The Bulletin

Electric Railroaders' Association, Incorporated

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The Bulletin

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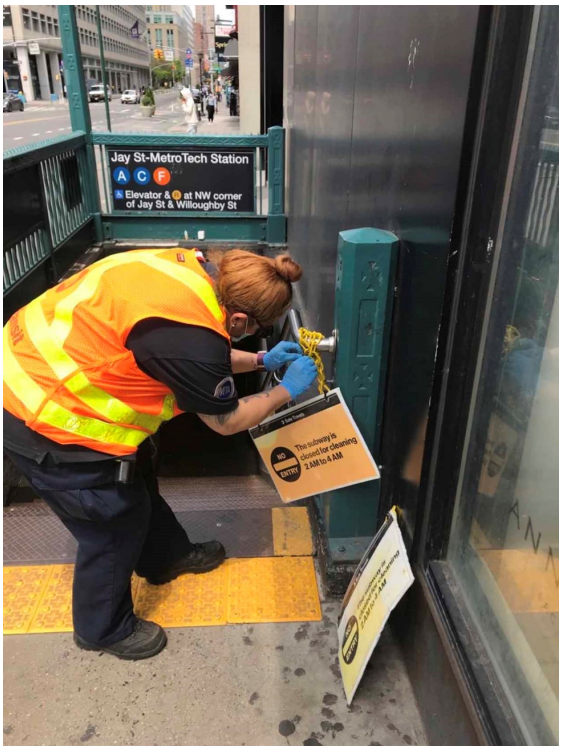
This Month's Cover Photo:
SFMR Peter Witt 1845 (Carminati & Toselli, 1928) has just left the stop at Beach & Mason and is heading to the Castro.
Jeff Erlitz photograph, 4/25/2010

In This Issue: IRT Yard Connections… Page 19

ALL-NIGHT SUBWAY SERVICE RESTORED

The return of 24-hour subway service commenced starting at 2 AM on Monday, May 17 as New York State continued its economic and social reopening. The subway system was closed overnight for the first time in the agency's 116 years on May 6, 2020, to allow the Transit Authority to undertake an unprecedented cleaning regimen to protect employees and customers from COVID-19. When it began, the closure covered 1 AM to 5 AM; on February 15 a partial resumption of overnight service occurred, reducing the overnight closure in half, from 2 AM to 4 AM.



Removing the midnight hours closure signs.
MTA photograph

The resumption of overnight subway service comes as subway ridership is trending upward towards a recovery. On Friday, March 12 subway ridership hit the 1.9 million mark for the first time since the onset of the COVID-19 pandemic a year ago. On April 9, subway ridership surpassed the 2 million mark, and on Monday, May 10 surpassed 2.2 million riders, a new single-day record. The news comes on the heels of the Authority's multifaceted communications and marketing #TaketheTrain and #TaketheBus campaigns aimed at bringing customers back to the system, which was introduced on May 17.

Prior to the pandemic, average weekday ridership totals on subways routinely exceeded 5.5 million. That figure fell by more than 90% to a low of roughly 300,000 daily trips last April as the number of COVID-19 cases peaked in the New York City area. The low point of bus ridership was 278,067 on Sunday, April 12, 2020. Average weekday ridership in April, 2020 was 463,763.

The unprecedented cleaning regimen on subways, buses, paratransit and commuter rails will continue. Stations will be disinfected at least twice daily and rolling stock at least once daily. Since the May 6 closure a year ago the MTA has piloted disinfecting methods such as ultraviolet light and antimicrobial sprays which will allow the disinfecting to remain at high levels. Masks are still required while riding mass transit; mask compliance on subways and buses has been nearly universal with 98% compliance on subways and 99% on buses.

In an effort to get New York fully vaccinated and reopened the MTA partnered with SOMOS Community Care, Northwell Health and Westchester Medical Center on eight pop-up

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THE HISTORY CORNER

Third Avenue Railway System double-truck motor 185 (Third Avenue Shops, 1935) is westbound on W. 181st Street and Wadsworth Avenue on an O/Ogden Avenue trip sometime in 1947. It was converted to bus in October of that year. In another block it will reach its terminal at Broadway. Francis J. (Frank) Goldsmith photo, Noah Caplin collection

All-Night Subway Service Resumes

(Continued from page 1)

vaccination sites throughout its operating region. Customers and MTA employees can get vaccinated at the sites. Anyone who received the vaccine at these pop-up locations received either a free seven-day MetroCard or free round-trip Long Island Rail Road or Metro-North ticket.

The MTA will also continue to protect its employees and customers with personal protective equipment. So far, the Authority has acquired nearly 27 million masks to date. In addition to the over eight million masks available for customers, the Authority has also made available 750,000 2-oz bottles of hand sanitizer. Additionally, the Authority has distributed to its workforce 18.7 million masks, 20.3 million pairs of gloves, 122,000 gallons of hand sanitizer, 260,000 7-oz and 2-oz bottles of hand sanitizer, 13.7 million individual sanitizing cleaning wipes, 277,000 gallons of cleaning solution and 18,000 face shields. (MTA Press Release, May 16)

THE BOARD OF DIRECTORS EXPRESSES ITS DEEPEST APPRECIATION FOR 2 MEMBER DONATIONS IN APRIL, 2021

AMOUNT	DONOR(S)
$250 and up	Barbara & Juergen Senst
$50 to $99	Howard Clark

ERA is a 501(c)(3) tax exempt corporation. Your donations are fully tax deductible and can be made either with your 2021 renewal, or by using our donation form on our website: www.erausa.org/donate. Your donation helps to maintain ERA's 87-year-long tradition of traction education and entertainment!

THE GENESIS OF "DASHING DAN," PART SEVEN — THE LIRR'S UBIQUITOUS M.U. FLEET AND OTHER ROLLING STOCK CHANGES, 1911-1920
by George Chiasson
(Continued from May, 2021 issue)

THE "CAMP UPTON" CARS AND MORE

As the possibility of international conflict took hold by 1916, the logistics of rapid deployment for the men and materiel of America's armed forces was a primary consideration, being even so important as to shape the executive and diplomatic strategies of top officials in the U.S. capital, lest the nation be caught short in any way when such actions became necessary. Given the strong response of Americans of every station to its country's call to duty during April and May of 1917, in addition to the unknown thousands who would be added through the military draft, the Army and Navy both were found wanting for support facilities in short order. One means of overcoming this deficiency with regard to a mass relocation of battle resources from the North American continent to Europe was to utilize as much of the existing transoceanic infrastructure as possible, something which America had actually been doing (and suffering the consequences of [refer to the 1915 R.M.S. *Lusitania* disaster]) long before war was finally declared. In this regard metropolitan New York and Long Island were in a position of vital importance, for no other U.S. port could match their long-established geographic and economic advantages in the field of Trans-Atlantic shipping. In this vein the War Department was quick to act even before the conflict had officially begun, with the associated (and quite obvious) need for military enhancements an uppermost priority. It would be a daunting task — never before had America tried to conduct military affairs of the required scope at such a distance.

In Nassau County, the one-time facility at Camp Black had long since been de-commissioned and was deemed unfit for immediate use when the fighting did begin, later to be reclaimed in an entirely different manner for the U.S. Army Air Corps. As we see above, the first wave of debarking troops were forced to quarter "in the rough," a situation which graduated into the formation of its lavishly-sized successor, Camp Mills. To meet the challenge of its much larger deployment goal (building numbers with soldiers by and large obtained through conscription), the Army tapped a huge, undeveloped plot of land in the vicinity of "Middle Island," (some 10,000 acres in the heart of Suffolk County) for the construction of a gigantic induction and training facility. A site inspection was undertaken by both Army and LIRR officials on June 21, 1917 and within a week construction was underway. It was intended to completely supersede the "temporary" Camp Mills, but the sheer volume of soldier traffic coming and going eventually dictated otherwise, at least in the short term. For its part the Long Island Rail Road was to provide all access to the site from Greater New York by way of a two-mile spur off its Main Line in the erstwhile wilderness between Yaphank and Manorville, laying its track straight into the main encampment and headquarters area. The first inductees were on hand by mid-September, with Camp Upton (named after a Union Army General of the Civil War era) being officially and completely activated as of September 24. Internal construction went on nevertheless, largely performed by troops on station and would continue well into 1918. It was occupied by an ever-increasing number of officers- and men-in-training through the early months of that year with the railroad providing frequent shuttle service to Yaphank at the very least (there connecting with through trains) and a series of through schedules serving Long Island City and other New York termini via connection at best, especially so for those holding weekend passes (as at the Hazelhurst Aviation Fields).

Like the Nassau County complex, the focal point of rail transportation to and from Camp Upton during the heat of World War I were the dedicated troop trains which burnished the LIRR's rails at an astounding frequency. This unexpected bonanza of human traffic actually put the railroad in somewhat of a crewing and equipment bind as the war effort intensified, so with help from the Pennsylvania Railroad (as usual) it received 25 new all-steel coaches from Standard Steel during May and June of 1917 that were specifically intended for Army service between New York City and Camp Upton (those being requisitioned as separate lots of 20 and five coaches each). Future soldiers often came into the Army by boarding troop trains at Penn Station, then left for overseas points through dockside ports in Manhattan and Brooklyn that were reached via Penn Station, Long Island City or the Brooklyn Army Terminal. These "special" cars were delivered as little more than body shells on wheels, much like the Summer-only "beach trailers" that had been delivered in 1915. They had no heat, perfunctory interior lighting (kerosene lamps) and a "bare bones" type of rattan seating, being designated in rosters through the years as T54A class coaches 927-951.

