

The Bulletin



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The Bulletin

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STATEN ISLAND'S 157-YEAR-OLD RAILROAD (Continued from June, 2017 issue)

In the previous issue, we described the construction of the railroad and its financial problems. This issue features the North Shore and East Shore extensions and the joint operation with the Baltimore & Ohio Railroad.

B&O was expanding east in New Jersey, but had difficulty reaching the most important destination, New York City. To compete with

its rivals, B&O acquired a majority of Staten Island Rapid Transit Railroad Company's stock in November, 1885.

Construction proceeded rapidly, as shown in the following reports. The soil and rock fill for the St. George piers and the North Shore Branch was transported from the excavations where large buildings were constructed in Manhattan.

February 23, 1886

First train to Elm Park

A month later

Extended to Arlington

1886

Work began on Arthur Kill Bridge to Elizabethport

1888

Completed trestle approach to bridge

Year ending

Extended over the bridge across Arthur Kill, connecting with the

June 30, 1890

Baltimore & New York Railroad, a B&O subsidiary, at Elizabethport. This was its first connection with the mainland. The company built a

March 1, 1890

second track, 1.3 miles long, from Erastina to the bridge approach

Year ending

The company began carrying B&O's freight to St. George. B&O employees handled the freight and the transfer of cars to ships carrying cars over the water from St. George to Manhattan and Brooklyn

June 30, 1890

The company built one covered and two open piers, a transfer bridge, and a freight yard at the Staten Island terminal. It completed new ferry buildings and piers at Whitehall Street in Manhattan

1887

Constructed second track from Clifton to New Dorp

January 1, 1888

Trains started operating to Arrochar

1888

New stations were built at Garretson and New Dorp

1894

Construction of South Beach Branch was completed

On July 29, 1899, the Staten Island Rapid Transit Railway Company was incorporated for the purpose of operating the Staten Island Rapid Transit Railroad Company from New Dorp and South Beach to the center of Arthur Kill. Nearly all of the capital stock of this company is owned by the Baltimore & Ohio Railroad.

In 1905, the City of New York started operating the Staten Island Ferry. It rebuilt the Whitehall Street docks, ordered five new boats, and changed the terminal's name to

South Ferry.

The Arthur Kill Bridge, which was opened in 1890, speeded up freight traffic between New Jersey and St. George, but it still had to cross the harbor on slow boats. At the insistence of civic groups, the State Legislature and Mayor Hylan approved a bill ordering New York City to build a rail tunnel between Brooklyn and Staten Island. The bill was signed by the Governor of New York State on May 13, 1921. Because the law prohibited

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NEXT TRIP: NYC TRANSIT 207th STREET SHOP TOUR — SATURDAY, AUGUST 5

FROM RECOGNITION TO DOMINANCE: THE NEW YORK CONNECTING RAILROAD (BRIDGING THE BAY AND CONNECTING THE PIECES)

by George Chiasson

(Continued from June, 2017 issue)

- Section “D” was also about 2½ miles long, continuing south from Grand Avenue in Elmhurst to “Fremont Junction,” where the New York Connecting Railroad merged into the existing Manhattan Beach Division of the Long Island Rail Road, near the intersection of Central Avenue and Fresh Pond Road (now Cypress Hills Street) in Ridgewood. Almost entirely located in an open cut, this section was also graded for four tracks but only received two, with six (6) underpasses (street bridges) located at Grand Avenue (also used by BRT’s Flushing-Ridgewood trolley line), the North Hempstead Plank Road (later Whitlock, then 57th Avenue), Johnson (later Caldwell) Avenue, Eliot Avenue, Juniper Boulevard & Marion Avenue (69th Place), and Juniper Avenue (69th Street). The portion from Johnson to Marion Avenues was actually cut through a large tract of undeveloped land known as the “Great Juniper Swamp” and was done part and parcel with its overall redevelopment as the western third of the Queens neighborhood of Middle Village, a task which included the laying of both Eliot Avenue and Juniper Boulevard as completely new arteries. South of the Juniper Avenue 0 underpass, the New York Connecting Railroad entered a tunnel beneath the Lutheran Cemetery grounds, then re-emerged onto a rising grade at Metropolitan Avenue (where another BRT trolley line crossed overhead) before passing above the LIRR Montauk Division main line (née Southern) on steel truss Bridge #35. It then crossed above Fremont (65th) Street on an overpass before merging with the Manhattan Beach Division just north of Fresh Pond Road. Related relocation and reconstruction work was also performed on the BRT “Lutheran” (Myrtle Avenue) Line and the Montauk Division itself as part of the same project.
- Section “E” covered less than one mile, from Bowery Bay Junction to Woodside Avenue at the eastern extreme of the Pennsylvania’s “H” Interlocking and Sunnyside Yard. It consisted of a curving, two-track embankment that merged into a blind “header” wall (bridge abutment) which had been provided during the Pennsylvania Tunnel & Terminal project. Included were six (6) railway overpasses of varying origin that were created in conjunction with the city’s never-ending efforts at street grid establishment. The three at Jamaica (31st) and Charlotte (32nd) Avenues and 4th (56th) Street were of simple steel and concrete construction and crossed above existing roads; the overpass at 2nd (54th) Street was similarly built but made way for a completely new

street. That which jointly passed above 3rd (55th) Street, Jackson Avenue (Northern Boulevard), and Broadway (another new road extension) was actually a short but graceful viaduct of concrete-encased steel with trimming that was also subject to scrutiny from the New York City Arts Commission, while the final overpass above the intersection of Anderson (37th) & Woodside Avenues was a true steel-and-concrete railway bridge in the finest tradition that slightly encroached on the property of the New York & Queens County Railroad Company. As such it had to provide for passage above that company’s trolley barn and office building.

Aside from the small, nondescript embankment adjoined to “H” Interlocking at the edge of Sunnyside Yard, there was no physical sign of the Pennsylvania’s hard-fought New York Connecting Railroad to be found during a Penn Station facilities tour of August 1, 1910, though its existence and assumed completion was already well-known and highly anticipated. In point of fact the very first steam shovelfuls of earth were already being moved on Sections C and D by that time, with grading begun in July of 1910 for a 5-mile embankment, cut, and tunnel from the projected site of “Bowery Bay Junction” southward to the line’s interception point with the Long Island Rail Road’s Montauk Division (ex-Southern) main line at Fresh Pond Junction. At the time that preliminary work in Sunnyside was actually the creation of a high fill in the nothingness of a swampland and nowhere near a railroad, but in the vein of Sunnyside Yard itself numerous properties had been previously procured (as far back as 1904) in anticipation of its eventual construction. Several homes were demolished as the survey burrowed its way south-by-southeast, along a path very similar to that later followed by (and still partly shared with) the Brooklyn-Queens Expressway through Woodside and into Elmhurst. Perhaps the most significant “advance” (pre-construction) project associated with the New York Connecting Railroad had been a relocation of the former Bushwick Railroad (i.e. “Lutheran Line”) at Metropolitan Avenue in Middle Village, where a forecast clash of surveys resulted in the installation a new 500-foot embankment, as well as movement of the existing terminal approximately 100 feet west of its original (1881) location, all in association with its conversion to a BRT rapid transit service as an extension of the Myrtle Avenue Elevated Line in October, 1906.

By the 1912 construction season, elevation and expansion work had been started on the balance of the

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From Recognition to Dominance

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Manhattan Beach Division's trackage from the former Brooklyn "City Line" (near Cooper Avenue Junction) to its meeting point with the Montauk Division main line at Fresh Pond Yard, as it was also raised onto a four-track embankment. Like that of the Brooklyn Grade Crossing Commission, in this effort the Long Island Rail Road, as surrogate for the parent Pennsylvania, was obliged to coordinate its construction activities with those of the City of New York. In this particular case, five of the nine existing grade crossings were to be replaced by railway overpasses while another pair of new roads would be passed underneath the embankment as the streetscape was developed and/or refined through the Ridgewood and Middle Village neighborhoods of Queens. In 1913, while the elevation began to develop rapidly and the entire approach to Fresh Pond Junction was reconstructed, grade crossings at Washington (Cody), Edsall (68th), Putnam, and Woodbine Avenues were closed outright and small portions of the latter two streets removed (along with the homes contained therein). By the end of 1915 the embankment in this section was finished and all six of the new bridges complete and in use at Cooper and Wyckoff Avenues, Cypress Avenue (which did away with one of the remaining BRT trolley crossings), Seneca Avenue (a new road which replaced the former Rathjen Street), Forest Avenue (an entirely new road), Myrtle Avenue (which thereby eliminated the very last of BRT's busy trolley crossings in Queens), and Kossuth Place (which was originally part of Fresh Pond Road and later became Cypress Hills Street). As part of this aspect of the project, two replacement stations were also constructed for LIRR Manhattan Beach trains beside Track 2 on the new elevation, one located at Cypress Avenue (replacing "Ridgewood") and the other at Myrtle Avenue, both of which were put in use during 1914.

