



BULLETIN

Volume 65, Number 7 | July 2022

Major Increase in the Number of Accessible Subway Stations Announced

On June 22 it was announced that the Metropolitan Transportation Authority and accessibility advocates reached a class action settlement agreement.

The agreement will resolve two class action lawsuits (Center for Independence of the Disabled, New York, et al. v. Metropolitan Transportation Authority, et al. and De La Rosa et al. v. Metropolitan Transportation Authority et al.), and is subject to court approval, a notice period where class members will have the opportunity to comment, and a fairness hearing. Under the terms of the agreement, the MTA will add elevators or ramps to create a stair-free path of travel at 95 percent of the currently inaccessible subway stations by 2055.

Accessibility projects at 15 subway stations across four boroughs have been completed since 2020, all while the MTA was dealing with a dire financial crisis brought on by the COVID-19 pandemic. Contracts have been awarded for another 22 stations and an additional 13 station projects are

in procurement.

As part of the agreement reached with accessibility advocates, the MTA has committed, subject to extensions of time based on funding commitment caps and other contingencies, to procure contracts to make accessible 81 stations by 2025, another 85 stations by 2035, another 90 stations by 2045, and the last 90 stations by 2055.

Of the 493 stations in the transit system – 472 subway stations and 21 Staten Island Railway (SIR) stations – 131 are fully accessible to passengers with disabilities, via elevators and ramps, including five SIR stations.

The following stations are funded for upgrades under the current capital plan:

- 8 Av N
- Tremont Av B D
- 149 St-Grand Concourse 2 4 5
- 6 Av L
- 14 St F M 1 2 3
- Woodhaven Blvd M R
- Westchester Sq-East Tremont Av 6
- Queensboro Plaza N W 7
- Court Sq G
- 68 St-Hunter College 6

(continued on page 3)



Electric Railroaders' Association, Inc.

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

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Cover Photo

A pair of Metro Transit Flexity Swifts, 101+111 (Bombardier Transportation, 2003), are operating inbound on the 55 route on Hennepin Avenue in downtown Minneapolis. They are about to arrive at the terminal station, Warehouse District/Hennepin Avenue, and are just east of 5th Street in this view southeast on June 15, 2006. This first light rail line in Minnesota opened on June 26, 2004 from downtown to the Fort Snelling station. On December 4, 2004, service was extended to Mall of America station via Minneapolis–St. Paul International Airport. On November 14, 2009, the line was extended a few blocks north to Target Field to provide connections to the new Northstar commuter rail line to Big Lake, 40 miles north of Minneapolis. Route 55 was officially renamed the Blue Line on May 17, 2013. Construction of the area's second light rail line, the Green Line connecting downtown Minneapolis and St. Paul, began in late 2010 and opened on June 14, 2014. Jeff Erlitz photo

Donations

The ERA Board of Directors express their deepest appreciation for two member donations in May 2022.

\$100 to \$199

Robert Mahar

\$50 to \$99

Les Sugai

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

Meeting

There are no meetings in July and August.

Trips



A pair of Citadis Spirit LRVs led by 1112 (Alstom, 2018) are seen at the Tremblay Station of Ottawa's Confederation Line on opening day, September 14, 2019. Andrew Grahl photo

After a three-year absence, the Metropolitan New York Bus Association Committee of the Motor Bus Society's annual five-day bus and rail extravaganza returns! The venue is the classy Alt Hotel on Slater Street in downtown Ottawa, situated near many bus routes and one block from the O-Train, Confederation Line Parliament Station.

For details point your browser to <https://erausa.org/regional-trips/2022/08/>



- Bay Ridge-95 St **R**
- Grand St **L**
- Beach 67 St **A**
- 7 Av **F G**
- Dyckman St **1**
- E 149 St **6**
- New Dorp SIR
- Lorimer St **L**
- Metropolitan Av **G**
- 181 St **A**
- Church Av **B Q**
- Sheepshead Bay **B Q**
- Rockaway Blvd **A**
- Kings Hwy **N**
- Woodhaven Blvd **J Z**
- Steinway St **M R**
- Junius St **3**
- Mosholu Pkwy **4**
- Northern Blvd **M R**
- 137 St-City College **1**
- Parkchester **6**
- Borough Hall **4 5**
- Broadway Junction **A C L J Z**
- Broadway **N W**
- 36 St **D N R**
- 18 Av **D**
- Kings Hwy **F**
- Norwood Av **J Z**
- Myrtle Av **J M Z**
- Jefferson St **L**
- 96 St **B C**
- 81 St-Museum of Natural History **B C**
- Hoyt-Schermerhorn **A C G**
- Nostrand Av **A C**
- 167 St **B D**
- Avenue I **F**
- Neptune Av **F**
- Parsons Blvd **F**
- Briarwood **E F**
- 7 Av **B D E**
- Classon Av **G**
- Van Cortlandt Park-242 St **1**
- New Lots Av **3**
- Brook Av **6**
- 3 Av-138 St **6**
- Kingsbridge Rd **4**
- Burnside Av **4**
- 110 St **6**
- 86 St **4 5 6**
- Wakefield-241 St **2**
- Harlem-148 St **3**
- 46 St-Bliss St **7**
- 33 St-Rawson St **7**
- Clifton SIR
- Huguenot SIR
- 168 St **1**
- Court Sq-23 St **E M**
- 42 St-Bryant Pk **B D F M**
- 5 Av **7**
- Lexington Av/59 St **N R W**
- 59 St **4 5 6**
- Delancey St-Essex St **F M J Z**

Worldwide Electric Railway, Metro and Tramway Openings in June

Date	Country	City	Segment	Distance (miles)	Rail/Metro/Tram
5/31	France	Paris	Line 12: Front Populaire to Mairie d'Aubervilliers	1.2	M
6/10	China	Hangzhou	Line 3: Chaowang Road to West Wenyi Road/Shima	19.3	M
6/16	Malaysia	Kuala Lumpur	Putrajaya Line: Sungai Buloh to Kampung Batu	7.5	M
6/18	China	Chongqing	Line 4: Tangjiatuo to Huangling	20.4	M
6/20		Zhengzhou	Chengjiao Line: Xinzheng Int'l Airport to Zhengzhou Hangkonggang Railway Station	5.6	R
6/24		Hangzhou	Line 10: Cuibai Road to Xueyuan Road	?	M
6/25		Jiaxing	Line T1: Jiaxing Railway Station to East Zhongshan Rd/Anle Rd	?	T
6/28		Changsha	Line 6: Xiejiaqiao to Huanghua Airport T1 & T2	29.9	M
6/29		Kunming	Line 5: World Horti-Expo Garden to Baofeng	16.5	M
6/30	Poland	Warszawa	Line 2: Ksiecia Janusza to Bemowo	1.3	M

URBAN RAIL NEWS WEBSITE, JUNE 30: <https://www.urbanrail.net/news.htm#nowopen>

Rail News in Review

New York Metropolitan Area

NEW YORK CITY TRANSIT (NYCT)

R-33 Being Sold at Auction

R-33 9075 is being sold at auction by the New York City Department of Citywide Administrative Services. Retired from service on March 14, 2003, it had been on display outside Queens Borough Hall on Queens Boulevard in Kew Gardens since 2005, where it had been used as a visitors' center.

The auction started on June 22 and ends on July 8. The opening bid was \$6,500 and by publication date, 23 bids later, the price had reached \$31,100. You can place a bid by pointing your browser to <https://www.publicsurplus.com/sms/nycdcas,ny/auction/view?auc=3055793>.

Number 9075 was spared the "aquatic" fate of the vast majority of "Redbirds" (most were "reefed") when then-Queens Borough President Helen Marshall reportedly bought it for one dollar and set it up as the visitors' center outside Borough Hall.



R-33 9075 (St. Louis Car, 6/1963) sits on its plinth outside Queens Borough Hall on July 11, 2015, seven days before it closed to the public.

Subutay Musluoglu photo

The borough president's office worked with the non-profit Queens Economic Development Corporation on the project, dubbed the Queens Tourism Center, to attract visitors from across the globe to the "World's" Borough.

But the center's location off the beaten tourist path between Borough Hall and the Queens Criminal Court did not draw a lot of foot traffic.

The current Queens Borough President, Donovan Richards, does not share Marshall's affinity for the subway car, and

is now selling it off and reimagining how the grassy knoll can best engage "building visitors and the surrounding community."

AM NEW YORK, JUNE 23

NEW YORK POST, JUNE 24

New Subway Car Assignments

On June 26, new car assignments were put into effect on both Divisions A and B.

On Division A (IRT), five R-62As were transferred from Livonia Yard to Westchester Avenue Yard. Ten R-142s were transferred to 239th Street Yard, five each from Jerome (Mosholu) Yard and East 180th Street Yard.

Since the last car assignment on December 19, 2021, total peak requirements have decreased by three trains in the AM and three trains in the PM. This was due to the reduced running times on the 2, 3 and 5 lines in the Spring 2022 Pick.