To this day their true origin remains a mystery, especially given their later improvement and conversion to M.U. trailers. One intriguing possibility of the several put forward was that these were to be used as MP54 M.U. trailers on the emerging electrified lines near Philadelphia (where all cars for many years were converted from conventional MP54 coaches that were built between 1910 and 1914), but given over to serve the

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The Genesis of "Dashing Dan"

(Continued from page 3)

acute military needs of wartime America. Whatever the case, 45 additional such "Camp Upton" coaches were received from Pressed Steel Car Company at the end of 1917 for similar use (952-996) with all 70 continuing to roll in their original state through the rest of the conflict and far beyond. By late 1918 they were carrying regular commuters not only on the Main Line to Camp Upton (by then also a way station) but were generally seen across the system's electrified routes in a quite literal interpretation of the common gripe about "human cattle cars." In the spring of 1918 ACF delivered 15 conventional P54B coaches numbered 374-388 that were identical to the three previously received in 1916. Wartime aside these were definitely anticipated for use on the company's non-electrified, civilian-oriented passenger lines as it continued to ultimately strive for as complete a state of re-equipment as possible, albeit incrementally.

As for Camp Upton, it served its intended purpose very well, being the temporary home to literally hundreds of thousands of doughboys passing between the farms, small towns and city streets of America and the distant shores of Europe (particularly France), where they fulfilled a national vow to "keep the world safe for democracy." Its grounds felt the boots (with leggings) of such regiments as the 77th and 82nd Divisions and the 302nd (Railway) Engineers, while perhaps its most famous occupant was none other than the famed composer Irving Berlin. Drafted with the faceless millions in 1917, he was posted at Camp Upton for the duration, being employed by the Army at his best-known trade to create music of a patriotic variety. Among other tunes and one of his better known shows called Yip, Yip, Yaphank!, Berlin wrote Oh, How I Hate To Get Up In The Morning and God Bless America while interred in the pine barrens of Suffolk County (though the latter was not released until 1938), before he was almost anonymously discharged with the rank of Sergeant at war's end. On May 24, 1918 the railroad gave up its direct service into the military grounds but for the movement of freight and Troop Trains, and instead opened a way station at the Upton Road grade crossing on the Main Line. This was served by regular trains toward Riverhead and Greenport until the railroad's commitments to what had become a de-mobilization center at last came to an end on April 15, 1922. At that time both the passenger station and freight handling facilities were closed — at least until World War II.

The Long Island Rail Road then did not receive its first post-war order for rolling stock until the third quarter of 1920, one as usual built by American Car and Foundry. It consisted of 50 T54A class M.U. trailers numbered 857-906, which were subsequently to be supplemented by 927-996 after their complete electrification, and its first new M.U. control motors since 1914: class MP54B cars 1678-1697. These actually represented the first installment in the LIRR's next generation of acquisitions and as such incorporated certain technological refinements, yet they remained both electrically and mechanically compatible with their forebears, the eldest of which were coming on a dozen years in age. While the supply of their control group and basic traction motors remained as they had been for more than a decade, since the first MP54 control motors were delivered in 1908, one significant change introduced with the MP54B class was the employment of field control as part of their Westinghouse 308G or 308H motors. This allowed a slightly higher top speed as compared with the previous full field operation of the older type of motor. In addition, the designation (under Westinghouse nomenclature) of their newer group would have thus been revised accordingly to "ABF" to mark its incorporation of field control in the main motor circuit.

Otherwise, the main air brake valve assembly was upgraded from the original Westinghouse "AML" type of brake control valve to "AMU" which incorporated a universal control valve. Collectively, these operational attributes became the new standard for yet another decade until the very last MP54A1 control motors arrived on the Long Island Rail Road at the end of 1930. The 1920 MU class were the first "arch-roof" motor cars, with fixed ventilators spread along their "peak," and had a set of built-in rotating marker lenses (i.e. "discs") on the prow above the end sheets, but they also contained a built-in, recessed headlamp above the storm door. Their revised interior seated accommodations for 78 as opposed to the 80 of earlier models, bare incandescent body lighting in place of the earlier "electroliers" and one large sliding door to separate the interior cabin from the vestibule instead of the earlier double sliding doors. There was also a noteworthy difference with the vestibule door panels, wherein this new model were pneumatically powered (as on a subway train) via a control panel of electrical buttons in the end compartment. At that time though, all such doors were still strictly "locally" controlled, as individually in each car but not yet able to operate any door of any other car, as they were to be in later years. Such were the LIRR's earliest stirrings of a system which popularly became known as "Centralized Door Control" and stood to revolutionize rapid transit operations during the next two decades.

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The Genesis of "Dashing Dan"
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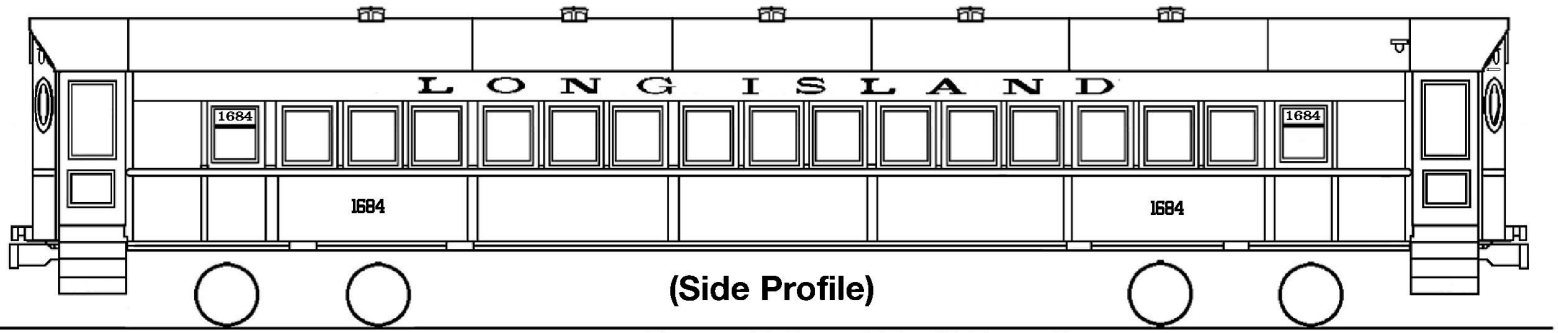

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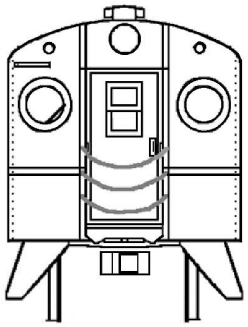

(End Profile)

Long Island Rail Road

MP54B M.U. Motor, Numbers 1678-1697

Builder: ACF Delivered: 1920

Modified: 1930-1951 Rebuilt: 1955-1957 Retired: 1955-1972

Carbody
Length: 64 feet, 5 inches
Width: 9 feet, 10-7/16 inches
Height: 13 feet
Total Weight: 110,400 lbs.

Electrical Componentry
Control System: Westinghouse ABF
Motors: 2 WH 308

Cab Signaling: ASC installed in 7 cars 1951

Electrical Feed: Trainline Jumpers

Controller: Westinghouse up-right

Trucks: Heavyweight MCB with friction bearings

Air Braking: AMU

Air Compressor: WABCo

Hand Brake: Peacock

Coupler: MCB with knuckle

Interior Details
Door Operation: Pneumatic, same car only.
Capacity: 78 Seats
Seat Configuration: 2 x 2 pull-over
Upholstery Type: Rattan
Lavatories: One
Lighting Type: Bare Electric Bulbs
Air Comfort: None

Notes:

1930-1942:
-1678, 1679, 1682, 1683, 1691 reconfigured to 96 Seats with 3 x 2 pull-over seating and Rattan upholstery.

Nov. 27, 1932:
-The use of colored marker lights was discontinued.

1947:
-Began replacing all sash glazing with safety glass.
-Began replacing wood sash with aluminum.
-Began replacing original vestibule doors, usually with double pane and safety glass.

Notes:

1951:
-Completed replacement of sash and vestibule doors.
-1683, 1684, 1691, 1692, 1694, 1696 & 1697 received ASC and reclassified MP54Bc.
-1678-1682, 1685-1690, 1693, 1695 were prohibited from head-end operation and reclassified MP54BT as Blind Motors.

1955-1957:
-All 7 MP54Bc Motors were rebuilt as 4683, 4684, 4691, 4692, 4694, 4696 & 4697 (MP54Bc).
-4683, 4684, 4691, 4692, 4694, 4696 & 4697 reconfigured to 89 Seats with 3 x 2 pull-over seating and Vinyl upholstery.
-All 13 MP54BT Blind Motors were rebuilt as 5678-5682, 5685-5690, 5693 & 5695 (MP54BT).
-5678-5682, 5685-5690, 5693 & 5695 reconfigured to 91 Seats with 3 x 2 pull-over seating and Vinyl upholstery.
-All cars received:
Electric Red Markers, Centralized Door Control, Hunter ceiling fans and Bullseye interior lighting.