To aid in elimination of the existing at-grade crossing with the BRT "Lutheran" rapid transit line (ex-Bushwick Railroad — the so-called "Dummy Line" that had been integrated with its Myrtle Avenue "L" in 1906 and is now a part of MTA New York City Transit's  train), the Manhattan Beach Division was relocated from its original, gently-radiused connection with the Montauk Division onto a curving down-slope that abruptly merged at a new Fresh Pond Junction created north of Fremont (65th) Street, about 1,100 feet eastward of that installed back in 1883. Three entire streets (Hancock, Thomas, and Meade) and their associated households were thus obliterated to make way for LIRR's large new yard at "Fresh Pond," and as things evolved, the Montauk Division undercut to a new nominal grade all the way from Bushwick Junction to 68th Street (near the Ridgewood station), a distance of approximately $\frac{8}{10}$ of a mile. Meanwhile the adjacent, revised street grid was partly raised so as to pass overhead and the New York Connecting Railroad ultimately elevated across Fresh Pond Junction before entering its tunnel beneath the Lutheran

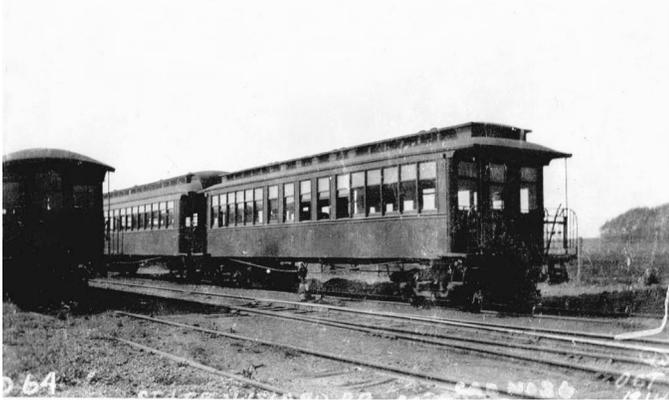
Cemetery at Metropolitan Avenue. Finally, to avoid the installation of a sudden, harsh curve on the south side of Metropolitan Avenue, the Pennsylvania Railroad ultimately bore the cost of relocating the Metropolitan Avenue BRT terminus about 50 feet eastward during the summer of 1916 in deference to the New York Connecting Railroad's projected alignment, which entailed the creation of about 1,000 feet of new embankment. This was the transit facility's third position within ten years, and it still remains in place into 2017.

Ground was broken at long last for the Hell Gate Bridge, in the august presence of PRR President James McCrea and the redoubtable Gustav Lindenthal, on March 12, 1912, with lead contractor American Bridge Company hard at it within two weeks. Across the first two years, through all kinds of weather, massive quantities of stone and concrete were committed to the ground on either side of the Hell Gate Channel to create the bridge's main anchorages, a pair of 220-foot-high towers that were secured in Astoria and on Ward's Island measuring 103x139 feet at their base. That on the Queens side proved to be straightforward while its counterpart (technically) in Manhattan required that more experienced engineering forces of PRR temporarily assume the job from the contractor (Patrick Ryan Company), to sink many more caissons far deeper than anticipated, so its base could be solidly established 125 feet below the water table. As a result there was a four-month variance in overall progress of the venture, which denied the project any hope of prime summer working conditions for the start of steel beam assembly in 1914. Erection of the temporary "backstay" on the Astoria side (an interim device artificially held down by a counterweight, which would be used to anchor the main steel arch during its fabrication) finally got underway that September, while that on the Ward's Island side was begun in the cold of January, 1915. This continuing chronological variation kept the "main event" somewhat out of phase during a significant share of the project's progress. What did materialize between the springs of 1914 and 1915 was the 350-foot Bronx Kill Bridge, a "Strauss" Bascule Lift structure across the navigational channel that separated Port Morris (Bronx) from Randall's Island (Manhattan). Even then there were plans to fill in much of this waterway in support of the huge Randall's Island recreational park, so the actual lift mechanisms were never installed on the bridge and it has remained on exhibit as a rather prominent truss, virtually unchanged since its construction with massive, box-like concrete transitional piers at each end (and is still readily viewed in 2017 from the toll booth of the Robert F. Kennedy Memorial (née Triborough) Bridge).

Also begun during May, 1914 was yet another widening of the Harlem River Branch right-of-way south of Signal Station 3 (Bungay Street), which provided for the addition of two tracks (to be designated "new" 5 and 6) along its easterly extreme. A critical component of East River Bridge Division Section "A," they were intended for future use by through freights bound for Queens and

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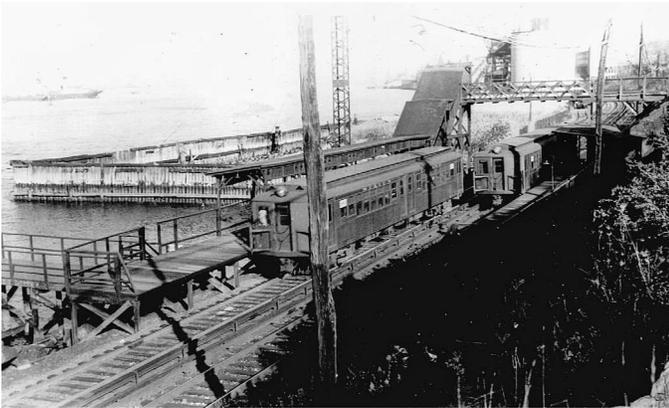
STATEN ISLAND RAILWAY NORTH SHORE BRANCH SCENES



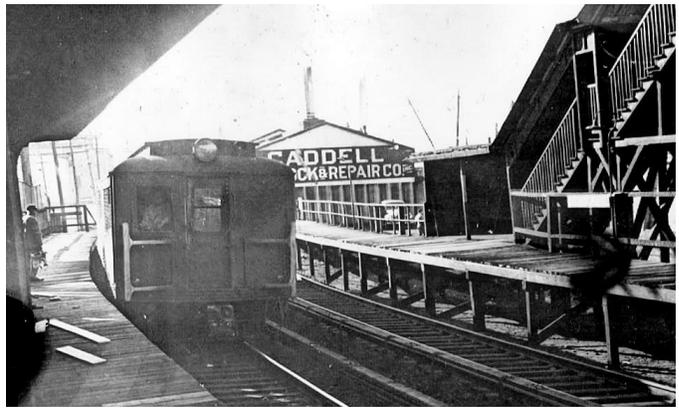
Locomotive-hauled cars.
Bernard Linder collection



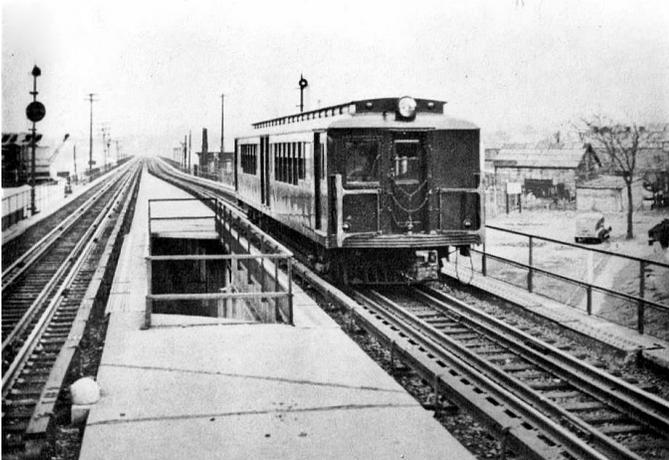
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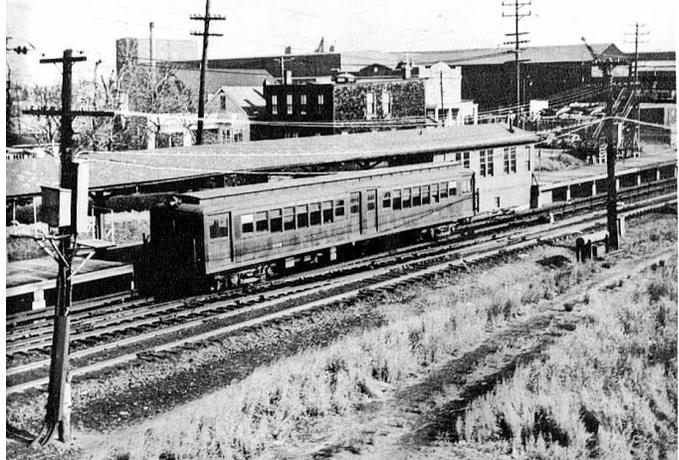
Snug Harbor station.
Bernard Linder collection



West Brighton station.
Bernard Linder collection



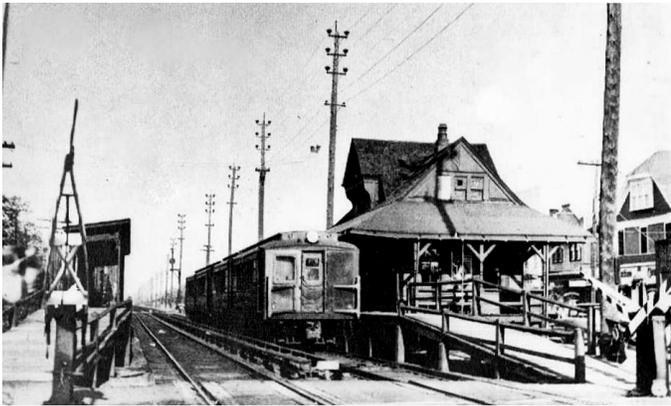
Port Richmond station.
Bernard Linder collection



Arlington station.
Bernard Linder collection

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STATEN ISLAND RAILWAY GRADE CROSSING ELIMINATION



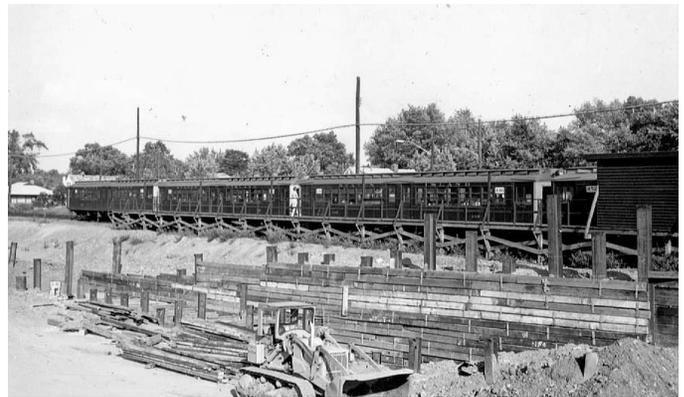
New Dorp station.
Bernard Linder collection



Grade crossing looking north from New Dorp station, August 19, 1961.
Bernard Linder photograph



Bernard Linder and wife Ann at New Dorp grade crossing, August 19, 1961.
Larry Linder photograph



Looking east toward New Dorp station, September 6, 1966.
Bernard Linder photograph



Rose Avenue, looking north toward New Dorp station, September 6, 1966.
Bernard Linder photograph



New Dorp station looking north, September 6, 1966.
Bernard Linder photograph

The last three photographs show the temporary tracks for the grade crossing elimination.

