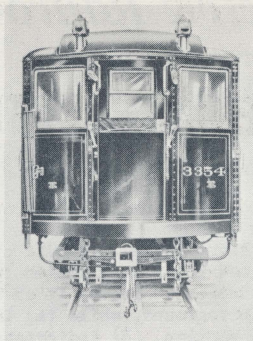
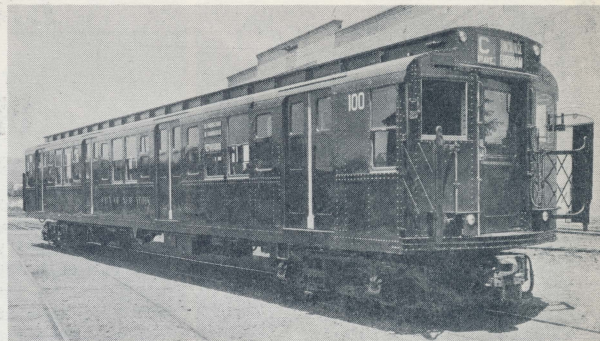


BMT Standard Car-67 feet long-1914



IRT 1st Steel Car-1905



IND Standard Car-60 feet long-1931

Electric Railroads

Number - 23

October 1954

NEW YORK



SUBWAYS

Fifty Years of Millions!

by
Herman Rinke

October 27th, 1904 might well be considered the second most important day in the history of the City of New York, second only to Consolidation Day, in 1898, when New York City, which up to that time had merely consisted of Manhattan Island and part of the Bronx, burst its seams and suddenly found its city limits encompassing the rest of The Bronx, the teeming former City of Brooklyn, the vast reaches of Queens, and the farms of Staten Island.

For on that October day in 1904, the first segment of New York's present sprawling subway network opened its entrance kiosks to the city's eager populace. The multitudes continued to push down the stairways after the opening day in such numbers that hardly a week had passed but that the city fathers and subway managers starkly realized that the cars did not have enough doors, the trains not enough cars, and the city not enough subways!

Thus did the rapidly growing metropolis suddenly and clearly foresee that much more subway construction was to come. And just exactly what did come is the subject of this publication. Fifty years have gone by, but few have been the years when subway construction was not in progress somewhere in the big town. It is going on currently and engineered projects can keep it humming for many years to come.

Daily Miracle

On that great October day, New York's population was 4.08 million, whereas today it has multiplied to a gigantic 8.1 million--more people living within New York's city limits than within the limits of any other city on earth. Without the subway network this would be an impossibility because a very large majority of the employed people earn their living on Manhattan Island, the smallest of the city's five boroughs, but 72.8% of them live in the Bronx, Brooklyn or Queens. Many work in Manhattan's skyscrapers. There are over 50 buildings over 30 stories tall, with the tallest 102 stories up. These tremendous beehives stand so close together, back to back, shoulder to shoulder, and in each other's shadows across narrow streets, that from the air they appear as a pile of models in a toy city shoved together in a corner by some irritated child. Nevertheless we know they are real. We know they are

filled every morning by hordes from the far reaches of the city's environs, while eight hours later the same hordes are returned to their local neighborhoods, or railroad stations if they are commuters from beyond the city.

From the same bird's-eye view, just how this daily miracle is accomplished is nowhere apparent. But there it is, out of sight, just a few feet underground, the busiest, safest, most costly railroad in all the world. No other form of transportation yet devised could perform this daily miracle than the multiple-unit electric trains which run under the streets, under the rivers, under the buildings and under each other, carrying 2500 people (and three employees) per train, 30 trains per hour per track.

"Fifty Years of Millions" is not just a catchy title but a hard-to-comprehend fact. "Millions" is an oft used word in subway lore ---millions of dollars of construction cost; millions of train-miles per year; millions of passengers, not per year, month or week, but millions per day! The entrance turnstiles faithfully gobble up over four million little tokens, (at 15¢), on 5 days per week, but this causes no wonder in the minds of the denizens of New York, where bigness is a virtue, the unbelievable is a fact and an oddity is a norm.

New York Not First

To be sure, New York's was not the first subway in the world. The London Underground started operating past Sherlock Holmes' Baker Street on January 10th, 1863, and its trains were pulled by steam engines while waiting for electric traction to come along. Nor was New York's the first subway in America, for seven years earlier Boston began operations

ELECTRIC RAILROADS

is an occasional feature publication which is devoted to the story of one electric railroad property in each issue. It is distributed free for one year to E.R.A. members in good standing. Otherwise it is sold individually at the price stipulated for each issue.

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New York 6, New York

in its Tremont Street subway, first with street cars to remove them from the traffic of the narrow, twisting downtown streets, and in 1901 with subway-elevated trains. Other cities in the western hemisphere that have subways today are Philadelphia, Chicago, Buenos Aires and Toronto, while the cities of the eastern hemisphere that boast of subways number twelve.