D. G. Chiasson Jr.-April 2021: Source material from M. Boland, H. Raudenbush, J. Erlitz, S. Lynch, A. Huneke, S. Reich, S. Kashin and B. Emery

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The Genesis of "Dashing Dan"

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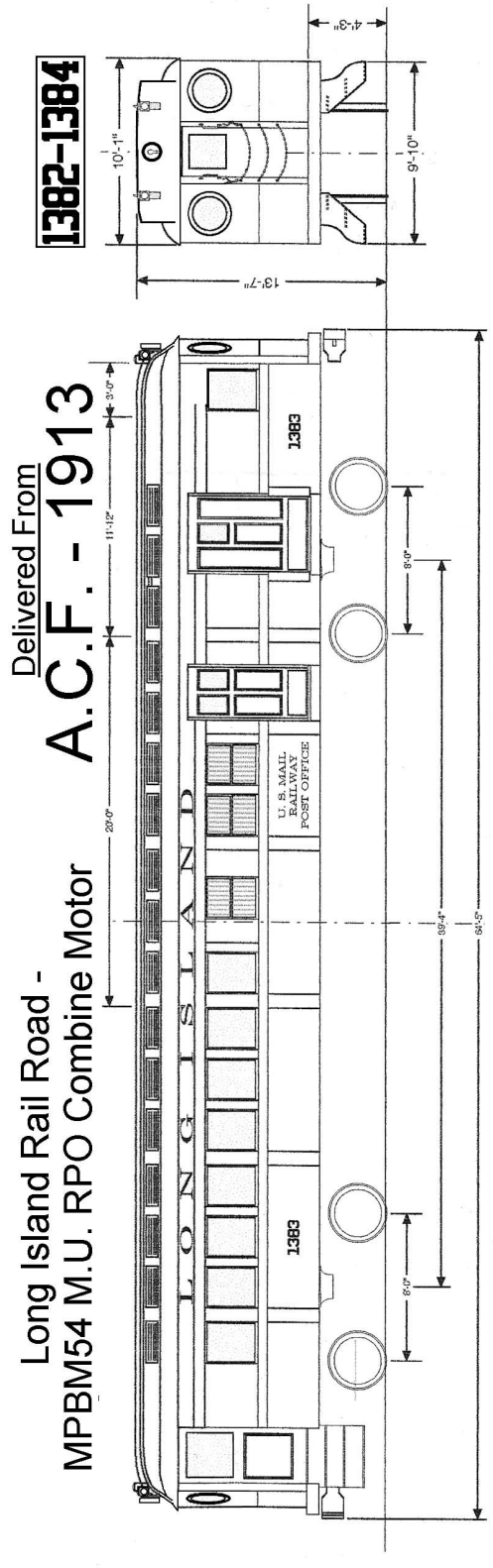
Long Island Rail Road -
MPBM54 M.U. RPO Combine Motor

Delivered From
A.C.F. - 1913

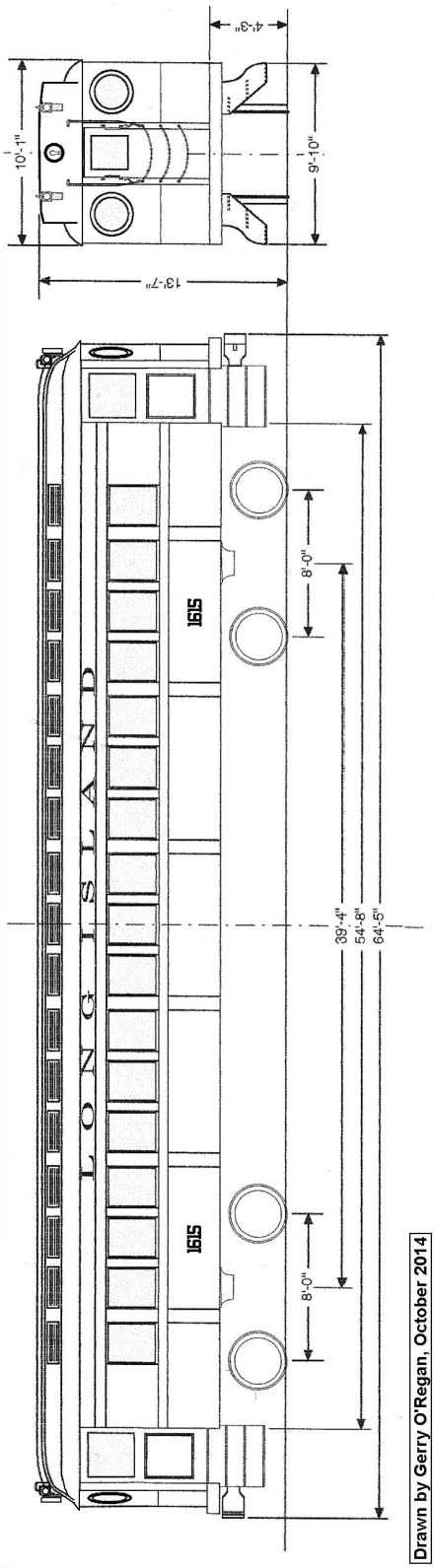
1382-1384



Drawn by Gerry O'Regan, October 2015

Long Island Rail Road - Class MP54A - M.U. Motor

Numbers	Delivered From	Year
1552-1601	A.C.F.	1911
1602-1621	A.C.F.	1912
1622-1635	A.C.F.	1913
1636-1676	A.C.F.	1914



Drawn by Gerry O'Regan, October 2014

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The Genesis of "Dashing Dan"
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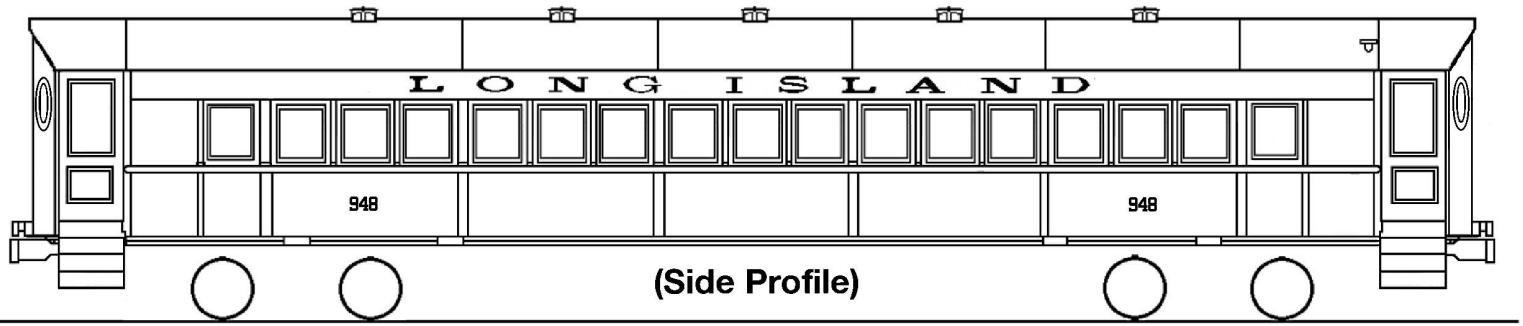
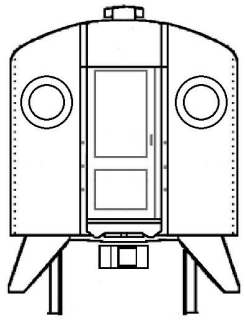


(Side Profile)

Long Island Rail Road

T54A M.U. Trailers:

Numbers:	Builders:	Delivered:	Modified:	Retired:
927-946	Standard Steel	1917	1921-1951	1955-1970
947-951	Standard Steel	1917	1921-1951	1955-1969
952-996	Pressed Steel	1917-1918	1921-1951	1955-1970
857-906	ACF	1920	1922-1951	1954-1970



(End Profile)

Carbody
Length: 64 feet, 5 inches
Width: 9 feet, 11½ inches
Height: 13 feet
Total Weight: 63,100 lbs.

Electrical Componentry
Control System: None
Motors: None

Cab Signaling: N/A
Electrical Feed: Trainline Jumpers
Controller: None
Trucks: 2B1 Lightweight
Air Braking: Automatic
Air Compressor: None
Hand Brake: Peacock
Coupler: MCB with knuckle

Interior Details
Door Operation: Manual
Capacity: 80 Seats
Seat Configuration: 2 x 2 pull-over
Upholstery Type: Rattan
Lavatories: None
Lighting Type: Lanterns
Air Comfort: None

Notes:

1921 (927-996); 1922 (857-906)
-Electric Lighting (bare bulbs) and Heaters installed.
-Headlining added to interiors.

Ca. 1923:
-Vestibule Air Door added, same car only.

By 1939:
-857, 865 and 927 reconfigured to 89 Seats with 3 x 2 pull-over seating and Rattan upholstery.
-End wall windows plated or painted over.

Notes:

1947:
-Began replacing all sash glazing with safety glass.
-Began replacing wood sash with aluminum.
-Began replacing original vestibule doors, usually with double pane and safety glass.

1951:
-Completed replacement of sash and vestibule doors.
-866, 891 & 868 reconfigured as MP54T Blind Motors 1012, 1013 & 1015.
-890, 905, 976 & 988 reconfigured to 89 Seats with 3 x 2 pull-over seating and Vinyl upholstery.
-Central Door Control added to 863, 865, 890, 896, 904, 905, 927, 930, 935, 945, 955, 964, 968, 972, 976, 990, 992 & 994.
-3 x 2 pull-over seating in 857 and 865 reupholstered to Vinyl.
-863, 890, 896, 904, 905, 935, 945, 955, 964, 968, 972, 976, 992 & 994 received Hunter ceiling fans.