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Brooklyn and gradually rose to make their way straight toward the Hell Gate Bridge. The east lead of the concrete and steel Bronx Viaduct included five (5) new railway overpasses at E. 137th, E. 138th, E. 139th, E. 140th, and E. 141st Streets, along with an elongated steel girder structure across the New York Central's Port Morris Branch, all of which were nuzzled immediately next to those that the New Haven had built by 1908. In conjunction, the original Tracks 5 and 6 of the Harlem River Branch were realigned to a union with 2 and 4 south of SS-3 and continued into Harlem River Terminal redesignated as Tracks 7 and 8. As a result the existing Tracks 2 and 4 south of SS-3 were partly dismantled and the west lead to the Bronx Viaduct inserted to accommodate them, constructed within the existing right-of-way between Tracks 1 and 7 (former 5). This structure originated on a centerline that clung perilously between a pair of thin concrete retaining walls as far as E. 138th Street, then began climbing up to the Bronx Viaduct while simply perched atop that narrow strip of New Haven right-of-way as far as E. 134th Street, where it diverged to a union with new Tracks 5 and 6 toward Queens. As realigned, Tracks 3 and Track 4 across the Hell Gate Bridge were intended for use by jointly-operated Pennsylvania-New Haven passenger trains making their way between Washington and Boston, a routine still pursued daily by successor Amtrak. This overall reconstruction also entailed the addition of a new northbound platform at the Port Morris station, such that it was positioned beside the new Track 8 (former 6) while the previously-existing one next to Track 4 was removed. Because of variances in the upgrade, the westerly viaduct lead entailed no new bridges per se, but required that the existing steel structures be progressively raised beneath the tracks, using abutments reconfigured with ever-higher concrete extensions, at all streets from E. 141st to E. 135th. Work on this part of the project (just one of many) was officially completed in February, 1917, if only because there were some latter-phase modifications (i.e. "change orders") to its original plans. Most of the heavy-duty activity was actually done by the end of September, 1916 through a thickening fog of manpower and material restrictions related to the ongoing war in Europe.

With the Bronx Viaduct and Bronx Kills portions of the East River Bridge Division progressing behind it, erection of the 1,965-foot "Randall's Island Viaduct" also proceeded through 1914, consisting of a heavy steel deck that marched southward across 23 groin-arch piers of concrete construction that carried four tracks to the so-called "Little" Hell Gate Bridge. This immovable 1,154-foot structure was composed of a series of four inverted steel truss spans that forded the navigable channel separating Randall's and Ward's Islands. It had a little bit more flair than the simple Bronx Kills crossing if only by virtue of the even more elaborate concrete "arch portals" that were built atop its support piers at

either end, each of which were topped by surrealistically large pyramid-shaped concrete sculptures that were in turn prominently capped by cement orbs measuring approximately five feet in diameter. Its erection commenced in February of 1915 (once the Ward's Island backstay was secured) and lasted through that November, though the Little Hell Gate Channel itself was ultimately filled many decades ago and is now denoted by a large wastewater and sewage treatment facility. Concurrent with the Little Hell Gate Bridge was construction of the 2,654-foot (½-mile) "Ward's Island Viaduct," which led at last onto the Hell Gate Bridge itself. This structure was virtually identical to the Randall's Island Viaduct but for its trademark, a graceful south-to-east curve composed of 30 steel girder deck spans set atop monolithic piers similarly built to those crossing Randall's Island. As things transpired this was not its original design, which had more in common with an elevated railway than a viaduct, but was changed to overcome objections from the Manhattan State Hospital (now Psychiatric Center), which for a brief time had the whole project stopped through a 1912 injunction out of concern over the impact that construction might have on the hospital's overall serenity. The motion was finally dismissed by the court in January, 1913, but to thwart patients of the adjoining institution, whom it was feared might scale them in an attempt to flee, the steel piers as originally proposed were changed to the concrete groin-arch type that was applied along the length of Section "A." Fabrication of the 2,868-foot Long Island Viaduct, again in the image of those on Randall's and Ward's Islands, also occurred on the far side of the channel during 1915 concurrent with progress on the centerpiece Hell Gate Bridge itself.

Assembly of the actual steel Spandrel Arch bridging the Hell Gate started on the Astoria (Long Island) side immediately after the Ward's Island backstay was secured in January of 1915, but the other half of the structure did not start its eastward march, suspended high above the waterway, until May. After several months of tedious, exacting work conducted in mid-air with traveling cranes, over-sized pieces of steel and rivet guns the extraordinary effort put forth by the designers, engineers, operators, and iron workers came to fruition on October 1, when the two arch spans met above the channel with a separation of just $\frac{5}{16}$ of one inch, again in the presence of Gustav Lindenthal himself along with assistant Othmar H. Ammann, who was perhaps the true guiding force in its construction as opposed to design. As soon as steel from the Ward's Island side contacted steel from the Long Island side, the ballast was removed from the counterweights on both sides of the span; they settled against each other and were riveted into their permanent, perfect alignment. Next came the heavy steel deck in January, 1916 after it was threaded within the arch to pass through the massive towers on either side of the waterway, all the while being formidably supported from above. With the basic 1,017-foot span then completed, both temporary backstays were

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dismantled by the end of April and the final few spans that transitioned the structure onto the Ward's Island and Long Island Viaducts put together through that Summer. This was at last followed by the installation of track which commenced in September of 1916 and worked its way right into early 1917. With that, the eagerly-anticipated Hell Gate Bridge had ascended to reality, only to await the passage of its first train.

On March 9, 1917, in a manner reminiscent of the many executive inspections that had preceded the opening of Pennsylvania Station in 1910, a Pennsylvania Railroad Office Car Special was brought up to New York from Philadelphia. At the appointed time it proceeded through the East River tubes and made its way to "H" Interlocking in Queens where after a wait of 6½ years the switches were lined at last for the virgin New York Connecting Railroad. Amidst a plume of white working steam the train started its climb through Bowery Bay Junction and then gently swerved north and finally west to the Hell Gate Bridge where it ground to a stop. An elaborate, if not chilly, dedication ceremony was conducted high above the roiling channel near the Ward's Island anchorage replete with speeches, commendations, congratulations, and (once back inside the warmth of the PRR Office Car) a toast or two and cigars all around. In the direct, if not a bit somber proceedings officiated by Pennsylvania President Samuel Rea (who had succeeded James McCrea during the project's construction period in 1913), due credit was given to many individuals (most prominently Lindenthal and Ammann, of course) as well as the many workmen who had endured a litany of hardships (even deaths) on site, as well as the legions of draftsmen, engineers, practitioners (laborers) of all types and even the project's logisticians. There was no doubt about the worth and worthiness of this endeavor for the state of totality it granted in the national railway network. Really, its completion represented the final part of that New York Terminal project that had been envisioned by John Edgar Thompson more than 40 years before in 1872, and that even in 2017 remains a critical, integral link in the transportation chain of well-being for America's populous (and prosperous) Northeast.

Even so, there was still much work to be completed. Though construction was finished enough for said commemoration, there was in fact only one track then available for use (passenger main #3) and no signals at all

as yet, with operating authority achieved through an "absolute" (possessive) block system that allowed just one train at a time with associated speed and operational restrictions. In addition, and perhaps most notable in the modern context, engineering had not yet been completed on a means of implementing electric propulsion across the span, though it was certain to consist of a "simple extension" of the New Haven's existing a.c. catenary system that had been the norm on the Harlem River Branch for several years. As such there were vacant steel catenary supports (which included both lattice and steel cross-beams) built into the structure as it progressed, but only from E. 133rd Street on the Bronx side to the Astoria end of the Hell Gate Bridge. This first "phase" of the New York Connecting Railroad, as completed between Port Morris and "H" Interlocking at Sunnyside, was thus "turned over" for formal operation on March 29, with a minimal crew familiarization period provided before revenue service was to commence. This occurred on Sunday, April 1, 1917 when the joint Pennsylvania-New Haven *Federal Express* was at long last restored to again join Washington and Boston, but this time *through* Manhattan's Pennsylvania Station behind one of the Pennsylvania's electric DD-1 motors and up toward the heavens at Sunnyside, where a muscular New Haven steam engine assumed command at Signal Station 2 (Fitting (50th) Street). This assemblage then became the very first passenger train pulled across the Hell Gate Bridge to the Bronx and onward to New Haven, New London, Providence, and Boston, that cradle of American Liberty, all by rail. As events played out, it was indeed fortunate that this blessed event took place when it did, for just five days later the United States Congress formally declared war on the German Empire and America became embroiled in a Great World War for the first time, an undertaking which had deep implications for railroading in general. The east-bound passenger main (#4) was activated across the new bridge on April 3, 1917, then on April 30 the restoration of the *Federal* was matched by a like rejuvenation of the *Colonial Express* via Pennsylvania Station, and a new timetable went fully into effect to provide nominal operating authority. Though there are now no first-hand witnesses or even photos of that early Pennsylvania-New Haven power exchange, surviving but perfunctory records indicate the presence of a small turntable on the rise where Signal Station 2 was situated, a facility which would have been handy to keep the New Haven's engines facing forward in both directions.

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Around New York's Transit System

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sylvania, Van Siclen, and New Lots Avenues. The improvements include rehabilitated platforms with tactile warning platform edge strips and new platform back walls, windscreens, light poles, and guardrails. On the

mezzanine levels, new interior and exterior walls, floor surfaces, windows, doors, and lighting were installed. At New Lots Avenue, the scope of work will also include a reconfiguration of the fare control area and a new exterior metal panel façade as well as repairs to concrete flooring and mezzanine support beams.