Financed By The City

Almost all rapid transit construction since 1900, as well as the rebuilding of portions of the Brooklyn "L" system for subway train operation has been paid for by the City of N.Y. All new lines opened to the public from 1904 through 1931 were turned over to two private companies for operation, namely, the IRT, or Interborough Rapid Transit Co., and the BMT, or Brooklyn-Manhattan Transit Corp. The lines of the former mainly serve The Bronx and Manhattan, have a Y-shaped extension in Brooklyn and the single Flushing line in Queens. The latter's system mainly serves Brooklyn and Queens and has three loops passing through Manhattan below 60th street.

The first construction and operation agreement was between the City and the I.R.T. which resulted in the opening of 50 years ago. This route soon revealed the need for many more and on March 19th, 1913, the "Dual Contracts" were signed binding the City, the IRT and the BMT in what the Brooklyn Daily Eagle described as "the largest transit deal ever made by any city in the world". It provided for additional lines and extensions throughout the city, the operations of which were to be divided between the two companies.

In 1925 construction was begun on a third subway system. These lines when completed were not transferred to private operation, but have remained continuously under non-private operation. Hence, at first, when operating separately and to a large extent in competition with the IRT & BMT companies, it was called the Independent City-owned Subway, or IND. In contrast with the IRT & BMT, its routes are more evenly distributed throughout the four boroughs.

Text - continued on Page 3
Tabulations - begin on Page 2
Route Map - Pages 4 & 5

OPENING DATES

SPECIAL NOTES

- Name of Line:-** Not necessarily the official one, but the one by which it may be most easily followed on the map.
- Portion of Line:-** Not the exact portion placed in public operation, but, for quick location on the map, each new portion is listed by the names of the nearest stations. (U) next to the station indicates it as being underground although the portion of line is aboveground, while (A) indicates the station as aboveground on an underground portion. (S) indicates the station as being on an "L" structure although the portion listed is on the surface.
- Type of Line:-** C - Open Cut; E - Raised fill or embankment; L - Elevated Structure (virtually all are over public streets); R - Private surface right-of-way. S - Subway
- Tracks:-** The number indicates how many tracks constructed into the main body of the portion indicated. It does not include sidings, storage tracks etc., but does include express or middle tracks if in existence, whether in use or not by regular trains.
- Opening Date:-** This indicates the date regular service began for the public. It is not the date of (a) the first test train, or (b) "official" opening by Mayor etc. Both events were sometimes held several days before public opening. With less than a dozen exceptions the dates came from two sources--Commission reports and the daily newspapers, which were checked against each other.

