the location of the last two pictures in Part XIII. He wrote that the location is not the back portal of Manchester Piccadilly station, but rather the east side of a road underpass about a quarter mile away. A long center track that was used to reverse trams in earlier times is located between the underpass and the station. Sorry about the error, but on the other hand, it gave me the opportunity to show Metrolink’s original AnsaldoBreda T-68 cars, as recorded by Alan’s camera in September 2013.)



(Above and below) Two Alan Pearce views of Metrolink’s portal at the rear of Manchester Piccadilly station. The upper photo clearly shows the center track.



Sunday, August 20 (continued)

The walk to the Metrolink tram terminal at Manchester Airport was a bit long, and once we arrived, we saw that the regular 12-minute headway was being operated early this Sunday morning. At the time of our arrival the Airport tram line was known as route F and ran only as far as

Deansgate–Castlefield. It was later extended four stops further to Victoria station and at that time became route 6 as numbers were substituted for letters on the network map. Now it appears that even the numbers have been dropped. I believe the destination signs on the rolling stock never carried a route number or letter. But be that as it may, we were going to concentrate on photographing the outer end of the line, which runs through a blend of industrial and residential neighborhoods. It is a very photogenic line (although a bit slow running), and we stopped at several stations for photos in the sunny weather. This nine-mile extension of the East Didsbury line from St. Werburgh’s Road (see below) opened on November 3, 2014, and consists of a combination of street running, central reservation, side reservation and cross-country private right-of-way. Here are the links for maps of the Manchester Metrolink tramway, also provided in Part XIII: [https://upload.wikimedia.org/wikipedia/commons-b-b6-Map_of_Manchester_Metrolink.png](https://upload.wikimedia.org/wikipedia/commons/b/b6/Map_of_Manchester_Metrolink.png) for a geographically correct map of the system and [https://en.wikipedia.org/wiki-Manchester_Metrolink#/media-File:Manchester_Metrolink_-_Schemaplan.png](https://en.wikipedia.org/wiki/Manchester_Metrolink#/media/File:Manchester_Metrolink_-_Schemaplan.png) for a diagrammatic map; both no longer show route numbers.



An inbound M5000 is shown in the suburb of Wythenshawe en route to Deansgate–Castlefield at the edge of central Manchester.

St. Werburgh’s Road station is just beyond the junction of the Airport and East Didsbury lines, and after a photo, we transferred to an outbound car on the latter route, which is far less interesting, as it runs on a railway right-of-way. We rode out to the line’s end point and then returned toward the city center. The outer part of the East Didsbury line (2.7 miles) was opened on May 23, 2013, while the inner portion, now combined with the Airport line (1.7 miles), came on line on July 7, 2011.

Andrew Beech provided the following information about the history of the East Didsbury line.

“This line runs along a former Midland Railway mainline railway that connected Manchester Central station (now the G-Mex conference center) with London St. Pancras via Derby and Leicester. The Beeching Report in 1962 prescribed savage cuts to Britain’s railway network and among the recommendations was that no two cities should be joined by more than one mainline railway. So, Manchester to London is now served by the Manchester Piccadilly to London Euston line and Metrolink has taken over the northern part of the Manchester Central line. Actually, the section into Manchester through East Didsbury remained open for freight for many years after passenger service was eliminated. Also, local Manchester trams operated from the city to East Didsbury by a more direct route, and the outer portion was on reserved track. But that did not deter the authorities from replacing the trams with buses in December 1947.”



(Above and below) Two additional views of Metrolink’s photogenic Manchester Airport line on private right-of-way. There are some sections of street running as well. In the upper view an outbound M5000 is approaching the Wythenshawe Park stop, while below, a little further toward the line’s junction with the East Didsbury branch, an M5000 approaches Northern Moor station.



We got off our Rochdale-bound tram at Deansgate-Castlefield, a four-track island-platform station whose

center rails were being used to turn back Airport line cars (as mentioned earlier, these cars now run to Victoria).

We then headed for Rochdale, but by the time we got to Oldham, Richard decided to return, as he no longer had sufficient time to visit the Heaton Park tramway (which I did later — to be described in part XV next month) and get back home to Croydon at a reasonable hour. I wished him farewell (and wondered if I’d catch up to him at the park — I didn’t) and continued toward Rochdale, where I stopped over for a photo at the Shaw and Crompton station.



The rear of an inbound tram from Manchester Airport is shown crossing under St. Werburgh’s Road after stopping at the station of the same name, the first after the line’s junction with the East Didsbury route. This right-of-way once was used to bring Midland Railway mainline trains from St. Pancras Station in London to Manchester Central Station.

This 14-mile, 19-stop line at the northeastern end of the network opened in pieces in 2012-13, and runs over a railroad alignment as well (the former Lancashire and Yorkshire from Victoria station), but with a little twist. The diesel line closed for conversion to light rail in 2009, but instead of a “cheap and dirty” project with no major infrastructure changes, in both Oldham and Rochdale it leaves the railway right-of-way and travels through the city center via a surface alignment (mostly on street) to serve traffic generators in town rather than isolated railroad stations. I saw this approach for the first time in the town of Worth, Germany on an extension of the Karlsruhe tram-train, and was very impressed. At the places where the line left and reentered the railway two power conversions (15kV AC to 750v DC) were put in, as high voltage is not safe in an urban streetscape — but with Metrolink using 750v DC throughout, that was not necessary here. In Rochdale the line leaves the railroad alignment right before the passenger station (direct DMU service between Manchester Victoria and Leeds) and then ends at Rochdale Town Centre, two stops later.

By now it had begun to drizzle and so I didn’t attempt to take any more photos, but I’d like to come back to illustrate this modus operandi by showing the connecting tracks from the railway to the street and back. In addition, I’d like to stop

at the Newton Heath and Mostyn station for a photograph, as the line runs on bi-directional single track through that stop, as the former second track of the commuter line which preceded Metrolink is still connected to the national railroad system (now Network Rail) for freight service to a waste disposal facility. The former platform used for trains to Oldham and Rochdale was removed and the track opposite the Metrolink station is not electrified. I should mention

that the trams I rode in both directions were delayed prior to entering the section of single track, despite running on a 12-minute Sunday headway. I couldn't help wondering what happens on weekdays when service operates every six minutes in each direction.

I returned to Victoria from Rochdale, and then transferred to a Bury tram, heading for the tramway museum at Heaton Park, which will be the subject of Part XV of this report.



An Altrincham-bound tram stops alongside the outbound platform of the four-track Deansgate-Castlefield stop, while an Airport tram waits for passengers.



The rear of a Rochdale-bound tram was photographed from the outbound platform of the Shaw and Crompton stop. On weekdays every other tram from East Didsbury is turned back here, providing most of the line's passengers with a 6-minute frequency.