Commuter and Transit Notes

No. 343

by Ronald Yee, James Giovan, and Alexander Ivanoff

METROPOLITAN TRANSPORTATION AUTHORITY

New York State Governor Andrew Cuomo may be considering splitting the MTA Chair's position into Chair and Chief Executive. The Chair would make broad brush policy decisions such as fare increases while the Chief Executive would address daily operations. This possibility has already convinced Patrick Foye, current Executive Director of the Port Authority of New York & New Jersey, to withdraw from consideration, the other candidate for the Chair position aside from Acting Chair Veronique Hakim. This potential splitting of the Chair position could increase the influence of the Governor over the workings of MTA. Rumors are already circulating that Governor Cuomo's former top aide, Lawrence Schwartz, may be in the running for the Chair position, leaving Ms. Hakim with the Chief Executive position. She has vast experience in running New York City Transit's subway and bus systems as well as a year and a half as Executive Director of NJ Transit. The splitting of the Chair position has been part of MTA's Six-Point Plan to improve subway service and the Governor may be responding to public pressure to resolve the recent deteriorations seen in subway service and at the same time, gain even more power and influence over MTA. (*New York Times*, June 11)

MTA LONG ISLAND RAIL ROAD

MTA officially opened the first phase of the Moynihan Station on Thursday, June 15. This new concourse provides a new pedestrian access alternative from a new entrance on Eighth Avenue at W. 33rd Street to the platforms servicing Tracks 5 through 21 on the west side of Penn Station New York (PSNY). The new west end concourse features a digital portrayal of the sky to provide a calming atmosphere, new large format signage, and wide passageways designed to better accommodate the large peak period crowds that often overwhelm the existing Penn Station entrances. This is the first step toward the conversion of the Farley Post Office on the west side of Eighth Avenue into the 255,000-square-foot Moynihan Train Hall, which, in addition to being a ticketing and waiting area for LIRR and Amtrak customers, will also contain office and retail spaces. The entire project is scheduled for completion in 2020 and provide much-needed relief for an overburdened Penn Station, which handles 650,000 passengers, three times the number it was designed for. (ABC-TV News, June 15)

MTA announced its coordinated interagency plans to accommodate LIRR commuters during the Penn Station track rehabilitation project this summer. From July 10 through September 1, LIRR will adjust its weekday schedules to reflect the loss of three platform tracks at Penn Station; the remaining tracks must be shared among LIRR, NJ Transit, and Amtrak. Around 10,000 riders will be directly affected by cancelled or diverted trains. Three overnight trains between 2 AM and 4 AM

(that carried a total of only 90 riders) will be canceled, the equipment (36 cars) reassigned to stretch 16 morning peak period trains to the maximum length consist. During the morning peak, three trains will be added during the early "shoulder" period and 15 trains will be canceled, combined, or diverted from PSNY. Five trains will terminate at Atlantic Avenue, five at Jamaica, and three at Hunterspoint Avenue. The combination of trains will mainly impact five trains on the Babylon and Port Washington Branches. 17 of the 87 PM peak period trains that normally depart Penn Station will either be canceled or diverted to originate at other terminals. Seven trains will be canceled outright, three will originate at Atlantic Terminal in Brooklyn, three will originate at Hunterspoint Avenue (Queens), and four will originate at Jamaica. MTA, under the direction of New York Governor Andrew Cuomo, will provide 200 commuter buses originating at eight specially designated park-and-ride lots 6 AM to 10 AM and returning to them between 3 PM and 7 PM utilizing a High Occupancy Vehicle (HOV) lane on the Long Island Expressway. MTA will also arrange for ferryboat services from Glen Cove and Long Island City. LIRR ticket holders will be cross-honored on the alternative ferry and bus services as well as by NYC Transit at transfer stations such as Jamaica, Atlantic Terminal, and Hunterspoint Avenue. Governor Cuomo also "encouraged" MTA to offer an average 25% fare discount for all passengers traveling to Atlantic Avenue and Hunterspoint Avenue during the disruptions. The discounts were announced Tuesday, June 20 without MTA Board approval, a rare occasion. This discount was later expanded to riders traveling to Long Island City as well as East New York and Nostrand Avenue on the Atlantic Branch.

In an unrelated matter, a series of severe service disruptions on LIRR has prompted some riders to consider filing a class action lawsuit for damages caused by these delays. (*Editor's Note by Ron Yee: Such legal actions may be short-lived, LIRR schedules have a disclaimer releasing it from any liability for damages or inconveniences stemming from delays, etc.*) (*New York Times*, June 12; *New York Post, Gothamist*, June 20)

MTA METRO-NORTH RAILROAD

Connecticut Department of Transportation (CDOT) has postponed the start of two projects related to the replacement of the 121-year-old "WALK" Bridge spanning the Norwalk River in Norwalk, Connecticut from July to October. One is the construction of a new interlocking between the East Norwalk and Westport stations that will provide full flexibility in dispatching and enable trains to switch over from one track to any other track on the line. The other is the restoration of catenary electrification on the Danbury Branch for around one mile from South Norwalk to "Dockyard," a short distance

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up the Danbury Branch. There will be two electrified sidings at “Dockyard” with the scope of work providing new track, switches, signals, and catenary infrastructure. While this is not to be viewed as the beginning of the re-electrification of the branch, this short extension of catenary will enable mainline electric multiple unit (EMU) trains to go onto the Danbury Branch to turn around and return to Grand Central Terminal as “short-turns” during peak periods. *(Editor’s Note by Ron Yee: The WALK Bridge replacement program is expected to involve the construction of an entirely new vertical lift span type of movable bridge (two tracks on each span, similar to Metro-North’s Harlem River “lift” bridge just north of the Harlem 125th Street station) to replace the current four-track swing span bridge. During most of this 3-4 year-long construction project, it is likely that only two of the four tracks will remain in service through the one-mile-long construction zone, creating an operational bottleneck on the New Haven mainline that also carries Amtrak’s Northeast Corridor (NEC) between New York City and Boston. The new interlocking (CP242) will dramatically reduce the length of this bottleneck to just over one mile. Currently, the next interlocking east of WALK Bridge is CP248, around seven miles east, just west of the station at Southport. Seven to eight miles of two-track operation on the NEC with heavy commuter train traffic is an operational nightmare for service reliability. With a continuous two-track operation in the vicinity of WALK Bridge for the entire construction project, which is expected to span several years, the current practice of “(short) turning trains” at South Norwalk will not be possible without diverting them instead onto the one-mile re-electrification of the Danbury Branch to a new mini-yard. From a construction staging standpoint, it will be very interesting as to how a new four-track movable bridge will be erected to replace an existing four-track swing bridge that, by U.S. Coast Guard regulations, must remain movable during this project to insure the viability of a designated navigable waterway.) (Progressive Railroading, June 7)*

After 46 years in the railroad industry, starting with Penn-Central, continuing with Conrail, Metro-North, and Tri-Rail, and returning to Metro-North in February, 2014 as President, Joseph Giulietti announced on June 16 his plans to retire by the end of August. His principal achievement at Metro-North was the turning around of a failed safety culture that was the culmination of practices of the previous administration in charge. (Metro-North press release, NBC News, June 16)

NJ TRANSIT

NJ Transit officially announced the service changes that will be required to accommodate the track outages at Penn Station New York (PSNY) this summer to perform urgently needed repairs to deteriorated tracks and switches leading to the Hudson River Tunnels. During this period, up to three tracks at PSNY will be removed from service and as a rolling sequence of switches and crossovers will be replaced at “A” Interlocking leading to the Hudson River tunnels. Covering a period from July

10 through September 1, with exception of one line, most trains that currently operate into and out of PSNY will continue to do so on their current schedules or with minor adjustments. The only line severely impacted will be the *Midtown Direct* services on the Morris & Essex (M&E) Lines which, with exception of four early morning trains to PSNY, will have all trains to be diverted to Hoboken Terminal. The four early morning trains that will continue to operate into PSNY are Train #6602 arriving at 5:44 AM, #6604 arriving at 6:29 AM, #6696 arriving at 6:54 AM, and #6306 arriving at 6:58 AM. To compensate for the inconvenience of the diversion to Hoboken, M&E passengers with tickets to PSNY will receive up to a 63% discount and their tickets will be cross-honored at PATH entrances at three stations — Hoboken, World Trade Center, and 33rd Street. These tickets would also be cross-honored on New York Waterway Ferry routes to/from Hoboken Terminal (ferry service headways between Hoboken and W. 39th Street in Manhattan will be shortened down to 15 minutes between 7 AM and 10 AM and between 4 PM and 8 PM) and on NJ Transit’s Route 126 bus to and from the Port Authority Bus Terminal (PABT) at 8th Avenue and W. 42nd Street. As an option, M&E passengers with tickets to PSNY can utilize NJ Transit’s Newark Light Rail to connect from Newark Broad Street to Newark Penn Station to reach PSNY via NJ Transit’s Northeast Corridor, North Jersey Coast, or Raritan Valley lines. Their tickets would be cross-honored on Newark Light Rail. As a last option, passengers with M&E Hoboken tickets would be cross-honored on NJ Transit buses as well as private carriers such as DeCamp, Lakeland, and Community Coach to the PABT. NJ Transit will enhance service on Routes 107, 108, and 126 with standby buses along the routes in the event of overcrowding. To accommodate the added M&E trains terminating or originating in Hoboken, some trains on the Pascack Valley, Port Jervis, and Main/Bergen Lines will also be adjusted by a few minutes and have different connecting services at the Secaucus station. This extensive construction work will not affect weekend services. (NJ Transit website, June 9)

AMTRAK

Amtrak provided state and local officials with a guided tour of the Penn Station complex aboard an inspection train on Thursday, May 25. Amtrak’s Operations Chief for the eastern region, Michael DeCataldo, summarized the accelerated program to repair and replace tracks, ties, ballast, and concrete roadbed, crossovers, and switches at “A” Interlocking, located just west of Penn Station, which controls most of the access tracks to the Hudson River Tunnels to New Jersey. The scope of work will require three tracks to be out of service at any given time during the project and reduce the terminal’s capacity by 20%. “A” Interlocking was the location of the derailments on March 25 and April 3 that each caused extensive week-long delays and service cancellations. (WPIX/11 TV News, *New York Daily News*, May 25)