IRT DIVISION

Name of Line	Section of Line		Type of Line	Length in Miles	Tracks	Opening Date	Foot Note
	From	To					
Original Route Opened	City Hall Loop	Brooklyn Bridge	S	.1	1	Oct. 27, 1904	1
"	Brooklyn Bridge	Broadway & 96th St.	S	6.5	4	"	
"	Broadway & 96th St.	" & 145th St.	S	2.5	3	"	2
B'way-Van Cortlandt Pk.	145th Street	157th Street	S	.6	2	Nov. 12, 1904	
"	157th Street	Dyckman Street (A)	S	2.1	2	Mar. 12, 1906	
"	Dyckman Street	215th Street	L	.8	3	"	
"	215th Street	225th Street	L	.4	3	Jan. 14, 1907	
"	225th Street	242nd Street	L	1.2	3	Aug. 1, 1908	
Lenox Ave.-White Plns.Rd	Broadway & 96th St.	Lenox Ave. & 145th St.	S	3.0	2	Nov. 23, 1904	
"	Lenox Ave. & 135th St.	Jackson Avenue (A)	S	1.1	2	July 10, 1905	3
"	149th St. & 3rd Ave. (El Station)	180th St.-Bronx Park	L	3.2	3	Nov. 26, 1904	3
"	177th Street	219th Street	L	3.4	3	Mar. 3, 1917	
"	219th Street	238th Street	L	1.1	3	Mar. 31, 1917	
"	238th Street	241st Street	L	.4	3	Dec. 13, 1920	
Brooklyn	Brooklyn Bridge (Man.)	Fulton St. (Manhattan)	S	.3	2	Jan. 16, 1905	
"	Fulton Street	Wall Street	S	.2	2	June 12, 1905	
"	Wall Street	South Ferry	S	.5	2	July 10, 1905	4
"	Bowling Green	Borough Hall (B'klyn)	S	1.6	2	Jan. 9, 1908	
"	Borough Hall	Atlantic Avenue	S	.9	4	May 1, 1908	
"	Atlantic Avenue	Utica Avenue	S	2.8	4	Aug. 23, 1920	
"	Utica Avenue (U)	Junius Avenue	L	1.9	2	Nov. 22, 1920	
"	Junius Street	Pennsylvania Avenue	L	.4	2	Dec. 24, 1920	
"	Pennsylvania Avenue	New Lots Avenue	L	.6	2	Oct. 16, 1922	
Nostrand Avenue	Franklin Avenue	Flatbush Avenue	S	3.0	2	Aug. 23, 1920	
Seventh Avenue	Times Square	Pennsylvania Sta.	S	.4	4	June 3, 1917	
"	Pennsylvania Station	Chambers Street	S	2.6	4	July 1, 1918	
"	Chambers Street	South Ferry	S	1.0	2	"	5
"	"	Wall & William Sts.	S	.8	2	"	
"	Wall & William Sts.	Borough Hall	S	1.5	2	Apr. 15, 1919	
Lexington-Jerome Aves.	Grand Central	125th Street	S	4.2	4	July 17, 1918	
"	125th Street	138th St.-Gd.Concourse	S	.7	2	"	
"	138th St.-Gd.Concourse	149th St. "	S	.4	3	"	
"	149th St.-Gd.Concourse(U)	Kingsbridge Road	L	3.8	3	June 2, 1917	6
"	Kingsbridge Road	Woodlawn	L	1.7	3	Apr. 15, 1918	
Pelham Bay Park	125th St.-Lex. Ave.	138th St.-Third Ave.	S	.9	2	Aug. 1, 1918	
"	138th St.-Third Ave.	Hunts Point Road	S	2.5	3	Jan. 8, 1919	
"	Hunts Point Road (U)	177th Street	L	2.0	3	May 30, 1920	
"	177th Street	Westchester Square	L	1.1	3	Oct. 24, 1920	
"	Westchester Square	Pelham Bay Park	L	1.3	3	Dec. 20, 1920	
Queensborough	Times Square	Fifth Avenue-42nd St.	S	.4	2	Mar. 14, 1927	
"	Fifth Avenue	Grand Central	S	.4	2	Mar. 22, 1926	
"	Grand Central	Vernon-Jackson Aves.	S	1.3	2	June 22, 1915	
"	Vernon-Jackson Aves.	Hunters Point Avenue	S	.3	2	Feb. 15, 1916	
"	Hunters Point Avenue (U)	Queens Plaza	L	.9	2	Nov. 5, 1916	
"	Queens Plaza	103rd Street	L	4.3	3	Apr. 21, 1917	
"	103rd Street	111th Street	L	.4	3	Oct. 13, 1925	
"	111th Street	Willetts Pt. Blvd.	L	.6	3	May 14, 1927	
"	Willetts Point Blvd.	Main St., Flushing(U)	L	.9	3	Jan. 21, 1928	
Dyre Avenue	180th Street	Dyre Avenue		4.0	2	May 15, 1941	7

Staten Island?

By now the reader has probably observed that no mention has been made of New York City's fifth but most remote borough - Richmond - best known as "Staten Island". This part of the city is separated from the rest by wide stretches of water, across the Upper Bay from Manhattan, and across The Narrows from Brooklyn, and thus it is obvious why the subways have never reached it. There is a local rapid transit line on Staten Island which runs the length of the island - 14.3 miles, but it is owned and operated by the Baltimore & Ohio R. R., one of the trunk line railroads that extends to Chicago & St. Louis.

Cost and Product

Since subway building began in 1900, the rapid transit lines of New York have cost well over a billion dollars, several times the cost of the Panama Canal! It has resulted in 133 route-miles of underground and 72 route-miles of above-ground lines having from 2 to 6 tracks; 249 underground and 154 above-ground stations of from 1 to 3 levels. All this money has been spent, all this network of lines has been dreamed, planned, designed, engineered, erected, dug out and tunneled through within the memory of any New Yorker seventy years old!

In addition to the above lines, the New York network also includes 36 remaining route miles of original privately built elevated train routes having 88 stations. Because they are of an earlier date, they are not tabulated herein, except when they are intermediate portions of the lines listed. Hence herewith is the grand total of present operations:-

	<u>Underground</u>		<u>Above-ground</u>	
	<u>Miles</u>	<u>Stas.</u>	<u>Miles</u>	<u>Stas.</u>
Since 1900	133	249	72	154
Before "	-	-	36	88

Total Route Miles - - - - - 241
Total stations - - - - - 491

The 36 miles of original "L" train route is but a small residue of the old "L" networks that once were spider-webbed across Brooklyn and Manhattan, but their stories and details are being left to subsequent issues of ELECTRIC RAILROADS.

Trend Toward Municipal Operation

For many years there had been strong agitation to have the City operate its subways, besides own them. The coming of the IND was a broad stride in that direction. Unification of all lines (including original "L" routes not built by the City but owned by the IRT and BMT) became a final reality in 1940, when on June 1st for the BMT, and June 12th for the IRT, the title to all lines passed from the private companies to the City and their operations became centralized under the City's Board of Transportation. The three formerly separate parts were thereafter controlled as the IRT, BMT, & IND Divisions of the New York City Transit System. More recently control passed from the City to the State of New York when the latter created the New York City Transit Authority. Ownership of the facilities is retained by the City of New York.

