PATH-Lex Connection

The idea of connecting PATH and the Lexington Avenue IRT local is not new. It was proposed when the World Trade Center was first planned. The reconstruction of the site is a second chance, at a bitter price, to consider this important improvement to Lower Manhattan’s access.

What are the benefits?

1. PATH-Lex relieves congestion on the Lexington Avenue line by extending the local line to serve twice as much of Lower Manhattan. (Lex Av IRT – 4, 5, 6) (PATH & Lex Av IRT – 6)

2. PATH becomes more convenient by having a second station at Chambers Street and by having its station at the World Trade Center closer to the surface. (PATH) (PATH & Lex Av IRT – 6)

3. Beyond benefiting Lower Manhattan the PATH-Lex connection provides access between New Jersey and East Midtown, between the Upper East Side and Newark Airport, between Chinatown and Newark, and other new trips. (Newark to Pelham)

What are the difficulties?

1. The PATH-Lex connection is institutionally challenged. PATH and the subway are run by different agencies in different states.

2. The alignment of the connection appears feasible but requires creative engineering and careful construction. (Basic Alignment 2.8)

The elaborate rebuilding of the PATH terminal and the Fulton Street subway station complex are designed to celebrate arrival. Unfortunately they are not designed to shorten people’s trips – either to and from Lower Manhattan or between the station platforms and people’s destinations. Nor do they increase the capacity of the transit system to move its passengers.

The PATH-Lex connection increases the useful capacity of the Lexington Avenue line between Grand Central and Lower Manhattan and it doubles the area of Lower Manhattan that is convenient to PATH and to the 6. Given the concerns for improving the ride between Grand Central and Lower Manhattan there should be more enthusiasm for the PATH-Lex connection.
The 6 route of the Lexington Avenue IRT provides local service from the north east Bronx through the east side of Midtown to Lower Manhattan, terminating at City Hall, near Chambers Street.

PATH provides service from Newark through Jersey City to Lower Manhattan, terminating at the World Trade Center, near Fulton Street.

If PATH and the 6 were connected between Fulton and Chambers Street they could provide direct access between New Jersey, Lower Manhattan, and the east side of Manhattan.
PATH has (had) a station only in the Fulton Street catchment area. Access to most of Lower Manhattan, beyond the World Trade Center, required a substantial walk or a transfer to the subway.

If the reestablishment of PATH in Lower Manhattan includes an extension, it should try to add a station in another of the catchment areas.
The IRT from the east side of Manhattan provides convenient service to most of Lower Manhattan.

The 4 and 5 routes serve the the east end of the Chambers Street catchment area and the center of the Fulton and Wall Street and Battery catchment areas.

The 6 route serves only the Chambers Street catchment area. To reach other parts of Lower Manhattan one needs to transfer from the local at Chambers Street.

Because the Lexington Avenue line reduces from 4 tracks to 2 tracks south of Chambers Street its capacity to serve the other three catchment areas is halved.
PATH and the Lexington Avenue IRT could be connected to each other.

Path could be extended east to a new station at Fulton Street where it would connect to the Lexington Avenue IRT.

The 6 route of the Lexington Avenue IRT, which now terminates at Chambers Street, could be extended to a new station at Fulton Street where it would connect to PATH.

Assuming a common train ran on the PATH and 6 routes, PATH would gain service in the Chambers Street catchment area and the 6 would gain service in the Fulton Street catchment area.

This would double the area of Lower Manhattan served by PATH and by the 6.
PATH-Lex

Basic Alignment (2.8)

This alignment connects the PATH tracks at the west side of the World Trade Center cellar with the Lexington Avenue local tracks just south of the Brooklyn Bridge - City Hall station. The new tracks rise from the PATH tunnel portals, pass over the tracks and platforms of the temporary PATH station, under the 1 & 9 in Greenwich Street, under the A & C at Church and Vesey Streets, the northbound track passes under the 4 & 5 at Broadway and Park Row, the tracks then rise on either side of the 4 & 5, pass over the 2 & 3 at Beekman Street, sever the loop used by the 6 at City Hall and connect to the local tracks just south of the station.

The critical points are to pass as high as possible under the A & C and as low as possible over the 2 & 3 in order to achieve a slope of not more than approximately 4.5%.

The new PATH – Lex station at Fulton Street is shown as a basic two track, side platform facility. It is close to and formally aligned with the proposed station entrance just south of Fulton Street.

The alignment avoids the footprints of the World Trade Center towers. The temporary PATH station could be removed or partially retained for reversing and storing PATH trains.