

The Bulletin



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The Bulletin

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FIVE QUEENS TROLLEY LINES QUIT 75 YEARS AGO

The last trolley line serving Long Island City and Astoria, the Steinway Street Line, ceased operating on November 1, 1939. The remaining lines, Broadway, 31st Street, Vernon Boulevard, and Northern Boulevard, quit on September 29, 1939. But the 1.64-mile Queensboro Bridge trolley, operating on a private right-of-way from E. 59th Street and Second Avenue, Manhattan to Queens Plaza, was retained. Cars stopping at Roosevelt Island (formerly Welfare Island) were the only transit line serving the island.

In 1896, the Steinway Railway was merged with the New York & Queens County Railway Company, which became a subsidiary of the Interborough Rapid Transit Company (IRT). The new company prospered until the Long Island Rail Road reached Penn Station in 1910 and IRT was extended to Corona and Astoria in 1917. Oddly enough, IRT's trains competed with their own subsidiary. During the post-World War I inflation, most transit lines operated at a loss, but they were forced to retain the five-cent fare.

When the company defaulted on the bonds' interest payable January 1, 1922, Third Avenue's President, S.W. Huff, and an insurance broker, R.C. Lee, were appointed receivers of Steinway Lines, which was separated from NY&Q. The receivers started operating the original Steinway lines on May 10, 1922, charging a separate fare without transfer privileges to NY&Q lines. Steinway's fleet of old cars, which were transferred to NY&Q, were replaced by second-hand cars and Third Avenue's oldest cars.

During the intervening years, cars were transferred frequently between Steinway lines and Third Avenue lines on a track located just east of E. 59th Street and Second Av-

enue. This track with no overhead trolley and no underground conduit connected the eastbound Queensboro Bridge track with the westbound 59th Street track.

In the late 1930s, we observed the following assignment:

CARS ASSIGNED

LINE	CAR NUMBERS	TYPE
Steinway Street	1-10, 12 529-544	Third Avenue convertibles Ex-Manhattan Bridge
31 st Street	701, 702, 704, 708-712, 719, 724, 725, 733, 743, 759	Third Avenue box cars (A)
Broadway, Northern Boulevard, Vernon Boulevard	1651-4 1657-81	Third Avenue Birneys Second-hand Birneys

(A) In the Spring of 1937, Yonkers 700s replaced second-hand BMT 1682-8, which were scrapped. All the cars listed above were not transferred immediately. Apparently, the cars ran until they were worn out. Instead of repairing them, the cars were taken out of service and replaced by other Yonkers 700s.

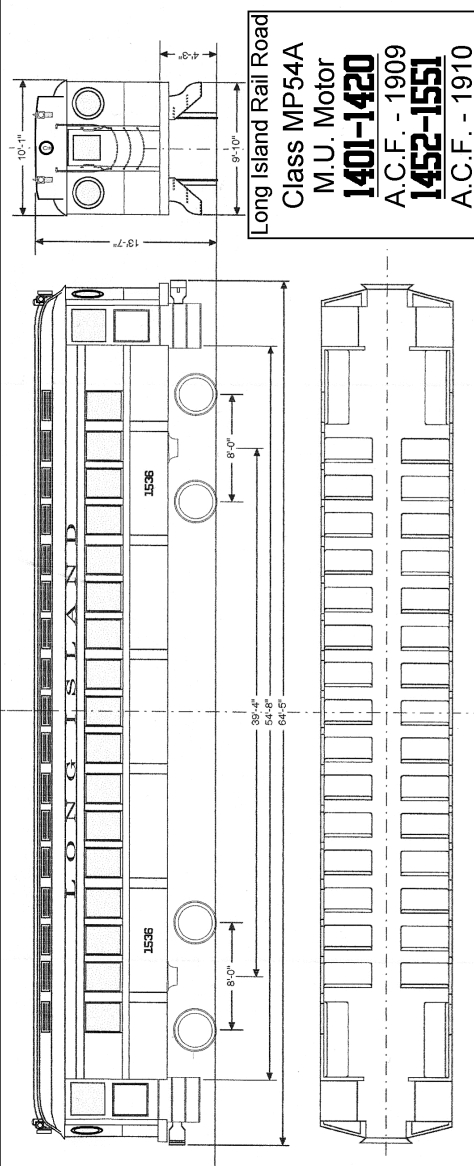
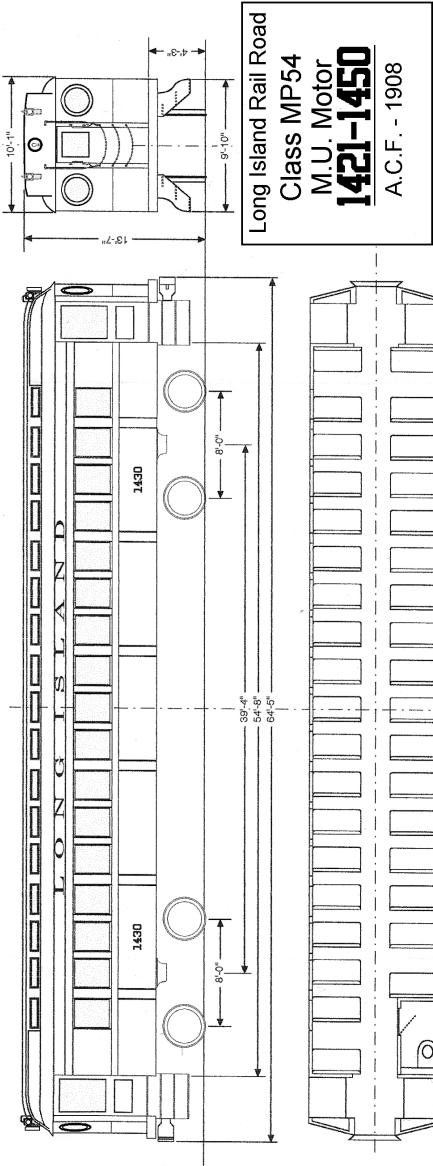
New cars finally appeared on Steinway Street during the last two days of trolley operation. Six-month-old Third Avenue cars 651-655 were transferred from the Bronx and placed in service on the bridge while the best six ex-Manhattan Bridge cars were rehabilitated and renumbered to 531-536.

After abandonment, Third Avenue's cars were returned to the Bronx.

(Continued on page 20)

TOWARD UNDERGROUND (AND UNDERWATER) ROLLING STOCK: THE ALL-STEEL REVOLUTION

by George Chiasson
(Continued from November, 2014 issue)

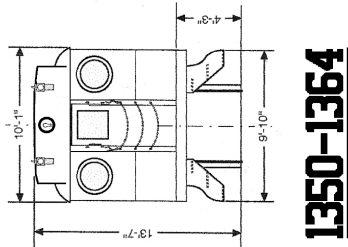


Drawn by Gerry O'Regan, October 2014

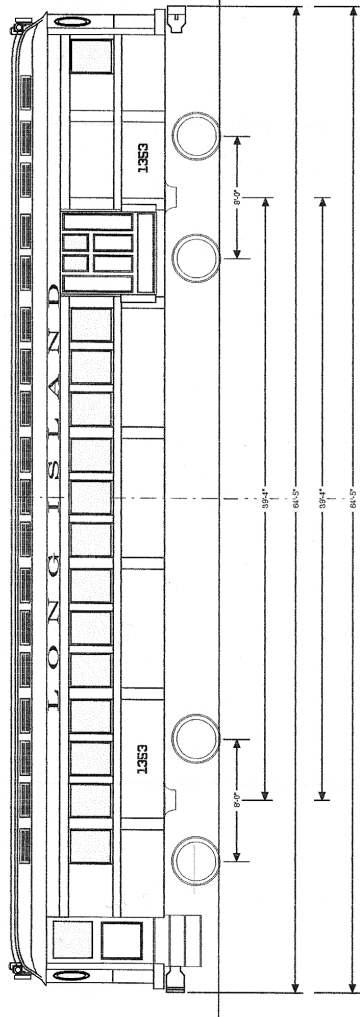
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Toward Underground (and Underwater) Rolling Stock

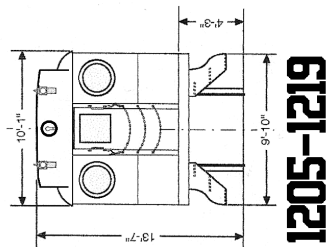
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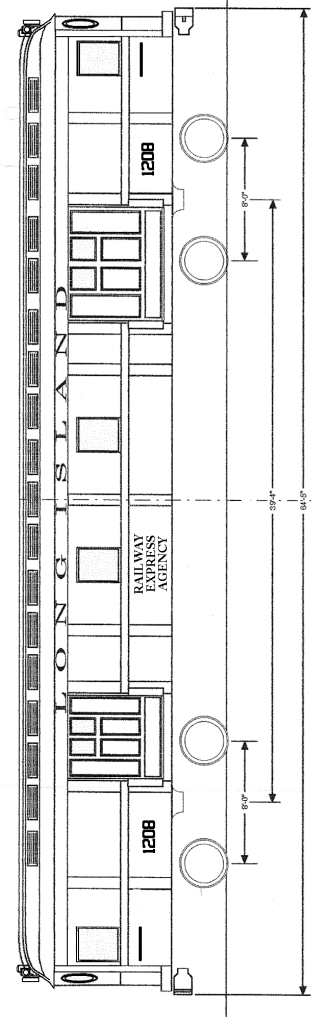
1350-1364



Long Island Rail Road - MPB54 Baggage Combine M.U. Motor
Standard Steel - 1910



1205-1219



Long Island Rail Road - MB62 Express Combine M.U. Motor
A.C.F. - 1910

Drawn by Gerry O'Regan, October 2014

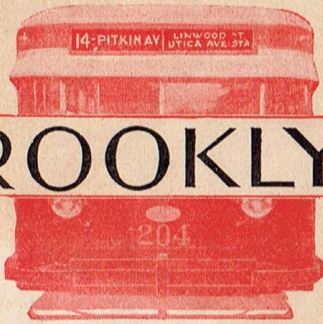
BROOKLYN TRANSFER PRIVILEGES CIRCA 1931

MAP and GUIDE to



SURFACE DIVISION

SERVING



BROOKLYN

WITH BUSES

co-ordinated

With Trolleys

Copies of this Map and Guide may be obtained at

385 FLATBUSH AVE. EXTENSION
at DeKalb Avenue
BROOKLYN, N. Y.

KEY TO TRANSFER PRIVILEGES

Transfer privileges between Bus Routes and between Bus Routes and Trolley Lines are indicated by marking with (A) (B), etc., the bus routes and trolley lines with which 2c transfers are exchanged, the letters (A) (B), etc., indicating the specific privileges in effect with each route or line as listed below:

- (A) From buses in both directions on route, to buses or cars in both directions on intersecting route;
- (B) to northbound buses or cars on intersecting route;
- (C) to eastbound buses or cars on intersecting route;
- (D) to southbound buses or cars on intersecting route;
- (E) to westbound buses or cars on intersecting route.
- (F) From northbound bus on route.
- (G) From eastbound bus on route.
- (H) From southbound bus on route.
- (I) From westbound bus on route, to buses or cars in both directions on intersecting route.
- (J) From northbound bus on route, to eastbound bus or car on intersecting route;
- (K) to westbound bus or car on intersecting route;
- (L) to northbound bus or car on intersecting route.
- (M) From eastbound bus on route, to northbound bus or car on intersecting route;
- (N) to southbound bus or car on intersecting route;
- (O) to eastbound bus or car on intersecting route;
- (P) From southbound bus on route, to eastbound bus or car on intersecting route;
- (Q) to westbound bus or car on intersecting route;
- (R) to southbound bus or car on intersecting route.
- (S) From westbound bus on route, to northbound bus or car on intersecting route;
- (T) to southbound bus or car on intersecting route;
- (U) to westbound bus or car on intersecting route;
- (V) to eastbound bus or car on intersecting route.
- (*) Indicates special regulations as stated in footnote under such markings.