There were no car transfers on the B Division (BMT/IND) but the fleet size shrank by 24 cars due to the retirement of the last R-32s. Car unavailability increased from 539 to 545 since the December 21 car assignment.

These car assignments reflect the maximum service requirement, whether AM or PM.

IRT Car Assignment – June 26, 2022

Line	Cars Assigned
1	310 R-62A
2	350 R-142
3	250 R-62
4	180 R-142, 170 R-142A
5	350 R-142
6	370 R-62A
7	418 R-188
S	12 R-62A

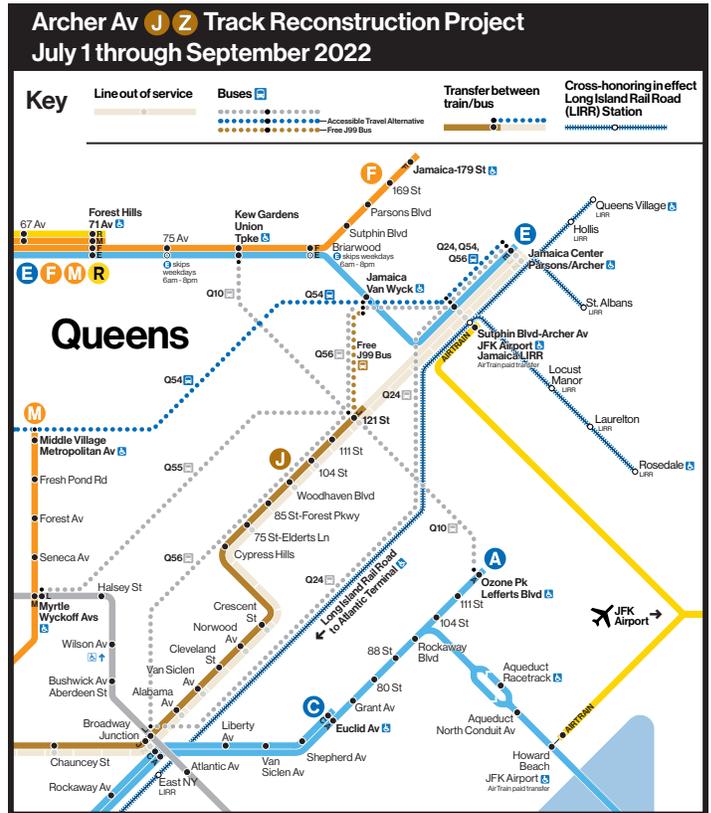
BMT/IND Car Assignment – June 26, 2022

Line	Cars Assigned
A	224 R-46, 110 R-179
B	48 R68, 152 R-68A
C	72 R-46, 72 R-179
D	232 R-68
E	260 R-160A



Line	Cars Assigned
F	210 R-160A, 140 R-160B1, 110 R-160B2
G	65 R-160B2
J Z	88 R-160A, 72 R-179
L	176 R-143, 16 R-160A
M	192 R-160A
N W	176 R-46, 72 R-68, 16 R-68A
Q	168 R-46, 8 R-68
R	80 R-160A, 190 R-160B1, 40 R-160B2
S Rockaway	8 R-46, 5 R-179
S Franklin	4 R-68

- Rosedale (ADA accessible)
- MTA PRESS RELEASE, JUNE 28



The service poster for the Archer Av shutdown, done in the Vignelli style that has recently become popular again. MTA website

Lower Level of Archer Avenue Line to Shut Down
 Starting on Friday, July 1 at 9:45 PM, Tracks J1 and J2, from one train length past the double crossover beyond 121st Street Station to the bumping blocks beyond Jamaica Center/Parsons-Archer, will be out of service continuously until about September 12. This is for major track reconstruction work being performed by Railworks, Inc./L.K. Comstock & Company, Inc. under contract M-44146.

The work will be similar to what was done on the upper level of Archer Avenue a year and a half ago.

The replacement of the original direct fixation track (Type VIII) requires a full suspension of service to accommodate the work. Unlike conventional tracks, which are most common in the subway and easier to replace in shorter time periods during low ridership, direct fixation track requires the concrete roadbed to be entirely reconstructed. This project will replace 12,500 feet of track and third rail. Once this final phase of track replacement is complete, the total amount of track replaced in this area of Queens will be 18,800 feet, about 3.6 miles.

During the shutdown, J trains will operate from 121 St to Broad St at all times. Rush hour skip-stop service is suspended and all trains will make all stops. Z trains will be signed up as J trains. Weekday peak-direction express service between Marcy and Myrtle Avenues will continue to operate.

Free substitute shuttle bus service will be provided between the 121 St J station and the Jamaica-Van Wyck E station. MetroCards will be cross honored for travel between Atlantic Terminal, Brooklyn and the following LIRR stations:

- Nostrand Av (ADA accessible)
- East New York
- Jamaica (ADA accessible)
- Hollis
- Queens Village (ADA accessible)
- St. Albans
- Locust Manor
- Laurelton

Testing Tech to Modernize Signal System

The Transit Tech Lab announced that four companies were selected as finalists in its Signaling Challenge, a global competition calling for technologies that will help modernize New York City’s aging subway signaling system quickly and cost-effectively. The challenge seeks to increase subway capacity, efficiency and reliability by enabling trains to run closer together. The four finalists, selected from nearly 60 applications, are testing solutions that utilize emerging technologies such as artificial intelligence, LiDAR (light detection and ranging) and communication-based train control (CBTC) across the New York City Transit subway system.

The Transit Tech Lab is part of the Transit Innovation Partnership, a public-private initiative created by the Metropolitan Transportation Authority (MTA) and Partnership for New York City.

- The four finalists are:
- **4AI Systems** (New York, NY) – Using on-train artificial intelligence system to detect infrastructure, obstacles and wayside objects. The technology supports train operators in identifying obstructions, track intrusion, and equipment in need of repair.



Alstom (West Henrietta, NY) – Using Urbalis, their latest technology, to enable faster communication between trains and bi-directional train movement. The product has a simplified, train-to-train architecture that eliminates the need of wayside equipment, reduces installation times, improves operational headway and speed, and lowers life cycle costs.

Luminar (Orlando, FL) – Using long-range LiDAR technology coupled with perception software from their partner, Seoul Robotics, to accurately position a train underground, including areas where GPS traditionally fails. The product provides accurate arrival and departure data and can be further trained to detect hazards and structural damage on the tracks.

Ouster (San Francisco, CA) in partnership with **Lux Modus** (Calgary, Canada) – Using digital LiDAR sensors to collect millions of high-resolution 3D geospatial data points on a Track Geometry Car. The technology provides a digital twin and detects structural damage, infrastructure decay and foreign objects on the tracks.

MTA PRESS RELEASE, JUNE 30

IND Concourse Line Reconstruction Starts

The next phase of the Concourse Line reconstruction work will begin on Tuesday, July 5. The project will restore this line to a state of good repair by addressing structural defects between the 161 St-Yankee Stadium and Bedford Park Boulevard stations.

In this phase of work, Track C3-4 is out of service from the south end of 161 St station to the north end of 167 St station.

The joint venture of JT TC (J-Track and TC Electric) was awarded this work under contract C-48704 on December 17, 2021.

Work in this project to rehabilitate the 89-year-old line includes:

- Mitigating leaks to prevent future corrosion and deterioration
- Repairing or replacing corroded structural beams and columns
- Repairing spalled concrete and cracks
- Removing and replacing radio antennae
- Repairing street level vents

Crews will also use the planned weekend closures as an opportunity to refresh the nine stations along the line between Norwood-205 St and 167 St.

Beginning July 5 and continuing through December and for an additional four weeks in 2023, all **D** service will operate on the local track in both directions while the express track is closed. Street level vent repair along Grand Concourse between 161 and 192 Streets began last month for this project. Beyond the aforementioned service changes, weekend outages will be necessary through March 2024 and the project will be completed by September 2024.

MTA PRESS RELEASE, JUNE 30

Flushing-Main St **7** Access Improvements

Work is commencing on the construction of eight new staircases to ease current overcrowding and acute congestion on platform and street level stairs which occur during peak hours. The new stairs will better accommodate both incoming and outgoing passengers west of Main Street while improving circulation for those using all stairs throughout the station.

Four new street to mezzanine stairs will be installed in addition to four new mezzanine to platform stairs. The new street to mezzanine stairs will be located on the north (facing north) and south (facing south) corners of Main Street and to the west of Main Street along both the north and south sides of Roosevelt Avenue. Four existing street stairs will be rehabilitated for ADA compliance and four existing platform stairs will be reoriented. The mezzanine will be expanded and two new fare control areas with six new turnstiles will be constructed. The existing CCTV camera system will be upgraded and wayfinding signs within the station will be improved. Including the expense of relocating existing utilities, the total estimated cost of this project is \$61 million.