Amtrak announced the service changes at New York’s

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Penn Station New York (PSNY) that will take place starting July 10 and lasting through September 1. All *Acela* service to Washington, D.C. and Boston will continue to operate with no changes. All currently scheduled New York City-Boston *Regional* trains will continue to operate with minor schedule adjustments. Three *Regional* trains between New York City and Washington, D.C. will be cancelled in each direction. While the frequency of *Keystone* service between Harrisburg and Philadelphia will be unaffected, three daily round trips (six trains) will only operate between Harrisburg and Philadelphia and one round trip (two trains) will come out of Harrisburg, turn at Newark, New Jersey, and return to Harrisburg. The *Crescent* linking New Orleans with New York City will be terminated at Washington, D.C. and passengers will connect on Northeast Corridor services to and from points north. All other long-distance service is unaffected. At press time for **The Bulletin**, no decision has been made regarding *Empire Corridor* service to Albany and points north. All other services are unaffected. Acting MTA Chair Veronique Hakim was quoted by the New York Times on June 12 that MTA had reached an agreement with Amtrak to permit the operation of six *Empire Corridor* trains into and out of Grand Central Terminal (GCT) utilizing Metro-North Railroad tracks from Spuyten Duyvil to GCT. *(Editor's Note by Ron Yee: While no specific trains have been identified for the diversion to GCT, unconfirmed reports have trains #230/233, 236/235, and 242/239 as the ones to be diverted. Stay tuned to the news and Internet for specifics as July 10 draws near. Photo opportunities not seen regularly since April, 1991 abound!)* (Amtrak press release, June 5; **New York Times**, June 12)

Amtrak will build a \$28-million locomotive service facility in Seattle. The U.S. passenger rail corporation said the project is its third major investment in the Seattle facility that provides services for the long-distance *Empire Builder* and *Coast Starlight* as well as Amtrak *Cascades* state-supported corridor service, and maintenance for Sound Transit Sounder commuter trains.

The project, to be managed by PCL Construction Services, will include demolition of the site's existing buildings, utilities, tracks, and other structures, as well as construction of a new 31,000-square-foot locomotive shop. The project kicked off in June and is scheduled for completion by June, 2019. (**Railway Age**, June 16)

National Transportation Safety Board members say that a rockslide was the cause of a 2015 Amtrak train derailment. Seven people were hurt in October, 2015 when a southbound *Vermont* train derailed near Northfield on the New England Central, a subsidiary of Genesee & Wyoming. Geologists have noted other spots along the rail line that have unstable rock formations that could be prone to additional slides, according to the Associated Press. Slow speed orders have been issued in the area. (**Washington Post**, June 14)

OTHER TRANSIT SYSTEMS**WASHINGTON, D.C. AREA**

With 344 of its order of 748 Kawasaki-built 7000-series MetroRail cars (43 trains) already in service and 20 more cars per month arriving from the manufacturer, the Washington Metropolitan Area Transit Authority (WMATA) has been able to retire all of its Rohr 1000- and Breda 4000-series Metrorail cars effective July 1, six months ahead of schedule. As part of its "Back2Good" plan, WMATA's retirement of its oldest and least reliable equipment has already resulted in an almost 50% reduction in service delays attributed to mechanical failures aboard its rail cars, a cause which accounts for two-thirds of all WMATA Metrorail delays. The 7000-series cars averaged more than 176,000 miles between failures while the 4000s averaged 27,259 miles between failures in 2016. The 300 1000-series cars were the oldest in the fleet, dating back to Metrorail's beginnings in March, 1976 and were recommended for retirement as soon as possible by the National Transportation Safety Board following several crashes in which the car bodies did not adequately resist the collision forces. For the past several years, these cars were relegated to mid-consist, not permitted to be on the lead or trailing end of a train. While not the oldest cars, the 100 4000-series cars built in 1991 by Breda were the least reliable of the entire fleet and were not candidates for a full rebuilding. A pair of 1000-series cars (1000-1) will be restored and retained on WMATA property for historical purposes and several 4000-series cars will be transferred to emergency response agencies for use as training vehicles. When the 7000-series order passes the 600-car delivery mark, the 192 5000-series cars built in 2001 by CAF/AAI will also begin to be retired. *(Editor's Note by Ron Yee: Get your rides and photos/videos of the "old look" WMATA cars while you can; when the order is completed, the 7000s will represent nearly 60% of the car fleet and starting in 2023, the 366 Breda-built 2000- and 3000-series cars are slated to be retired by a future order of 8000-class cars, which may feature an open gangway design (either paired or four-car units with no doors between cars, forming a continuous corridor), larger windows, Wi-Fi, heated floors and passenger-operated, push-button activated doors that will be wider than the current cars, leaving only the 184 Alstom-built 6000s built in 2006 to represent the classic look WMATA Metrorail car beyond the year 2024.)* (Wikipedia, WMATA press release June 7; **Progressive Railroading**, June 8)

FLORIDA

SunRail, the 32-mile-long central Florida commuter rail line focused on Orlando, has been attracting fewer riders than expected in its first three years of operation. During the 10-year planning and funding phase leading up to the start-up of service, requiring around a \$1 billion start-up investment by the state, the line was expected to carry 4,300 daily riders but only attracted an average of 3,573 riders in its first two years, which fell to 3,516 daily riders in 2017. Farebox revenues are recovering just 5% of the cost of providing the service, com-

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pared to the 30% recovery rate that is the benchmark commonly used by the transit industry to define a system or line as a success. With an extension of this line 17.2 miles south to Poinciana from its present terminus at Sand Lake Road (south of Orlando) with four new stations (Meadow Woods, Tupperware Station, Kissimmee, and Poinciana) slated for a mid-2018 opening as well as Transit Oriented Development (TOD) around existing SunRail stations, local officials feel that ridership will grow to expected levels. Factors that may be holding back ridership are poor or infrequent off-peak and evening service, poor feeder bus connections, low gasoline prices, and a well-run reconstruction project on Interstate 4 resulting in fewer construction delays and congestion than anticipated. To Volusia County, the northernmost county of SunRail's service area, a future extension 12 miles north from the DeBary station to DeLand has been a bone of contention that the county is not getting its fair share of service for the funds it must contribute to SunRail. Looking farther ahead, an even greater threat to a continuation of SunRail service looms: by 2021 the costs of operating SunRail will be transferred from the Florida Department of Transportation to the local counties and with operating deficits reaching \$30 million per year instead of the projected \$7.5 million, the future appears clouded. (*Daytona News-Journal*, June 11)

CLEVELAND, OHIO

The Greater Cleveland Regional Transit Authority (RTA) held a ground-breaking ceremony for the reconstruction of the current E. 34th Street station served by the Blue, Green, and Red Lines, which provides light rail and rapid transit service to the Cuyahoga Community College Metro Campus. The reconstruction will replace the existing escalators and elevators with a series of ADA-compliant ramps linking the platform with E. 34th Street above. The \$7.5 million project will have 80% support from federal funding sources and is expected to be completed by October, 2018. During the reconstruction project, Red Line trains will bypass this station. Red Line passengers wanting to reach the E. 34th Street station will need to transfer to Blue or Green Line trains at either the Tower City or E. 55th Street stations. (*Editor's Note by Ron Yee: Given the fact that Cleveland is in the snow belt, infamous for frequent, heavy, lake effect snows, I question the wisdom of RTA selecting an alternative that will be workforce-intensive in terms of snow/ice removal for these long ramps as opposed to a much shorter level sidewalk path to elevators linking the platform and the street level. Time will tell.*) (RTA press release, May 29; Al Holtz, June 5)

CHICAGO, ILLINOIS

The Chicago Transit Authority (CTA) operated two vintage trains to observe the 125th anniversary of the opening of the first line of the Chicago elevated rail system on June 6. Commencing around noon, a pair of 4000-series electric multiple unit (EMU) elevated cars (4271-2) began operating in commemorative service making

circular trips around the loop for the midday-afternoon period. The train quickly became overloaded with passengers and the second train, made up of eight 2400-series EMU cars manufactured by Boeing-Vertol in 1976-8 that are now part of the CTA historic fleet, was quickly pressed into service ahead of its scheduled 1:30 PM start. The pair of 4000s have been totally restored to their appearance in the 1920s (including trolley poles on the roof) and have been equipped with modern cab signaling to permit the cars to operate in the same manner as any other passenger-carrying train on the CTA system. (*Chicago Sun-Times*, June 7)



CTA 4000s in the Loop to celebrate the 125th anniversary of the Chicago "L" system, June 6, 2017.
Chicago Sun-Times photograph

The Chicago Transit Authority will issue a Request for Qualifications (RFQ) to select a pool of contractors for its Red and Purple Modernization Program (RPM).

As part of a two-step procurement process, the RFQ covers the first phase of the RPM, which the agency said will significantly modernize, improve and increase rail service in Chicago.

The first phase will rebuild four of the oldest Red Line stations and track structures, and construct a rail bypass to unclog a 100-year-old junction where Red, Purple, and Brown Line trains currently intersect. This will allow CTA to significantly increase the number of trains it can run along the Red Line to reduce overcrowding and meet growing demand for transit service.