Construction History in This Issue

Just how all this came about and how it works is intended to be told in a series of these publications of which this is the first. Since we are hereby commemorating the Golden Anniversary of the opening of New York's first subway, your Editors have decided to devote this issue to the construction history of the entire subway network, from the beginning in 1900 to the present. This story is in itself one of tremendous magnitude and our bulletin herewith is painfully limited in scope. Hence there are included herein no (Continued on Page Six)

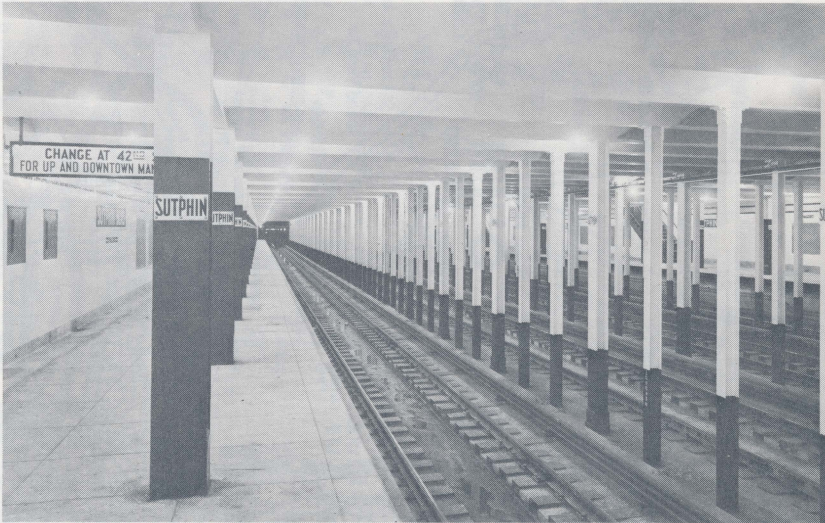
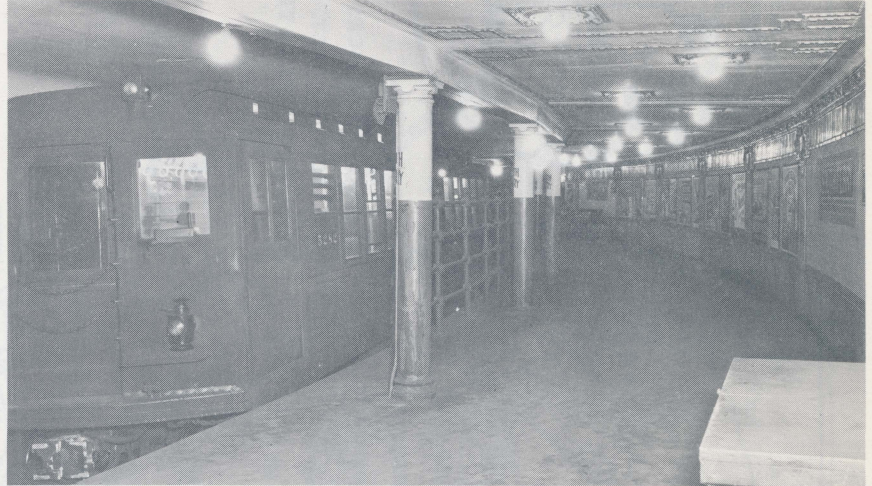


Before completion, City & company officials decided to have a look-see for themselves. Here they are starting off on hand cars from the ornate station on the City Hall loop..



Here's a better look at New York's fanciest station. Lack of patronage closed the station but trains still use loop.

IRT station on the South Ferry loop showing wall and ceiling decorations typical of the original IRT construction



Local station at Sutphin Boulevard on IND Jamaica Line. Near & far tracks for local trains Middle tracks for express trains.

Express station on IND Fulton St. line at Euclid Avenue on newest part of system. Each platform is an "island" between an express track, center, and a local track, against the walls.



YONKERS



SUBWAY SERVICES COVERING PERIOD
OCT. 1904 TO OCT. 1954 & ELEVATED
SERVICES OPERATED AS OF OCT. 31, 1954

★ SUBWAY SERVICES ELIMINATED



HAGSTROM'S Map of NEW YORK SUBWAYS

EXPLANATION

- IND LINES
- IRT LINES
- BMT LINES
- IND AND BMT LINES
- EXPRESS STOPS
- LOCAL STOPS
- FREE TRANSFER POINT
- ELEVATED LINES

Note: For legibility, all Streets and St. have been omitted.
Example: 42nd Street Station shown as 42 only

RICHMOND
STATEN ISLAND
Copyright by HAGSTROM COMPANY, INC., Map Makers
20 Vesey Street, New York



Type of tunnel in lines near surface. During construction street is dug out and later recovered. In deep, underground sections, horizontal tunneling is used. Express & local tracks for opposite direction are behind retaining wall.

(Continued from Page 3) rolling stock rosters, or portrait photos, no marker light listings, no route and service details, but merely a listing of what was built, when, where, and the size and type of line. The data appear on following pages in tabular form and in geographical groupings.