Construction will only occur within the station during off-peak hours. Full access to a minimum of four street level stairwells will be maintained to the mezzanine areas. Access to the four stairs that serve the north and south platforms from mezzanine areas will also be maintained at all times. The project is expected to be substantially complete by the end of October 2023.

ECCO III Enterprises, Inc. was awarded this contract, A-37691, back on December 21, 2021.

MTA PRESS RELEASE, JUNE 28

New Avenue X Interlocking

Over three consecutive weekends, May 28-31, June 4-6 and June 11-13, a new interlocking was placed into service at Avenue X on the IND Culver Line.

Tutor Perini Corp. is the prime contractor on this contract, S-47009, and Five Star Electric Corp. is the sub-contractor. This contract, in addition to this new interlocking, installs the Communication-Based Train Control (CBTC) system overlay on the Culver Line from West 8th Street to Church Avenue.

This new interlocking is controlled from a temporary computer workstation in Tower C in Coney Island Yard. Prior to this signal cut-in, Avenue X was just a part of the whole Culver Yard Interlocking and not separate. The new Avenue X Relay Room is only about thirty feet south of the existing Tower C building, just west of Shell Road. Interestingly, it has a much larger footprint than the tower.

After many years of “standardizing” on push-button, all-relay maintainer’s control panels built by the Mauell Corporation of Dillsburg, Pennsylvania, this relay room has a “soft” panel built by Schneider Electric.

The Transit Authority’s first installation of soft panels for signal control and indications are at 34th Street on the IRT

Flushing Line. Those panels (there are four of them, side by side) were also built by Schneider and were placed in service on November 10, 2014. In addition to being touch-panel displays, those also have track balls to control the cursor movements on the screens.

Regular Culver Line riders have undoubtedly noticed what appears to be an old tower at the south end of the southbound platform at Avenue X station. This structure, apparently, was never actually put into service as an interlocking tower, from the day the Culver Line was extended from Avenue X to Stillwell Avenue on May 1, 1920. The switches to the yard lead tracks from the Culver Line into Culver and Coney Island Yards were spiked normal for many years, possibly until 1954 when IND operation started. Culver Line trains were only stored in Stillwell and 36th Street Yards.

Long-Term Work at 149 St-Grand Concourse 2 4 5

Back on May 20, the middle track (M) on the upper level (IRT Jerome Avenue Line) of the 149 St-Grand Concourse station was removed from service until September 19. This is to provide ample space around the work areas while elevators are being installed.



Unusual view, looking northbound, of the decked-over center track of the IRT Jerome Avenue Line at 149 St-Grand Concourse. Randy Glucksman photo

Elevators at Livonia Av L Are Now Open

Two new Americans with Disabilities Act (ADA)-compliant elevators are in operation at Livonia Av L Station. These elevators are the first to be located within the subway system in Ocean Hill and Brownsville in Brooklyn, with East New York residents also benefitting.

In addition to the elevators, new features at the station include ADA boarding areas at platform level with stairs and a passageway that all have enhanced lighting. Additionally, the project included a reconfiguration of the ADA farecard access system, as well as reconstruction of parts of the platform to accommodate new stairs to the mezzanine and the upper level mezzanine.

New elevators and ADA accessibility improvements are part of a larger project that includes extensive state of good repair improvements at this station. This work included structural steel and existing precast platform panels that were repaired and replaced, installation of a new fire sprinkler protection system for the new employee back-of-house area, and expansion of the dry fire standpipe system.



Looking southeast along the southbound Canarsie Line platform towards the new overpass and elevator going up to it. The green girder in the distance is the IRT New Lots Line over Livonia Avenue. Marc A. Hermann photo



The new overpass/mezzanine at Livonia Av looking east. The elevators to the platforms are on the right. Marc A. Hermann photo

The nearby Junius St 3 station will also be made accessible under the 2020-2024 Capital Program and the two stations will be connected with an accessible free transfer. This work will be included in the innovative Public Private Partnership ADA package announced last December. The Request for Proposals is currently in development and is anticipated to be issued later this year.

MTA PRESS RELEASE, JUNE 2



LONG ISLAND RAIL ROAD (LIRR)

New Hyde Park Station Building Reopens

On June 15, the station building at New Hyde Park reopened after many months of reconstruction work as part of the Main Line Third Track project.

Native New Yorker Sandy Litchfield was commissioned by MTA Arts & Design and LIRR to create artwork in laminated glass for three of the station’s new platform shelters.

“Forestation Syncopation” unveils the ways natural and built environments interact, as seen from the train journey passing through New Hyde Park and the surrounding area.

MTA PRESS RELEASE, JUNE 15

METRO-NORTH RAILROAD (MNR)

July 10 Schedule Change

New train schedules that will take effect Sunday, July 10, will add additional trains systemwide:

Hudson Line:

- The 7:28 PM and 8:32 PM trains from Grand Central that made all local stops to Croton-Harmon will become limited-stop local trains, reducing their trip time by 6-8 minutes. Two local trains are added between Grand Central and Greystone, with a transfer at Yonkers between the local stations and the limited-stop trains.
- The 5:20 PM train from Grand Central to Croton-Harmon adds a stop at Yankees-E 153rd St at 5:34 PM to provide improved service to riders leaving the borough-government and commercial area near the station.
- Six weekend half-hourly trains between Grand Central and Poughkeepsie are suspended until the end of September to provide track-access time for crucial infrastructure work in the Bronx between Yankees-E 153rd St and Spuyten Duyvil stations.

Harlem Line:

- A new morning reverse-peak express train operates from Grand Central to North White Plains, departing Grand Central at 7:08 AM, stopping at Harlem/125th Street, White Plains and North White Plains.

New Haven Line:

- In the evening, the 5:12 PM and 6:19 PM trains making all local stops from Harrison to Grand Central have been restored.
- The 8:59 AM and 9:24 AM trains from Stamford that made all local stops to Grand Central will become limited-stop local trains, reducing their trip time by 7-8 minutes. Two local trains are added between Harrison and Grand Central, with a transfer at Harrison between the limited-stop trains and the local trains.
- Additional service between New Haven and Grand Central, and on the Waterbury Branch.

MTA PRESS RELEASE, JUNE 27

AMTRAK

New York Penn Station Expansion

Amtrak, in partnership with New Jersey Transit (NJ Transit) and in coordination with the Metropolitan Transportation Authority (MTA), entered into a contract with Arup to begin designing options for the first new tracks, platforms and concourses connected to New York Penn Station in more than a century.

The work is part of the overarching plan under the Gateway Program to roughly double capacity into Penn Station from the west, relieving a major bottleneck on the Northeast Corridor by allowing more trains to serve the nation’s busiest rail facility and improving reliability for passengers. This substantive railroad-focused work is a seminal piece of a larger undertaking to improve the existing station and expand the facility for the future, plans for which are being developed by Amtrak and its partners in New York and New Jersey.

The preliminary design effort begins immediately and will produce railroad concepts to be analyzed as part of the federal environmental review for Penn Station expansion. The design will focus on development of new tracks and platforms, escalators and other vertical circulation elements, pedestrian concourses, and connections to existing and future facilities.

The design team will coordinate closely with Amtrak’s partners and the various planners and designers of other projects (see below) taking place throughout the Penn Station complex to integrate schedules and streamline delivery of work for all parties. The design is expected to take approximately two years and cost approximately \$73 million.

The railroad concepts developed in the design effort will be evaluated as part of a comprehensive Environmental Impact Statement pursuant to the National Environmental Policy Act (NEPA), including requirements for public comment and engagement. The environmental review is expected to be led by MTA with support from Amtrak and NJ Transit and could begin as soon as this year.

The design team led by Arup, and including Grimshaw, Kohn Pedersen Fox Associates, Hatch LTK, and Lendlease, has experience developing and implementing projects around the world including HS2 Euston Station in London; Fulton Center, Hudson Yards and Second Avenue Subway in New York; Southern Cross and Metro Martin Place in Australia; Kings Cross Station in London; and the Union Square Development at Kowloon Station in Hong Kong.

MASS TRANSIT, JUNE 24

Penn Station Modernization Plan

On June 9, it was announced that the Metropolitan Transportation Authority, in partnership with Amtrak and NJ Transit, is requesting proposals from architecture and engineering firms to guide the Penn Station Reconstruction effort recently outlined in the Penn Station Master Plan

study that was announced in the fall. Governor Hochul’s plan calls for the transformation of Penn Station into a modern, spacious, light-filled facility that is easy to navigate, while also revitalizing the surrounding neighborhood to prioritize the public realm and social services, invest in affordable housing, increase transit access and shared streets, and create a pedestrian-friendly streetscape. Penn Reconstruction will modernize the concourse with improved platform connectivity, streamlined wayfinding and enhanced amenities. The future expansion of Penn Station will add track and platform capacity and be fully integrated with a reconstructed Penn Station (see above).