D. G. Chiasson Jr.-March 2021: Source material from M. Boland, H. Raudenbush, J. Erlitz, S. Lynch, A. Huneke, S. Reich, S. Kashin and B. Emery

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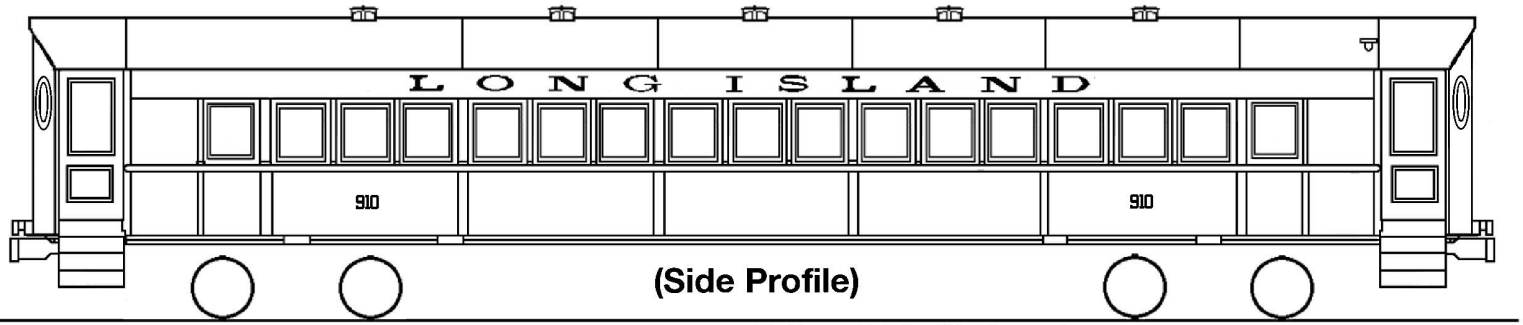

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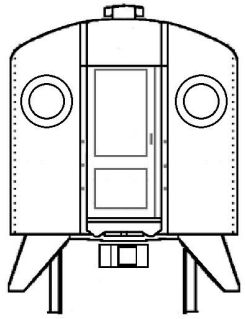
Long Island Rail Road
T54 M.U. Trailer, Numbers 907-926
Builder: Standard Steel Delivered: 1915
Modified: 1921-1964 Retired: 1955-1970



(End Profile)

Carbody
Length: 64 feet, 5 inches
Width: 9 feet, 11½ inches
Height: 13 feet
Total Weight: 63,100 lbs.

Electrical Componentry
Control System: None
Motors: None

Cab Signaling: N/A
Electrical Feed: Trainline Jumpers
Controller: None
Trucks: 2B1 Lightweight
Air Braking: Automatic
Air Compressor: None
Hand Brake: Peacock
Coupler: MCB with knuckle

Interior Details
Door Operation: Manual
Capacity: 80 Seats
Seat Configuration: 2 x 2 pull-over
Upholstery Type: Rattan
Lavatories: None
Lighting Type: Lanterns
Air Comfort: None

Notes:

1921:
-Electric Lighting (bare bulbs) and Heaters installed.
-Headlining added to interiors.

Ca. 1923:
-Vestibule Air Door added, same car only.

By 1939:
-916 and 917 reconfigured to 89 Seats with 3 x 2 pull-over seating and Rattan upholstery.
-One lavatory installed in 916.
-End wall windows plated or painted over.

Notes:

1947:
-Began replacing all sash glazing with safety glass.
-Began replacing wood sash with aluminum.
-Began replacing original vestibule doors, usually with double pane and safety glass.
-913 received Hunter ceiling fans.

1951:
-917 reconfigured as Blind Motor MP54T 1016.
-Completed replacement of sash and vestibule doors.
-Central Door Control added to 913, 916 and 1016.
-3 x 2 pull-over seating in 916 and 1016 reupholstered to Vinyl.

1964:
-921 rebuilt as Steam Trailer P54D 7921 with: 32v trainline jumpers, 88 seats, 3 x 2 pull-over type, Vinyl upholstery and Hunter ceiling fan.
-P54D 7921 was retired in 1972.

D. G. Chiasson Jr.-March 2021: Source material from M. Boland, H. Raudenbush, J. Erlitz, S. Lynch, A. Huneke, S. Reich, S. Kashin and B. Emery

(To be continued)

Rail News in Review

New York Metropolitan Area

Metropolitan Transportation Authority

The Metropolitan Transportation Authority (MTA) announced that the New York City subway, Long Island Rail Road and Metro-North Railroad all achieved pandemic ridership records on May 14, with 2,265,489 trips on the New York City subway, 104,885 on the Long Island Rail Road, and 85,684 on Metro-North Railroad that day. These figures mark the highest single-day ridership totals for those agencies since the start of the COVID-19 pandemic for both commuter railroads and the subway system.

Nearly 1.2 million passengers rode the bus on May 14, with the 1,188,284 ridership total not far off from the pandemic high of 1,245,629 from May 6. Altogether, more than 3.4 million riders used New York City Transit's subways and buses on that day.

The MTA has undertaken unprecedented cleaning and disinfecting protocols in the year since the pandemic began to ensure that the system is as safe as possible for its passengers. The Authority has also rolled out robust public education campaigns and issued millions of masks to its passengers. Mask usage in the system remains high, with more than 98% of passengers wearing a mask when riding mass transit. The MTA also enhanced its Live Subway Map to allow riders to find vaccination sites throughout the city.

Prior to the pandemic, average weekday ridership totals routinely exceeded 5.5 million in the subway system. That figure fell by more than 90% to a low of roughly 300,000 daily trips last April as the number of COVID-19 cases peaked in the New York City area. The low point of bus ridership was 278,000 on Sunday, April 12, 2020. Average weekday subway ridership in April, 2020 was 463,763. MTA employees continued to provide service for the frontline healthcare professionals and other essential workers who needed to get to work during some of the most difficult days in New York City history. (MTA press release, May 17)

MTA New York City Transit

Federal stimulus payments to the Metropolitan Transportation Authority (MTA) are paying off in terms of the chance for the completion of the Second Avenue Subway project in East Harlem.

The global pandemic sent transit agencies into a financial tailspin last year, and almost scratched work on the project that would extend the Q line to 125th Street.

However, now that the MTA's budget has been rescued by more emergency federal funds the Second Avenue Subway project is back on, and it could get another boost if President Biden's infrastructure bill is passed by Congress.

The MTA is moving forward with acquiring land for the work. More than a dozen privately owned properties need to be taken care of in East Harlem. Most of the buildings are largely vacant, and the MTA is expected to take advantage of New York City's eminent domain law, which gives governments the right to take properties if they are being redeveloped for public use.

The East Harlem extension would use a 10-block-long tunnel that was constructed back in the 1970s between E. 110th and 120th Streets. The goal was to open the extension by 2027, but that date will be pushed back. (***Railway Track & Structures***, May 5)

The One Metro New York (OMNY) contactless fare payment system has reached two significant milestones as ridership continues to grow: surpassing 75 million taps since its debut on a handful of buses and at 19 subway stations two years ago in May, and receiving more than 500,000 taps on May 7, the same day that the subway reached a pandemic record-high ridership of 2,239,500.

OMNY, the rollout of which was completed at all 472 subway stations and on all 5,800 MTA buses in December, allows passengers the convenience of using a smart device or bank card of their own choosing and forgo the need to refill a MetroCard. In total, the NYC Transit System is now equipped with more than 15,000 OMNY readers for processing customer payments. OMNY will fully replace the *MetroCard* in 2023 and a dedicated OMNY card, to allow for cash fare purchases and eventually replace the *MetroCard*, will make its debut later this year.

Beginning in 2021, passengers will be able to purchase the OMNY card — a contactless fare card — using cash at retail locations throughout the region. OMNY will also begin expanding fare options in 2021 with the introduction of reduced fares for senior passengers and riders with disabilities and integration with paratransit services. The card will eventually be available at vending machines in stations as well.

Additional improvements to the digital experience are expected later this year, including a refresh of the OMNY.info website and the launch of the OMNY mobile app. These efforts will give passengers additional flexibility and choice in where, when and how their fare is paid. (MTA press release, May 15)

The Metropolitan Transportation Authority (MTA) announced that its Live Subway Map has won the Webby Award and Webby People Voice Award for "Best Mobile User Experience." The first-of-its-kind map gives riders the power to navigate the subway system like never before. The map allows riders to plan trips more easily by taking into account service changes and seeing train movements as they happen in real-time. The creation of the map was the byproduct of an 18-month-long public-private partnership between the MTA, the Transit Innovation Partnership and Brooklyn-based global design and technology firm Work & Co.

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The beta version of the Live Subway Map launched in October, 2020 and has been a key tool for keeping riders informed with up-to-the-minute service information. Work & Co designed and developed the web-based digital tool on a completely pro bono basis with the goal of making the lives of New Yorkers easier. Highly customer friendly, the map allows passengers to navigate the system in an intuitive and digital way. Passengers will no longer have to read through printed station signage to determine how they should travel throughout the system.

Filmmaker Gary Hustwit documented the creation of the live map in a short film released in late 2020 called "The Map." The documentary examines the evolution of wayfinding and user interfaces, and shows how good design and the latest digital technology can simplify one of the world's most complex transit systems.

The Live Subway Map has also earned press accolades from ***New York Magazine***, ***The New York Times***, ***The Wall Street Journal***, ***Fast Company*** and ***Ad Age***, and recognized with the following awards since its launch last October:

- Communications Arts winner
- Indigo Awards: Digital Design of the Year and Gold in both Innovative Use of Technology and Best Tools and Utilities
- Creative Review: Best Website
- Horizon Interactive Awards: Gold for Responsive Design and Government Website categories

(MTA press release, May 18)

MTA Long Island Rail Road

On May 21, Long Island Rail Road President Phil Eng was joined by Nassau County Executive Laura Curran, tourism officials and lifeguards to celebrate the return of beach season and expanded LIRR Summer service.

The group gathered in Long Beach, near the surf and the sand, to welcome beachgoers and encourage them to travel conveniently and reliably by train. Long Beach is open on weekends beginning May 29 and daily beginning June 28 from 9 AM to 6 PM. Beach passes are required. LIRR Discounted Beach Packages will be offered beginning July 1.