Once a pool of candidates is finalized, expected later this year, CTA will then invite the potential bidders to submit proposals on how they propose designing and building RPM Phase One when the agency issues its Request for Proposals in 2018. The proposals will be considered on a variety of criteria, including experience, price and other factors. (*Railway Age*, June 12)

Metra announced at its May 24 Board meeting the largest revision to its Metra Electric line service in 28 years. This is the former Illinois Central (IC) line, home of the 1926-8-vintage, Pullman-built heavyweight 1,500-volt d.c. electric EMUs, replaced by the 1971-2 (St. Louis Car) and 1978-9 (Bombardier) gallery-style bi-level

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Illinois Central Gulf (ICG) Highliner EMUs, which in turn have been replaced by Nippon-Sharyo Highliner II's from 2005 and 2012. Over the past two decades, population, demographic, and economic shifts have completely altered the ridership patterns on the mainline and its two branches to South Chicago and Blue Island. Ridership on Metra Electric has fallen by 14% over the past six years despite this line having the newest cars and operating the most trains. In an effort to match train service with the needs of the new population distribution and their travel patterns, Metra is proposing the elimination of Saturday service on the Blue Island Branch, essentially the elimination of all weekend service as there already is no Sunday service. These trains carried a total of fewer than 100 passengers all day on Saturdays. Despite ridership decreases of 17.5% and 11.2% on the Blue Island and South Chicago Branches, the proposed schedule changes will not significantly affect the frequency of weekday peak period service on either branch with exception of a few lightly-used early morning and late evening trains. This will enable a one-hour gap on the mainline out of University Park to be filled in during the early morning hours. On the mainline, service to the Hyde Park region of the line, 51st-53rd Streets, 55th-56th-57th Streets, and 59th Street stations have all seen a 7.6% increase in ridership over the past three years, which promises to increase even more as the area is experiencing a construction boom with more residential units planned. In response, Metra is proposing to increase service to a 20-minute headway until 7 PM on weekdays and half-hourly on weekends. South Side service on the mainline between 63rd Street and Kensington, including the newly rehabilitated 111th Street/Pullman station, would be stepped up from the present headway of two hours to hourly during the mid-day off-peak. Lightly-used trains on the South Chicago and Blue Island Branches would be eliminated to provide equipment and crews for the increased mainline service. Lastly, a coalition of South Side Chicago and south suburban groups have advocated that Metra convert the Metra Electric District Line into a rapid transit line with additional stations on the route and low-cost transfers on a single farecard (CTA or Metra Electric) between it and CTA as well as the local bus system, PACE. (*Chicago Tribune*, May 24)

CEDAR RAPIDS, IOWA

A study on a commuter rail line for the Cedar Rapids metropolitan area has come in with mostly positive results and coming in at a rational price point, according to a 2016 feasibility study provided to the Cedar Rapids newspaper *The Gazette*.

Jeff Woods, Manager of Marketing and Business Development with the Cedar Rapids & Iowa City Railway, or CRANDIC, said there still is much to do before passenger rail becomes a potential reality, but the study — the second in recent years on regional passenger rail along CRANDIC rail lines — does bring that goal closer

and shows that such an offering can have an attainable price tag.

The feasibility study by HDR of Omaha also found an intercity passenger rail service — spanning 7.1 miles of CRANDIC railroad — would cost about \$1.4 million annually in 2016 dollars to operate and maintain.

Phase 1 of the study looked at the feasibility of a 20.5-mile passenger rail service from Gilbert Street in Iowa City to Eastern Iowa Airport would cost as much as half a billion dollars, with annual operations and maintenance between \$5.6 and \$6.7 million in 2015 dollars. Phase 2 would be a diesel expansion.

Trains would not exceed 40 mph and a full trip from one end of the route to the other would take about 30 minutes, according to the study. The service would operate from 6 AM to 7:45 PM, with a total of eight trips in each direction throughout the day.

Meanwhile, another study of the larger corridor area surrounding Interstate 380 between Iowa City and Cedar Rapids may also factor into future passenger rail discussion. That study, being carried out by the Iowa DOT, focuses on congestion on I-380 and how future projects in the area — including passenger rail or even autonomous cars — impact overall traffic flows.

In addition, the DOT study, which is in its early stages, will take into account the five-year, \$300 million overhaul planned for the I-380/Interstate 80 interchange, which kicks off in 2019.

Despite Iowa's car-friendly politics, a 2015 poll found that 56% of Iowans were in favor of passenger rail expansion and 77% wanted a train from Des Moines to Chicago, so the concept isn't quite far-fetched. (*Editor's note from Alexander Ivanoff: I would use the overhaul of the interchange as an excuse to launch the service. In two cases (South Florida with Tri-Rail and Central Connecticut with Shore Line East) both services were designed to be temporary and have succeeded despite threats to shut them down. It can easily be assumed that the service would use DMUs. In the end, I suspect that temporal separation or possibly an FRA waiver will be the winner in getting this off the ground.*) (*The Gazette*, December 4, 2015 and June 3, 2017)

DENVER, COLORADO

The Colorado Public Utilities Commission (CPUC) has given approval for the Denver Regional Transportation District (RTD) to resume testing on the G Line of Denver's commuter rail network. The last of the three commuter lines to open, the G Line has been plagued by delays relating to software issues for the apparatus controlling its grade crossings. No opening date for the line has been projected, with the contractor, Denver Transit Partners, becoming increasingly concerned about its ability to get the line certified by CPUC and the Federal Railroad Administration and hand an operational line over to RTD for opening. This three-line system is the first new-build commuter rail system that will fully utilize Positive Train Control (PTC) beginning on day one. The 23-mile A Line linking Denver Airport with Denver's downtown Union Station opened on April 22, 2016 and the six-mile B Line to Westminster opened three months

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later on July 25, 2016. It was reported that testing on the G Line commenced on June 14 and is expected to last 90 days if all goes as planned. (*Progressive Railroading*, June 8; Al Holtz, June 14)

LAS VEGAS, NEVADA

Nevada Governor Brian Sandoval gave the green light the week of June 5 for officials to seek funding to build a light rail line that could cost up to \$705 million and carry passengers from McCarran International Airport to downtown Las Vegas as soon as 2023.

The Regional Transportation Commission of Southern Nevada has until the end of 2020 to ask Clark County voters whether sales taxes should be increased to help pay for the proposed 8.7-mile transit system, under one of the bills signed by Sandoval.

A second measure approved by the Governor allows RTC to seek partnerships with private companies wanting to invest in large-scale transportation projects, including the light rail line.

Even though other municipalities have dipped into fuel taxes to pay for light rail projects, RTC is barred from doing so. Clark County's fuel taxes, RTC officials said, are specifically designated for local road improvements.

Along with allowing for a sales tax ballot measure, SB 149 also allows RTC, Clark County, and Las Vegas city officials to go beyond offering traditional bus service and move toward "high-capacity transit" options, including light rail, streetcars, and express bus commuter lines.

Later this summer, RTC and the Federal Transit Administration will release environmental assessments that would allow for construction of either a light rail line or bus rapid transit along Maryland Parkway, where more than 9,000 bus riders and 35,000 vehicles travel daily.

If funding is secured, construction could start by 2019 on a transit line traveling past UNLV, Sunrise Hospital, and the Boulevard Mall along Maryland Parkway, cutting west on Carson Avenue through downtown Las Vegas.

From there, the route would head south on Casino Center, near the Golden Nugget hotel-casino, to the Bonneville Transit Center, where it would veer west to go past the county administrative center, Las Vegas North Premium Outlets, and on to a terminus at the future site of UNLV's School of Medicine, set to open by fall.

It would cost \$573 million to \$705 million to build a light rail line that would use dedicated, street-level lanes running in both directions of the route, RTC officials said. A single 91-foot-long train would carry up to 140 passengers.

A lower-cost bus rapid transit line, estimated at \$298 million to \$367 million, would be equipped with 60-foot-long vehicles capable of holding 90 riders.

Ridership projections were not provided, but RTC said operating and maintenance costs for both systems would range from \$7 million to \$12 million annually.

*(Las Vegas Review-Journal, June 9)***LOS ANGELES, CALIFORNIA**

Alstom has been awarded a contract worth over \$140 million by the Los Angeles County Metropolitan Transportation Authority (Metro) to perform the midlife overhaul of 52 P-2000 light rail vehicles (LRVs), which operate on Los Angeles' Blue, Green, and Expo Lines. The scope of the overhaul includes the upgrade of major systems such as propulsion, HVAC, automatic train control, auxiliary power supply, brake control, communications, and doors, as well as trucks. The overhaul is expected to allow Metro to keep the fleet in service for at least another 15 years, enhancing its comfort, availability, and reliability. Alstom will perform the overhaul work at its Mare Island facility in Vallejo, California. The first vehicles to be overhauled will arrive in Mare Island in 2017, with the last overhauled LRVs returning to service in 2021. Alstom has a strong track record in maintaining and modernizing Alstom- and non-Alstom-built trains. The P-2000 light rail fleet, built by another manufacturer, will benefit from Alstom's over 20 years of experience in the train services business. (Alstom press release via *Mass Transit Magazine*, June 9)

MetroLink began road-testing its new F-125 locomotives on its mainlines on June 10. Built by Progress Rail in Muncie Indiana, these U.S. Environmental Protection Agency Tier IV emissions-compliant units will enter regular passenger service once the testing process is complete and the units are accepted by MetroLink. 905 was observed testing over the BNSF Pasadena Subdivision over the weekend of June 10-11. (Al Holtz, June 12)

TORONTO, ONTARIO, CANADA

Correction to a story regarding Toronto's MetroLinx ordering new LRVs as a hedge against Bombardier's woes with delivering quality Flexity LRVs for its Eglinton Crosstown and Finch West Lines: An order for 61 Citadis LRVs has been placed with Alstom, the builder of similar LRVs for Ottawa's Confederation light rail line. It appeared incorrectly as Siemens. (Ron Yee, Co-Editor C&TN, June 14)

AMERY, MANITOBA, CANADA

Hudson Bay Railway service between Amery, 29 miles northeast of Gillam, and Churchill have been suspended indefinitely owing to "unprecedented and catastrophic" flood damage and is not expected to resume before the winter season, parent company OmniTRAX announced on June 9, with further concerns that the line could close indefinitely.

HBR has been unable to operate to Churchill since May 23. A preliminary assessment by an independent engineering firm found that the track bed had been washed away in 19 locations, with five bridges visibly damaged and 30 bridges and 600 culverts requiring further assessment.

National passenger operator VIA Rail said its service would continue to operate between Winnipeg and Gillam, but no alternative transport would be provided for the 186 miles from Gillam to Churchill.