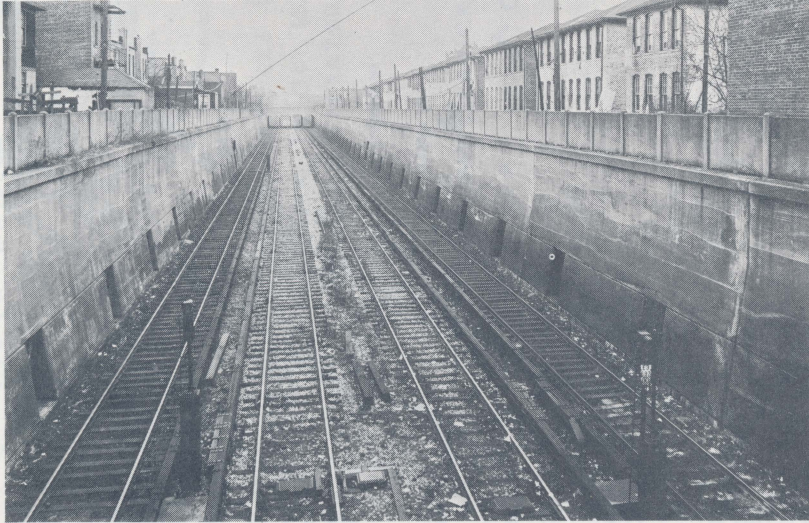
Original Opening
In the tabulation for the IRT Division, the first portion listed is designated as the Original Route Opened. This refers to the portion placed in public operation on October 27th, 1904. The unacquainted reader may have some difficulty tracing this route on the map (centerfold) since today that route does not exist as one piece. On the present map, that portion began at the City Hall loop near Brooklyn Bridge on the present Lexington Ave. line. It followed the present Lex. Ave. line to Grand Central. Then its four tracks turned abruptly west, under 42nd Street to Times Square and then turned abruptly again to head north under Broadway along the present B'way.-7th Ave. line to its destination at Broadway & 145th St. Today, the old route under 42nd Street is isolated from the rest, and is used for the operation of shuttle trains only, between Grand Central and Times Square. Meanwhile the original portion south of Grand Central, and that north of Times Sq. are parts of the Lexington Ave., and 7th Ave. lines respectively.

Staff
This publication is the result of committee action. The other nine members of the Rapid Transit Committee, which will continue this series, are as follows, in alphabetical order:
Joseph D. Forde
George Horn (Editor)
Russell Jackson
James Langan
Arthur Lonto
Arthur Philips
James ("IRT") Robison
Martin Schachne
Bradford Stiles

Things to Come
Exemplifying the earlier statement that rapid transit construction in New York seldom ceases, mention is hereby made of four new services, the construction for which is now in process; in addition to the imminent Culver Line change described in the tabular section.

(A) **Fulton Street, Brooklyn.** Through IND operation over the Fulton St. "L" to 119th St.-Jefferts Ave. via new ramp between the Euclid Avenue IND underground station and the 80th-Hudson Streets BMT "L" station.
(B) **Queens Plaza.** Through BMT-IND operation between the IND Jamaica line and the BMT's 60th Street tunnel to Manhattan via a new two-track underground connection.
(C) **Rockaway Park & Far Rockaway.** On June 11th, 1953, the City of New York took title to the Long Island RR's line to the Rockaways via Jamaica Bay. Replacement of the wooden trestle across the bay is in progress and construction is just beginning on the ramp to connect this line to the Fulton St. "L" just east of the 96th St.-Rockaway Blvd. station. This is the "L" line being connected to the IND Fulton St. line. (See (A) above). The new line will head southeast off the map at right. Some years ago, anticipating the city's purchase of this line, the Long Island R. R., during a grade crossing elimination program through the Rockaways, designed their new stations along rapid transit lines including future change booths and turnstile locations, meanwhile selling their tickets in temporary booths.
(D) **Times Square Shuttle.** Before the end of October bids will close and before the end of the year construction will begin on a passenger belt-conveyor to replace shuttle trains between Grand Central and Times Square under 42nd Street. Thus, just 50 years after its auspicious opening, this part of New York's first subway will get its start to be first for a second time -- the first public transit facility to move its seated passengers on a belt instead of on wheels! Who knows but that the success of this new method might portend the future conversion of all rapid transit from wheels to belts -- ? END

Open cuts are uncommon in NY's rapid transit. This scene is on the longest cut, the Sea Beach line from 59th St. & 4th Ave. to 86th Street



Mezzanine prepayment entrance, or "Control Point!" Passengers deposit token in a slot which unlocks its turnstile. View shows change booth, and separate exit gates to divide entering and leaving passengers. (IND--6 Ave. & 34 St.)