Beaches will operate with six-foot social distancing in anticipation of Memorial Day with a goal to reopen to 100% capacity by July 4, as announced by Governor Andrew M. Cuomo on May 12.

The partnership announcement coincides with the MTA"s #TaketheTrain, #TaketheBus Campaign which features "New York is Open" images of the region's alluring open spaces that can be reached by MTA services, such as Long Beach — encouraging people to use the MTA's trains and buses to get out and explore all the region has to offer.

LIRR weekday ridership reached a pandemic record of 104,885 on Friday, May 14 and the railroad has posted new timetables for summer service beginning May 24.

The railroad will provide additional service to Long Beach, Freeport, Montauk and Greenport. On weekends, Long Beach will have one additional eastbound and one additional westbound train. There will be three additional eastbound and three additional westbound trains for travel to and from the Freeport station, the closest station to Jones Beach. Note that due to COVID-19 restrictions, Jones Beach will be limited to 50% capacity for the Bethpage Air Show.

Off-peak fares remain in effect on all trains, including during traditional peak travel times, until further notice. For more information about the LIRR summer schedule, visit the MTA website.

On the weekends, beginning Friday, May 28, the "Cannonball" Hamptons Express train returns and will depart from Penn Station at 4:06 PM. (MTA press release, May 21)

C3 5023 (Kawasaki Rail Car, 2/1999) is leading Train #651 from Port Jefferson to Jamaica non-stop through the Westbury station with DM30AC 512 (EMD, 8/1999, s/n 956623-13) pushing from behind in this view east on May 26, 2021. Construction of temporary platforms extending east from the existing platforms is now underway.
Jeff Erlitz photograph

Work has resumed on the Main Line Third Track Project. All work had been shut down for about a month to allow for a thorough safety review following the serious injury of a contractor working on the new east end pedestrian overpass in Mineola. With construction at the New Hyde Park, Merillon Avenue, Mineola and Carle Place stations either well along or nearing completion, work has now started at the Westbury station. LIRR forces were at work during the last week of May constructing temporary platform extensions to the east ends of both platforms, as can be seen in the above photo. Presumably, this will allow for six cars to be platformed in both directions while the west ends are demolished and rebuilt.

It was announced on May 27 that civil construction on East Side Access — the MTA's megaproject connecting the Long Island Rail Road to a new 350,000-square-foot passenger terminal under Grand Central Terminal — had been completed. This is the largest new train terminal to be built in the United States since the 1950s and

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the first expansion of the LIRR in more than, apparently, 100 years. The new connection will double the LIRR's capacity into Manhattan with up to 24 trains per hour and cut travel time for some Queens commuters by 40 minutes per day.

Governor Cuomo and MTA Construction and Development President Janno Lieber led a tour of the project on May 27. The Manhattan concourse includes a 350,000-square-foot LIRR passenger concourse just below street level that will offer new entrances along Madison Avenue, 25 retail storefronts, WiFi and cell service, new art installations and digital signage with real time train information. The entrance in 347 Madison Avenue being built at E. 45th Street as part of the redevelopment of the MTA's former headquarters alone is expected to serve 10,000 people a day.

Seventeen high-rise escalators, 182 feet in length and the longest in the MTA system, will connect commuters between the new concourse and mezzanine of the train terminal 140 feet below Park Avenue. The mezzanine in turn leads to an upper train level that has two platforms and four tracks, and a lower train level that similarly has two platforms and four tracks.

Trains will enter the concourse from a newly activated tunnel that carries two tracks as it passes under the East River at E. 63rd Street. The two tracks then fan out to four, then eight on the two levels.

In Queens, crews have built a new yard with space for up to 300 rail cars, and fully updated Harold Interlocking, the busiest passenger railroad intersection in North America, including the installation of 97 new track switches, 295 poles that carry overhead wires used by Amtrak, five new steel railroad bridges and 8,445 feet of retaining walls. Overall, the project includes more than 40 miles of new track, nearly 13 miles of newly excavated tunnels, 44 ventilation fans, 550 miles of cable and 975 security cameras, 15 overhead gantries that display train control signals and 14 huts alongside the tracks containing signal system components.

Originally conceived of in the 1960s, the project was developed in the 1990s with work beginning in earnest in Queens and Manhattan in 2006. East Side Access contractors have accomplished several engineering feats over the years, including blasting under Grand Central with limited impact to rail operations, mining under both Northern Boulevard and the elevated and underground subways in Queens and expanding the capacity of Harold Interlocking.

In addition to relieving congestion at Penn Station, East Side Access will enhance New York's competitive standing in the global economy by providing a new link to business centers on the East Side and supporting job growth around Grand Central Terminal. When the project is complete, operational efficiency through Harold Interlocking will be greatly improved, benefiting travelers all along the Northeast Corridor. For the first time, reverse commuting from New York City to Long Island will be a realistic option for the region and will allow East Midtown and Metro-North Railroad customers to be able to connect to JFK Airport via the Long Island Rail Road and the Jamaica AirTrain. (MTA press release, May 27)

MTA Metro-North Railroad

Thanks to federal bail-out funding for ailing transit agencies nationwide from the pandemic, Metro-North Railroad's new Hell Gate Line will be able to proceed with contracts for construction as planned. Splitting away from the New Haven Line at New Rochelle, the new line will utilize existing Northeast Corridor tracks and will have four new stations built at Co-op City, Morris Park, Parkchester/Van Nest and Hunts Point on the way to Penn Station via the Hell Gate Bridge. (MTA press release, May 19)

The northbound platform of the Williamsbridge station on the Harlem Line reopened on May 16. It had been abruptly closed in February, 2021 due to an unexpected magnitude of repairs needing immediate attention. (Metro-North Railroad press release, May 14)

Starting on June 1, Waterbury Branch train service will be replaced by bus service to accommodate infrastructure improvements on the branch. Train service is expected to be restored by Sunday, August 29. With ridership still reduced due to the COVID-19 pandemic, this work can be accomplished while minimizing inconveniences to passengers.

The work taking place includes railroad crossing improvements, the replacement of track ties and track curves, completion of passing sidings and track resurfacing along the branch to ensure smoother rides. The work, a priority of the Connecticut Department of Transportation (CTDOT), is part of a $116 million capital improvement project. In order to accommodate this work bus service will be provided as an additional travel option for passengers affected.

This work builds on the successful 2020 program that accelerated construction of the new Waterbury Branch signal system and passing sidings. This year the construction program includes completion of the new passing sidings, at-grade crossing improvements, continuation of tie replacement and track upgrades and completion of the signal system.

The initial phase of the work is taking place overnights between May 10-28. During that time, buses are replacing the last train from Waterbury and last two Waterbury-bound trains departing from Grand Central Terminal (GCT) and Bridgeport on weeknights. (MTA press release, May 23)

Other Systems

Boston, Massachusetts

MBTA's newest subway cars manufactured by CRRC were all removed from service in March following the derailment of a new Orange Line train as it negotiated a turnout during a single-tracking operation in support of a track maintenance program (see May, 2021 ***Bulletin***). Initially blaming poor track conditions, the cars were withdrawn from service out of an abundance of caution.

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Subsequent investigation revealed it was a wise choice. The derailment was determined to be caused by the unexpectedly premature wear-out of a side bearer pad. Located between the top of the wheel truck and the bolster connecting the truck to the car body, it is a roughly 12-inch-long x 5-inch-wide strip of thin synthetic resin-like layer that creates a necessary amount of friction to keep the trucks "stiff" and not swivel too readily and result in truck oscillation. However, the premature wear of the side bearer pad resulted in far too great a degree of stiffness, reducing the ability of the truck to rotate, exerting pressure on the flanges of the wheels, causing them to "climb the rails" and derail. CRRC is maintaining a position that bad track on MBTA may be contributing to the early wear on these pads and there is an ongoing dispute as to who is actually responsible for this failure. MBTA is conducting tests on the chemical nature of the pads in an effort to identify the cause of such premature wear-out. Until this issue is resolved, the new CRRC cars will occupy space in MBTA's yards and will not be permitted to return to passenger service. CRRC is contracted to deliver 404 cars for almost $1 billion to MBTA to fully re-equip the Orange and Red Lines. In October, 2020, MBTA had already announced that the final cars would not be delivered until the end of 2024. As this investigation progresses, the engineering fix may have to be extensively tested, adding many more months of delay to the replacement of the existing car fleet. (***Boston Globe***, May 16)

Philadelphia, Pennsylvania

The Southeastern Pennsylvania Transportation Authority (SEPTA) announced that there will be no rail service on the 101/Media and 102/Sharon Hill routes from Saturday, June 5 to Sunday, August 29. They will be upgrading track switches, installing new track crossovers, replacing track ties and adjusting the overhead trolley wire. During construction, buses will replace trolleys on both routes. (SEPTA service notice, May 25)

Washington, D.C. area

Phase Two of WMATA's Silver Line to Dulles International Airport is on schedule to be handed over by the construction contractors to WMATA in September. Additional testing by WMATA will continue with a potential service start not before February, 2022. Phase Two includes six new stations on an 11.4-mile section beyond the current terminus at Wiehle-Reston East and a new yard and maintenance facility located on over 90 acres of Dulles Airport property. Phase One of the Silver Line opened in 2014 with five stations located over 11.7 miles beyond the junction with the Orange Line at East Falls Church, making the eventual line a total of 23.1 miles. (***Dulles Corridor Metrorail Project***, May, 2021 edition)