BUS ROUTE No. 1

Sheepshead Bay, Plum and Manhattan Beaches

PLUM BEACH BRANCH operates from Avenue Z and Ocean Parkway to Coyle St. and Emmons Ave. via Ocean Parkway, Avenue Y (Avenue Z in opposite direction), E. 13th St., Sheepshead Bay Road and Emmons Ave., and provides direct service to and from

Rapid Transit Lines

B. M. T. Brighton Subway at Sheepshead Bay Station.

Trolley Lines

Coney Island Ave. (T)
Sea Gate (U)
Ocean Ave.

Bus Routes

No. 1—Manhattan Beach Branch (Free transfer).

MANHATTAN BEACH BRANCH operates from Sheepshead Bay Station of B. M. T. Brighton Subway to Oxford St. and Oriental Boulevard, Manhattan Beach, via Sheepshead Bay Road, Emmons Ave., Shore Boulevard, West End Ave. and Oriental Boulevard, and provides direct service to and from

Rapid Transit Lines

B. M. T. Brighton Subway at Sheepshead Bay Station.

Trolley Lines

Sea Gate (K)
Ocean Ave.

Bus Routes

No. 1—Plum Beach Branch (Free transfer).

BUS ROUTE No. 2

FLATBUSH AVENUE-ROCKAWAY FERRY ROUTE operates from Avenue U and Flatbush Ave. to the foot of Flatbush Ave. at Rockaway Ferry via Flatbush Ave., and provides direct service to and from

Trolley Lines

Flatbush Ave.

Bus Routes

No. 3—Ave. U-Gerritsen Beach

FLOYD BENNETT AIRPORT

(Continued on page 5)

Brooklyn Transfer Privileges Circa 1931

(Continued from page 4)

BUS ROUTE No. 3

Avenue U-Gerritsen Beach

FLATBUSH AVE. BRANCH operates from Flatbush Ave. and Avenue U to 25th Ave. and 86th St. via Avenue U and 86th St., and provides direct service to and from

Rapid Transit Lines

- B. M. T. Brighton Subway at Avenue U Station.
- B. M. T. Culver Line at Avenue U Station.
- B. M. T. Sea Beach Subway at Avenue U Station.
- B. M. T. West End Subway at 25th Ave. Station.

Trolley Lines

- Flatbush Ave.
- Nostrand Ave. Shuttle (B)
- Ocean Ave. (D)
- Coney Island Ave. (D)
- Gravesend Ave. (D)
- 65th St.-Bay Ridge (T)

Bus Routes

- No. 2—Flatbush Ave.-Rockaway Ferry
- No. 3—Gerritsen Beach Branch (Free transfers)
- No. 4—75th St. (Bay Ridge Parkway)-Stillwell Ave.

GERRITSEN BEACH BRANCH operates from Avenue U Station of B. M. T. Brighton Subway to Gerritsen Beach via Avenue U and Gerritsen Ave., and provides direct service to and from

Rapid Transit Lines

- B. M. T. Brighton Subway at Avenue U Station.

Trolley Lines

- Nostrand Ave. Shuttle (B)
- Ocean Ave. (D)

Bus Routes

- No. 3—Flatbush Ave. Branch (Free transfer).

BUS ROUTE No. 4

75TH ST. (BAY RIDGE PARKWAY)-STILLWELL AVE. ROUTE operates from Narrows Ave. and 77th St. to 25th Ave. and 86th St. via 77th St. (78th St. in opposite direction), 4th Ave., Bay Ridge Parkway (75th St.), Stillwell Ave., and 86th St., and provides direct service to

Rapid Transit Lines

- B. M. T. 4th Ave. Subway at 77th St. Station.
- B. M. T. West End Subway at 79th St. Station and 25th Ave. Station.

Trolley Lines

- 65th St.-Ft. Hamilton (A*)
- Fifth Ave. (D)
- 86th St. (N*)
- 65th St.-Bay Ridge (N S)
- West End

Bus Routes

- No. 3—Ave. U-Gerritsen Beach
- No. 5—Kings Highway (EV)
- No. 6—Bay Parkway-Ave. M (DS)
- No. 8—18th Ave.-Foster Ave. (DS)
- No. 16—Fort Hamilton Parkway (DM)

- (A *) Northbound transfer good to 65th St. only.
- (N *) Southbound transfer good to Bay 19th St. only.

BUS ROUTE No. 5

KINGS HIGHWAY ROUTE operates from Cropsey Ave. and Bay Parkway to Flatbush Ave. and Kings Highway via Bay Parkway and Kings Highway, and provides direct service to and from

Rapid Transit Lines

- B. M. T. West End Subway at Bay Parkway Station.
- B. M. T. Sea Beach Subway at Kings Highway Station.
- B. M. T. Culver Line at Kings Highway Station.
- B. M. T. Brighton Subway at Kings Highway Station.

Trolley Lines

- 86th St. (A*)
- Gravesend Ave. (A**)
- Nostrand Ave. Shuttle (A)
- West End (C)
- Coney Island Ave. (A**)
- 65th St.-Bay Ridge (A*)
- Ocean Ave. (A**)
- Flatbush Ave. (N)

Bus Routes

- No. 4—75th St. (Bay Ridge Parkway) Stillwell Ave. (GV)
- No. 6—Bay Parkway-Ave. M
- No. 7—Kings Highway-Brownsville

- (A *) Westbound transfer on 86th St. Line good to 5th

Ave. and 86th St. only and on 65th St.-Bay Ridge Line to 13th Ave. and 86th St. only.

(A**) Northbound transfer on Gravesend Ave. and Coney Island Ave. Lines good to 18th Ave. only; on Ocean Ave. Line to Farragut Rd. and Flatbush Ave. only.

BUS ROUTE No. 6

BAY PARKWAY-AVENUE M Route operates from Cropsey Ave. and Bay Parkway to the Avenue M Station of the B. M. T. Brighton Subway at Avenue M and E. 17th St. via Bay Parkway, 60th St., Gravesend Ave. and Ave. M, and provides direct service to and from

Rapid Transit Lines

- B. M. T. West End Subway at Bay Parkway Station.
- B. M. T. Sea Beach Subway at 22nd Ave. Station.
- B. M. T. Culver Line at Avenue N Station
- B. M. T. Brighton Subway at Avenue M Station.

Trolley Lines

- 86th St. (A*)
- Gravesend Ave.
- West End (C)
- 65th St.-Bay Ridge (A*)
- Coney Island Ave.

Bus Routes

- No. 4—75th St. (Bay Ridge Parkway) Stillwell Ave. (FP)
- No. 5—Kings Highway
- No. 9—Staten Island Ferry-3rd Ave.-60th St. (U)
- No. 10—Ave. D-Bedford Ave.-Ave. J

- (A *) Westbound transfers on 86th St. Line good to 5th Ave. and 86th St. only and on 65th St.-Bay Ridge Line to 13th Ave. and 86th St. only.

BUS ROUTE No. 7

KINGS HIGHWAY-BROWNSVILLE ROUTE operates from East New York and Saratoga Aves. to Flatbush Ave. and Kings Highway via Saratoga Ave., Riverdale Ave., E. 98th St., Lenox Road, E. 95th St., and Kings Highway, and provides direct service to and from

Rapid Transit Lines

- I. R. T. New Lots Line at Saratoga Ave. Station.

Trolley Lines

- Flatbush Ave. (T)
- Ralph Ave. (G)
- Utica Ave. (DM)
- Bergen St.
- Church Ave. (C)
- Ralph-Rockaway

Bus Routes

- No. 5—Kings Highway
- No. 10—Ave. D-Bedford Ave.-Ave. J
- No. 12—East New York Ave. (J)
- No. 14—Pitkin Ave.-Brownsville (K)
- No. 17—Remsen Ave. (LR)

BUS ROUTE No. 8

18TH AVE.-FOSTER AVE. ROUTE operates from 14th Ave. and Cropsey Ave. to Nostrand Ave. and Newkirk Ave. via Cropsey Ave., 18th Ave., E. 8th St., Foster Ave., E. 29th St., and Newkirk Ave., and provides direct service to and from

Rapid Transit Lines

- B. M. T. West End Subway at 18th Ave. Station.
- B. M. T. Sea Beach Subway at 18th Ave. Station.
- B. M. T. Culver Line at 18th Ave. Station.
- B. M. T. Brighton Subway at Newkirk Ave. Station.
- I. R. T. Nostrand Ave. Subway at Newkirk Ave. Station.

Trolley Lines

- 86th St.
- Gravesend Ave. (B)
- Ocean Ave.
- West End
- Coney Island Ave. (B*)
- Nostrand Ave.
- 65th St.-Bay Ridge
- Flatbush Ave.

Bus Routes

- No. 4—75th St. (Bay Ridge Parkway) Stillwell Ave. (FP)
- No. 9—Staten Island Ferry-3rd Ave.-60th St. (A)
- No. 10—Ave. D-Bedford Ave.-Ave. J (M)
- No. 11—49th St.-53rd St. (E)

- (B *) Northbound transfer on Coney Island Ave. Lines good to Park Circle only.

(Continued on page 6)

Brooklyn Transfer Privileges Circa 1931

(Continued from page 5)

BUS ROUTE No. 9

STATEN ISLAND FERRY-3rd AVE.-60th ST. ROUTE operates from Shore Road and Bay Ridge Ave. to Gravesend Ave. and 60th St. via Bay Ridge Ave., 3rd Ave. and 60th St., and provides direct service to and from

Rapid Transit Lines

- B. M. T. 4th Ave. Subway at 59th St. Station.
- B. M. T. West End Subway at 62nd St. Station.
- B. M. T. Culver Line at Avenue N Station.
- B. M. T. Bay Ridge "L" at 65th St. Station.

