

MEETING - FRIDAY, JUNE 20, 1958, At Pennsylvania Railroad YICA, Penn Station, New York, at 8:00PM EDST.

This month we have a non-business meeting. Entertainment will be movies by our Division Chairman, Herman Rinke.

WEST SIDE IRT PLATFORM EXTENSIONS - By Henry T. Raudenbush

On October 27th, 1904, after years of planning and work, New York's first subway opened its doors and was swamped by 250,000 passengers. Ever since, the city has been trying to catch up. One way was to build new lines, and for thirty years, nearly six miles a year were opened. Another way was to increase the capacity of the existing lines. There are several ways to do this; more and wider doors have been added to the cars, floor plans revised for faster loading, trains and platforms have been lengthened, and signals, etc. have been changed to permit more trains-per-hour.

On the original line (now the B'way-7th Ave. IRT between Times Square & 96th St.), this work was done very early, and now it has to be done again. Platforms had been lengthened in 1910 to increase express trains from 8 to 10 cars; now provision is being made for 10-car locals instead of 5-cars.

Three contracts have been let for this work:

C-118 50th, 59th, & 66th Sts.-James A. Meltzer Associated

C-119 79th & 86th Sts.-Delma Construction Co.

C-120 42nd(1918 station), 72nd & 96th Sts.-Slattery Contr.Co. & Tully & DiNapoli, Inc.

The platforms will be lengthened as follows:

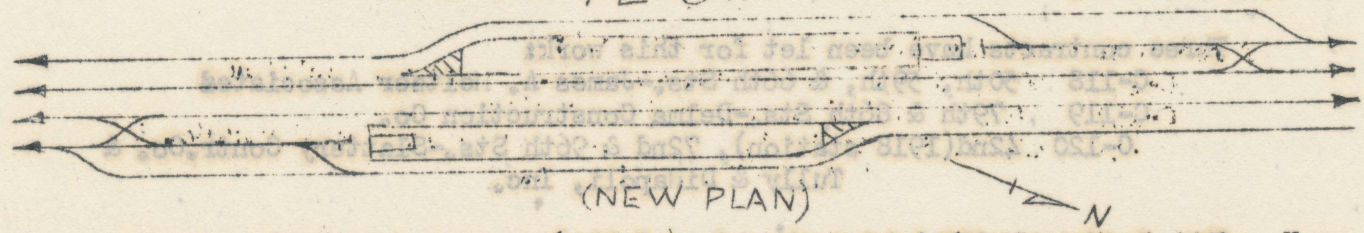
STATION	OLD	EXTENSION		TOTAL
		NORTH	SOUTH	
42nd St.-Northbound	500	-	25	525
S.B.Express	497	6	28	525
S.B.Local	480	-	45	525
50th Street	210	300	-	510
59th Street-Northbound	225	100	195	520
Southbound	345	110	70	525
66th Street-Northbound	215	6	300	515
Southbound	210	-	310	520
72nd Street-Northbound	480	-25*	75	530
S.B.-Local	405	160	-25	540
S.B.-Lxp.	490	75	-25	540
79th Street	220	200	100	520
86th Street	220	300	-	520
91st Street	Station will be abandoned, and a new entrance to 96th St. opened at 93rd St.			

Station	Old	Extension		Total
		NORTH	SOUTH	
96th St.-Northbound	480	-	70	550
Southbound	500	-	50	550

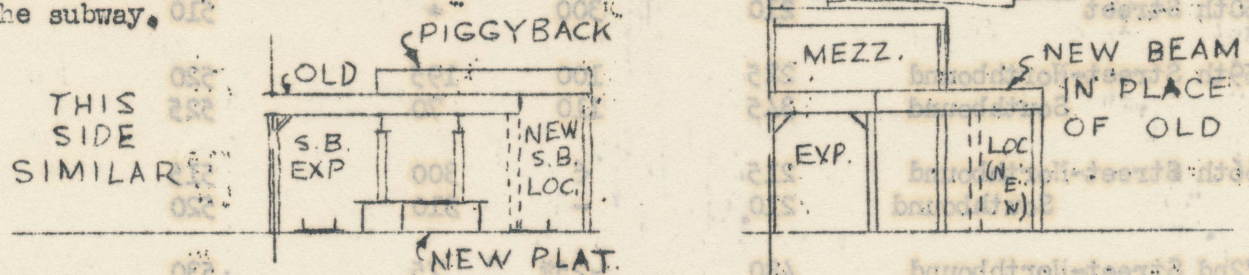
*The very narrow ends of the 72nd St. platforms, which were added in 1910, will be cut off, being a safety hazard.