Chicago, Illinois

The Northern Indiana Commuter Transportation District (NICTD) has rejected the two bids it received for construction of the South Shore Line Double Track project covering the line from Gary to Michigan City. NICTD had estimated the cost of the construction of the second track, along with replacement or upgrading of stations and bridges, at $228.6 million. It received bids of $399.7 million and $424.5 million recently. As a result of the high bids, NICTD is spending 30 to 45 days developing new bid requirements with the goal of receiving new bids more in line with the agency's estimates by August. In the meantime, three other contracts have already been let: a new Michigan City 11th Street station with garage and commercial space (the face of the classic depot is reportedly going to be saved and incorporated into the new two-track two-platform facility) totaling $16.7 million with a completion date of June, 2023, $4.1 million for a new station and parking lot at Gary Miller with a scheduled completion date of May, 2023 and $440,000 for a rebuilt high level platform station at Dune Park. The Portage/Ogden Dunes station rebuilding to high-level platforms will be a fifth contract to be awarded. *(Editor's note by Ron Yee: South Shore trains continue to operate over the famous street-running portion through the city, although the current bus shelter station was closed after April 30 to commence the project's work. All passengers are carried through to the Carroll Street station, by the main shops and yard. Those wanting to go to 11th Street will take a local shuttle bus back to 11th Street. The layout of the double-track alignment through Michigan City will entail the north side of 11th Street becoming the double-track line east of the diamond crossing with the former Michigan Central tracks now carrying Amtrak trains. The existing track will become the eastbound mainline and be separated from vehicular traffic on a raised trackbed, much like the South Chicago branch of Metra Electric, formerly the Illinois Central Electric. A new westbound track will cover over the current westbound vehicular lane, making 11th street one way eastbound. Around 31 street intersections in the three-mile stretch through the city will be closed, with vehicles no longer able to cross the tracks. No properties on either side of 11th Street would need to be demolished with exception of a few plots around the new station. West of the Amtrak crossing, the South Shore right-of-way will be relocated completely off 10th Street to a new private right-of-way built over the properties formerly on the south side of 10th Street. Properties on the north side of 10th street would be unaffected. The relocated line would be a classic side of road alignment.* (***The Times of Northwest Indiana***, May 10)

The Chicago Transit Authority has begun testing its ten prototype Series 7000 subway cars in revenue service on the Blue Line between Forest Park and O'Hare International Airport.

Out-of-service testing began last year to evaluate the vehicles' performance in a wide range of weather and operating conditions. In-service testing is scheduled to continue until early 2022, when production of the remaining 390 cars is expected to begin.

The Series 7000 trainsets are CTA's first new metro cars since the introduction of the Series 5000 in 2011. The contract awarded in 2016 covers a base order for 400 cars, with options which could take the total build to

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846 vehicles worth $1.309 billion.

The pre-series vehicles were produced at the CRRC Qingdao Sifang plant in China, although the rest are to be manufactured by CRRC Sifang America at a factory in the Hegewisch area of southeast Chicago.

The Series 7000 features blue ends with a new head and taillight arrangement. The interiors have a mix of forward-facing and aisle-facing seats designed to maximize available space and passenger comfort, taking into account user feedback from surveys seeking to identify the best features of the existing vehicles.

The interiors have LED lighting, all-glass windbreak panels flanking the doors and plentiful grab bars and straps. There are double-sided displays in the center of the cars showing a moving map with the next stations, and information displays at both ends providing next stop information and accompanying text for the pre-recorded audio announcements. An "express mode" feature for hearing-impaired passengers provides a visual indication of the next stop in the event of express running or a need to skip stations. There are distinct chimes for door opening and closing, and a hydraulic level control system supplied by Liebherr-Transportation Systems adjusts the height of the car floor to match the platform

The trains have touch-screen controls with improved operator notifications for troubleshooting assistance. (***Metro Report International***, April 22)

The first pair of new 7000-series cars built by CRRC.
CTA photograph

Seattle, Washington

Seattle's Sound Transit has put into service the first six of 152 light rail vehicles which it had ordered from Siemens Mobility as part of an expansion program.

This will see its fleet tripled and line extensions opening every year to expand the network from 21.7 miles to 61.5 miles by 2024.

Sound Transit ordered 122 LRVs from Siemens in September, 2016 and then 30 more in April, 2017, taking the total value of the Series 2 fleet order to $642.5 million.

The first was delivered from the manufacturer's Sacramento factory for testing in June, 2019 and underwent 994 miles of trial running. Subsequent vehicles have undergone 289.6 miles of trial running, with 41 now delivered.

Sound Transit said the Series 2 LRVs offer passengers several improvements over its Series 1 fleet of 62 KinkiSharyo cars. They have 70 seats, with larger windows, a wider aisle, more seats with space to stow luggage, dynamic passenger information displays, LED lighting and four rather than two bicycle hooks.

Delivery of the Series 2 cars will enable the Series 1 fleet to be refurbished for use on the future East Link route.

The 4.3-mile Northgate Link extension is scheduled to open on October 2, providing a 14-minute journey time from Northgate to central Seattle. Most of the route is in twin tunnels, with a 0.8-mile elevated section including the Northgate stop. (***Metro Report International***, May 18)

The second unit from Siemens Mobility for Sound Transit.
Metro Report International photograph

San Francisco, California

BART will increase service by adding 26 new weekday runs between June 1 and June 15 with an eventual goal of returning to near pre-pandemic service levels and hours starting August 30 with weekday service from 5 AM to midnight (currently 5 AM to 9 PM) with 15-minute headways on all lines between 5 AM and 8 PM. Saturday service will operate from 6 AM to midnight (currently 8 AM to 9 PM) with five lines and added tripper trains to maintain a minimum 15-minute headway. No mention was made in the press release regarding Sunday service but it is hoped it would mirror Saturday service levels. Currently, the 15-minute headways are only offered during peak periods with 30-minute headways off-peak and weekends. BART has made it policy to operate full-length trains to permit social distancing, something that is achievable as long as the passenger load is 60 or less per car. In an effort to attract returning ridership, BART will implement a 15-step plan to woo back riders.

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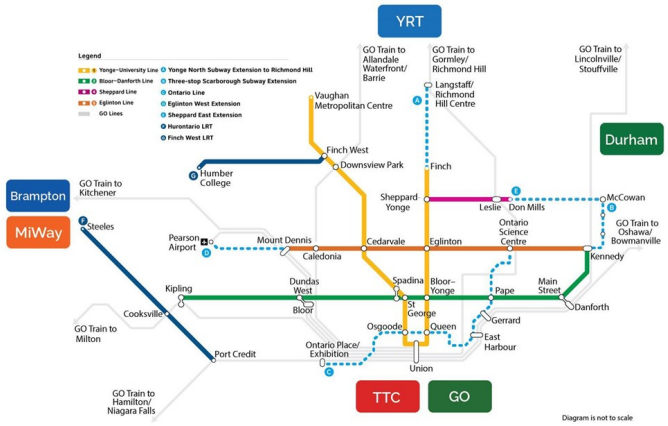
This program includes 50% discounts on *Clipper Card* fares during the entire month of September and full roll-out of the "*Clipper* App" for contactless smartphone fare payment (iPhone and Apple watch already available; Android users began using it in May). Higher cleaning standards, upgraded air filters for the climate control systems, and increased police presence for passenger security round out the highlights of the program. (BART press release, May 17)

TORONTO, ONTARIO, CANADA



Metrolinx drawing.

The federal government will contribute up to C$4.02 billion towards the C$10.9 billion Ontario Line metro, which will run for 9.7 miles from Exhibition Place in the west through the city center and northeast to the Ontario Science Centre. This is intended to alleviate overcrowding on the Yonge-University Line 1. Interchange will be provided to Line 1, the Bloor-Danforth Line 2, the future Eglinton Crosstown LRT and GO Transit rail services.

The project is expected to reduce greenhouse gas emissions by 14,000 tons per year and result in 28,000 fewer cars on the road daily.

Eglinton Crosstown West

The federal government will contribute up to C$1.87 billion towards the Eglinton Crosstown West Extension. This would take the Crosstown light rail Line 5 now under construction a further 5.7 miles west, running mainly underground from Mount Dennis to Renforth Gateway in Mississauga.

The project is intended to improve connectivity, provide congestion relief, support increased public transport modal share and reduce dependency on private vehicles along the corridor. It is expected to reduce greenhouse gas emissions by 39,000 tons per year.

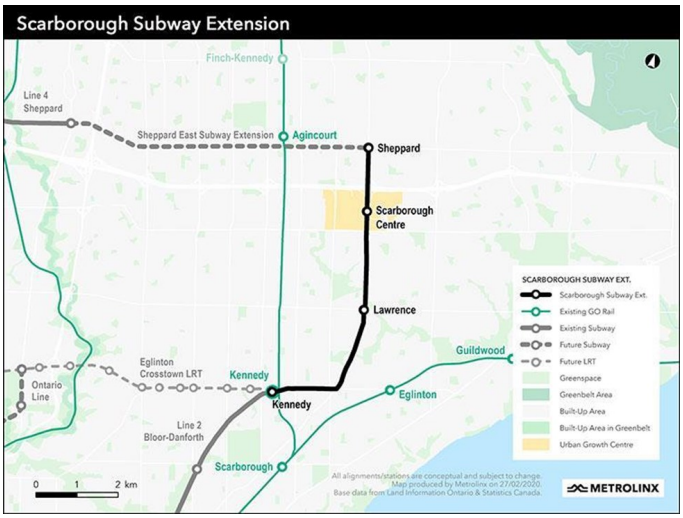
Plans are also being explored with the Greater Toronto Airports Authority to extend the line by a further 2.9 miles to Pearson International Airport.