OmniTRAX had announced an indefinite service sus-

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pension “so communities served by the railway can develop long-term plans for the movement of the supplies and resources they need.”

OmniTRAX said it had been in “constant contact” with Transport Canada and provincial authorities, and was also in regular contact with the Mississippi Rail consortium, which has signed a memorandum of understanding for the potential acquisition of the Port of Churchill and the railway for a reported C\$20 million. (*Railway Gazette*, June 12)

BUENOS AIRES, ARGENTINA

Agreements to fund the purchase of Nippon Signal automatic train stop equipment for the Buenos Aires commuter network were signed during a recent official visit to Japan by President Mauricio Macri.

A US\$49.5 million loan agreed by Japan Bank for International Co-operation, Deutsche Bank, and the Government of Argentina is to fund 85% of the cost. According to Finance Minister Luis Caputo, this is the first agreement with an export credit agency to be signed by the government in over 20 years.

Covering a total of 280 trainsets and 1,500 track kilometers, this would see ATS operational on the Urquiza, San Martín, Belgrano Sur, Belgrano Norte, and Sarmiento routes in 2018, followed by the Tren de la Costa light rail route, the Mitre network, and remaining sections of the Roca system in 2019. (*Railway Gazette*, June 17)

HELSINKI, FINLAND

Helsinki City Transport (HKL) has published renderings of the initial conceptual design for the fleet of Artic XL low-floor LRVs for the Raide-Jokeri light rail line between Helsinki and the neighboring city of Espoo.

HKL ordered 29 of the 34.5-meter-long bidirectional vehicles from Škoda Transportation’s Finnish subsidiary Transtech in November, 2016, using an option from an initial contract for 40 Artics for Helsinki’s meter-gauge network, which was awarded in December, 2011.

HKL says it is focusing on a user-oriented design and has been working with the Helsinki Council on Disabilities to develop the concept, which has been devised with the support of Idis Design, Finland.

The vehicles will accommodate 180 standing and 76 seated passengers, with multi-purpose areas to accommodate pushchairs and wheelchairs.

The 25-kilometer Raide-Jokeri Line will link Keilaniemi, Otaniemi, and Leppävaara in Espoo with Haaga, Pakila, and Oulunkylä in northern Helsinki before terminating at Itäkeskus in the east.

The 33-station line will closely follow the route of Line 550, Helsinki’s busiest bus line, with peak service operating at three-minute intervals.

The line is expected to open before the expiry of the current operating contract for the bus route in 2022. (*International Railway Journal*, June 8)

LONDON, ENGLAND

175 years after Queen Victoria became the first British

monarch to travel by train, Queen Elizabeth commemorated the anniversary by going for a train ride on June 13, according to the *Telegraph*. The Queen rode a train from Slough to Paddington, the exact route taken by her great-grandmother in 1842. The trip was six minutes quicker than the original. To celebrate the occasion, the train’s locomotive was renamed after the Queen. Passengers on the train who spoke to the Queen said they were surprised to hear her knowledge of railways and her preference for traveling by train. (*Trains Magazine*, June 14)

MONTPELLIER, FRANCE

Plans to expand the light rail network in Montpellier were unveiled by the President of Montpellier Méditerranée Métropole, Philippe Saurel, on June 7 as part of the city’s new mobility strategy.

Under the proposals, a 10.8-mile Line 5 will link Lavérune in the west with Clapiers in the north. The project is expected to cost around €400 million and will therefore be implemented in phases, with funding expected to come from local, regional, and state sources.

A mile extension of Line 1 from its southern terminus at Odysseum to the new Montpellier-Sud-de-France TGV station is also included in the plan. The €40 million project will include the construction of a bridge across the A9 highway. (*International Railway Journal*, June 12)

With just 25 days remaining before the start of commercial operations on the Bretagne-Pays de la Loire and Sud Europ Atlantique high-speed lines, French National Railways (SNCF) carried out parallel high-speed test runs using two TGV sets on June 7.

Described by SNCF as a “dress rehearsal,” the aim of the test was to “validate theoretical travel times in real conditions” and evaluate the technical performance of rolling stock on the new infrastructure.

The two trains left the Paris Montparnasse station simultaneously and ran in parallel for the first part of the journey before continuing their separate journeys on the new lines.

One of the trains reached Rennes in 1 hour 26 minutes, while the other arrived in Bordeaux 2 hours 8 minutes after leaving Montparnasse. The fastest commercial journey time will be 1 hour 25 minutes for Rennes and 2 hours 5 minutes for Bordeaux. (*International Railway Journal*, June 7)

BADEN-WÜRTTEMBERG, GERMANY

The State of Baden-Württemberg has submitted a funding application to the German federal government on behalf of Stuttgart Tramways (SSB) seeking backing for the southern extension of light rail line U6 from Fasanenhof to Stuttgart Airport.

The 1.9-mile extension, which will include new stations at Stadionstrasse, Messe West, and Stuttgart Airport, is due to open in 2020.

If the application is approved, the federal government will provide 60% of funding for the €95 million project, with 20% coming from the state government.

The Baden-Württemberg Ministry of Transport says

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funding for the project has been in doubt for some time because the Federal Financial Aid (GVFG) program is due to expire at the end of 2019. However, the federal government decided on June 1 to continue running GVFG into the 2020s. (*International Railway Journal*, June 7)

TUSCANY, ITALY

The Italian region of Tuscany renewed its contract on June 5 with Tuscan Railway Transport (TFT), which operates passenger and freight services in the Province of Arezzo.

The nine-year, €66 million contract envisages the introduction of two new Alstom Jazz trains, a new direct link between the Casentino area and Florence, and a €20 million investment in infrastructure, which includes the rollout of ETCS Level 2.

Resignaling would enable TFT to reduce journey times, which have been lengthened by new regulations introduced by National Safety Authority ANSF in the wake of last July's head-on collision near Corato in Puglia, which killed 23 people.

TFT will operate 58 trains per day and 760,000 train-kilometers per year on the single-track electrified Stia - Arezzo-Sinalunga route, which serves 25 stations.

The contract stipulates that punctuality must increase from 87% to at least 91% by 2019. (*International Railway Journal*, June 9)

ISRAEL

Israel Railways (IR) presented details of its 123.6 billion shekel 2040 Strategic Plan at a conference at the Dan Panorama hotel in Tel Aviv on June 8, revealing ambitious proposals to double the size of the network over the next two decades with high-speed trains connecting key centers.

The plan allocates 94.78 billion shekels for infrastructure, 19.26 billion shekels for rolling stock, and 9.6 billion shekels for depots and stabling facilities, with an overall benefit to cost ratio of 1.0.

Passenger numbers are forecast to grow from 59.5 million in 2017 to 81.2 million in 2020 and 306 million in 2040, with rail's share of the public transport market rising from 3% to 8% between 2020 and 2040. Rail's share of journeys of more than 30 miles would grow from 10% to 40% and the percentage of passengers able to reach Tel Aviv in less than 1 hour 30 minutes would rise from 16% to 64%.

Peak passenger service will increase from 50 trains in 2020 to 128 in 2040, with 96 trips running at up to 100 mph and 32 at a maximum of 155 mph. Many existing lines will see rights-of-way doubled to four tracks.

IR is proposing a number of cross-border links including a line to Lebanon; Jenin-West Bank; Hebron-West Bank; Eilat-Aqaba (Jordan); Ashkelon-Gaza; and a connection across the Sinai Desert to Egypt, following the alignment of the former Ottoman Railway.

Other major projects in the strategic plan include the Afula (Valley Line)-Hadera East; the Lod station bypass,

and an expansion of the Ben Gurion Airport station. (*International Railway Journal*, June 12)

TEHRAN, IRAN

The initial (22-kilometer section of Tehran Line 7 from Meydane San'at in the north of the city to Basij in the southeast was inaugurated on June 11.

Line 7 has the longest underground section on the Tehran metro and it is also the deepest, running up to 56 meters below street level. Service is operated by a fleet of 20 eight-car trains. When the remainder of the line opens in March, 2018, Line 7 will be 31 kilometers long with 34 stations. Together with Line 6, Line 7 will form a metro ring around the center of Tehran.

Tehran Urban and Suburban Railway Company announced last June that the first section of Line 6 will open in September. The 35-kilometer line from Sulqan in the northwest to Dolat-Abad in the southeast will serve 27 new stations. (*International Railway Journal*, June 12)

KANAGAWA PREFECTURE, JAPAN

Production has begun at Hitachi's Kasado plant on a new fleet of 10-car suburban EMUs for Soetsu's Sagami Railway in Japan's Kanagawa Prefecture.

The 1,500-volt d.c. 20000-series EMUs feature aluminum alloy bodysells and will be equipped with variable-voltage-variable-frequency (VVVF) inverters.

Interior features will include LED lighting, multi-purpose areas for pushchairs and wheelchairs, passenger Wi-Fi, Panasonic NanoE air filtration, and 21.5-inch passenger information screens.

The first train is due to enter service in December and in the longer-term the EMUs will be used on the Soetsu -Toyku direct line, which is due to open in the second half of 2022. (*International Railway Journal*, June 8)

CHENGDU, CHINA

CRRC Changchun Railway Vehicles has rolled out the first of 40 Citadis low-floor LRVs for Chengdu light rail Line 2.

The bidirectional Citadis X02 vehicles are being built in China with support from Alstom under a deal signed at the end of 2015.

Each five-section vehicle will accommodate up to 380 passengers.

The initial 27.7-kilometer, 33-station section of Line 2 from the Chengdu West railway station to Pixian via Xinje Road is due to open in mid-2018.

In addition to the vehicles for Chengdu, a joint venture of Alstom and Shanghai Rail Traffic Equipment Development Company (Satco) is supplying 30 Citadis LRVs for the two-line Songjiang tram network in Shanghai, which is due to open at the end of this year. (*International Railway Journal*, June 7)

DALIAN, CHINA

Dalian's metro network reached 160 kilometers on June 7 with the start of trial operation on three newly-completed extensions.