In accordance with the master plan developed by MTA and its partner railroads, the rebuilt station will:

- Integrate train boarding and all public functions and amenities on a single level with broad concourses and high ceilings
- Create a main concourse on the east side of the station that will be considerably larger than the areas of Moynihan Train Hall and the Great Hall at Grand Central Terminal combined
- Double the ceiling height of the public concourses
- Establish clear sightlines to platform entrances to provide intuitive travel paths through the station
- Increase the number of stairs, escalators and elevators to the station’s 11 platforms by 33 percent
- Improve/enlarge pedestrian entrances



Rendering of renovated Penn Station. MTA

The current Penn Station – the Western Hemisphere’s busiest transit hub – serves more passengers than LaGuardia, John F. Kennedy and Newark Airports combined. Amtrak’s operation in the new Moynihan Train Hall provides an opportunity to overhaul Penn Station, eliminating the bulk of the first subterranean level to open up the main concourse to natural light, improving retail and other user amenities, increasing safety and security, significantly expanding passenger circulation areas, expanding entrances and exits, and making it easier for passengers to navigate within the station and to connect to their destinations beyond. The reconstruction of the station is expected to cost between six and seven billion dollars and is estimated to be

completed five to six years after the start of construction.

Additionally, Empire State Development (ESD) announced the creation of the Penn Station Area Public Realm Task Force, which will advise ESD on public realm improvements to revitalize and beautify the area around Penn Station, including reimagined streetscapes and new open spaces. The Public Realm Task Force comprises representatives of involved State and City agencies, local elected officials, community boards, civic organizations and other stakeholders.

MTA PRESS RELEASE, JUNE 9

Other US Systems

BOSTON

Orange, Red Line Cars Out of Service

The MBTA pulled all new Orange and Red Line cars out of service on June 21 after one car experienced a “battery failure” – an issue that came to light shortly after top legislative Democrats called for an oversight hearing into safety at the transit agency.

An MBTA spokesperson said an out-of-service car experienced a “battery failure” in Wellington Yard early on June 20. The battery powers all electronic equipment on the vehicle like door controls, propulsion controls, lighting, signage, and communication equipment.



The first set of new Red Line cars built by CRRC. CRRC photo

House Speaker Ronald Mariano and Senate President Karen Spilka earlier that day said the state Legislature’s Transportation Committee would schedule an oversight hearing to “better understand the agency’s shortcomings and help restore public confidence.”

It’s a rare move to hold such a hearing, one that lawmakers have taken in the past to delve into topics like veteran deaths at the state’s soldiers’ home in Holyoke and responses to the

COVID-19 pandemic.

This isn't the first time one of the new Orange Line cars has experienced problems in recent months. A single new Orange Line train experienced an issue with several of its braking units in May, leading the transit agency to pull all new cars from service.

The new cars were built at a manufacturing plant in Springfield run by Chinese-owned company CRRC. MBTA General Manager Steve Poftak said in May that CRRC would add additional steps to verify underfloor bolted connections after the braking unit issue.

The cars were returned to service several days after the braking unit issue was first announced.

Pulling the cars out of service also comes as the House proposed to allocate \$400 million to the Massachusetts Department of Transportation to address safety issues flagged by the Federal Transit Administration in preliminary findings released during the week of June 12.

The House's chief budget writer, Rep. Aaron Michlewitz, told MassLive the money was placed in a pending infrastructure bond bill after conversations last week on the FTA preliminary findings and the MBTA announcing service cuts on the Red, Orange, and Blue Lines as a result of staffing challenges.

MASS TRANSIT, JUNE 23

CHICAGO/INDIANA

South Shore West Lake Corridor Project

The U.S. Department of Transportation's Build America Bureau has finalized a \$203.3 million Railroad Rehabilitation and Improvement (RRIF) loan that will help deliver the Northern Indiana Commuter Transportation District's eight-mile West Lake Corridor Commuter Rail Project.

The single-track extension of the South Shore Line includes four new stations between Dyer and Hammond, IN, that will improve travel times and reliability of trains to the Chicago area, as well as expand multi-modal options with new sidewalks, walking trails and bike paths in and around stations areas. The project also includes one maintenance and storage facility, three traction power substations, refurbishing 32 commuter rail cars and construction of more than 2,300 park and ride spaces.

In March 2022, the Indiana Finance Authority (IFA) issued a Notice of Determination to issue bonds not to exceed \$300,000 to support the West Lake Corridor project. The IFA is the borrower of the RRIF loan and, along with the Northwest Indiana Regional Development Authority (RDA), serves as a funding partner on the project.

The nearly \$945 million project is also being funded by the Federal Transit Administration's Capital Investment Grants Program. In October 2020, NICTD and FTA executed a Full Funding Grant Agreement for \$345.5 million for the project. Congress has allocated more than \$197 million to the project through FY 2021.

MASS TRANSIT, JUNE 20

South Shore Line Double Track Project Begins

One of Indiana's largest projects – Northern Indiana Commuter Transportation District (NICTD) Double Track Northwest Indiana – officially broke ground on June 21. The project, as the name suggests, includes double tracking 18 miles of the existing South Shore Line between Michigan City and Gary, IN.

The project spans 26.6 miles and will see the construction of a new second track between Michigan City and Gary that will expand service. In addition to the second track, the project includes construction of four bridges, five stations, expanding parking lots at the stations and nine new platforms. The project will also deliver safety improvements with the closure of 21 grade crossings and the construction of two new ballasted tracks that will replace single street-running track in Michigan City.

The \$650 million project is part of the Federal Transit Administration's Capital Investment Grants (CIG) Program and was awarded a \$172.96 million Full Funding Grant Agreement in January 2021. The project originally entered the CIG Program as a Core Capacity Project, but left and re-entered the program as a New Starts Project in February 2020. The CIG Program project category switch was necessary because declining ridership in February 2019 would not make the Double Track project eligible for Core Capacity funding. When the project opens, daily linked trips are expected to be at 6,000 and are projected to grow to 9,700 daily linked trips by 2040.

The project has received \$100 million in New Starts appropriations through FY 2021. The remainder of the project cost will be funded with state contributions, Northwest Indiana Regional Development Authority funds, contributions from Michigan City, LaPorte and St. Joseph counties and NICTD bonds.

MASS TRANSIT, JUNE 21

LOS ANGELES

Leimert Park Station Dedicated

In advance of the opening of the K Line later this year, the Los Angeles County Metropolitan Transportation Authority (Metro) held a station dedication celebration on June 25 for the community at the future Leimert Park Station.

The station dedication brought together residents, students, businesses, community leaders and advocates to recognize their efforts to reach this point in the project and to showcase the line's amenities prior to its official opening.

The Crenshaw/LAX Transit Project, now the K Line, represents a \$2 billion public transportation investment for the communities in the Crenshaw Corridor. The last time rail transit served the Crenshaw Corridor was approximately 70 years ago. Yellow Cars stopped serving local streets in 1955.

The project will extend light rail from the existing Metro E Line (Expo) at Crenshaw and Exposition Boulevards to the C Line (Green). The eight-station K Line will travel 8.5 miles

and serve communities in Los Angeles, Inglewood and El Segundo, along with portions of unincorporated Los Angeles County.

The station dedication ceremony also included a train ride and windshield tour from the Leimert Park Station to the Martin L. King, Jr. Station. The ceremony highlighted the cultural uniqueness of Leimert Park, which includes the Leimert Park Village and several historic artistic and musical venues and its proximity to several legacy businesses and restaurants in the Crenshaw Corridor.



View of the fare control area for the Leimert Park station. L.A. Metro photo

All K Line stations include artwork commissioned through the agency’s Metro Art program. Artists were selected through an open, competitive selection process following the recommendation of a panel of community-based arts professionals. Artworks commissioned for the Leimert Park Station include Talking Drums by Ingrid Calame, a mosaic mural by Mickalene Thomas and porcelain enamel art panels on the platform level by Dean Erdmann.

Metro will hold additional station dedication ceremonies for other communities along the line in anticipation of the line’s official opening.

LA METRO PRESS RELEASE, JUNE 25

Foothill Gold Line Extension Milestone

Construction of the L Line (former Gold Line) light-rail extension from Glendora to Pomona is 50% finished, a milestone celebrated by dozens of supporters on June 17 in San Dimas.

The 31-mile-long line, extending from Azusa to East Los Angeles via Pasadena and Downtown L.A., will add the 9.1-mile extension to Pomona starting in January 2025, making it 40.1 miles long, the longest operating light-rail line in the LA Metro system.

The extension will have four new stations in Glendora, La Verne, San Dimas and Pomona, and 21 at-grade crossings, plus 19 new or renovated bridges — including a new concrete bridge in San Dimas that served as the backdrop for the

proceedings on June 17

As more than a dozen supporters praised the project, many also spoke optimistically about adding a 3.1-mile Pomona-to-Montclair section that would be the first L.A. County light-rail line to reach across the San Bernardino County line, into Montclair.