Trolley Lines

- 65th St.-Ft. Hamilton (D)
- 65th St. Bay Ridge (O)
- 5th Ave.
- 86th St.
- 16th Ave. (A *)
- 3rd Ave.
- 8th Ave. (A)
- Gravesend Ave.
- Hamilton Ave.
- West End (B)

(A *) Northbound transfer on 16th Ave. Line good to Gravesend Ave. only.

Bus Routes

- No. 6—Bay Parkway-Ave. M (O)
- No. 8—18th Ave.-Foster Ave. (A)
- No. 10—Ave. D - Bedford Ave.-Ave. J.
- No. 16—Fort Hamilton Parkway (A)

BUS ROUTE No. 10

AVENUE D-BEDFORD AVENUE-AVENUE J ROUTE operates from Kings Highway and Avenue D to 60th St. and Bay Parkway via Avenue D, East 31st St., Newkirk Ave., Bedford Ave., Avenue J and Bay Parkway, and provides direct service to and from

Rapid Transit Lines

- B. M. T. Brighton Subway at Avenue J Station.
- B. M. T. Culver Line at 22nd Ave. Station.
- I. R. T. Nostrand Ave. Subway at Newkirk Ave. Station.

Trolley Lines

- Utica Ave. (G)
- Flatbush Ave.
- Nostrand Ave.
- Coney Island Ave. (B *)
- Ocean Ave.
- Gravesend Ave.

(B *) Northbound transfer good to Park Circle only.

Bus Routes

- No. 6—Bay Parkway-Ave. M
- No. 7—Kings Highway-Brownsville
- No. 8—18th Ave.-Foster Ave. (Q)
- No. 9—Staten Island Ferry-3rd Ave.-60th St.

BUS ROUTE No. 11

49th ST-53rd ST. ROUTE operates from 1st Ave. and 52nd St. to Gravesend Ave. and 18th Ave. via 52nd St. (53rd St. in opposite direction), 6th Ave., 50th St. (49th St. in opposite direction) and 18th Ave., and provides direct service to and from

Rapid Transit Lines

- B. M. T. 4th Ave. Subway at 53rd St. Station.
- B. M. T. West End Subway at 50th St. Station.
- B. M. T. Culver Line at 18th Ave. Station.
- B. M. T. Bay Ridge "L" at 52nd St. Station.

Trolley Lines

- 3rd Ave.
- 8th Ave. (A)
- Hamilton Ave.
- West End
- 5th Ave. (N)
- 16th Ave. (A *)
- 86th St.
- Gravesend Ave.

(A *) Northbound transfer on 16th Ave. Line good to Gravesend Ave. only.

Bus Routes

- No. 8—18th Ave.-Foster Ave. (G)
- No. 16—Fort Hamilton Parkway (A)

BUS ROUTE No. 12

EAST NEW YORK AVE. ROUTE operates from Atlantic and East New York Avenues to Prospect Park (Ocean and Parkside Aves.) via East New York Ave., St. Marks Ave., Eastern Parkway, Saratoga Ave. (Hopkinson Ave. in opposite direction) East New York Ave., Albany Ave., Winthrop St., Nostrand Ave., Clarkson Ave. (Parkside Ave. in opposite direction), Woodruff Ave. and Ocean Ave., and provides direct service to and from

Rapid Transit Lines

- B. M. T. Brighton Subway at Parkside Ave. Station.
- B. M. T. 14th St.-Canarsie Subway at Atlantic Ave. Station.
- B. M. T. Fulton St. "L" at Atlantic Ave. Station.
- I. R. T. Nostrand Ave. Subway at Winthrop St. Station.
- Long Island Railroad at East New York Station.

Trolley Lines

- Franklin Ave.
- Flatbush Ave.
- Ocean Ave.
- Nostrand Ave.
- Reid Ave.
- Utica Ave.
- Ralph Ave.
- Bergen St.
- Ralph-Rockaway
- Wilson Ave.

Bus Routes

- No. 7—Kings Highway-Brownsville (T)
- No. 14—Pitkin Ave.-Brownsville (A)
- No. 16—Ft. Hamilton Parkway
- No. 17—Remsen Ave. (M)

BUS ROUTE No. 13

CRESCENT ST. ROUTE operates from Jamaica Ave. and Crescent St. to Old Mill, Jamaica Bay at Spring Creek Basin via Crescent St., and provides direct service to and from

Rapid Transit Lines

- B. M. T. Jamaica Line at Cypress Hills Station and Crescent Street Station.
- B. M. T. Fulton St. "L" at Crescent Street Station.

Trolley Lines

- Jamaica Ave.
- Bergen St. (A *)
- Broadway

(A *) Westbound transfer good to Ralph Ave. and St. John's Place only.

Bus Routes

- No. 19—Fresh Pond Road

BUS ROUTE No. 14

PITKIN AVE.-BROWNSVILLE ROUTE operates from Eastern Parkway and Utica Ave. to Linwood St. and Pitkin Ave. via Eastern Parkway, Pitkin Ave., Stone Ave., Sutter Ave., Linwood St. (Elton St. in opposite direction), and provides direct service to and from

Rapid Transit Lines

- B. M. T. 14th St.-Canarsie Subway at Sutter Ave. Station.
- B. M. T. Fulton St. "L" at Linwood St. Station.
- I. R. T. New Lots Line at Utica Ave. Station.

Trolley Lines

- Reid Ave. (I *)
- Utica Ave.
- Ralph-Rockaway
- Ralph Ave. Shuttle (D *)
- Wilson Ave. (A *)

(I *) Southbound transfer good to Church and Utica Aves. only; northbound to Broadway and Reid Ave. only.

(D *) Southbound transfer good to Hegeman and Rockaway Aves. only.

(A *) Southbound transfer good to Hegeman and Rockaway Ave. only; northbound to Broadway and Rockaway Ave. only.

Bus Routes

- No. 7—Kings Highway-Brownsville (N)
- No. 12—East New York Ave. (A)
- No. 17—Remsen Ave.

(Continued on page 7)

Brooklyn Transfer Privileges Circa 1931

(Continued from page 6)

BUS ROUTE No. 15

MANHATTAN BRIDGE ROUTE operates from Flatbush Ave. Extension and Fulton St., Brooklyn, to Canal St. and Baxter St., Manhattan, via Flatbush Ave. Extension, Manhattan Bridge, and Canal St., and provides direct service to and from

Rapid Transit Lines

B. M. T. Subway Lines at DeKalb Ave. Station, Myrtle Ave. Station and Canal St. Station.

I. R. T. Subway at Nevins St. Station and Canal St. Station.

B. M. T. Culver and Bay Ridge "L" Lines at Fulton St. Station.

B. M. T. Fulton St. "L" at Flatbush Ave. Station.

B. M. T. Myrtle Ave. and Lexington Ave. "L" Lines at Bridge St. Station.

Trolley Lines

Fulton St.
Putnam Ave.
Gates Ave.
Flatbush Ave.
Seventh Ave.

St. Johns Pl.
Third Ave.
DeKalb Ave.
Myrtle Ave.
Crosstown

Vanderbilt Ave.
Flushing Ave.
Graham Ave.
Park Ave.
Smith St.

BUS ROUTE No. 16

FORT HAMILTON PARKWAY ROUTE operates from Narrows Ave. and 86th St. to Woodruff and Ocean Aves., via 86th St., Fort Hamilton Parkway, 56th St. (57th St. in opposite direction), 13th Ave., 36th St., Church Ave., E. 8th St. (E. 7th St. in opposite direction), Caton Ave., St. Paul's Place, (Ocean Ave. in opposite direction) and Woodruff Ave., and provides direct service to and from

Rapid Transit Lines

B. M. T. 4th Ave. Subway at 86th St. Station.

B. M. T. Sea Beach Subway at Fort Hamilton Avenue Station.

B. M. T. West End Subway at 55th St. Station.

B. M. T. Culver Line at 13th Ave. Station.

B. M. T. Brighton Subway at Church Ave. Station.

Trolley Lines

65th St.-Fort Hamilton (A*)
5th Ave. (D)
86th St. (O)
65th St.-Bay Ridge (H*)
West End
Church Ave.
Gravesend Ave.
Coney Island Ave.

Bus Routes

No. 4—Bay Ridge Parkway-Stillwell Ave. (FQ)
No. 9—Staten Island Ferry-3rd Ave.-60th St. (A)
No. 11—49th St.-53rd St. (A)
No. 12—East New York Ave. Line

(A*) Northbound transfer good to 65th St. only.

(H*) Eastbound transfer good to 13th Ave. and 86th St. only.

BUS ROUTE No. 17

REMSEN AVE. ROUTE operates from Eastern Parkway and Utica Ave. to Remsen Ave. and Sea View Ave. via Utica Ave. and Remsen Ave., and provides direct service to and from

Rapid Transit Lines

R. T. New Lots Line at Utica Ave. Station.

Trolley Lines

Reid Ave.
Utica Ave.
Church Ave.

Bus Routes

No. 7—Kings Highway-Brownsville (LR)
No. 12—East New York Ave. (Q)
No. 14—Pitkin Ave.-Brownsville

BUS ROUTE No. 18

MYRTLE-WYCKOFF AVES. ROUTE operates from Fresh Pond Road and Cornelia St. to Metropolitan and Graham Aves. via Fresh Pond Road, Putnam Ave. (Cornelia St. in opposite direction), Forest Ave., Gates Ave., Wyckoff Ave., Flushing Ave., Thames St. (Flushing Ave. in opposite direction), Porter Ave., Johnson Ave., Morgan Ave. and Metropolitan Ave., and provides direct service to and from

Rapid Transit Lines

B. M. T. Myrtle Ave. "L" at Fresh Pond Road Station and Wyckoff Ave. Station.

B. M. T. 14th St.-Canarsie Subway at Myrtle Ave. Station, DeKalb Ave. Station, Jefferson St. Station and Graham Ave. Station.

Trolley Lines

Flushing-Ridgewood
DeKalb Ave.
Myrtle Ave.
Cypress Hills
Flushing Ave. (A)
Wilson Ave.
Richmond Hill
Bushwick Ave.
Grand St. (F*)
Metropolitan Ave.
Graham Ave.

Bus Routes

No. 19—Fresh Pond Road
No. 20—Decatur St.

(F*) Eastbound transfer good to 74th St. only.