The work at the local stations has been fairly straightforward. The old wall, columns and the wall are being removed, and the roof-beams supported by new columns in the new platform. Outside the old tunnel, a space was excavated to provide room for the new platforms. The 50th, 59th & 66th St. stations are practically complete now. At 59th Street, a new street entrance was provided at the south end of the uptown platform. Also, a new mezzanine passageway from the middle of the new platform leads into the east side of the IND mezzanine. At 72nd Street, the platforms could only be lengthened at the expense of the old sidings, at the rear end of each platform. To do this, many of the columns supporting the roof had to be moved to make way for the platform, and the relocated switches from the siding. A transformer room and a circuit breaker house were removed, and a new relay house constructed. The track layout has been changed, too:

72 ST.



The most difficult part of the job has been at the 96th Street station. Here the only way to lengthen and widen the platforms was by moving the local tracks, which in turn means moving the outside wall back as much as 12 feet, and rebuilding the roof for the greater span. Over the station platform, the original roof is being left intact, but "piggyback" beams have been placed above it, which will make the complete span out to the new wall. The outer end of the old roof, no longer supported by a wall, will be hung from the piggyback beams above. (see Fig.2) This construction allows work to be carried on without disturbing operation of the subway.



In the area south of the station where the mezzanine will be, (between 93rd & 94th Streets), there is not enough headroom under the street to allow the mezzanine to be over "piggyback" beams. It was necessary here to completely remove the old roof, and replace the beams with new ones that could make the longer span. (Fig.3) In order to do this without interfering with train operation, a wooden shield was built inside the old tunnel. This was difficult, as there was only about 3 inches between trains and roof before. Now there is only about 1/2 inch clearance.

The excavation for the widening, just outside the old tunnel, was almost entirely in bedrock, and had to be done by blasting. A wooden wall shield was built inside the tunnel, and whenever a shot was fired (and they were all very small), the local trains were stopped by flagmen. All this excavation is done now, and the new walls and roof nearly done. The feeder and signal cables of the original tunnel are imbedded in the walls, but as soon as they are moved, these walls will be removed.

At the same time as this construction work, another contract provides for complete re-signalling of the line. Only two new signal towers will be provided; one at 96th Street (the new room on the former southbound local platform), and one at 40th Street (in the mezzanine above the tracks). The 96th St. tower will control from 79th Street to 100th Street, and later, the crossovers at 110th St. & Lenox Ave. The Times Square tower will control from Penn Station to 72nd Street. All the block signals in between will be replaced. (Many have already been).

Included in the C-120 contract is the replacement of old switches ~~XXX~~ at 42nd, 72nd, & 96th Street, with modern housed-point switches. This work is almost complete now; except for 72nd St., the only further change will be the removal of one crossover at the south end of 96th St.

The Transit Authority estimates the total cost of all work being done on the West Side (including painting, fluorescent lights, and new cars) as \$100,000,000. The result will be a modern line with far greater capacity than before.

FIFTY YEARS AGO IN THE ELECTRIC RAILWAY JOURNAL - By David Rogoff

BRT WILLIAMSBURG BRIDGE TERMINAL

The Williamsburg Bridge was opened between Manhattan and Brooklyn in 1903. As it was originally built, it carried 2 separate vehicular roadways on the north and south sides of the bridge. Between the two roadways were two separate 2-track trolley rights-of-way separated by a 2-track elevated line. The northerly trolley line was used by Manhattan conduit cars going to the Brooklyn plaza of the bridge. The southerly trolley line was used by Brooklyn trolleys, which stub-ended on the bridge at a point just short of Clinton St until 1908. There was a double crossover and a single track connection (via the south roadway) to Manhattan trolleys on Delancey St.