That portion – once included in building plans – has fallen away without funding and is no longer in the builder’s contract. It will need a fund transfer from the state of about \$748 million to resurrect it, plus either a new contract or an extension of the existing one.

While Governor Gavin Newsom announced a \$98 billion budget surplus last month including about \$5 billion for transit projects, the hopes at LA Metro or the Construction Authority to tap the surplus for the Pomona-to-Montclair line remained as murky Friday as the weather.

Last year, the chance of gaining funding from the state slipped through the fingers of the San Gabriel Valley caucus, who said budget negotiators could not agree on funding for the statewide High Speed Rail — and that sunk any hope of moving funding to local rail projects.



Looking west from the Monte Vista Avenue grade crossing in San Dimas on May 8. The track is for the Metrolink freight line, the former BNSF Pasadena Subdivision. On the right is the former Santa Fe Railway San Dimas passenger station. The Gold Line is being constructed to the left and is being put up on an embankment. Alan Weeks photo

The bad news came in 2019 when the Claremont work ballooned in price, he said. The San Bernardino County Transportation Authority has set aside about \$90 million to take it about one mile into the Montclair TransCenter, a transit hub equipped to handle the train.

Why is an LA-based light-rail line connecting with the Inland Empire so important?

The numbers released by an LA Metro study say adding the two stations would generate more than 50% of the new ridership for the line, while eliminating 53% of the car trips and 60% of the vehicle miles traveled. In total, the extension to Montclair is expected to add 7,700 new L Line boardings each weekday by 2028 and eliminate 14,900 car trips each

day, mostly from the 210 and 10 freeways, the letters said.

For Inland Empire residents who work in L.A., having a transit line that arrives every 7-10 minutes during peak times and between 15-20 minutes on non-peak times may convince them to leave their cars home. The train would become an alternative to 3 million vehicle trips made each day in the L Line corridor cities, of which only 3% are made by transit, the transit officials said.

The two cities, along with the San Gabriel Valley Council of Governments, as well as state senators and Assembly members from both counties, have been advocating for the cross-county line for decades as a way to connect commuters and weekend travelers with a more frequent, less expensive mass transit rail service that could remove cars from congested east-west freeways, such as the 10 and 210.

SAN GABRIEL VALLEY TRIBUNE, JUNE 17

MINNEAPOLIS

Revised METRO Blue Line Extension Route Adopted

The Hennepin County Board and Metropolitan Council in Minnesota adopted a revised route modification for the METRO Blue Line Extension that will allow project leaders to move forward on the transit project by continuing environmental, design, engineering and anti-displacement activities in preparation for the eventual full funding grant agreement application to the Federal Transit Administration.

The long-planned project originally included utilizing a section track owned by Class 1 freight railroad BNSF. Negotiations stalled and in August 2020, Hennepin County and Metropolitan Council decided to pursue alternatives for the rail extension.

Following the decision to re-evaluate route options, project partners took on an 18-month effort to engage the community and use feedback to guide project decisions. Metropolitan Council notes that as the project moves into this next phase, project staff will continue to solicit feedback and communicate with the community to ensure the project delivers maximum benefit.

As the project moves forward to the start of construction sometime in 2025, the project anti-displacement efforts will continue. The Anti-Displacement Workgroup led by the Metropolitan Council and Hennepin County and facilitated by the University of Minnesota's Center for Urban and Regional Affairs has been meeting to discuss actionable policies to minimize the potential displacement that may occur due to the project.

MASS TRANSIT, JUNE 23

PHILADELPHIA

Fox Chase Line Reconstruction Project

Starting July 5, SEPTA begins a month-long project to enhance Regional Rail infrastructure as part of the Fox Chase

Improvement Program.

The work is scheduled to take place from July 5 through July 29 and will require major service adjustments that will impact passengers who use the Fox Chase Line.

During this time, shuttle buses will replace all trains between Fox Chase and Wayne Junction stations. Train service will be available between Wayne Junction Station and Center City.

Work highlights include:

- Installing catenary structure
- Clearing vegetation
- Surfacing track
- Replacing wood ties
- Waterproofing an under-grade bridge

In addition, crews will start preparation work for upcoming enhancements to the Lawndale Station.

Parking at Regional Rail stations will continue to be free through December. Daily parking rates will apply for the Fox Chase parking facility, which is operated by the Philadelphia Parking Authority.

The sales offices at Fox Chase, Cheltenham, and Wayne Junction stations will be open normal weekday hours.

SEPTA PRESS RELEASE, JUNE 6

WASHINGTON DC

Control of Silver Line Extension Turned Over to WMATA

Washington Metropolitan Area Transit Authority (WMATA) took control of the 11.4-mile Silver Line Extension on June 23 from the Metropolitan Washington Airports Authority (MWAA), which oversaw the construction of the extension.



WMATA's Dulles International Airport station of the Silver Line.

WMATA photo

MWAA says it will continue to work closely with WMATA during the final testing period "to ensure the project meets all safety, security and dependability standards to deliver an efficient, reliable and attractive rail system that will serve the region for decades to come." WMATA's Board of Directors will determine an opening date for the extension based on

final acceptance of the line.

Phase 2 of the Silver Line extends from the Phase 1 terminus at Wiehle–Reston East to Loudoun County, VA. The project fulfills a vision of bringing a rail connection to Washington Dulles International Airport that goes back to 1962. MWAA credits delivery of the project to decades-long planning, design and construction work on the part of residents, the business community, landowners, advocacy groups and political leaders.

The six new rail stations that were built as part of the extension are at Reston Town Center, Herndon, Innovation Center, Washington Dulles International Airport, Loudoun Gateway and Ashburn. The extension also included a new, 90-acre rail yard with storage capacity for 168 railcars and new maintenance facilities to service, inspect and clean the trains.

MASS TRANSIT, JUNE 24

7000-Series Trains Return to Service

Riders on WMATA’s Green and Yellow Lines can expect to see a familiar site on the system June 16: the return to service of eight 7000-series trains.

WMATA says its has been focused on training inspectors on the required safety processes to return the trains to service. This process includes daily back-to-back wheel measurements using a digital gauge and WMATA has conducted pre-operational test exercises with inspectors to ensure a smooth launch of the new process.



WMATA 7000-series cars. WMATA photo

The 7000-series trains were originally pulled from service in October after a derailment on October 12, 2021 revealed an issue with one of the wheelsets. The National Transportation Safety Board and MxV Rail experts (formerly Transportation Technology Center, Inc.) are investigating the October incident to determine a root cause.

Earlier this spring, WMATA installed the first of six automated wayside inspection systems (AWIS) that will be incorporated in Phases 2 and 3 of its 7000-series return to service plan. Using the AWIS equipment as part of the inspection process requires approval from the Washington Metrorail Safety Commission and WMATA says it is “actively

working” on the second and third phases of the plan with the AWIS equipment being configured and tested.

WMATA expects to use the returned 7000-series trains to increase service on its Blue, Orange and Silver lines once railcar personnel have created a steady rhythm of inspections and consistently delivered eight trains for daily service. WMATA previously stated it takes approximately three hours to inspect the wheels of an eight-car train.

MASS TRANSIT, JUNE 16

International News

HANGZHOU, CHINA

Metro Expands

Two extensions of Hangzhou metro Line 3 have opened, taking the city’s network to more than 280 miles, with further expansion to 311 miles planned.

The extensions opened on June 10 run 13.9 miles from Chaowang Road to West Wenyi Road and 4.8 miles on a branch from South Xixi Wetland to Shima, taking Line 3 to 31.8 miles.

The line is operated using 78 six-car CRRC Nanjing Puzhen Type A trainsets assembled by CRRC Hangzhou. A further 65 trainsets are on order for future western and northern extensions.

METRO REPORT INTERNATIONAL, JUNE 10

KUALA LUMPUR

Putrajaya Line Opens

The first phase of Kuala Lumpur’s fully automated Putrajaya Line was opened on June 16, with revenue services starting at 3:00 PM following an inauguration ceremony at 10:00 AM attended by Prime Minister Ismail Sabri Yaakob.



Map of the Putrajaya Line. MRT

To celebrate the opening, the Prime Minister announced 30 days of free public transport across the city, encouraging passengers to sample the expanding metro network.

Running from east to west across the north of the city, the first phase of MRT2 runs for 10.9 miles from Kampung Batu to Kwasa Damansara, serving 12 stations.

The westernmost 3.4 miles between Sungai Buloh and Kwasa Damansara, including the intermediate station at Kampung Selamat, was originally opened in 2016 as part of the Kajang Line (MRT1), but was closed in October 2021 to facilitate reconfiguration.

Seven stations are provided with park and ride facilities offering a total of 2800 spaces. Interchange is provided to KTM Komuter services at Kampung Batu, Kepong Sentral and Sungai Buloh. Kwasa Damansara provides interchange between the Putrajaya and Kajang lines, while the nearby Sungai Buloh depot houses the rolling stock for both.