The original I.R.T. routes were marked by ornate but practical covered entrances, or "kiosks". Many still provide shelter from rain and wind. This one is at Times Square head before umbrellas can be opened

(Continued From Page 2)

IRT DIVISION Footnotes

- 1 From Brooklyn Bridge station to City Hall and back is a single track loop and the City Hall station, (illustrated elsewhere herein) is the most ornate in New York. However it is no longer open to the public, although Lexington Ave. locals operate around the loop without stopping in order to reverse their direction.
- 2 Due to a deep valley at that point, the 125th St. station on Broadway is on an elevated structure. The line emerges from underground at 122nd St. and returns underground at 135th St.
- 3 Before subway train operation was extended under the Harlem River to The Bronx from 135th St. and Lenox Ave., that portion of the new line between 149th St. & 3rd Ave., and 180 St. Bronx Park, was serviced by 3rd Ave. "L" trains reaching the new line via a connecting structure from the 149th St. "L" station. When through subway operation began, the trains emerged from underground beyond the subway's 149th St. & 3rd Ave. station, and ramped up to the already used structure near the Jackson Avenue station. The stub end of the line at 180th St. was shut down after August 4th, 1952 and the 0.2 mile structure demolished.
- 4 The South Ferry loop is double track and is accessible to both Lexington Ave. & 7th Ave. trains. The original station is on the outer loop and the inner loop was originally used for mid-day storage. The present station on the inner loop was added in 1918.
- 5 The South Ferry station on this portion is the same one described in the previous footnote.
- 6 This portion operated by shuttle service in advance of through Lexington Ave. train operation from Grand Central.
- 7 The Dyre Avenue line operates along the former right-of-way of the defunct N.Y. Westchester & Boston RR, an electrified suburban line extending to points beyond the city via two routes. The City of New York purchased that portion existing within the city limits for rapid transit use. Connecting tracks for through operation off the White Plains Road branch at 180 St. are completed but not yet in use. Although it is originally of 4 tracks, only two exist today. The character of the line varies with short adjacent portions of open cut, raised embankment and tunnel. The Pelham Parkway station is underground.

BMT DIVISION

Name of Line	Section of Line		Type of Line	Length in Miles	Tracks	Opening Date	Foot Note
	From	To					
Centre & Nassau Sts. Loop (Man.)	Essex Street (Delancey)	Canal Street	S	.8	4	Aug. 4, 1913	1
"	Canal Street	Chambers Street	S	.4	2	"	
"	Chambers Street	Connection to Tunnel, from Whitehall St. to Court St.	S	1.0	2	May 30, 1931	2
Manhattan Bdg.-So. Side	Chambers Street (U)	Myrtle Ave. (B'klyn)(U)	B	2.3	2	June 22, 1915	3
" -No. Side	Prince Street (U)	"	B	2.4	2	Sep. 4, 1917	3
Fourth Avenue (B'klyn.)	Myrtle Avenue	59th Street	S	4.4	4	June 22, 1915	4
"	59th Street	86th Street	S	1.4	2	Jan. 15, 1916	
"	86th Street	95th Street	S	.4	2	Oct. 31, 1925	
Sea Beach	59th Street & 4th Ave. (U)	86th Street	C	4.4	4	June 22, 1915	
"	86th Street	Stillwell Avenue (S)	R	1.1	2	"	5
West End	36th St. & 4th Ave. (U)	* Ninth Avenue		.9		June 24, 1916	6
"	Ninth Avenue	* 18th Avenue	L	2.7	3	"	
"	18th Avenue	* 25th Avenue	L	1.1	3	July 29, 1916	
"	25th Avenue	* Bay 50th Street	L	.7	3	July 21, 1917	
"	Bay 50th Street (S)	Stillwell Avenue (S)	R	.8	2	"	
Brighton Beach	DeKalb Avenue	Prospect Park (A)	S	2.3	2	Aug. 1, 1920	
"	Prospect Park	* Church Avenue	C	.8	4	Sep. 26, 1919	
"	Church Avenue	Newkirk Avenue	C	1.0	4	1907	7
"	Newkirk Avenue	Sheepshead Bay	E	3.4	4	"	7
"	Sheepshead Bay	* Ocean Parkway	L	1.1	4	Apr. 22, 1917	
"	Ocean Parkway	* West 8th Street	L	.4	4	May 30, 1917	8
"	West 8th Street	* Stillwell Avenue	L	.4	2	May 29, 1919	9
Culver Line	Ninth Avenue (U)	* Ditmas Avenue	L	1.1	3	Mar. 16, 1919	10
Myrtle Avenue	Broadway (Bklyn)	Central Avenue	L	.6	2	July 29, 1914	
"	Central Avenue	* Wyckoff Avenue	L	.7	2	July 1, 1918	
"	Wyckoff	* Fresh Pond Road	L	1.0	2	Feb. 22, 1915	11
Jamaica	Essex St. (Man.)	Marcy Ave.-B'way.(Bklyn)	B	1.7	2	Sep. 16, 1908	12
"	Marcy Avenue	* Myrtle Avenue	L	1.4	3	Jan. 17, 1916	
"	Myrtle Avenue	* Alabama Avenue	L	2.5	3	Dec. 21, 1916	
"	Alabama Avenue	Cypress Hills	L	1.9	2		13
"	Cypress Hills	111th Street	L	2.0	2	May 28, 1917	
"	111th Street	168th Street	L	2.4	2	July 3, 1918	
Bklyn. to Manhattan via Tunnel & B'way.	DeKalb Ave. (BKLYN)	Whitehall St. (MAN.)	S	2.0	2	Aug. 1, 1920	
"	Whitehall Street	Prince Street	S	1.8	2	Jan. 5, 1918	
"	Prince Street	14th Street-Union Sq.	S	.8	4	Sep. 4, 1917	14
"	14th St.-Union Square	Times Square	S	1.4	4	Jan. 5, 1918	
"	Times Square	57th St. & 7th Avenue	S	.8	4	July 10, 1919	
"	57th St. & 7th Avenue	Lexington Ave.-60th St.	S	.8	2	Sep. 1, 1919	
"	Lexington Ave.-60th St.	Queens Plaza (A)	S	1.7	2	Aug. 1, 1920	
Astoria	Queens Plaza	Ditmars Boulevard	L	2.5	3	Feb. 1, 1917	15
14th St.-Canarsie	Eighth Ave. & 14th St.	Sixth Ave. & 14th St.	S	.3	2	May 30, 1931	
"	Sixth Ave. & 14th St.	Montrose Avenue	S	3.9	2	June 30, 1924	
"	Montrose Avenue	Broadway Junction (A)	S	3.6	2	July 14, 1928	16
"	Broadway Junction	* Sutter Avenue	L	.6			17