The BRT elevated lines running on the Broadway (Bklyn) line then were the "Broadway & Cypress Hills" and "Canarsie" lines. They stub-ended at a ferry terminal at the foot of Broadway at the East River. The designers of the bridge had, however, planned to run some of these trains across the bridge, in the center tracks, to a "loop" which would connect the Williamsburgh Bridge trains to those running over the Manhattan and Brooklyn Bridges. Local politics delayed the decision as to whether the loop would be elevated or subway. Finally a subway loop was chosen, and in 1908 (just 50 years ago), the tracks across the bridge and a Manhattan station (now the BMT's Essex St Station) were built.

As plans for the subway loop were not ready, the station was built as a two track underground terminal. Loading was through a center platform, unloading through two side platforms. Provision was made, however, for future extension of the line into the subway loop. Mainly this was by making the platforms hollow (and therefore easily removable) and by placing the roof columns far enough apart to permit track and platform changes.

Alongside this elevated train terminal, also underground, was a huge trolley car terminal was built for the Brooklyn trolleys. The stub end of the bridge was abandoned. The trolley terminal had 8 loop tracks plus a 2-car stub for dripples

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(along with a bumper to stop runaways). The loops were numbered 1 to 8, from west to east. Although both elevated and trolley terminals shared the same space under Delancey Street, there was no track connection between the two terminals.

The original track plan was:

- | | |
|--|---------------------------------|
| #1 Nostrand Ave. & Belt lines | #5 Bushwick Avenue |
| #2 Reid Avenue | #6 Thompkins Avenue |
| #3 Hamburg Avenue (renamed Wilson Ave. during World War I) | #7 Bridge Local |
| #4 Ralph Avenue | #8 Grand Street & Franklin Ave. |

The estimated capacity of the trolley terminal was 400 cars-per-hour, that of the elevated train terminal was 30 8-car trains per hour. The station was finished in glass tile. The kiosks and shelters were "artistic" terra-cotta. Separate stairs were provided for each trolley loop. In addition were 11 exit stairs and several entrance stairs for the elevated trains. The street above the terminals (Delancey St.) was a maze of trolley tracks, islands, shelters, and kiosks. The entire cost of the terminal was \$1,250,000.

A control tower was located in the throat of the tunnel leading to the terminals. It was an electro-pneumatic interlock with 6 levers.

When the elevated lines were finally extended (to Chambers St.), it was decided to alter the former terminal station. Three tracks replaced the two previously used. The northernmost unloading platform and the north track were left unchanged. The loading platform was removed and replaced with an express track. The south track was removed and replaced with a platform, and finally the south unloading platform was removed and became to Brooklyn-bound local track. The track switches were extensively changed. All this was done without major street excavations, as provisions for it had been made in the original plans. (see above).

The northernmost trolley right-of-way on the bridge was first to go, before World War II. It became a vehicular roadway. The southernmost trolley right-of-way became a roadway, too, but after World War II. At the same time, the trolley terminal itself was abandoned. The ornate kiosks and shelters on islands in the middle of Delancey Street have also gone. The last terra-cotta kiosks were replaced by IND types only a few months back. But Essex St. Station (as it is now known) still is busy. In a few years, its tracks will connect with the IND via the Christie Street connection.



1908-1913

1908 PLAN 1913 →



LIRR EXCURSIONS START: Long Island RR will run their series of excursions again this summer. These consist of a package tour using regular trains and special transportation to points of interest. Recommended for railfans are the \$6 round-the island trip to Greenport & Montauk, Jun 29, Jul 27, Aug 17; also the Port Jefferson-Stony Brook-Bridgeport, \$5.00 on Jun 15, Jul 13, Aug 3 & 24. Details may be gotten by writing to LIRR Passenger Traffic Dept, Jamaica 32, N.Y.