BUS ROUTE No. 19

FRESH POND ROAD ROUTE operates from Fresh Pond Road and Cornelia St. to Jamaica Ave. and Crescent St. via Fresh Pond Road, Myrtle Ave., Dill Place (62nd St. in opposite direction), St. Felix St., Cooper Ave., Cypress Hills Road, and Jamaica Ave., and provides direct service to and from

Rapid Transit Lines

B. M. T. Myrtle Ave. "L" at Fresh Pond Road Station.

B. M. T. Jamaica Line at Cypress Hills Station.

Trolley Lines

Flushing-Ridgewood
Richmond Hill (A*)
Broadway
Cypress Hills (K)
Jamaica Ave. (A*)

Bus Routes

No. 18—Wyckoff Ave.
No. 20—Decatur St. (T)
No. 12—Crescent St.

(A*) Eastbound transfer good to Woodhaven Blvd. only.

BUS ROUTE No. 20

DECATUR ST. ROUTE operates from Broadway and Decatur St. to Fresh Pond Road and Cornelia St. via Decatur St. (Schaeffer St., Knickerbocker Ave., Cooper Ave., Wyckoff Ave. and Summerfield St. in opposite direction), Myrtle Ave. and Fresh Pond Road, and provides direct service to and from

Rapid Transit Lines

B. M. T. Myrtle Ave. "L" at Fresh Pond Road Station.

B. M. T. Broadway "L" at Chauncey St. Station.

B. M. T. Jamaica Line at Chauncey St. Station.

B. M. T. Lexington Ave. "L" at Chauncey St. Station.

B. M. T. 14th St.-Canarsie Subway at Halsey St. Station.

Trolley Lines

Flushing-Ridgewood
Richmond Hill (A*)
Cypress Hills (A)
Wilson Ave.
Broadway (H)

Bus Routes

No. 18—Wyckoff Ave.
No. 19—Fresh Pond Rd. (J)

(A*) Eastbound transfer good to Woodhaven Blvd. only.

STATUS OF NORTH AMERICAN TRANSIT PROJECT OPENINGS SCHEDULED FOR 2014

by Randy Glucksman

The following projects that were listed in the January, 2014 *Bulletin* have been, or are scheduled to be completed this year as of November 26. There is an old saying, “the best laid plans of mice and men often go

awry,” and the transportation field is no exception. Additional changes will be reported in the January, 2015 *Bulletin*.

DATE	AGENCY	CITY	TYPE	LINE	DETAILS
March 31	NJ Transit	Hackensack, New Jersey	CR	Pascack Valley	Anderson Street station reopens
April 7	New Mexico Rail Runner Express	Albuquerque, New Mexico	CR	Rail Runner	Montano station opens
May 1	Florida DOT (SunRail)	Orlando, Florida	CR	Phase I	DeBary to Sand Lake Road 29.5 miles, 12 stations
June 14	Metro Transit	Minneapolis/St. Paul, Minnesota	LR	Green	Downtown to Downtown 10.8 miles, 18 stations
July 25	Sun Link	Tucson, Arizona	SC	Sun Link	Congress Street/ Granada Avenue to Warren Street/Helen Street 3.9 miles, 17 stations
July 26	Washington Metropolitan Area Transit Authority	Washington, D.C.	HR	Silver Phase I	East Falls Church to Wiehle-Reston East 11.6 miles, 5 stations
August 18	Dallas Area Regional Transit	Dallas, Texas	LR	Orange	Extension from Beltline to DFW Airport 4.7 miles, 1 station
August 25	Calgary Transit	Calgary, Alberta	LR	Northwest	Crowfoot to Tuscany/Rocky Ridge 1.5 miles, 1 station
September 2	Massachusetts Bay Transportation Authority	Somerville, Massachusetts	HR	Orange	Assembly Square (fill-in station) opens
November 10	MTA NYC Transit	New York, New York	HR	2 3 4 5 A C J R Z	Fulton Center opens
November 22	Bay Area Rapid Transit	San Francisco, California	AGT	Oakland Airport Connector	Coliseum to Oakland International Airport 3.2 miles
November	District DOT	Washington, D.C.	SC	H Street/Benning Road	2.4 miles, 8 stations
December 1	Agence metropolitaine de Transport	Montreal, Quebec	CR	Train de L'Est	Central Station to Mascouche 32 miles, 10 stations
December 6	City of Atlanta/Atlanta Downtown Improvement Project/MARTA	Atlanta, Georgia	SC	Atlanta Streetcar Project Phase I	2.7 mile loop, 12 stations
End	Chicago Transit Authority	Chicago, Illinois	HR	Green	Cermak-McCormick station opens

MOVED TO 2015

Early	Edmonton Transit	Edmonton, Alberta	LR	North	Churchill to Nait 2 miles, 3 stations
February 24	MTA NY City Transit	New York, New York	HR	7 Extension	Times Square to Hudson Yards 1.4 miles, 1 station
First Quarter	Sound Transit	Seattle, Washington	SC	First Hill Streetcar	Occidental/South Jackson to Broadway/East Denny Way 2.5 miles, 10 stations

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Commuter and Transit Notes

No. 313

by Ronald Yee and Alexander Ivanoff

METROPOLITAN TRANSPORTATION AUTHORITY

MTA released the results of its customer satisfaction surveys for 2014. NYC Subway improved its score to a 74% satisfaction rating. NYC Bus scored 70%. Long Island Rail Road received the highest score, at 84%, of all of the MTA agencies, and Bridges & Tunnels scored 83%, both remaining relatively unchanged from last year. Metro-North Railroad slipped 20 points down to 73%, something that was not unexpected by management given the unfortunate string of events that have occurred on the railroad. Three bright spots for Metro-North were an 87% customer satisfaction rating of its quiet car program, an improving trend for restroom cleanliness with more M-8s coming on line on the New Haven Line, and a 96% rating of Grand Central Terminal. (MTA press release, November 14)

MTA has hired David Mayer as its Chief Safety Officer. He will start on December 1, 2014, reporting directly to MTA Chairman Tom Prendergast. Mr. Mayer was the Managing Director at the National Transportation Safety Board prior to joining MTA in a position created in the wake of a series of serious and fatal accidents at Metro-North Railroad. (*New York Daily News*, October 27)

MTA will begin discussions regarding the extent and means by which transit fares and bridge and tunnel tolls will be raised in March, 2015. Expected to be around 4%, it would generate almost \$290 million per year. Two proposals are on the table; one would increase the base fare to \$2.75 while the bonus amount when putting more than \$5.50 on a pay-per-ride *MetroCard* would increase from 5% to 11%. The second would maintain the base fare at \$2.50 while the bonus for putting \$5 or more on a *MetroCard* would be eliminated. In both scenarios, the 30-day unlimited *MetroCard* would increase by \$4.50 and the 7-day unlimited *MetroCard* would increase by \$1. The fare hikes for the LIRR and Metro-North commuter trains would average less than 4.25% for weekly and monthly tickets; weekend "city tickets" would rise by 25 cents while single ride tickets to and from Manhattan on Metro-North and Zone 1 on LIRR would increase between 2.2% and 6.1%, the wide ranges caused by the fact that fares must increase in 25-cent increments. Bridge and tunnel tolls would increase by around 21 cents for E-ZPass users with automobiles, a roughly 4% increase. In a macabre sense of relief, transit advocates are pleased that the fare hikes are not going to be 7.5% as had been the original target in MTA's four-year financial plan due to budget discipline, cost-cutting, and ridership increases. (MTA press release, November 17)

The MTA Board has approved a \$34.6 million contract to install inward- and outward-facing cameras in the

operating cabs of the rail fleets of the Long Island Rail Road and Metro-North Railroad. This contract will also begin the installation of cameras to monitor the passenger areas of the rail cars to enhance security and discourage crime. The in-cab cameras were prompted by a recommendation from the National Transportation Safety Board in February, 2014 after a series of accidents on Metro-North in 2013. (MTA press release, November 17)

MTA LONG ISLAND RAIL ROAD

The Long Island Rail Road issued new timetables dated November 17, 2014 which will remain in effect through December 14, 2014. This timetable change restores weekend and holiday train service to the West Hempstead Branch offering two-hour headways. The 3:13 AM train from Long Beach was moved to 3:59 AM to provide the ability for those customers needing to reach Manhattan in the 5-5:30 AM time frame and provide for an arrival into Atlantic Terminal at 4:49 AM. It also has some timing changes to accommodate track work on the Port Washington, Port Jefferson, and West Hempstead Branches. Additional weekend service for the holiday season started on November 29 as well as added service for the Thanksgiving holiday period starting November 26, 2014. (MTA Long Island Rail Road website, November 17)

MTA METRO-NORTH RAILROAD

Metro-North Railroad issued new timetables on Sunday, November 9, 2014. The most significant service improvements are the expansion of half-hourly train service on the outer portion of the New Haven Line between Stamford and New Haven during the off-peak and weekend periods as published in the November, 2014 *Bulletin*. (Ron Yee, November 9)

Member Randy Glucksman reports from the November 17 Metro-North Committee meeting book that there are now 374 M-8s listed as active in the fleet, for an increase of 6 cars, while the M-2/M-4/M-6 fleet stands at 94, an increase of 12 over the October, 2014 report. (*Editor's Note by Ron Yee: this is an interesting statistic, given that only 6 more EMU cars and 25 single-unit non-powered M-8-style cars remain to be placed into service for a total of 31 additional cars. Accounting for the fact that an M-8 has fewer seats than an M-2, the 31 new cars would replace around 25 of the older cars, seating-wise. The older EMU cars also have a mean distance between failures less than half that of the M-8s, so the shop margin would have to be higher for that class. There remain on the roster 94 cars still listed as active, including 41-year-old M-2 car 8522, seen and photographed at 125th Street on November 8 by this Editor. Perhaps the degree of service enhancements on the New*

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Commuter and Transit Notes*(Continued from page 9)*

Haven Line combined with all the increased weekday off-peak and weekend services and minor teething issues with the M-8s, requiring more of them to be in the shop than expected, have thus far precluded the full retirement of the older car fleet.)

Both Randy Glucksman and member Bill Zucker have been dutifully recording M-8 car numbers during their travels on Metro-North and report that cars 9100-9307, 9310-37, 9340-91, 9394-9413, 9416-21, 9500-9, 9514-5, 9518-9, 9530-9631, 9534-9635, 9542-9643, 9600-05, and 9610-1 have been seen on Metro-North. (Bill Zucker and Randy Glucksman, October 24 and November 17)

NJ TRANSIT

The new station at Princeton opened Monday, November 17, 2014 after a one-week suspension of rail services on the line to facilitate final work required to open the station and platform track for service. Riders praised the new station, which is bright and airy in design with a ceiling shaped like an inverted wedge and Nakajima wood benches inside a waiting room capable of accommodating 167 people. All-weather seating is also built into the exterior of the building. However, as it is not restroom equipped, patrons will have to use the toilets at the adjacent Wawa convenience store. The new high-level platform features a full-length canopy to shelter patrons from inclement weather. It is being touted as Princeton's multi-modal transportation facility covering pedestrian, bicyclist and vehicular drop-off and pickup needs. However, this rail line was cut back by 460 feet to make way for development backed by Princeton University and real estate interests who are redeveloping the area into a \$330 million gateway into town featuring an arts and transit center as its centerpiece. The old station building is to be converted into a restaurant and café. As a result, the new station may be perceived by patrons as being less convenient and discourage ridership. Making matters worse, the pedestrian connection to the new station involves navigating a convoluted pathway that winds around and through a construction area and will remain that way until the gateway redevelopment project is completed in 2017. Since the cutback of the "Dinky" route, NJT's 2014 third quarter ridership report shows that total ridership numbers for the combined "Dinky" and free Princeton University bus shuttle services have decreased by 8.1%. As there has been a system-wide ridership increase of 1.5% on NJT rail, the actual potential ridership loss is 9.6%.