Built by the MMC-Gamuda joint venture as turnkey contractor and operated by Rapid KL, the first phase of the Putrajaya Line is worked by 20 four-car, driverless trainsets supplied by the HAP Consortium of Hyundai Rotem, Apex Communications and POSCO Engineering.

Taking power at 750 V DC from a third rail, these are designed for a maximum speed of 62 mph. Each 254-foot long train can carry up to 1200 passengers, while four 4.6-foot wide doors per car facilitate rapid boarding and alighting.

A fleet of 49 trains was ordered in May 2016 at a cost of 1.62 billion ringgit, and deliveries began in May 2019. The first two sets were manufactured at Hyundai Rotem's Changwon plant in South Korea, but the remainder are being assembled by Apex Communications in Rasa, north of Kuala Lumpur, using bodysells, trucks and traction components supplied from South Korea.

Construction of the 21.6-mile second phase of the Putrajaya Line from Kampung Batu to Putrajaya Sentral is reported to be 98% complete, with opening scheduled for January 2023. Looping around the eastern side of the city center and then heading south, the completed line is expected to serve a catchment of around 2 million people living in the Klang Valley conurbation.

METRO REPORT INTERNATIONAL, JUNE 16

LONDON

Northern Line's Bank Branch Reopens

While the opening of the new Elizabeth Line monopolized the news coming out of London in late May, a key event that almost escaped notice was the reopening of the Bank Branch of the Underground Northern Line, following the achievement of beneficial use of the Bank Capacity Upgrade Project. Following a 17-week closure, on May 16 passenger service resumed on the branch and through a new, wider southbound platform at Bank Station.

The new platform forms a segment of a new southbound running tunnel built parallel to the existing line, which allowed for the original platform to be converted to a new spacious concourse. The March 2022 *Bulletin* featured a

detailed description of all the work covered by the £700 million Bank Capacity Upgrade Project, which will increase station capacity by 40%.



One of two test trains used to make multiple runs through the new southbound tunnel at Bank Station on April 16, one month before the station was reopened to passengers. The train is comprised of 1995 Tube Stock, which are configured as three-car units – a driving motor (51607 seen here), a trailer, and a non-driving motor. Two such units are coupled to form a Northern Line train, of which the line requires 106. TfL photo

There is more work left to be done before the project is considered substantially complete. Elevators to the Northern Line level should be opening later this summer, along with new access from the Northern Line central concourse to the Docklands Light Railway platforms. A new station entrance on Cannon Street has yet to open, along with final connections which will create more direct routes to improve interchange throughout the larger Bank-Monument Station Complex, including two new moving walkways to the Central Line. The project features a total of 12 new escalators. INTERNATIONAL RAILWAY JOURNAL, MAY 16

Transport for London's Fiscal Woes Remain Unresolved

The quest to put Transport for London's (TfL) finances on permanent sound footing remains elusive. TfL continues to suffer from reduced revenue from lower ridership caused by the lingering effects of the pandemic lockdown, a situation similar to what is occurring in New York City and other cities with large public transit systems. An extraordinary funding agreement which went into effect on February 26 was hours away from expiring on June 24 when an agreement for a stop gap extension was reached between TfL and the UK Department for Transport (DfT).

The new deadline is July 13 but with tensions running high between the Conservative national government and the Labor-led London administration the likelihood of an amicable solution is in doubt. At the heart of the dispute is the demand for more efficiencies by the DfT, while TfL maintains any further reductions are not practical and will do real harm to daily operations and long-term capital

investment, leading to a situation referred to as “managed decline.” The situation is all the more complicated by the fact that TfL relies more heavily on fare revenue than its peer agencies around the world. As such, the decline in ridership is particularly acute.

The trade unions which comprise TfL’s non-management workforce and a coalition of railway industry groups, along with assorted municipal advocates, are all urging TfL and DfT to find common ground and do what is best for Greater London.

METRO REPORT INTERNATIONAL, JUNE 27

LYON

Line B Goes Driverless

Lyon transport authority Sytral Mobilités, operator Keolis and technology supplier Alstom launched Grade of Automation 4 unattended automatic operation of metro Line B on June 25, following a €387 million signaling and rolling stock renewal program.

The first section of the rubber-tired Line B opened in 1978, and it now covers 4.8 miles from Charpenne-Charles-Hernu in the north to Oullins-Gare in south with ten stations. The MPL75 trainsets were already equipped for GoA2 automatic operation but with a driver controlling the doors.



One of the new MPL 16 train sets at the Gare d’Oullins terminal station.

Sytral Mobilités photo

With ridership reaching 180,000 passengers per day, Sytral decided to automate the line as part of its Avenir Métro 2030 plan.

Alstom has supplied its Urbalis 400 CBTC, with its Villeurbanne factory leading the work. Jean-Baptiste Eyméoud, CEO of Alstom France, said the conversion was complex because the legacy PA MPL75 train control equipment was only used in Lyon.

The platform edges have been fitted with optical barriers with infrared scanning. This avoids the costs of maintaining platform screen doors, and is based on the positive

experience with the reliability of the optical barriers on Line D which has been GoA4 since 1991.

The limiting factor for operations is the single track terminus at Charpenne, but the automation system can reduce headways to a minimum of two minutes. The station is on a curve and has been fitted with lights and announcements to warn passengers of an arriving train.

Changes at the Vaulx-en-Velin La Poudrette depot include a new stabling facility with two tracks for maintenance of the Line B trains.

Keolis staff drive the trains manually between the depot and Charpenne-Charles-Hernu station, as this requires using Line A tracks.

In October 2016 Sytral awarded Alstom a €175 million contract to supply 36 two-car MPL16 trainsets, with options for more. The first was delivered to La Poudrette depot on April 26, 2019 and so far 20 have been delivered, with services requiring 16 in traffic.

The new trains are two cars, rather than the three cars of the older fleet, with the reduction in train capacity balanced by cutting minimum headways from 3 minutes 11 seconds to 2 minutes 20 seconds.

The two-car MPL16 trainsets are 118 feet long with a capacity of 325 passengers, including 64 seated. They have a maximum speed of 43.5 mph, with 12 CCTV cameras, passenger information screens, and air-conditioning for the first time on the Lyon metro network.

There are three doors per car side, with a width of 5¼ feet, about one foot wider than on the MPL75 design to help reduce station dwell time, especially at Part-Dieu station, a major interchange with main line services. Alstom said the trains were fully designed and built in France, with input from six factories.

Line B is to be extended from Oullins-Gare to Saint-Genis-Laval-Hopitaux-Sud by the end of 2023, with one intermediate stop at Oullins-Centre.

This extension will require 16 more trainsets. In the future, the trains may operate in pairs as four-car sets.

The outgoing MPL75 trains are being refurbished by ACC M in Clermont-Ferrand for further use on Line A, as they are thought to have many years of useful life ahead left despite their age.

Sytral President Bruno Bernard expects Line A, which carries 270,000 passengers per day, to be upgraded to GoA4 by 2035, while the busy Line D, which carries 300,000 passengers per day, will have its train control equipment renewed and the rolling stock fleet increased.

METRO REPORT INTERNATIONAL, JUNE 28

MADRID

Line 11 Construction Contract Awarded

Metro de Madrid has selected a consortium of ACS, Acciona and Rover as preferred bidder for a €550 million contract to build the next phase of Line 11.

This will extend the line 4.3 miles from Plaza Elíptica to Conde de Casal, with new stations at Comillas, Madrid Río, Palos de la Frontera (interchange with Line 3), Atocha (interchange with Line 1 and RENFE suburban rail services) and Conde de Casal (interchange with Line 6).

Line 11 is being built in five stages and will eventually reach 20.8 miles.

METRO REPORT INTERNATIONAL, JUNE 7

MARTIGNY, SWITZERLAND

New Equipment for Mont Blanc Express

The famous Mont Blanc Express will be receiving seven two-car rack equipped EMUs from Stadler, capable of operating off of both third rail and overhead catenary. The Mont Blanc Express is the brand name for services which operate over the historic Saint Gervais-Vallorcine railway in France's Haute-Savoie département and into Switzerland to the town of Martigny in the canton of Valais. The Saint Gervais-Vallorcine railway is a meter-gauge, single-track adhesion line equipped with an overrunning third rail electrified at 850 V AC. Opened in phases between 1901 and 1908, the 22.7 mile long line runs from Saint-Gervais-les-Bains-Le Fayet to the border station at Vallorcine. From there, through services continue over the Martigny-Châteldard railway, also a meter-gauge, 12-mile long hybrid adhesion-rack railway equipped with an 830 V DC overhead catenary. It too was first opened in 1901.



Artist's impression of the new Z890 EMUs for the Mont Blanc Express to be built by Stadler.

With a contract value of €72.6 million, four of the trains are being financed by the French region of Auvergne-Rhône-Alpes and will be designated as Z890 under the French classification system for EMUs, and three are being financed by the Swiss government (63%) and the canton of Valais (37%) and will be designated Beh 4/8 under the Swiss system. The contract was signed on June 14 by Stadler, France's SNCF Voyageurs and Switzerland's Transports de Martigny et

Régions.