(* Dates for these portions refer to new construction replacing older "L" route either on surface or older structure.

- 1 There are three tracks through Essex Street station.
- 2 Last portion of the Dual Contracts completed.
- 3 Manhattan Bridge, spanning the East River has two separated pairs of tracks, one on each side of the bridge. The pair used by trains between Brooklyn and Times Square is on the north side; the pair on the south side is used by trains between Brooklyn and the Centre-Nassau Sts. loop.
- 4 This section includes a six-track portion through the DeKalb Ave. station due to the two Brighton Beach line tracks merging with the Fourth Avenue line at that point. (See next page)

(Continued From Page 7)

- 5 Before the completion of the 8-track Stillwell Ave. terminus trains used a temporary Surf Avenue terminal.
- 6 This section has both a short 2-track tunnel and a six-track open cut approach to the double-decked Ninth Ave. station with 3 tracks on each level.
- 7 The section Church Ave. to Sheepshead Bay was converted from 2 to 4 tracks in 1907 by the Brooklyn Rapid Transit Co. for Fulton St. Brighton Beach "L" train operation. The open cut ends south of Newkirk Avenue.
- 8 West 8th St. station has two 2-track levels.
- 9 This portion is a double deck structure with two tracks on each level. The data on this line refers only to the upper deck.
- 10 This is part of an original through route to Stillwell Avenue. On Oct. 30th, 1954 the IND Division is to assume Culver operation to Coney Island and thereafter the BMT will terminate at Ditmas Avenue.
- 11 The line from Fresh Pond Road to Metropolitan Ave. is an original unimproved "L" train surface right-of-way.
- 12 Original "L" train route.
- 13 Original unimproved "L" structure.
- 14 This portion opened in connection with the north side tracks of the Manhattan Bridge.
- 15 Opening date refers to original IRT operation. Although originally built for and part of the IRT's Queensboro lines, this section transferred to complete BMT operation on Oct.17th,1949.
- 16 The Wilson Ave. station on this section is double decked with one track on each level. The upper or outbound track is on a raised embankment, while the lower or inbound track is underground.
- 17 This portion (Bway. Jct.-Eastern Parkway to Atlantic Ave.) is a very complex network of intertwined tracks providing connections from the Broadway line to the Jamaica, Fulton Street, and Canarsie lines, and from the 14th Street line to the Fulton Street and Canarsie lines. It is an improved former "L". Atlantic Avenue station has six tracks. Various connections were placed in service between Oct. 17th, 1918 and Dec.18,1918.