AMTRAK

Amtrak honored one of its former Presidents, David Gunn, by placing his name on ACS-64 electric locomotive 600. He was recognized for his role in keeping the railroad out of bankruptcy during an administration that was outwardly hostile to Amtrak's needs. Years of de-

ferred maintenance had taken its toll on Amtrak's rolling stock, locomotives, and the track and structures of the Northeast Corridor. (Al Holtz, November 12)

Amtrak's plans to replace the 104-year-old "Portal" swing bridge over the Hackensack River in New Jersey can be completed in four years. If \$940 million can be found to fund the project, a new span can be built to replace what has been referred to as the Achilles heel of the Northeast Corridor. The new bridge would be built 50 feet above the water, high enough to no longer require it to be a movable span and permit 90 mph operations. There are arguments as to whether such funding, if found at all in the new political climate post-2014 mid-term elections, would be better spent on the Gateway project to build two new tunnels to allow the existing Hudson River tunnels to Penn Station to be shut down for one year each for repairs from Hurricane Sandy damage. *(Editor's Note by Ron Yee: BOTH projects are critical. What good would come from building two brand new tunnels to Penn Station if a two-track bridge which is its sole access link to points south of New York City fails from old age?)* (ABC News, November 15)

Member Jon Graham reports that YouTube has a visualization of all Amtrak train movements over its national network over a time span of one week using General Transit Feed Specification data. It can be viewed at: <https://www.youtube.com/watch?v=g0JU-xU7Hm8>.

Amtrak was forced to suspend all operations for two days between Albany-Rensselaer and Buffalo, Niagara Falls, Toronto, and Chicago by a historic "lake effect" snowstorm that slammed a five-mile-wide swath in the area just south of Buffalo, New York with around 70 inches of snow, causing a state of emergency to be declared in several hard-hit towns and Erie County issuing a travel ban, closing down all forms of land transportation (including 132 miles of the New York State Thruway on which over 100 vehicles were stranded). Cancellation of all *Empire Corridor* and Toronto trains began November 18. Trains #48 and #49, the *Lake Shore Limited*, scheduled to pass through the area on November 18 apparently made it through, albeit with heavy delays, reportedly sitting in Buffalo for over five hours. Subsequent runs of that train were canceled. No alternative transportation services were offered to stranded passengers. Service restoration began on Thursday, November 20 with the resumption of *Maple Leaf* Trains #63 and #64 between New York City and Toronto via Albany-Rensselaer, Rochester, Buffalo, and Niagara Falls. At the time this was written, no date has been set for the resumption of the *Lake Shore Limited*, with service between Chicago and Cleveland covered by the *Capitol Limited*. *(Editor's Note by Ron Yee: A train set and crew for the Maple Leaf was probably laying over (stranded) at Toronto and was available for the quick resumption of service of Train #64. If a train set was not already laying over at Sunnyside Yard in New York City, it would be relatively easy*

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Commuter and Transit Notes*(Continued from page 10)*

to deadhead one down from Albany-Rensselaer to serve as the resumed northbound Train #63. As more equipment is repositioned to Niagara Falls, New York and New York City, the remaining Empire Corridor services should be restored.) (Amtrak website, November 18 and 19)

OTHER TRANSIT SYSTEMS**UNITED STATES, NATIONWIDE**

On November 4, numerous municipalities approved ballot measures aimed to improve public transportation. According to the Center for Transportation Excellence, 71% of proposals passed, including a few notable ones:

- Seattle, Washington adopted a sales tax and automobile property tax increase to fund transit exclusively, after a transit proposal failed earlier in the year
- Three California counties passed sales tax or bond measures to fund transit, and two transit-friendly charter amendments were adopted while a transit-unfriendly amendment was defeated
- Clayton County, Georgia overwhelmingly voted to adopt a one-cent sales tax to join the regional transit system, MARTA
- Rossford, Ohio voters rejected a move to opt the city out of the Toledo area regional transit system
- Hamilton County, Ohio (including Cincinnati) voters approved a very small sales tax hike to provide \$170 million to restore Cincinnati's Union Terminal, used by Amtrak trains three days a week. The Art Deco terminal has been in a state of disrepair for several years now

According to the website, the majority of proposals passed were in the State of Michigan, which sent Republican Rick Snyder back to the Governor's office.

Notable losses happened in Sunbelt states, including one in Austin, Texas (which would have built a light rail system in the Texas capital) and Greenlight Pinellas in Tampa, Florida, a project which ERA member Dennis Zaccardi has been following closely in recent months. Overall, transit propositions do well at the polls, since in the last three years over two-thirds of them passed and despite their hefty price tag earned support from voters.

BOSTON, MASSACHUSETTS

The Massachusetts Bay Transportation Authority (MBTA) is recommending that Changchun, a Chinese railcar builder, be the leading candidate to construct the next generation of subway cars for the Orange and Red Lines for \$556 million. MBTA intends to order 152 cars for the Orange Line and 144 cars for the Red Line with an option for an additional 50 cars, with deliveries slated to start in 2018 and continue into 2021. Changchun has stated that it intends to build its factory on the grounds of a former Westinghouse plant in Springfield, Massachusetts to construct the railcars. The Alliance for American Manufacturers, a national labor group, has criti-

cized Massachusetts Governor Deval Patrick for considering Changchun, claiming that this will place American companies across the nation at a disadvantage. (**Metro**, October 22)

Governor Patrick dedicated Boston's South Station as the "Governor Michael S. Dukakis South Station Transportation Center" in honor of his support and advocacy for mass transit in Massachusetts. It was through his tireless efforts that South Station underwent a total rebuilding in the 1980s while Dukakis was the Governor. He also played a critical role in promoting and expanding Boston's commuter rail network, having the foresight to realize its potential as an economic engine that would drive the region's economy. He was also heavily involved with the Coalition of Northeast Governors, pushing for improvements toward higher speed rail services on the Northeast Corridor. (*Editor's Note by Ron Yee: In terms of being included in the world's high speed rail services, Amtrak's Acela barely has a toe-hold in this elite club, topping out at "only" 150 mph only for a few short stretches in Rhode Island and Massachusetts.*) At age 81, Mr. Dukakis is still active in promoting rail mass transit, continuing to advocate the construction of a rail link between Boston's South Station and North Station, citing that as a more workable long-term solution than the current plans to simply expand South Station. (**Boston Globe**, November 10)

Member Todd Glickman provided an update on MBTA's HSP-46 locomotive order. Assigned to the north side are 2001, 2002, 2004, 2005, 2006, 2010, and 2012; and assigned to the south side are 2007, 2008, and 2013. HSP-46s in Worcester (P&W) for setup and as yet not delivered: 2009, 2011, 2014, 2015, 2016, 2017, 2020, 2021, and 2027 as of September, 2014. Units at Altoona for warranty work are: 2018, 2019, 2022, 2026, 2028, and 2031. Units are still enroute. All other locomotives of this order are either enroute or still at Boise, Idaho. (Todd Glickman, November 1)

After a two-year-long period of rebuilding, Alstom's Hornell, New York plant has released car 3614, the first of 86 Type 7 LRVs covered by a \$104 million contract with MBTA for total refurbishment. All 86 of the cars originally built by Kinkisharyo in 1986-7 are expected to be totally rebuilt by October, 2016. (**Hornell Evening Tribune**, November 18)

PHILADELPHIA, PENNSYLVANIA

SEPTA has made permanent its overnight "Owl" train services on the Broad Street and Market-Frankford Lines. Costing an additional \$34,000 each weekend (Friday and Saturday overnight periods), the 20-minute headway overnight service is viewed as a means to make the City of Philadelphia more attractive to the millennial generation, who are much more transit oriented than previous generations. Ridership has been steady at 15,000 each weekend without any increase in crime. Owl buses replacing trains continue to operate on the

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overnight periods late Sunday through Thursdays. Now that the weekend Owl train service is a permanent feature for the subway and elevated lines, SEPTA is looking at cost-reduction measures such as rearranging crew schedules to build this service into the regular job shifts. The concept of bringing aboard private sponsorships of this service is also being actively discussed with several interested parties. (*Philadelphia Daily News*, November 13)

SEPTA and TWU Local 234 came to an agreement, avoiding a potential strike. However, the two-year contract, which provides a 5% wage increase, simply postpones decisions regarding pension and health care contribution issues that will arise once again at the conclusion of this contract. (*Philadelphia Inquirer*, November 2)

WASHINGTON, D.C. AREA

Arlington County on November 18 pulled the plug on the Columbia Pike and Crystal City streetcar projects because of vocal opposition from county residents, a surprise decision that upended years of transit-focused planning and sparked sharp criticism from officials in neighboring Fairfax County.

The \$333 million Columbia Pike streetcar and an adjoining \$217 million Crystal City line had been hailed by advocates as the linchpin of redevelopment efforts along the congested pike and in Bailey's Crossroads in Fairfax County.

Northern Virginia officials secured state funding to cover as much as half the cost, and both Arlington and Fairfax spent years planning ways to attract housing, retail, and businesses along the areas that would be served. The project was approved multiple times by both the Arlington Board and the Fairfax County Board of Supervisors.

But the proposals stirred up a political firestorm in Arlington among residents who were increasingly skeptical of county spending on what they viewed as over-the-top municipal projects. In the end, county officials said, discord over the proposed streetcars became an obstacle to getting anything else done. The extent of the discontent was such that one Republican-turned-independent, defeated a Democrat in what is a liberal part of Virginia.

On November 17, citing the election results and continued opposition to the streetcar projects, Arlington County Board Chairman Jay Fisette announced at a press conference that the streetcar project was being scrapped. Several elected officials in the area issued statements of dismay with the decision. Among the project's supporters was Virginia's Governor, Terry McAuliffe (D).

The area is home to the 26-story Skyline Tower Apartments complex, which was approved during the early

1970s in connection with plans to bring in a Metro stop. Opposition from Arlington County caused the Metro stop not to be built.