Yonge North Subway Extension

Subject to submission of updated project information for formal review and Treasury Board approval, the federal government will provide up to C$2.24 billion for the Yonge North Subway Extension, which will extend metro Line 1 by five miles north from Finch to Vaughan, Markham and Richmond Hill, adding four stations.

Providing connections to local rail and bus services, the extension would reduce journey times between the Yonge Street and Langstaff Road area and downtown Toronto from 70 to 48 minutes. This scheme is expected to reduce greenhouse gas emissions by 4,800 tons per year.

Scarborough Subway Extension



Metrolinx drawing.

The federal government will contribute up to C$2.26 billion towards the three-station Scarborough Subway Extension of Line 2 by 4.8 miles from Kennedy to Lawrence Avenue East, Scarborough Centre and Sheppard Avenue East.

This will replace the current Scarborough automated rapid transit system, which is expected to reach the end of its useful life in 2023. The project is predicted to reduce greenhouse gas emissions by 10,000 tons per year.

Funding requirements

Federal funding was dependent on conditions including:

- A substantive environmental review and approval process
- Assessment of how to drive down emissions (for example by using low carbon construction material, construction best practice and reducing emissions from operations) and be resilient to the impacts of climate change
- Building affordable housing near transit oriented development
- Accessibility for persons with disabilities
- Early community involvement and inclusive consultation processes
- Measures to maximize high quality jobs and benefits for communities, including hiring targets of at least 10% for historically disadvantaged communi-

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ties, equity-seeking groups, Black, Indigenous and people of color, with possible higher targets based on an assessment of local representation\;

- Ensuring contractors have in place an anti-racism strategy
- Mitigating the negative impacts of project construction and operations

(***Metro Report International***, May 13)

A combination of C$568 million from city, provincial and federal funding sources will enable the Toronto Transit Commission (TTC) to order 60 additional Flexity class LRVs. The cars are expected for delivery starting in 2023 from Alstom's plant in Thunder Bay Ontario (formerly Bombardier) and will permit the re-allocation of up to 50 buses that have been used to supplement streetcar routes for the past two years, since the retirement of the CLRV/ALRV fleet and even farther back as the ALRV/CLRV fleet began faltering over three years ago due to advancing age. The funding also includes the expansion of the Hillcrest Shops to handle the additional cars. (***Mass Transit***, May 13)

Paris, France

Paris transport operator RATP has awarded Alstom a contract to supply its I-CBTC onboard equipment for 44 steel-wheeled MF19 trainsets it is building for use on metro lines 10, 7bis, and 3bis. There are options for a further 47 trains for Line 3, 15 years of maintenance and future enhancements.

The rollout of I-CBTC is part of the OCTYS program to modernize the automatic train operating system on the metro. Lines 10, 7bis and 3bis will initially operate with reduced lineside infrastructure and no radio communication. On Line 3 the new MF19 trains fitted with I-CBTC equipment will be able to use the existing lineside infrastructure.

Almost 130 MF-01 metro cars on lines 5 and 9 are now equipped with I-CBTC, and the MP14 and MP89 trains due to operate on Lines 11 and 6 will also be fitted. (***Metro Report International***, May 7)

Erfurt, Germany

Erfurt operator EVAG has unveiled the first of 14 Stadler Tramlink trams ordered to replace its first generation of low-floor vehicles and provide an increase in capacity on the 64-mile meter-gauge network.

Two of the new trams are scheduled to enter service in June, ready for the city to host the BUGA 2021 gardening festival, with the rest of the fleet following at a rate of two per month.

The seven-section, unidirectional trams being supplied from Stadler's Valencia factory are 7½ feet wide and 138 feet long, longer than EVAG's current trams and providing a capacity of up to 248 passengers including 102 seated.

The Kiepe Electric propulsion system incorporates a number of energy-saving features, including the use of heat from the traction motors to warm the tram interior and the recovery of braking energy for use by onboard systems or for return to the overhead supply. The ventilation system features demand-responsive fresh air supplies controlled by CO_2 sensors.

The order signed in October, 2018 was co-financed by the Land of Thüringen and the European Regional Development Fund. TÜV Rheinland supported procurement and approval.

EVAG has an option to order a further 10 trams by the end of 2023 if financing can be agreed. (***Metro Report International***, May 24)

The first Tramlink for the Erfurter Verkehrsbetriebe AG (EVAG), 801 (Stadler, 3/2021).
EVAG photograph via ***Metro Report International***

Lisboa (Lisbon), Portugal

Lisboa Metro has finalized a €114.5 million contract with Siemens Mobility and Stadler for resignalling of its three oldest metro lines and the supply of 14 three-car trainsets, having selected the consortium as preferred bidder in January, 2020.

The contract announced on May 10 follows the receipt of formal approval by the Court of Auditors. Siemens Mobility will install its Trainguard MT communications-based train control on the city's Blue, Yellow and Green Lines, replacing the existing signaling equipment dating from the 1970s. This will permit moving-block operation, enabling trains to operate at shorter headways and increasing the capacity of the network.

Stadler will build the 14 three-car trains using a modular design intended to facilitate future maintenance. These will have stainless steel carbodies with three sets of double doors per side of each vehicle to allow rapid boarding and alighting. Each train will be 163 feet long, offering 90 longitudinal seats, two wheelchair spaces and standing room for 450 passengers. They will be powered from the existing 750-volt d.c. third rail supply.

The package will see the retrofitting of CBTC onboard technology to 70 trains in the existing fleet, as well as the new Stadler stock. The trains will be equipped for attended automatic train operation to GoA2, but the CBTC is designed to permit GoA4 so that the metro can be further upgraded to driverless operation in the future.

The contract includes technical training for operation and maintenance, as well as preventive and corrective

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maintenance for the first three years and a supply of spares for a further two years. The initial work is scheduled to take 77 months, with provisional acceptance anticipated in 2027. (***Metro Report International***, May 10)

STOCKHOLM, SWEDEN

The new station at Bromma Flygplats with Urbos AXL 801 (CAF, 2013).
Metro Report International photograph

The first phase of a five-mile northwestern branch of Stockholm's Tvärbanan light rail line was opened for revenue service on May 16.

Diverging from the orbital Sikla-Solna Tvärbanan at Norra Ulvsunda, the branch bridges over Ulvsundavägen runs 0.8-miles northwest to Bromma Flygplats with one intermediate stop. It is initially being served by a single tram shuttling back and forth from Alviks Strand every 15 minutes. The orbital service previously branded as Route 22 has been renumbered as Route 30, while the branch has become Route 31.

Under construction since February, 2018, the first phase of the branch as far as the city's domestic airport was completed in November, 2020, following a blockade in the Summer to install the junction and remodel the track layout between Norra Ulvsunda and Karlsbodavägen. The stop at Norra Ulvsunda has been rebuilt with accessible platforms for convenient interchange and a reversing track has also been installed.

Future phases will see Route 31 extended north and then east to the suburban station at Helenelund via interchanges with the metro Blue Line at Rissne and Kista. According to regional transport authority SL, the second stage as far Ursvik is expected to open in 2022, with the line reaching Helenelund by the Spring of 2023. (***Metro Report International***, May 18)

IRT YARD CONNECTIONS
by Henry Raudenbush
with observations from Bill Wall and Randy Glucksman

The Concourse Yard connection was built roughly prior to 1961, when the TA had put in wheel truing machines in the IND inspection shop at Concourse. The ramp made it possible to get IRT cars to this machine. Later, when the City wanted to sell the site of the IRT 148th Street Shop to a developer, the ramp made it seem possible to transfer IRT backshop work to 207th Street Shop. This was done, but it somewhat overloaded 207th Street and created some people problems with IRT guys that brought their methods and their pride to 207th. Truing machines were acquired under Contract R-25 and possibly R-24. This was a change from the original numbering system; R contracts were only supposed to be for rolling stock; shop equipment was to be on Y (Yards & Shops) contracts.

Moving IRT cars to 207th via this connection involved some problems, as it involved going down the IND to 125th Street and back north. Differences in trip cock location and contact shoe gauge had to be dealt with. Much later, a direct connection was built from the IRT Broadway Line into 207th Street Yard to solve this.

The Livonia connection was not directly between IRT and BMT, but from each to a Maintenance of Way department yard. It was not electrified. This happened long after I left New York (1967); it might be dated by the fact that when the Williamsburg Bridge transit tracks were shut down during bridge repairs, cars of the BMT Eastern Division were diesel-hauled from this yard via New York & Atlantic and South Brooklyn to and from Coney Island Shop.

Bill Wall adds:

The Concourse Yard connection opened in 1958. Once the connection was open and functioning, the TA announced the closing of the shop at Lenox on the IRT. Funny how they made sure things worked before publicizing things back then.

The Linden Yard flyover opened in 1988. There had been delays to opening it that year due to thieves stealing the nice new aluminum signal heads, rolling them down the embankment and off to a nearby scrapyard. This continued after it opened. I made a suggestion that perhaps we should reuse some older steel heads, but no one wanted to hear it due to the warranty. So merrily the signal head theft continued for a number of years. I took a look at some information from that time period (the memo war of early 1988 of what it would take to open it). There had been a grade level connection to the Canarsie Line done by a hand throw into the Bay Ridge Branch at the New Lots Avenue station that was removed in 1995. That connection was there back in the 1980s, and may have been put in place for the Williamsburg Bridge shutdown in 1988, when the South Brooklyn was hauling cars over the Bay

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IRT Yard Connections

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Ridge Branch when the BMT East was isolated from the main shop at Coney Island.