The Z890s will be delivered between September 2024 and July 2025 and will replace the Z800 class originally delivered in 1996-97 by Vevey/Adtranz/SLM Winterthur, which do not meet Switzerland's latest standards for accessibility.

RAILWAY GAZETTE INTERNATIONAL, JUNE 20

MONTPELLIER

CAF to Supply New Trams

Montpellier Méditerranée Métropole has placed an order with CAF for 60 new trams, with options for an additional 17 vehicles for a potential total contract value of €223.7 million.

Based on CAF's Urbos platform, the seven section trams will be assembled at CAF's plant in Bagnères-de-Bigorre in the département of Hautes-Pyrénées.



An artist's impression of Montpellier's new CAF-supplied trams.

The first 30 vehicles are destined for Line 1, replacing Alstom Citadis trams which are now over 20 years old. According to the municipality, this is one of the busiest tram routes in France, carrying an average of 130,000 passengers a day. Following that, 22 trams will be assigned to Line 5, which is scheduled to open in 2025, and is projected to carry approximately 80,000 passengers per day. The last eight trams of the base order will serve to increase the spare ratio to ensure a high level of reliability for the whole tram network.

The option for 17 trams will be to fulfill mobility goals to increase frequency across the entire network, providing the extra capacity to cope with increased ridership following the gradual phasing in of free public transport for all of Montpellier by the end of 2023.

METRO REPORT INTERNATIONAL, JUNE 20

NAPOLI

Gragnano Light Rail Plan Agreed

Local municipalities have agreed to develop a 2.5-mile light rail line to connect Gragnano with the terminus of Trenitalia's Napoli suburban service at Castellammare di

Stabia, east of Sorrento.

Costed at €33 million, the project would make use of a disused railway alignment, which was originally built in 1885 to serve the local pasta industry but closed to passengers in 2010. The promoters envisage that the line could be reactivated by the end of 2024, serving four intermediate stops; it would be operated using either electric or electro-diesel vehicles.

Longer term proposals envisage that the light rail services could be extended northwards along RFI's electrified branch from Castellammare di Stabia to Rovigliano and Torre Annunziata, which parallels the Amalfi coast. This would take the route to 7.5 miles.

METRO REPORT INTERNATIONAL, JUNE 23

PANAMÁ

Metro Contracts Awarded

Metro de Panamá has awarded the TCP Rail joint venture of TSO and CIM two contracts for extension works and infrastructure maintenance.

A US\$13.9 million contract covers the design, supply and installation of track and rigid catenary for a 1.4-mile elevated extension of Line 1 north from San Isidro to a multimodal bus, taxi and park-and-ride interchange at Villa Zaíta. Completion is planned for May 2023, ready for testing to begin. The extension is expected to carry 10,000 passengers per hour.

A US\$6.9 million contract renewal covers three years of maintenance of overhead electrification, track and workshop equipment on the 13.7-mile elevated Line 2 and its 3.5 miles of depot tracks.

TSO and CIM are currently finalizing work on the extension of Line 2 to ITSE and Tocumen International Airport.

METRO REPORT INTERNATIONAL, JUNE 14

PARIS

Multiple Projects Reach Major Milestones

Few cities in the world can claim to have as many new railway projects currently under construction as Paris. The largest and arguably the one with the most reach is the Grand Paris Express program – an ambitious effort to simultaneously build four orbital metro lines in the suburbs. Also underway are a range of no less important projects, including extensions to existing metro lines, new and extended tramways, and a significant extension of RER Line E. In addition, new rolling stock acquisitions are underway for both the metro and RER networks, while select classes of older vehicles are being overhauled and refurbished to continue serving for years to come. Here is the first of a multi-part review of recent activity in Paris.

The last few years have been quite busy on the Métro. Earlier this year, on January 13, Line 4 was extended south

by just over one mile, adding two stations at Barbara and at Bagneux-Lucie Aubrac (see February 2022 *Bulletin*). This was the culmination of a two-phase effort to extend the line, following a half-mile, one-station extension which opened in 2013. Most recently, Line 12 was extended north by 1.2 miles and two stations on May 31. This was also the second extension to Line 12 in the last decade; continuing from a previous one-station extension which opened in 2012.



On opening day of the Line 4 extension, January 13, we see type MP89CC 42 (Alstom, 1997-2001) leading a train arriving at Barbara, one of the two stops on this extension. This equipment will be transferred to Line 6 in the near future as it is not equipped for automatic operation. Julian Pepinster photo

Stretching from Aubervilliers Front Populaire to the intermediate station at Aimé Césaire and the terminal at Mairie d'Aubervilliers, the extension is expected to serve approximately 40,000 passengers a day. Travel times from Mairie d'Aubervilliers to Saint-Lazare in central Paris will be around 20 minutes. The €245 million cost of the extension was mostly paid for by the national government (91%), with the balance funded by the Seine-Saint-Denis département. It should be noted that Line 12's current fleet of MF67 cars (the oldest steel-wheeled cars currently operating on the Métro) will be replaced by 51 new MF19 trains by 2028, part of a €2.9 billion order placed with Alstom in December 2019 for up to 410 MF19 steel-wheeled trains.

Work continues on a 3.7-mile long eastern extension of Line 11, with six new stations, anticipated to open in late 2023. Concurrently, the existing 3.9-mile line is being completely renewed with ten of the 13 stations receiving a range of improvements and capacity-increasing measures. New rolling stock is being delivered to the line's new main workshop at Rosny-Bois-Perrier, which will ultimately see the regular use of five-car trains again for the first time in over 65 years (see the August 2021 *Bulletin* for more details on the Line 11 work).

Previously, in December 2020, Line 14 was extended north to Mairie de Saint-Ouen by 3.6 miles, with an infill

station added a month later (see the January and February 2021 *Bulletins*, respectively). Next up will be an additional short extension to the north from Mairie de Saint-Ouen to Saint-Denis-Pleyel, and a more significant 8.7-mile southern extension which will serve Orly Airport. Paris Métro operator RATP anticipates opening both extensions simultaneously in June 2024.

The project includes a new turnback and maintenance facility at Morangis, beyond the Orly Airport terminus. This will be the line's largest depot, supplementing the depot that was opened at Saint-Ouen in December 2020, which itself was Line 14's first dedicated maintenance facility.



It's opening day, May 31, and an MF67 set has just left the terminal at Mairie d'Aubervilliers, the new north end of Line 12, and is heading back south to Mairie d'Issy. During off-peak hours, northbound trains arrive on this platform and change ends in the station, rather than using the reversing tracks north of the platforms. Laurent Méreur photo

The extended Line 14 will feature multiple interchanges with the Grand Paris Express network at Saint Denis Pleyel to Lines 15, 16, and 17; to Line 15 at Villejuif-Institut Gustave Roussy, and to Line 18 at Orly Airport. Additionally, a transfer to RER Line C will be available at Pont-de-Rungis.

The turnback is being designed to accommodate up to 20 trains, while the Morangis depot will have space for 19, including six elevated servicing tracks. An additional siding is being provided for maintenance vehicles. Stabling facilities for a further ten trains at Saint-Denis-Pleyel will support operation at 80-second headways in the peaks, compared to 85 seconds at present.

This work, in conjunction with a full renewal of Line 14's existing CBTC signaling system will ensure a high level of reliability, as the line's ridership is expected grow from the current level of 550,000 daily to over one million daily, ultimately making it the busiest line in the Paris Métro and the backbone of the entire network.

In the next installment, we will explore the Grand Paris Express project, the western extension of RER Line E, recent progress on the ever-growing Paris tramway network, and

the delivery status of new and overhauled rolling stock for all the systems concerned.

RAILWAY GAZETTE INTERNATIONAL, JUNE 6 & 27
INTERNATIONAL RAILWAY JOURNAL, JUNE 7

RIO DE JANEIRO

Tram Network Planned in Northern Rio

The Rio de Janeiro state government is to call tenders this year for the construction of a 14.3-mile tram network serving the city's northern suburbs including Nova Iguaçu, Belford Roxo and Pavuna.

There would be interchanges with Metro Line 2 and Supervia suburban railway lines. Ridership is estimated at 196,000 passengers per day.

Rio de Janeiro municipality has also expressed interest in taking over the CAF trams delivered for the abandoned Cuiabá, Brazil tram project.

METRO REPORT INTERNATIONAL, JUNE 14

PRAHA

Metro Line D Loan Agreed

The European Investment Bank is to provide a KC22.7 billion 40-year loan to finance 50% of the cost of construction of the first phase of Praha's fourth metro line.

The first phase of Line D will run from an interchange with Line C at Pankrác to Olbrachtova, Nádraží Krč, Nemocnice Krč and Nové Dvory.

Construction began in March, with Subterra, Hochtief and Strabag as the main contractors.