It was only September when the Arlington Board awarded a \$26 million preliminary engineering contract for the streetcar project. With cities like Cincinnati and Washington, D.C. struggling with their streetcar systems, the fallback from the Arlington project could have a domino effect, although news from Atlanta is encouraging. (Washington Post via Al Holtz, November 18)

ATLANTA, GEORGIA

The 2.7-mile, 12-stop Atlanta Streetcar line is in the street testing phase of its cars. Opening day was originally scheduled for August, 2014 but as of November 20 has slipped back to December 6, 2014. The testing and certification period was expected to last 60-90 days before passenger service can start. The line is a loop with a car fleet of four Siemens S-70-class light rail vehicles. (Atlanta Streetcar website, November 10, 2014; *Atlanta Journal-Constitution*, November 20)

On the heels of a ballot win resulting in Clayton County joining the MARTA system, the Federal Transit Administration (FTA) has approved plans by MARTA for preliminary planning of a "Clifton Corridor" light rail transit line, which would be Atlanta's first LRT line.

The proposed line would link MARTA's Avondale station with Emory University and the Centers for Disease Control and Prevention (CDC), a distance of roughly 3.5 miles. Emory University has been a strong supporter of the concept, continuing to advocate for the line even after Atlanta voters defeated a proposed regional transportation tax last November, which included the Clinton Corridor. The necessity of such a project comes as the CDC plans to add up to 1,500 employees in the next decade, adding strain to local roads in that area.

FTA's go-ahead allows MARTA to launch a three-year environmental assessment. Cost estimates range from \$750 million to \$1.2 billion, depending in part on whether LRT is placed at grade or on elevated structures. MARTA will seek federal funding to cover half the capital cost. (*Railway Age*, October 30)

ORLANDO, FLORIDA

SunRail expects to begin construction of the 17.2-mile, \$174.3 million Phase 2 South, which will extend its operations to Poinciana in Osceola County. Florida DOT reported that 14 parcels of land along the right-of-way have been purchased with design of future stations and facilities to be completed in early 2015. Construction contracts are expected to be awarded in the Spring of 2015 with actual construction starting by late Summer, 2015. (Florida News 13, November 14)

SunRail's Ambassadors (platform attendants) returned to all 12 stations during the peak periods and at its four busiest stations all day with exception of the first and last trains. In addition to assisting customers with information and assistance with using the ticket vending ma-

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chines, they will also serve to insure all customers have valid tickets. *(Editor's Note by Ron Yee: Hopefully, they do not become "Jobsworths" poised to make railfan photography difficult much like they do at the AirTrain facilities of Newark and JFK Airports in the New York City area and at some railway stations in the United Kingdom.)* (Al Holtz, November 6)

DAYTON, OHIO

Two demonstrator trolley coaches produced by Vossloh Kiepe, which provided the propulsion equipment for bodies manufactured by Gillig, have arrived in Dayton, Ohio. The first vehicle arrived September 29 and the second arrived on November 5, 2014. They are diesel-electric dual-modes able to operate off the wire where the diesel generator provides the electrical power to the traction motors in a manner similar to a hybrid bus. Two additional demonstrator dual-mode trolley coaches are due in December but are equipped with batteries for off-wire operations. Both types will be evaluated by Dayton's RTA during a year-long trial period and the winning design will replace the current fleet of 57 Electric Transit Incorporated (ETI) vehicles built by Skoda during 1995-9. (Daytontrolleys.net, November 10)

CHICAGO, ILLINOIS

With 550 of the contracted 714 cars of the 5000-series rapid transit cars now in service on the Chicago Transit Authority's subway and elevated system, the last of its 1976-vintage 2400-series subway/elevated cars were retired from passenger service on Friday evening, October 31, 2014. They had run out their last miles on the Orange Line to Midway Airport. Around 24 of these cars will soldier on in work train service. (CBS Chicago, November 3)

CTA has released two videos showing the Train Operator's views of the tracks and right-of-way ahead for a northbound as well as southbound run over its Red Line between the Howard and 95th Street-Dan Ryan stations. The videos are posted at <https://www.youtube.com/watch?v=NPeco8tW7Tc&feature=youtu.be> for the northbound run and <https://www.youtube.com/watch?v=M5ZYZrrj2IA&feature=youtu.be> for the southbound run. (**CTA Connections**, November 11)

Metra has spent the past few months bolstering its winter preparedness in light of its woes from this past winter. For the long term, there is a \$2.4 billion plan to acquire 52 new locomotives and 367 new coaches and renovate 85 locomotives and 455 coaches. In the interim, three F-59-PH locomotives have been purchased from GO Transit and are due to arrive in early 2015 with four used coaches expected to be in service by December. Seven additional used coaches should be running by the end of the winter. Metra has retrofit 50 of 200 older gallery coaches whose doors have proven prone

to ice jams, delaying service during the snow season. Additional switch heaters were added to the Western Avenue Coach Yard to insure more reliable access to and from the yard for equipment that needs servicing. Three new cold air blowers were added to Metra's snow fighting abilities to literally blow away built up snow and ice with 525 mph blasts of cold air that will not heat and melt it so it ends up re-forming as even more packed ice. Improved communications via internet media such as its Rail-time Tracker as well as improved customer communications at all train stations and terminals should go a long way toward keeping Metra's customers up-to-date on the status of the trains they intend to ride. (**Chicago Tribune**, November 13)

The Board of Directors at Metra approved an across-the-board fare increase averaging 10.8% to take effect in 2015. While Metra has worked to control costs, implementing various measures to control and reduce costs such as a renegotiated agreement with the South Shore Line in Indiana, reductions in employee health care costs, maintenance and security costs, the \$27.3 million from this fare increase will go toward filling a funding gap caused by rising employee wage and operating costs as well as to modernize its car fleet. (**Chicago Tribune**, November 14)

MINNEAPOLIS-ST. PAUL, MINNESOTA

Ridership has dipped on the five-year-old Northstar commuter rail line linking Target Field downtown with the Twin Cities' northern suburbs as its reliability has fallen with on-time performances falling from a high of 97% in 2012 to 66% in 2014. Despite a \$1 fare reduction and a coupon campaign offering free rides, average weekday ridership has fallen around 8%, from 2,783 riders in 2012 to the current 2,550. Metro Transit, which operates the Northstar commuter train service as well as the two light rail lines, cited increased freight train traffic on the BNSF rails the trains operate on as the primary reason for the increase in delays to Northstar trains. BNSF has worked with Metro Transit to take measures that will reduce the amount and severity of the delays, including switch covers to reduce service disruptions stemming from ice and snow buildups, replacing 60,000 ties and 13 miles of rail and adding "rapid response" mechanical and maintenance staff to more quickly resolve issues on the line. In the long term, double-tracking of key sections of the line should facilitate Northstar train movements. Proving the point that rail transit lines are a proven magnet for development, the communities along the line have continued to experience a real estate boom centered on several transit-oriented developments, despite this temporary setback with the service. (**Star Tribune**, November 15)

DENVER, COLORADO

The first four EMU cars for FasTracks, Denver's future commuter rail service, were shipped out of the Rotem

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Commuter and Transit Notes*(Continued from page 13)*

plant in Philadelphia and were due to arrive in the Mile High City by November 17, 2014. The car shells were manufactured at Hyundai Rotem's plant in South Korea and shipped to the Rotem plant in Philadelphia for final assembly and fittings. These EMU cars are very similar to SEPTA's Silverliner Vs, except that they are designed for high-level platform operations and will operate at a maximum of 79 mph. Service on the first of four Fastracks lines linking Denver International Airport with downtown Denver is slated to begin in 2016. (CBS Denver, November 13)

DALLAS, TEXAS

A private company's plans to connect Dallas and Houston with a 90-minute high-speed train ride is prompting Dallas Area Rapid Transit to fast-track plans for increased transit options downtown.

The region's largest transit agency is working on a three-pronged approach to increase rail lines, streetcar routes, and downtown train capacity by 2021, when Texas Central Railway's trains could arrive in Dallas.

And DART now has something that has long eluded it in dramatically expanding downtown service: a rough financing plan that officials believe could turn the \$983.4 million in projects into reality. But a key component currently missing is Texas Central Railway's decision on the location of its Dallas station. Project leaders state that planning cannot begin on the DART end without it.

The Dallas City Council's Transportation Committee gave DART the green light to pursue an ambitious expansion of downtown transit to make way for high-speed rail. DART aims to complete the project by 2021, the year that Texas Central Railway hopes to have 90-minute high-speed passenger rail service up and running between Dallas and Houston.

Officials and residents who attended a meeting about the high-speed rail project last month unanimously favored a downtown terminus. However, the downtown terminus could prove tricky if Texas Central chooses an I-45 routing, which would make transit connections almost impossible.

Texas Central is expected to pick an end point by the end of the year, although delays are expected. Even if it is delayed, DART is moving forward with the first part of three-phased approach downtown.

The first plan is a \$184.4 million project that would lengthen 28 stations so DART can add a third car to trains. Currently all Red and Blue trains are currently limited to two cars because stations outside of downtown cannot handle longer trains.

The next two additions to expanded downtown service include installation of the first phase of a second light rail track and expansion of the city's streetcar line, expansions that have been requested for a while now. The first phase would connect Victory Station to Union Sta-

tion with an underground line. It would cost about \$706.8 million.

The city next year plans to open a streetcar line from Union Station to Oak Cliff. DART's downtown expansion plans call for extending that line through downtown and connecting it with the M Line trolley that serves Uptown. That would cost about \$92.2 million.