The 207th Street flyover opened in 1989. What was funny with this one is I did the initial forecasting of the potential savings on this, along with other work, as a Conductor assigned to the IND Superintendent's office at 59th Street (when Leroy Smith was there, a real gentleman) in late 1980. I marveled in 1989 at how long it took to get it done (almost 9 years). That was before I learned just how quick that was for many things around here…

And finally, Randy Glucksman's observation:

While the Williamsburg Bridge was closed, I was working in what was then called Capital Program Management and one of our contractors had a job to replace the third rail in the Canarsie Tube. I coordinated a meeting with the LIRR, which initially wanted the TA to pay for extra Locomotive Engineers, which I called feather-bedding, so that we could move our work trains over the Bay Ridge freight branch.

The LIRR changed its position when I pointed out that this was capital money and it would not look good if the public learned about it. After returning to Jamaica, they changed their minds, and our work trains did traverse the branch, although very slowly according to reports that I received about constant stops to remove all sorts of debris. The LIRR subsequently qualified some of Transit's Train Operators to operate over the branch.

VIENNA-BRATISLAVA-UKRAINE
by Jack May
(Continued from May, 2021 issue)
(Photographs by the author, except where noted)

Klaus Matzka has come through again — this time on Bratislava. He indicates that the construction of the dual gauge track over the Stary Most (Old Bridge) was left over from an early European Union funding demand that the bridge be able to support a future standard-gauge rail line, even though the Bratislava system had already scrapped its plans to convert their meter-gauge system. Once the rails were in place, and before the bridge was opened, its outer rails were tested — with borrowed trucks from Košice placed under a Bratislava tram. So the rust was briefly disturbed.

Klaus also sent a photo of the old, Old Bridge he took in September, 1992—with an Ikarus bus on the roadway and the railroad tracks leading nowhere. Photos of the new, Old Bridge appeared in last month's installment.

Thursday, June 15 (continued)

It was getting warmer on this sunny day as I continued riding and photographing cars on Lines 4 and 5 toward Dubravka (and 9 to the short turn Karlova Ves loop) in the western part of Bratislava. The tracks are entirely on reservation and with the frequent service I took the opportunity to take photos from both ground level and pedestrian and street overpasses. Two pictures along this section of route appeared in part 1 to illustrate the appearance of T3 and T6 cars, but here are two more taken on the way back. See http://www.urbanrail.net/eu/sk/bratislava/bratislava.htm for a map of the network.

Above and at top of next page: Two views of single-ended 100-percent low-floor 7400-series Škoda 29T cars along the arteries that carry Routes 4, 5, 6 and 9 westward from the city center. Service is fast and frequent, and ridership is high. In the upper photo an inbound Route 9 car slows to a stop at Jurigovo nam. The lower view shows an outbound Route 9 car stopping at Lafranconi.

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Vienna-Bratislava-Ukraine

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Eventually I reached the Chatam Sofer stop, where the 5 and 9 lines take the shortcut route under Bratislava Castle to reach downtown. While photographing at the tunnel portal I was approached by man who began speaking German to me, but changed to English when I told him I was an American. It turned out he was Dutch and was looking for a Jewish cemetery in the area. Apparently there are still plenty of people that are searching for the graves of relatives who lived (and died) during World War II and the Holocaust. After returning to the U.S. I searched the internet for the Jewish cemetery and found that Chatam Sofer is a modern spelling/pronunciation for Chasam Sofer, which in reality was Moshe Sofer, an 18th century rabbi, and short for the memorial built at this location. See https://en.wikipedia.org/wiki/Chatam_Sofer_Memorial and https://en.wikipedia.org/wiki/Moses_Sofer#Chug_Chasam_Sofer,_Bnei_Brak. Anyway, the stranger was correct and I hope he found what he was looking for.

At bottom left and below: The tunnel under Bratislava Castle is used by Routes 5 and 9 to reach the city center, while Routes 4 and 6 circumscribe the downtown area by staying parallel to the Danube. Construction of the tunnel was started in 1943 and it was opened to general traffic (including trams) in 1949, but limited to rail after 1983, when it was rebuilt. It was closed and renovated again two years ago. In the top view a two-car train of T6s turns away from Routes 4 and 6, and crosses the road to approach the tunnel. The lower photo shows a similar train, but in a different livery, exiting through the portal.

Back downtown I took some photos along a pedestrianized shopping street and rode a few other lines, taking additional photos.

Two Tatra K2 PCC cars pass at the Poštová stop on Obchadná, a pedestrianized shopping street in downtown Bratislava.

Attractive churches reign over the tramway in various parts of Bratislava.

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Vienna-Bratislava-Ukraine

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Routes 1, 8 and 9 operate on Námestie Slovenského národného povstania , which separates Bratislava's modern city from the old town. A train of T6 cars, advertising the city, is shown operating outbound on route 9 in front of the Church of the Visitation of Virgin Mary. The baroque church, and its adjoining monastery, date from the 17th and 18th centuries. Abbreviated as SNP, the name translates to Slovak National Uprising, which took place against the German Wehrmacht in 1944.

29T (ForCity Plus) 7422 (Škoda, 2016) passes the Church of Saint Elizabeth (Kostol svätej Alžbety) and is approaching the Centrum stop on Špitálska, which is used by Routes 3, 4 and 9 through downtown Bratislava. The 18th century church dates from 1739.

A K2 car on Route 8 passes the 19th century Blumental church (Church of the Assumption of the Virgin Mary), on Radlinského. The track at left carries Route 2 to the main railroad station.

And here are some photos of museum equipment that operates in tourist service.

Museum car 31 was built in 1938 as No. 101 by BMEZ, the Bratislava Municipal Tramway Co. Called a "Patokenak," which roughly translates to "five windows," the double-trucker was renumbered 31 in 1943. In 1974 it was sent to the technical museum in Brno for preservation, but it was returned to Bratislava 28 years later, where it was beautifully restored for operation. It is shown turning from Sturova onto Jesenskeho in the heart of downtown, following the route of inbound Route 8 cars.

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DEPARTMENT OF CORRECTIONS

In the April, 2021 issue of ***The Bulletin***, the article that started on page one stated that the Fourth & Madison trolley line was converted to motor bus operation in 1934. Longtime ERA member David Klepper informed us that this conversion actually took place in 1935. We regret the error and thank David Klepper for his help.

Vienna-Bratislava-Ukraine

(Continued from page 19)

Many of Bratislava's sightseeing buses were manufactured with bodies that look like old motor coaches, unlike the American practice of trying (and failing) to make their versions look like cable cars. I caught this realistic model along the tram tracks on SNP in front of the Church of the Visitation of Virgin Mary.

As the afternoon wore on it got quite hot, especially during my walk through the attractive and tourist-filled "old town" (Stare Mesto). I stopped for a large Coca Cola at McDonalds (which was giving away free cans of Coke Zero — I took one taste and tossed it into a trash container). Finally, I rode out to the Hlavná stanica railroad station (which is represented by a steam locomotive on the destination signs of tram routes 1 and 2).

The loop at Hlavná stanica, Bratislava's main railroad station, which serves Routes 1 and 2. This view shows a high-floor Tatra K2 car sandwiched by two low-floor Škoda 30Ts.

I caught the 17:37 train back to Vienna. With the temperature still uncomfortably high at that time, I remembered Klaus's advice about the one air-conditioned Slovakian Railways coach operating on the train. It was the first to fill up, but I was already ensconced in my forward-facing window seat by then. The train, which was pulled by a diesel locomotive, made few stops, zipping past a number of stations, but because of its lengthier route via the north (east) side of the Danube, was scheduled for a 7-minute longer trip than the trains serving Petržalka. There are also hydrofoils and catamarans that run between the two cities, but they charge higher fares, and take from 75 to 100 minutes each way. However, while a water journey may be a pleasant low-key way to see the sights along the river, that was not my plan for the day.

I noticed we passed the Aspern Nord and Hausfeldstrasse stations of the U-bahn that I had visited two days earlier, and it appeared the line was in the process of having its tracks doubled and electrified for a future extension of S-bahn service. Arrival at the Hauptbahnhof was at 18:44 (43), and I scurried back to the hotel.

I found Clare reading in our room, and after I freshened up, we walked back to the railroad station and rode the S-bahn to Praterstern, which is adjacent to the Prater, a very large park housing Vienna's iconic Ferris wheel (see https://en.wikipedia.org/wiki/Prater#/media/File:Wiener_Riesenrad_DSC02378.JPG). As most of you know it became world-famous from the movie, The Third Man. When I had earlier asked Klaus to recommend a restaurant for authentic traditional Viennese food and ambience, he suggested the Schweizerhaus in the park and we took his advice. We had to pay an admission fee to get into the amusement section, which was crowded with couples and families, as was the large restaurant. Clare had goulash while I had a schnitzel (we tasted each other's main courses), and we were very pleased with both the food and service — as well as the reasonable price.

We were too late to take a ride on the Liliputbahn, a 15-inch gauge railway that conveys passengers in open cars along a 2½-mile loop through the park. Now normally operated with diesel locomotives, there are at least two original steam engines on the property and the 1928-built Pacifics are often in service during the summer high season. We were able to get a glimpse of a diesel and some coaches (see https://upload.wikimedia.org/wikipedia/commons/e/e3/Greengoddesshythe.JPG and https://en.wikipedia.org/wiki/Prater_Liliputbahn#/media/File:Liliputbahn_autune.JPG), but nothing more.

We could have returned to the hotel via the S-bahn or even the U2 and U1 subway lines via Karlsplatz, but instead chose a one-seat ride on the O streetcar line, which took a little longer, but was the perfect conclusion to our long, busy day. The short ULF took us to Columbusplatz, one station after Südtiroler Platz, and only a block and a half from our accommodations. We fell asleep very quickly.

Next month's installment relates the start of our traction tour of Ukraine in Lviv on Sunday, June 18.