The project also involves the procurement of ten five-car driverless metro trainsets.

METRO REPORT INTERNATIONAL, JUNE 7

ROSTOCK

TINA Trams Ordered

Rostocker Straßenbahnen has ordered 28 Stadler TINA trams, which will gradually replace its 6N1 trams dating from 1994-96 on all six routes from 2025.

The contract signed on June 24 is worth €98.2 million, with the Land of Mecklenburg-Vorpommern contributing €9.45 million.

The three-section fully air-conditioned trams will be 105 feet long with a capacity of 221 passengers, including 75 seated.

Stadler said they would feature a spacious and step-free interior, with large panoramic windows to create a light and airy atmosphere, and four areas for wheelchairs and bicycles.

There will be an integrated passenger information system with TFT screens, USB charging points for mobile devices, Wi-Fi, CCTV, an onboard ticket-machine and an integrated

collision warning system.



Rendering of Rostock's new TINA tram. Stadler

The order will take the number of Stadler trams in RSAG's fleet to 41. It is the third order for Stadler's Total Integrierter Niederflur-Antrieb (total integrated low-floor drive) design, following launch customers HEAG Mobil in Darmstadt and Baselland tram operator BLT.

METRO REPORT INTERNATIONAL, JUNE 24

SYDNEY

NSW Commits to Parramatta Light Rail Stage 2

The New South Wales government has confirmed A\$602.4 million of funding to enable the start of detailed planning and preliminary works for Stage 2 of the Parramatta Light Rail project in western Sydney.

Tracklaying was recently completed for the 7.5-mile, 16-stop Stage 1 connecting Westmead to the Parramatta CBD, Camellia and Carlingford. This route is scheduled to open in 2023.



Map of Sydney's Stage 2 of the Parramatta light rail line. Transport for NSW

Stage 2 will be a 6.2-mile branch with 15 stops linking

central Parramatta to Ermington, Melrose Park, Wentworth Point, Sydney Olympic Park and the Carter Street Precinct. It will connect with the future Sydney Metro West and rail services at Parramatta and Sydney Olympic Park, and with ferry services at Rydalmere and Sydney Olympic Park.

The funding announced on June 1 will enable detailed planning, with an environmental impact statement to be released for comment by the end of the year, and will also allow the start of preliminary works including construction of the M Wentworth Point bridge.

METRO REPORT INTERNATIONAL, JUNE 10

TIMIȘOARA, ROMANIA

Bozankaya Tram Enters Service

The first of 21 trams being supplied by Turkish company Bozankaya has entered service on Route 1 in Timișoara, the first tram supplied new to the city in 50 years.

In July 2019, Bozankaya beat Pesa to win a contract for 16 trams with an option for up to 24 more, of which five have so far been ordered. Each tram is priced at 11.5 million lei.

The trams are being built at the manufacturer's Ankara factory. The first was delivered in August 2021 and initially entered service in December 2021, but only briefly as the hydraulic jacks needed in the event of a derailment had not been delivered. Seven trams have now been delivered, and the remaining 14 are scheduled to arrive by October 2023.

The five-section fully low-floor unidirectional air-conditioned trams are 98 feet long with 48 seats and a capacity of 200 passengers. They have a maximum speed of 43 mph, and are equipped with batteries that would allow up to 37 miles of catenary-free operation.

METRO REPORT INTERNATIONAL, JUNE 24



One of the first of the new Bozankaya trams operating in Timișoara.

Societatea Transport Public Timisoara photo

Travels with Jack May

Britain and the Baltics — Part V

by Jack May (Photographs by the author)

In chapter IV about the Midland Metro, I mentioned that I wished I had enough time to get over to Stourbridge Jct. from The Hawthorns to see and ride the Parry people mover. Correspondent Rich Taylor replied, indicating he had the experience in 2014 and sent this photo. He stated, “Two man crew on a ¾ mile branch maintaining a 15-minute interval with one unit; could replace it with a path.



PPM60 139 002 (Parry People Movers, 2008) is seen at the Stourbridge Junction stop at the south end of the branch from Stourbridge Town on July 13, 2014. Rich Taylor photo

Wednesday, August 16 (continued)

Arrival in Nottingham was on the advertised a few minutes after 2 o'clock, and after I bought a day ticket from a machine for GBP 4, I found Andrew and Richard waiting for me at the elevated tramway station.

Called Nottingham Express Transit, or NET, the 20-mile long tramway network in this city of roughly 275,000 residents was opened in two phases, with the two lines that run northward from the railway station through the downtown area coming first in 2004, followed by two extensions continuing south and southwestward in 2015, more than doubling the length of the now 51-station network. Clare and I visited Nottingham in 2005, which permitted me to ride the original system, which I liked very much. The main purpose of this visit was to cover the new branches, whose trams are through routed with the lines to the north, which makes the lines quite long (see <http://www.urbanrail.net/eu/uk/nott/nottingham.htm> for a map).

Nottingham's original rolling stock consisted of 15 2003-built Adtranz (now Bombardier) Incentro cars, which were followed by 22 Alstom Citadis units, built in 2013-14. Both are double-ended 100-percent low-floor cars and are interchanged freely between the two lines.



(Above and below) The profile of this style of Citadis front is quite pleasant. Colin Slater is the primary sportscaster for Nottingham's football team. The aesthetics of the Incentro in the lower photo is much more traditional, but this view mainly features the station's furniture.



The system is quite successful with an annual ridership averaging 16.4 million. Headways on both lines average seven minutes in base periods, being increased to every five during rush hours, which means that on the 13 or 14-station section of joint operation through the city center, frequencies range from 2½ to 3½ minutes.

Andrew and Richard had covered the northern lines in the morning, so we were all on the same wavelength for riding and inspecting the new additions. Thus, after some photos at the station, we first rode line 1 (which also has been color coded as the Green Line) to Toton Lane. It was a very pleasant ride, a combination of street running and reserved trackage (a poster child for the light rail mode's flexibility) that took about 30 minutes.



The outer end of the line operates on reserved track that fits in well with its suburban surroundings. An Alstom Citadis 302 approaches the Inham Road stop, one in from the terminal.

terribly interesting, as it runs on the same right-of-way as East Midlands DMU trains to Worksop (25 miles). This branch too is single track and it has passing sidings at each station. One of these days I will have to position myself on an overpass and try to get photos of trams and DMUs passing each other.



One of the most appealing sections of the Toton Lane branch is a street-running section in the town of Beeston. Chillwell Road is the type of neighborhood shopping street that was once commonplace in the United States, with a pair of trolley tracks serving the local populace. The lack of motor traffic is a result of the minimalization of parking and a street pattern that reroutes through traffic away from the neighborhood. The view is at Imperial Road with the Beeston Methodist Church in the background.



An outbound Citadis pauses at the Cator Lane stop. NET stands for Nottingham Express Transit.

Then we worked our way back from Toton Lane to the railway station, taking photos in areas that looked interesting.

Back at the station, I finally got a photo showing both types of equipment in the same frame.

Then it was out line 2 (purple) to Clifton South (about 20 minutes), followed by a similar modus operandi for photos on the return.

It had begun to cloud up, and after returning to the station, Andrew and Richard decided to go back to Manchester. I had pre-purchased a ticket at the economical "Advance" fare for my return trip to Manchester and realized there was still a sufficient amount of time for me to ride the lines to the north, and so I indicated I'd join them for dinner later.

Although there was not enough time for photography, I went ahead and caught the next car to Phoenix Park and rode through the streets of hilly Nottingham. Of note was that cars in opposite directions run on separate parallel streets at one point and there is some bi-directional single track at the outer end. Beyond the junction at Highbury Vale the line to Hacknall is not



An Adtranz (now Bombardier) Derby (England)-built Incentro from 2003 is operating northbound, alongside a French built Citadis 302 from ten years later. The steeple in the background is from a decommissioned church.

I returned to Manchester on the 6:47 PM train, which arrived on time at 8:36 PM. It was a crowded two-car East Midlands DMU, but still impressive, showing how dependable the railways in Great Britain are--at least until they're not. But that will be part of the story of the next day, in part VI.

I met Andrew and Richard at the hotel and our dinner was enjoyable. It rained again overnight.



(Above) A wrapped Incentro is shown running outbound toward Clifton South over one of the line's two river crossings. The Wilford Toll Bridge over the Trent River was opened in 1870. Retired in 1974, it was renovated and then reopened for pedestrians and bicycles in 1980, with the tram line following in 2015. As far as advertising wraps are concerned, I was pleased that I saw very few on my travels in Britain, specifically only 1 in Blackpool, 3 in Edinburgh and none in Birmingham.



(Middle left) Holy Trinity is the second station inward from the Clifton South Park and Ride terminal. An outbound Incentro is shown.



(Bottom left) A telephoto view along Southchurch Drive from Clifton Centre, one station further inbound. Although much of this line operates on streets through commercial areas, parts appear quite leafy.