The key to getting those two pieces in place is securing a \$400 million federal grant. Agency officials say it is hard to predict the likelihood of getting the grant and pinpoint how much they could garner because federal officials are still developing guidelines. DART has been described as a "guinea pig" for the grant program. The goal is to keep the momentum up so all the pieces are in place if high-speed trains arrive as hoped. Clearly Dallas and the Texas Central Railway have a firm clue on what intermodal transportation is. (*Dallas Morning News* via Al Holtz, November 10 and *NARP Headline News*, November 14)

SAN FRANCISCO, CALIFORNIA

Caltrain marked the tenth anniversary of its *Baby Bullet* commuter train service. It reduced travel times between San Jose to San Francisco from 90 minutes to less than 60 minutes, the service attracting an increasing number of riders. A victim of its own success, daily weekday ridership has gone from 24,000 to over 61,000, prompting Caltrain to purchase additional Bombardier-built coaches second-hand from Metrolink Los Angeles to supplement its fleet. With ridership expected to exceed 70,000 daily weekday riders, electrification of the line is being seen as the only viable long-term solution through the Caltrain modernization program. (Bay Meadows-San Mateo, October 27)

BART opened its Oakland Airport connector service on November 22, 2014, just in time for the Thanksgiving holiday travel period. The 3.2-mile driverless rail system will have four three-car trains pulled by cables, making the trip between the Coliseum BART station and Oakland International Airport in less than 9 minutes. Headways will be five minutes 8 AM-8 PM, ten minutes 6 AM-8 AM and 8 PM to 10 PM, and 20 minutes during early morning and late evening hours. Fares will be \$6 in addition to the usual BART fare to the Coliseum station, with sample fares ranging from \$10.05 from downtown San Francisco to \$7.85 from downtown Oakland. (*San Francisco Chronicle*, November 7, 2014)

BART's planned six-mile extension of its Fremont Line to San Jose may lose two stations and a maintenance yard and facility in an effort to reduce the cost of the line by \$1.3 billion. The two stations were to be located adjacent to Santa Clara University and at 28th Street near Highway 101 and the planned Newhall maintenance facility would become a minor yard just to turn trains around. (*Inside Bay Area News*, November 3)

16 of San Francisco's Municipal Transportation Agency's (SFMTA-MUNI) PCCs, which have served on the F

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Commuter and Transit Notes*(Continued from page 14)*

Line for around 20 years, will be rebuilt for \$34.5 million by Pennsylvania's Brookville Equipment, adding another 20 years to their lifespans. 13 of them are 1947-vintage single-ended cars that had been acquired from SEPTA and rebuilt by Morrison-Knudsen in 1993. The balance of the order will rebuild three of the 1948 double-ended cars originally owned by MUNI. The first car to be sent will be car 1056 in Kansas City colors as it has been out of service since 2011 with a cracked bolster. All cars will receive new propulsion systems and rebuilt trucks, traction motors, and foot pedal assemblies, as well as an upgrade to a Brookville-designed disc braking system. Car bodies, seats, flooring, and stanchions will be restored and the interior and exterior surfaces will be refinished. All work is expected to be completed by 2020 and comply with the Buy America Act. This marks the second time MUNI has contracted with Brookville to rebuild portions of its PCC fleet. That contract had restored 12 single-ended PCCs and four double-ended PCCs during the period 2004-12. Added to that 16-car order was a 17th car, MUNI streetcar 1, originally manufactured in 1912. (Brookville Equipment; **Railway Age**, September 24; and Al Holtz, November 10)

MUNI also returned cable car 1 to service, following a full rebuilding and restoration effort that lasted two years. The car has been restored as closely as possible to its original 1888 appearance, retaining its maroon with sky blue and white trim exterior livery and the marking the return of classic touches such as roof destination signs at each end of the car and conical caps on the roof, which once served as vents for the kerosene lamps lighting the interior of the car. (Al Holtz, November 17)

LOS ANGELES, CALIFORNIA

The Expo Line and Gold Line extensions may be physically complete by Summer, 2015 and September, 2015 respectively, but there is a good possibility that both lines may not be able to open for service due to a shortage of cars caused by delays in their delivery on account of a dispute with the original car builder, Ansaldo-Breda, which had a tentative contract to build the new cars that was never executed by the Los Angeles Metro Board. Kinkisharyo was hired as a replacement supplier for railcars. Alternatives range from postponing the opening dates until a sufficient number of cars are available to cover the services or operating trains on those lines on less than 10 minute headways, with a possibility of headways as long as 30 minutes, an unworkable alternative that would drive away ridership from the overall system. Kinkisharyo delivered a test car to Metro on October 17 for testing with several more cars to come. However, it is expected that all 78 cars would not be delivered until January, 2017, 16 months

beyond the completion dates of the actual lines. Internal memoranda have indicated that LA Metro was investigating the acquisition of 30-year-old light rail cars from St. Louis that are currently surplus. (**San Gabriel Valley Tribune**, November 3)

Los Angeles Metro broke ground for a nearly nine-mile extension of the Purple (rapid transit subway) Line to West Los Angeles that will be accomplished in three stages. Phase one will extend the line 3.9 miles from the Wilshire and Western terminus into Beverly Hills with three stations at Wilshire/La Brea, Wilshire/Fairfax, and Wilshire/La Cienega with a completion date of 2023. Phase two will extend the line two more stations to the Wilshire/Rodeo and Century City stations by 2026 and phase three will extend the line to two more stations at Westwood/UCLA and Westwood/VA Hospital in 2035. (**Metro**, November 7)

HAWAII

Maui's Sugar Cane Train, a popular tourist attraction formerly operated by the Lahaina Kaanapali and Pacific Railroad, may return to passenger service with funding provided by a consortium of community leaders and Craig Hill, a West Maui businessman who bought the line just days before the tracks were to be removed. Efforts to restore the equipment and tracks are underway and it is hoped that service can be restored in a few months. (**Lahaina News**, November 6)

MONTREAL, QUEBEC, CANADA

AMT, the operator of Montreal's commuter rail services, expects to commence service on its Mascouche Line on Monday, December 1, 2014. This is a new 32-mile line on CN trackage with services originating at Central Station and proceeding from downtown through the Mont Royal tunnel. The new line splits away from the electrified Deux Montagnes Line at the Ahuntsic station and heads east and northeastward toward Repentigny, then enters newly constructed track along Quebec Autoroute 640 to Terrabonne before linking up with existing CP trackage to Mascouche. This is one of two lines that the dual powered ALP-45-DP dual-powered locomotives were purchased for. The mode change will be performed at Ahuntsic. 11 of the 13 stations on the line are expected to open in December, with the last two stations, Sauve and Pointe-aux-Trembles, opening in May, 2015. (AMT Website, November 5)

TORONTO, ONTARIO, CANADA

The \$2.2 billion, six-station extension of the Spadina (subway) Line from the current terminus at Downsview Airport to the new one at Vaughn Transportation Center will not open as scheduled in Fall, 2016, a date already reflective of construction delays. Issues including a worker fatality have bogged down the primary contractor's and numerous sub-contractors' pace of construction. Many questions have been raised by politicians as well as transit experts regarding the practice of award-

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Commuter and Transit Notes*(Continued from page 15)*

ing contracts primarily based on cost on a lowest bid basis and not considering their track record or experience level on previous projects. Contracts do not have incentive clauses to reward timeliness. TTC is now exploring measures to mitigate the delays by possibly opening up portions of the line that are ready as scheduled while the portions farther north are postponed. On another front, TTC received new light rail car 4404 in November following delays stemming from both a labor strike at the Bombardier plant in Thunder Bay, Ontario and quality control and performance issues that have arisen with the two cars already in service on the 510/Spadina Line, 4400 and 4403. A total of 204 “Flexity Outlook” cars have been ordered. (*Toronto Star*, November 5)

MEXICO

Bids for Mexico's first high-speed rail project have been reissued following the November 6 cancellation of a 50.8 billion pesos (US\$3.7 billion) contract to a consortium including China Railway Construction Corporation and CSR to construct a 210-kilometer (130-mile) high-speed line between Mexico City and Querétaro.

SCT said that the decision to hold a new competition would enable tendering to be undertaken over a longer timescale, possibly encouraging a larger number of rolling stock manufacturers to participate. A fresh competi-

tion would “strengthen the absolute clarity, legitimacy and transparency” of the process.

Secretary of Communications and Transport Gerardo Ruiz Esparza reiterated that the now-canceled competition had met all legal requirements. However, President Enrique Peña Nieto was anxious that there should be “not the least doubt” over a project of such importance and promising so many benefits for Mexico. (*Railway Gazette*, November 7)

UNITED KINGDOM

Passenger operations began on the 14.5-kilometer extension of Manchester's Metrolink light rail extension from St. Werburgh's Road to Wythenshawe and Manchester Airport on November 3, more than a year ahead of schedule.

Services operate at 12-minute intervals between the airport and currently terminate at Cornbrook, where passengers can change onto services into the city center. However services from the airport will be extended into the center of Manchester when the Second City Crossing is completed in 2017.

The airport line has 15 stations, including a 300-space park-and-ride facility at Sale Water Park, which is located near the M60 highway.

The opening of the line was marked with a visit from the British Chancellor of the Exchequer George Osborne, who announced that central government powers for transport investment will be devolved to the city of

*(Continued on page 19)***Around New York's Transit System***(Continued from page 20)*

65,000 square feet of space to house a multitude of retail establishments. However, during the first week of operations, one of the ten escalators and two of the 15 elevators failed with repair crews unable to quickly rectify the problems. NYCT is responsible for the maintenance of three of the ten escalators and seven of the 15 elevators. It is not clear which ones are the ones that have failed.

Night Subway Map Reissued

MTA-New York City Transit re-issued its night subway map October 6, 2014, printing 100,000 copies for distribution at stations all around the system. The most notable change is the restoration of overnight **N** service via the Montague Tunnel which had been closed 13 months for repairs to flooding damages wreaked by Hurricane Sandy.

Drill Bit Punctures Tunnel

A ten-inch-wide drill bit being used to expand a well associated with the LIRR East Side Access project instead punctured the tunnel roof of the 63rd Street Tunnel and clipped, then skittered along the side of, a passing **F** train made up of R-160 equipment on Thursday, October 30, 2014. Very fortunately, the drill bit did not

puncture any of the cars it struck or made contact with, but it forced an evacuation of passengers to the nearby 21st Street station.

Settlement in Case of People Trapped Aboard Train

Want to earn \$250 an hour? Get marooned aboard a NYCT subway train trapped in a blizzard. That is how much 38 of approximately 500 riders who filed a lawsuit after they were stranded aboard an unheated, powerless train for ten hours in December, 2010 without food or water who filed a lawsuit for the mishandling of their situation will receive. After haggling with MTA over a monetary amount, the figure of \$2,500 was paid to each of the 38 plaintiffs.

Winter Preparedness Plans Activated

NYCT and Staten Island Railway have activated their updated winter preparedness plans for the upcoming winter season. At NYCT, there are eight new R-156 locomotives and 79 revenue trains equipped with special “scraper” third rail shoes to reduce icing on the third rails as well as ten snow throwers, eight de-icers, four jet-blowers, 61 locomotives, and 22 rider cars, which are insulated, heated work crew cars equipped with scraper third rail shoes. Signal equipment on almost 220 miles of outdoor track has been winterized, especially on the Rockaway, Sea Beach, Brighton, and Dyre Avenue Lines.

TRACTION TOUR TO SOUTHERN EUROPE

by Jack May
(Photographs by the author)
(Continued from November, 2014 issue)

On Tuesday, April 23, Clare would continue her exploration of Barcelona while I would travel with Phil Stevenson to visit the brand new light rail system in Zaragoza. In order to accomplish this efficiently we had to ride a 7:05 high-speed AVE train from the Sants station. I had inquired about whether there were any restrictions on entry and egress for passengers on the *Eurodam* and was told there would be no problem, but I took no chances and so awoke at 5:15 and left the boat at 5:45 (without breakfast). Unlike the previous day there were no taxis waiting at the gangway, but I found one at 5:52, and it took me to Drassanes, where I rode on one of the first L3 Metro trains of the morning for the five-stop ride to the Sants station (6:00-6:10). Thus I had plenty of time to grab a breakfast snack, having arrived almost an hour before our train's departure at 7:05.