The 9.1-kilometer southern extension of Line 1 follows the route of tram Line 202 from Exhibition Center to Hekou, where there is a cross-platform interchange with

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SWITZERLAND IN THE LATE SUMMER

by Jack May
(Photographs by the author)
(Continued from June, 2017 issue)

I woke up at about 8 and felt fine. But I was quite hungry. Thus the first order of business after showering and our respective toilette tasks, was to walk down to the Co-op supermarket at the tram stop and buy a week's worth of breakfast groceries: juice, tea, cereal, bread for toast, butter, jam, eggs, and milk. The cost was not much more than we would have expected to pay at our Shop-Rite, although the sizes were smaller than what we usually buy. Although we would have to cook and clean the utensils, our average cost for a hot breakfast was significantly less than the 10 to 15 francs per person per day that hotels were asking for buffet breakfasts.

By 9:30 we were on the road, with Clare heading for a couple of museums and me starting to ride some tram routes. Now we had two tickets each for unlimited riding in Basel; our Swiss Passes and free "mobility passes." Apparently hotels in Basel (and possibly other Swiss cities) are now obligated to supply tourists with transit day passes for their entire stay. Before we went our separate ways we decided to buy a cheap cellphone, as we were concerned that had the previous night's episode really been an emergency, we would have had no way to call for help. We bought such a device at the Bahnhof for 10 Swiss Francs (about \$10.70), which included 5 SFr's worth of calling time. The only restriction was that it would work only within the country's borders, but we could call anywhere in the world for about 50 cents flat, plus 10 cents per minute. And later, if needed, we could add additional time.

With an urban population of about 170,000 and a half million in the metropolitan area, Switzerland's third largest city has a great meter-gauge streetcar system with 11 base routes and 3 more that run only in rush hours (see <http://www.urbanrail.net/eu/ch/bs/basel.htm>). For historical reasons these are split between two transit organizations, the Basler Verkehrs-Betriebe (BVB), which owns the innermost lines, and Baselland Transport (BLT), whose routes reach out into the sub-

urbs. With the rules and fares being common over the entire network, the dual operation would be transparent to the rider — if it were not that the color of the trams are different, bright green for BVB and bright yellow and a red band for BLT. The BLT-owned routes, 10, 11, and 14, plus 17 in rush hours, are very long and have lots of fast reserved track with relatively few grade crossings (and some single track as well). Because of the city's location the system reaches into France and Germany, making the network international — twice over! (Note: Route 14 is operated by BVB, using its green cars, probably to reach some sort of parity with BLT, whose lines provide local service over BVB's city center track-*age*.)

I have visited Basel before, so my main interest was catching up on new developments — mainly rolling stock since the extension into Germany had not yet opened (it went into service three months later, on December 14, 2014). So first and foremost was a ride on the new Stadler-built Tango cars, which were running mixed with older units on the 10 — which is probably my favorite line. I rode the Dornach end, stopping off here and there for photographs. I found the new 70-percent low-floor cars to be fast, but a little choppy and noisy on curves — something I did not notice with respect to their brethren on the Airport Line in Lyon. I then spent some time in the central business district, where there seemed to be at least one tram in sight at all times.

The first four view are from my morning's activities, taken along the southeastern end of BLT interurban route 10. After Basel's tramway system was unified (1974) and then modernized, in 1986 route 10 from Dornach was extended to the southwest over the tracks of a just-acquired narrow-gauge electric railway to Rodersdorf (which is international, having a stop in France and therefore crossing the border twice), to become a 16-mile line. A great deal of the outer sections on both ends are single-track. *(Continued on page 17)*

Staten Island's 157-Year-Old Railroad

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the Board of Transportation from building a freight tunnel, the city expected to build a rapid transit tunnel big enough to accommodate freight cars. The tunnel's diameter would have been 24 feet, much larger than the 18-foot external diameter subway tunnels.

The plans showed the tunnel portal near the Long Island Rail Road yards near 66th Street and Fifth Avenue

in Bay Ridge. After passing under the Narrows and St. George, the tunnel would have curved southwest to a portal at Forest Avenue and Clove Road. From this point, the railroad would have been extended to Arlington and connected to Staten Island Rapid Transit's tracks leading to the Arthur Kill Bridge and New Jersey. This tunnel would have ended the obstacle of crossing New York Bay and allowed the railroads to provide continuous rail freight service between New Jersey and Brooklyn. *(To be continued)*

Switzerland in the Late Summer

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Left: Two bright yellow Schindler-built motor cars from the 1970s are shown running MU at Basel's main railway station. Many of these cars, including the front unit, were retrofitted with low-floor center sections in the 1990s. Interestingly, or perhaps ironically, Schindler's factory was in Pratteln, the suburb of Basel that is served by BLT/BVB Route 14. The plant continued under Adtranz ownership and then fell into the hands of Bombardier when the two companies merged. It was later closed (2004) during a massive reorganization of the Canada-based carbuilder. Thus it was not surprising that BLT's next order of cars were built by Stadler (as shown in the right-hand photo). Right: One of BLT's recent 5-section low-floor Stadler-built Tango cars. The 148-foot long unit is shown looping in the forecourt of SBB's Dornach railway station, the terminal of Route 10.



Two more views of Tango and Schindler cars running on BLT interurban Route 10. As it happened, on this trip I did not photograph any of the single-track sections. The view on the left shows a Tango in the village of Munchenstein, while the right photo of Schindler equipment was taken at Stollenrain, just short of the terminal in Dornach. Much of this portion of the 10 runs along the sides of roads.

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Commuter and Transit Notes

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regional metro Line 12, which serves the southern coast of the Liaodong Peninsula. This 2.1-kilometer extension of Line 12 from Caidaling to Hekou opened on the same day.

Line 2 has been also extended 3.9 kilometers east from Huiyizhongxin to Haizhyun with three new stations. Construction began earlier this year on the 23.8-kilometer Line 5 from Hutan Xinqu to Houguancun, which will include a tunnel under Dalian Harbor between the railway station and Suoyuwan Nan.

Construction will also begin at the end of the year on the 27-kilometer Line 4. (*International Railway Journal*, June 8)

SRI LANKA

More than 24 people have lost their lives in Sri Lanka after being struck by trains because of being distracted by their phones, according to Mashable. Most recently, a 12-year-old boy was struck and killed by a train while taking a selfie on the tracks. Railroad law enforcement has stated intent to arrest people if they are found to be engaging in photography on or too close to tracks and moving trains. Sri Lanka is an island country just south-east of mainland India and the northern area of the Indian Ocean. "There are some who want to post videos and pictures of themselves in front of moving trains," spokesman Wijeya Samarasinghe of Sri Lanka Railways told the press. "Unfortunately, some are unable to get out of the way in time and get killed." (mashable.com, June 14)

Around New York's Transit System

Prospect Avenue Station Closed for Rebuilding

NYC Transit closed the Prospect Avenue station on the Fourth Avenue Line (N R) in Brooklyn on June 5 for a full renovation that is expected to last around six months. Part of a program to renovate and rebuild 30 stations, the platforms, mezzanines, stairs, wall tiles, ceilings, lighting, stairways, and handrails will be totally rebuilt, some artwork installed, fare control areas reconfigured, and Help Point intercoms and security cameras will be installed. The station will also be brought into the digital age, with electric charging stations and digital displays relaying real-time train arrival information. During the station closure, passengers will use the 9th Street or 25th Street stations via the B37 or B63 buses.

Parade of Trains 2017

NYC Transit held its now apparently annual "Parade of Trains" event over the weekend of June 17-18. This year's theme was BRT and BMT pre-World War II subway and elevated cars. Featured were three BU elevated cars, three BMT B-Type Standards and two D-Type Triplex units, which all operated independently on a rotating basis in excursion shuttle service on the express tracks of the Brighton Line between Brighton Beach and

Kings Highway. A four-car consist of R-1 to R-9s operated in shuttle service between Brighton Beach and Ocean Parkway, carrying passengers but also serving to train the next generation of operating personnel on the unique aspects of the vintage car fleet. The vintage consists in this year's parade were: BUs N-1407-1274-1404-S; B-Type Standards N-2390-2391-2392-S; D-Type Triplex N-6112ABC-6095CBA-S; R-1 to R-9 N-1802-1000-401-381-S. *(Editor's Note by Ron Yee: Kudos to the volunteers and employees of NYCT Subdivisions "B" and "C" to prepare and operate these cars for excursion service as well as the volunteers and staff of the New York Transit Museum who made this event happen flawlessly.)*

Sutter Avenue-Rutland Road and Junius Street Stations Reopen

Following an eight-month-long rehabilitation project that started in October, 2016, the Sutter Avenue-Rutland Road and Junius Street stations (3 4) were returned to service at 5 AM Monday, June 19. The other 1920s-vintage stations encompassed in the scope of work of this \$88 million project to rebuild seven station on the New Lots Line are Saratoga, Rockaway, Penn-

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Switzerland in the Late Summer

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BLT's bright yellow livery was replaced by a "nostalgia" color scheme to honor the two major components of Baselland Transport, BTB (the Birsigtalbahn, a formerly independent narrow-gauge railway, representing the Rodersdorf end), whose primary color was blue, and BEB (Birsekbahn), the original interurban to Dornach that had a yellow livery. The Route 11 motor-trailer combination has just turned right onto Marktplatz, joining a plethora of BVB routes in the city center on its southbound journey to the town of Aesch.



This photo represents a transition from BLT's yellow cars of this segment to the green ones of BVB to be featured in part 12. A Route 16 car is laying over along its counter-clockwise loop at Schiffplande, while a southbound Route 11 Tango runs around it. According to the timetable, with both routes running every 10 minutes, the 11 is supposed to arrive a minute after the departure of the 16, but sometimes it is early, permitting this view. The 6-axle BVB car was built by Schindler in 1990 and had a low-floor center section added in 1998.

Photos of Basel's green BVB cars will be featured next month.

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