IND DIVISION

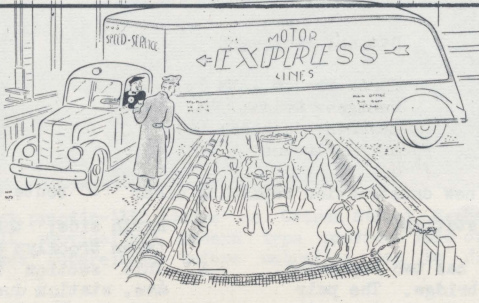
Name of Line	Section of Line		Type of Line	Length in Miles	Tracks	Opening Date	Foot Note
	From	To					
Washington Heights - to East New York	207th Street	168th Street	S	2.4	2	Sep. 10, 1932	
"	168th Street	Chambers Street	S	9.8	4	"	
"	Chambers Street	Jay Street (B'klyn.)	S	2.2	2	Feb. 1, 1933	
"	Hoyt-Schermerhorn Sts.	Court Street	S	.4	2	Apr. 9, 1936	1
"	Jay Street	Rockaway Avenue	S	4.3	4	"	2
"	Rockaway Avenue	Broadway-East N.Y.	S	.4	4	Dec. 30, 1946	
"	Broadway-East N.Y.	Euclid Avenue	S	2.0	4	Nov. 28, 1948	
Bronx-Grand Concourse	205th Street	200th Street	S	.6	2	July 1, 1933	
"	200th Street	145th Street	S	5.1	3	"	3
Coney Island	Jay Street	Bergen Street	S	.5	2	Mar. 20, 1933	
"	Bergen Street	Carroll Street	S	.5	4	Oct. 7, 1933	
"	Carroll Street (U)	Fourth Avenue	L	1.4	4	"	
"	Fourth Avenue (A)	Church Avenue	S	2.4	4	"	4
"	Church Avenue (U)	Ditmas Avenue (A)	S	.3	4	Oct. 30, 1954	5
"	Ditmas Avenue	Kings Highway	L	2.3	3	Mar. 16, 1919	6
"	Kings Highway	Avenue X	L	1.0	3	May 10, 1919	6
"	Avenue X	Stillwell Avenue	L	1.3	2	May 1, 1920	6 & 7
Queens-Manhattan	50th Street & 8th Ave.	Queens Plaza	S	3.0	2	Aug. 19, 1933	8
"	Queens Plaza	Roosevelt Avenue	S	2.6	4	"	9
"	Roosevelt Avenue	Union Turnpike	S	4.0	4	Dec. 31, 1936	
"	Union Turnpike	169th Street	S	2.4	4	Apr. 24, 1937	
"	169th Street	179th Street	S	.5	4	Dec. 10, 1950	
World's Fair	71st & Continental Avs.	World's Fair	R	2.0	2	Apr. 30, 1939	10
Queens-Brooklyn Cross-town	Queens Plaza	Nassau Avenue	S	2.3	2	Aug. 19, 1933	
"	Nassau Avenue	Bergen Street	S	4.8	2	July 1, 1937	
Sixth Ave.-Houston St.	59th St. & 8th Ave.	50th St. & 6th Ave.	S	.9	2	Dec. 15, 1940	8
"	50th St. & 6th Ave.	34th Street	S	1.0	4	"	
"	34th Street	West 4th Street	S	1.3	2	"	
"	West 4th Street	2nd Ave. & Houston St.	S	1.0	4	Jan. 1, 1936	
"	2nd Ave. & Houston St.	Jay St. (B'klyn.)	S	2.3	2	Apr. 9, 1936	

- 1 Hoyt-Court Sts. stub not in service.
- 2 There are 6 tracks through the Hoyt-Schermerhorn St. station.
- 3 145th St. station has two levels--the four Washington Heights tracks above and the three Bronx tracks below.
- 4 Between 7th Ave. & Fort Hamilton Parkway, the express tracks use a more direct route than the local tracks.
- 5 This portion is a ramp between the IND underground line and the former BMT "L" structure. (See also No. 6)
- 6 The portion Ditmas Ave. to Stillwell Ave. is part of the former BMT Culver line "L" structure which replaced an original "L" train route on the surface. The opening date shown is the date when the structure replaced the surface route. At the time of going to press, the transfer of this portion from the BMT to the IND and the extension of IND operations from Church

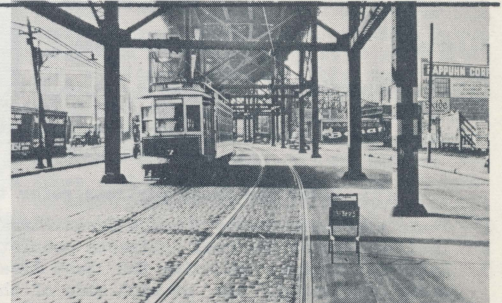
- 7 Avenue to Stillwell Avenue was scheduled for Oct. 30th, 1954, after which the BMT Culver line is to end at Ditmas Avenue.
- 7 That portion of the line between West 8th St. & Stillwell Ave. is double decked and this item refers only to the two tracks on the lower deck. BMT footnote No. 9 refers to the upper deck
- 8 The 7th Ave. station on this portion is double decked. The Queens-Manhattan line shown opening on Aug.19th,1933 uses the north track on each level. The 6th Ave.-Houston Street line, shown opening on Dec. 15th, 1940, runs on the south side track on each level.
- 9 Between 36th St. & Northern Blvd. express tracks use more direct route than the local tracks.
- 10 Temporary line built only to run during the two seasons of the World's Fair in 1939 and 1940. It has since been torn up.



IRT Station - Woodlawn - Jerome Ave. Line



"And before I could turn around, along comes the new subway"



Typical "L" Structure - BMT Astoria Line