I had not wanted to buy the tickets from Rail Europe, as it never quotes the lowest promotional fares and adds too many extra charges to the fare, but in using the RENFE (Spanish National Railway Network) website I found I could not get past entering my credit card number. I eventually got e-tickets from a company called Petrabax in Woodland Hills, California, which specializes in tourism to Spain, at a rate close to what was quoted on the RENFE site. There are three levels of service on most RENFE High-Speed rail trains, Turista, Turista Plus, and Preferente. Turista is equivalent to Coach (*Acela* Business), with 2-and-2 seating, while Preferente is like First Class, with 2-and-1 seating and includes free meals and wine, with a cost of about 30 percent more. Turista Plus has Preferente seating, but with no free meals or wine, and is only a few Euros more than Turista. I was able to buy Turista Plus tickets for our outward journey, but had to settle for Turista on our return.

The run from Barcelona Sants to Zaragoza Delicias was swift and comfortable, and we arrived on time at 8:28. We did the approximately 200 miles in 83 minutes, for an average speed of 144 mph, which included stops at two way stations. The annunciator in our coach indicated that at times we were traveling at a speed of 320 kph (200 mph). It was a smooth and comfortable trip. The number of passengers aboard our train, however, was remarkably few, even though one would think that this run would give businesspeople a full day in Zaragoza, or in its eventual destination, Madrid. I had not realized Spain's economy was that bad.

Zaragoza's new tramway does not operate near the AVE station, which is on the outskirts of the city. As a result we would have to transfer to a regional train for

the five-minute run to the Goya station, which is adjacent to the light rail tracks. That did not go as planned, as we ended up boarding a train going in the opposite direction. With the regional service being relatively infrequent, we were quite lucky, as when we got off at the next station, Utebo, there was a return train only about 15 minutes later. Thus instead of arriving at 8:53, we reached the center of Zaragoza at 9:31. We easily found the tracks running along the Paseo Gran Via, downtown Zaragoza's main street. But we now had another disappointment, as the platform annunciator did not show the next tram coming for another 12 minutes. How could service be so bad on a weekday? As it turned out, Tuesday, April 23 was a holiday, Aragon Day. Now we understood the lack of patronage aboard our AVE.

Service would be running on a Sunday schedule of only every 15 minutes. But because of events downtown, specifically involving the promotion of reading and the sale of books, which is a tradition for this holiday, at about 11:00, headways would be cut to every 10 minutes for the next three hours. This would be a great improvement on this beautiful Kodachrome day. We also discovered there were no day tickets, and we would have to buy single, smart card-type tickets from vending machines. Fortunately they were cheap and valid for one hour. Because of the need to be absolutely sure I would be able to make the sailing time of the *Eurodam* at 18:00, we would be returning on the 14:32 AVE, so we only had about 4 hours to do our work.

Zaragoza has a population just short of 700,000 and its new tramway consists of a single, 8-mile-long line with 25 stops. It opened in pieces from April 19, 2011 to March 26, 2013, less than a month before our visit. Rolling stock consists of 25 CAF Urbos 3 LRVs, which would be our first opportunity to sample these cars, as they have been ordered for Houston, Cincinnati, and Kansas City. The entire line is separated from motor traffic, mostly on central reservation, although the southern end has operation through a long loop via one-way streets. I found that one of the most interesting aspects of the line is the naming of stations on its southern end. The last three carry the titles of MGM musicals: Cantado Bajo La Lluvia, Un Americano en Paris, and Mago de Oz. (I suspect you can do the translation.)

We first rode northward through deserted streets to the outer end of the line at Avenida de la Academia, in an area surrounded by new apartment buildings, and

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Traction Tour to Southern Europe

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then worked our way back, stopping for a few photos in barren, dune-like areas, which no doubt will eventually be developed. By the time we reached downtown again, the main street was teeming with people, as the celebration of Aragon Day was at full strength. Corresponding with the feast of St. George, the patron saint of the province, the festival featured a book fair with vendors selling new and used publications, along with readings by authors and street performers entertaining the crowds.

Now, with the cars running more frequently, we were able to get a great many photos on this cloudless, blue sky day. We then worked our way to the southern end of the line, stopping off at the carhouse, where we were able to shoot over a fence into the storage yard.

We got back to the underground Goya station, which, by the way, was built as part of the light rail project, a little before the departure of the 14:11 train, which got us to Declicias at 14:16, in plenty of time to catch our 14:32 AVE back to Barcelona. Arrival at Sants was on time at 16:06 and I headed back to the *Eurodam*, where Clare was waiting in our stateroom. It was an excellent day.



Two views of the AVE in Zaragoza's Delicias station, where there was sufficient light to photograph with ASA 100 Fujichrome. RENFE's high-speed trains certainly have a modernistic look.



Paseo Gran Via, Zaragoza's principal street, is a busy pedestrian Rambla through the city center with tram tracks on either side and occasional statuary.



The sign at the entrance of the company's offices and carhouse. Tranvia is Spanish for streetcar or tram.

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Traction Tour to Southern Europe

(Continued from page 18)



A view of LRVs laid up for the holiday at the carhouse from the tramway's right-of-way.



Two cars pass each other at the Argualas station, near the carhouse.



Views at the northern end of Zaragoza's attractive downtown area. There is no overhead wire in the "old city" and therefore the pantographs of the LRVs have been lowered. The cars operate over about 1¼ miles of unwired track between La Chimenea and Gran Via using electricity stored in their supercapacitors. This is the proprietary "Rapid Change Accumulator" system developed by CAF and joins two other Alstom-developed systems in commercial use. A strip embedded between the rails of each track at the 4 intermediate stops is electrified only when a car is resting above it. The LRVs capacitor is then charged sufficiently to permit the vehicle to proceed to the next stop. Thus the propulsion source is carried on the cars, much like the system in Nice, where batteries drive the trams where the tracks are free of catenary. But in another manner the concept shares technology with the APS system on several tramways in France, where the power source feeding the vehicles is only active when it is entirely covered by the cars, thereby preventing what could be fatal electric shocks to pedestrians.

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Commuter and Transit Notes

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Manchester. Under the plans Metrolink will come under the powers of the city's elected Mayor, supporting the rollout of contactless smartcard ticketing system.

Transport for Greater Manchester (TfGM) says the move will also enable it to implement the £350 million, 5.5-kilometer Metrolink extension to Trafford Park "as a priority."

Eurostar announced on November 13 at the unveiling of the first of 10 nearly 200-mph e320 high-speed trains on order from Siemens that it plans to purchase an additional seven trains — the two parties are now negoti-

ating terms for a contract.

The livery and the interior of the new trains have been designed by Pininfarina, Italy. Eurostar says that despite having 900 seats, a 20% increase from the current rolling stock, passengers will have more room. All passengers will have access to free Wi-Fi and power sockets.

The first of the trainsets are undergoing tests and will start to enter service between London, Paris and Brussels at the end of 2015. They are part of £700 million investment program that includes the refurbishment of the existing fleet. (*International Railway Journal*, November 13)

Around New York's Transit System

Wi-Fi Installed in More Subway Stations

MTA announced that wireless service will be installed in several Manhattan and Queens subway stations. The 29 Queens stations and 11 Manhattan stations include Jackson Heights/Roosevelt Avenue, Jamaica Center, Court Square, Bryant Park/42nd Street, Herald Square/34th Street, Grand Central, and Flushing/Main Street. This is the second expansion of a \$300 million project. Wi-fi should be installed soon in Bronx stations and should include all 279 underground stations by 2017.

R-6 Car Is for Sale

The owner of an R-6 car, who is listed on eBay, would like to sell this car for \$24,000, but he has not received any offers.

When this car was out of service, the owner's relative bought this car and attempted to install it in his kosher deli in New Springville, Staten Island. Because it was too large, one end and the underbody equipment and

trucks were removed. The interior is still in good condition with the seats, ceiling fans, and hand straps still in place.

Diners must have enjoyed eating in an old subway car. After 30 years, Golden's Deli closed and the car was transported to a lot in Bushwick, Brooklyn. At the present time the car is stored on a lot near the owner's repair shop in Canarsie, Brooklyn. He hopes that he will find a buyer soon.

Fulton Transportation Center Opens

The long-awaited Fulton Transportation Center opened to the public at 5 AM on Monday, November 10, 2014. An official opening ceremony was held the previous day. Connecting **2 3 4 5 A C J R Z**, this center, known as Grand Central South, is expected to serve up to 300,000 customers per weekday. The \$1.4 billion, three-level center is equipped with around 50 display screens to carry advertising campaigns as well as have

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Five Queens Trolley Lines Quit 75 Years Ago

(Continued from page 1)

APPROXIMATE DATE	CAR NUMBERS	LINE
January, 1940	1, 3, 4, 7, 12	138 th Street Crosstown Harlem Shuttle Morris Avenue St. Anns Avenue
March, 1940	2, 5, 6, 8, 9, 10	Bronx and Van Cortlandt Park 180 th Street Crosstown
Spring, 1940	651-655	Southern Boulevard Tremont Avenue

Queensboro Bridge Railway was separated from Third Avenue Railway in 1941 and its cars were repaired in a small shop located just east of Second Avenue on the south side of the tunnel near the portal. In 1949, cars 531-536 were replaced by twenty-year-old cars from the New Bedford, Massachusetts Union Railway. Several years later, a bridge was built connecting the island with Long Island City and buses started serving the island. The Queensboro Bridge trolley, the last trolley in New York City, ceased operating in 1957. At the present time, **F** trains provide frequent service to Roosevelt Island.

Status of North American Transit Project Openings Scheduled for 2014

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DATE	AGENCY	CITY	TYPE	LINE	DETAILS
March	Dallas Area Regional Transit	Dallas, Texas	SC	Oak Cliff Streetcar	Dallas Union Station to Oak Cliff 1.6 miles, 4 stations
April 4	MTA Houston	Houston, Texas	LR	East End (Green) Phase I	Theater District to Altic/Howard Hughes 3.3 miles, 3 stations
April 4	MTA Houston	Houston, Texas	LR	Southeast (Purple)	Convention District to Palm Center 6.6 miles, 11 stations
July	VRE	Spotsylvania, Virginia	CR	Fredericksburg	Spotsylvania station opens

Key:
AGT—Automated Guideway Transit
CR—Commuter Rail

HR—Heavy Rail
LR—Light Rail
SC—Street Car

Not previously listed were the Green Line Cermak-McCormack station (closed September 9, 1977 and

demolished the following year), and the Fulton Street Transit Center, now just Fulton Center (June 24).